From Sound to Symbol:
The Whole Song as Curriculum, The Whole Child as Pedagogue,
Observation as Methodology

By

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

In

THE FACULTY OF GRADUATE STUDIES
CENTRE FOR THE STUDY OF CURRICULUM AND INSTRUCTION

We accept this dissertation as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

September, 2002

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Date October 1, 2002
ABSTRACT

‘There is more to a song than meets the ear’ to paraphrase an old adage. This ‘more’ refers particularly to certain songs in which the acoustic properties of the music move in confluence with spoken English. This ‘more’ refers to a particular process through which children learn songs, and once learned engage with them as objects of thought and represent them in symbol. This ‘more’ refers to particular songs as events aptly suited to circumscribe the temporal/spatial, perceptual/motor, emotional/social, imaginative/cognitive engagement of children-as-learners.

The dissertation is a narrative in which the author traces the story of her transformation from being a successful symbol-to-sound music teacher, to becoming a sound-to-symbol educator of children and the teachers of children.
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Acknowledgements

After retiring from teaching I approached Dr. Robert Walker\textsuperscript{1} then head of Music Education in the Faculty of Education at The University of British Columbia, and asked him to accept me as a doctoral student under his supervision. He generously welcomed the idea. Without Dr. Walker's ready encouragement in those early days "...to write, write, write...", without having those years on the receiving end of his carefully crafted critique of everything I wrote, and the benefit of his astute scholarship, this dissertation would never have seen the light of day. I am deeply grateful.

Simultaneously with embarking on doctoral studies, I was thrust onto a totally new path of learning---the computer. Bob Hapke, computer technician in the Faculty of Education, is at the top of the list of persons to whom I owe an enormous debt of gratitude. Bob describes the day I came to him with my new laptop computer and said, "I am just beginning my doctorate. Can you teach me how to use the computer?" He did, and has always been there to help me over the ongoing computer-related hurdles I had to face. Bob is a teacher-technician. He fits perfectly the description of the philosopher Etienne Gilson\textsuperscript{2} who said, "A good teacher is one who makes himself expendable."

Thank you, Bob.

Halfway through my doctoral program I transferred into the Centre for the Study of Curriculum and Instruction (CSCI) in the Faculty of Education. Dr. Karen Meyer, Director of the Centre, assumed responsibility as supervisor of my doctoral studies. Karen has freed me to move among various styles of academic writing even as I strive to

\textsuperscript{1} Dr. Robert Walker is now head of the School of Music and Music Education, The University of New South Wales, Sydney, Australia.

\textsuperscript{2} See the Epilogue
attain an acceptable level of scholarship. It has been a singular gift not only to be encouraged to express the content of the dissertation, but also to create a form through which to express as clearly as my gifts allow, the spirit of its content. Karen has fed my enthusiasm throughout the entire dissertation writing process. For this, I am deeply grateful.

I am grateful to the members of my research committee, Dr. Ann Anderson of the Department of Curriculum Studies in the Faculty of Education at The University of British Columbia, and Dr. Yaroslav Senyshyn of the Faculty of Education at Simon Fraser University. I acknowledge the invaluable contribution of professors such as Ann and Slava when they agree to serve on the research committees of graduate students, but in my case it has been a privilege to have two scholars such as they, take my writing seriously, commit the time necessary to read it and subsequently to share an honest critique of what I have written. I am truly grateful.

Sandra Davies is a person to whom I owe a big debt of gratitude. When I moved back to British Columbia in 1986, it was Sandra, a professor of music education at The University of British Columbia, who made it possible for the first international conference in Education Through Music (1988) to be held at UBC. Sandra initiated and saw through to completion, the process that resulted in my teaching courses in *Education Through Music* at UBC. It is thanks to Sandra that the Diploma Program in *Education Through Music* (1990-1995) was put in place, and thanks to Sandra that I was able to participate in two courses of particular significance to me, *Integrated Studies: Language, Mathematics and Music* (1991, 1993). It is thanks to Sandra that much of what I have written in the dissertation was made possible. I am sincerely grateful.
For nine years (1986-1995) Vickey Kidd managed everything connected with my teaching (See Appendix II): course offerings and workshops, the international conference, arrangements with the universities and school districts, travel, the printing and distribution of teaching materials. Had it not been for Vickey’s gracious, generous and competent management of my affairs my teaching experience would have been far less rich. I owe an enormous debt of gratitude to Vickey!

When Annette Coffin was the music specialist at Nestor Elementary School in Coquitlam School District, British Columbia, she made all the arrangements for the taping sessions of forty-nine volunteer students from kindergarten through grade six so that I could gather the acoustic data cited in the Appendix II. She arranged everything with the school administration and the teachers, gathered willing students and their parent’s approval. Although I am deeply grateful for this, the most extraordinary gift that Annette brings to my research is the way she teaches the children. She uses the folk song-games, the teaching strategies and techniques described in the pages of the dissertation. She is totally generous in welcoming visitors into her classroom and continues to share with her students and other teachers what we have shared over the years. Thank-you, Annette.

My gratitude goes out to my peers, the graduate students in the Centre for the Study of Curriculum and Instruction and especially Esther Mang, Ph.D. and Teresita Tubianosa, Ph.D. former students in the Department of Curriculum Studies. Esther guided me step by step in processing the acoustic data I had gathered. Teresita has been a friend like no other making sure that I see the writing of this dissertation through to completion. These and all the graduate students of the CSCI community have been
faithful companions, always ready to listen and help me bring my writing into clearer focus.

From the first moment I expressed the idea of starting doctoral studies, the leadership and members of my religious congregation, the Sisters of Charity of Halifax, have given me their unqualified support. There are many educators among us and my work in education is seen by them as an expression of our shared call to serve the children of the world.

In so much of what I have written I see the direct influence of the way life was lived within the four walls of our family home in Kentville, Nova Scotia. The fiddle music, stories and folk songs, the love of learning, the commitment to the well being of children and society---I first experienced all of these at home with my parents and nine brothers and sisters. It is impossible to express the gratitude I hold for each of them.

I acknowledge with gratitude the fact that as a senior citizen living in British Columbia I am able to attend classes, use library services, receive technical assistance, the advise and support of faculty, and all the benefits of the tax supported infrastructure of The University of British Columbia---tuition free. I am so grateful to be a citizen of Canada where I am able to contribute actively and I hope wisely, to the societal imaginings of a better future for our children.
DEDICATION

As I hold the happiness of tomorrow’s children in heart,
I dedicate this writing to the memory of Mary Helen Richards.
Prologue

In writing this dissertation I have chosen to focus on the last thirty years of my more than fifty years as an educator of children and teachers. The process of writing has ‘forced’ me, so to speak, to engage differently with those years. It has been a time of intense reflection. I have sorted through innumerable memories to see if there are any theoretical and philosophical threads that have held my practice together. I find that there are and I have expressed them in the four phrases of the title of the dissertation From Sound to Symbol: The Whole Song as Curriculum, The Whole Child as Pedagogue, Observation as Methodology.

The physical phenomena of sound is at the heart of my study, particularly sound as shaped by the two elemental forms of human vocal utterance, singing and speaking. A significant impetus in my study is the way I have clung with dogged consistency to the ‘sound-to-symbol’ process leading to literacy. It sounds so ‘old hat’ and ordinary for a teacher to say this, but on reflection, I realize that for me there has been something not so ordinary stirring beneath the sound of these words. In the sound-to-symbol process I describe, children first create symbols to represent several of the acoustic properties of the sound they produce. They ‘write’ these sounds in different modalities: through movement, in alternate lingual and written forms. They ‘read’ what they have written and interpret it to those with whom they share the song. The phrase, ‘the whole song as curriculum’ aptly expresses this process.

It is the songs, however, that continue to puzzle me. How can such ‘old fashioned’ songs as The Farmer in the Dell, and Sally Go Round the Sun have relevance
for today’s children? How can such ‘old fashioned’ technologies\(^3\)--chalkboard, pencils, and different sizes of blank paper--sustain the riveted attention of today’s children? I have evidence from my own teaching that they do. I have evidence of this as well, from the reports of many teachers in the classes I have taught. Just this spring at the Music EdVentures Conference,\(^4\) I witnessed teachers observing\(^5\) and children (kindergarten age as well as grades four/five) intensely focused while playing folk song-games. What elements of longevity are embedded in the artless simplicity of these activities? What makes them ‘work’?

My hunch is that in great part, the answer to these questions lies hidden in the two final phrases of the title, ‘the whole child as pedagogue’ and ‘observation as methodology.’ I use a particular interpretation of the word, ‘pedagogue’ when reflecting on this. In ancient Greece, the pedagogue was the messenger slave who ran on foot to deliver the messages of his master. Formerly, when I thought of applying this interpretation to teaching, it was always the teacher who fulfilled the role of pedagogue. The teacher was the one to carry the ‘messages’ from the discipline to the students. In writing the dissertation, however, I realize that in what I describe, the children are the ones who do the running. The children carry ‘messages’, expressing them in movement, in singing and speaking, in writing. The children symbolize what they understand of their

\(^3\) The technologies to which I refer, with the exception of felt tip pens, date back to my school days.
\(^5\) Much of what I write about in the dissertation finds its contemporary expression in the teaching and writings of the members of the two organizations: Music EdVentures Inc., a not-for-profit organization incorporated in the State of Montana in 1992, and English EdVentures in Japan. In my opinion, these teachers come closest, both in their philosophy and practice, to what Mary Helen Richards and I imagined during the years we worked together developing the ideas I describe in the following pages. Music EdVentures folk are, in my opinion, the direct-line descendents of those early imaginings. They are truly faithful observers of children.
experience of the discipline while the teacher observes and responds to the messages the children bring. With the ‘child as pedagogue’, the teaching process flips into reverse!

In 1952, a philosopher from the Medieval Institute of Toronto, Etienne Gilson, came to Halifax, Nova Scotia. He gave a public lecture to the educators of that area. I remember only one thing from that lecture, but it has been like a beacon guiding my teaching all these years. Gilson said, “A good teacher is one who makes him/herself expendable”. When the whole child is pedagogue—the physical/perceptual child, the social/emotional child, the child in society, the thinking child, the musical child of language—the teacher needs no further methodology than to step aside, observe, respond, and then marvel at the competence of children-as-learners.

Two images arise side-by-side in my imagination as I reflect on what I have written in the dissertation and describe it as a systematic inquiry into a problem, or research. One image is that of the ‘chain’ as used by the phenomenologist Edith Stein to describe the relationship between motivational cause and its effect. This chain is described in Marianne Sawicki’s text *Body, Text, and Science: The Literacy of Investigative Practices and the Phenomenology of Edith Stein* (1997). The second image is that of a nautilus.

When Stein began her studies with Husserl immediately prior to World War I, she joined him in his search for a science that could account for the separate (and often opposing) fields of scientific inquiry—the natural and cultural sciences. The following quotation addresses some of the considerations they wrestled with in this search:

A unified theory of the natural and cultural sciences must avoid reducing either side to the other, as Husserl argued already in his 1911 *Logos* manifesto. The methods of natural science have to do with causal chains, and would be inappropriate for history, literature, or
music. On the other hand, the methods of cultural science have to do with decisions, desires, and values, and would be inappropriate for chemistry. Husserl sought to bring these divergent methodological practices together through a third science, phenomenology. (Sawicki, 1997, p. 239)

According to Stein a 'subjectivity' discharges the expression of his/herself through acts and choices of the will. S/he is “…The executive...seated in a causal matrix…” (Sawicki, 1997, p.124) directing the flow of the stream of live experiences “…along...a motivated sequence.” (Sawicki, 1997, p. 124) The word, ‘motivated’ is key. It refers to the impetus that initiates the flow from decision to action. Motivation originates in an act of the will of the subjectivity.

As a researcher one question has been the prime motivator behind a steady flow of decisions leading to actions. It is the question, “How can I reach children more effectively through music?” It was this question that prompted me to visit Hungary in 1967 after being introduced to the Kodály Method of music education. This question continued as I moved to California in 1969 and assisted in the founding of the Richards Institute of Music Education and Research and the development of *Education Through Music*. This question endures today even in my more reflective stance of writing this...

---

6 It was a very deliberate choice we (Mary Helen Richards and I) made to put the word ‘research’ in the registered name of the Institute. From the very beginning, we intended that our work would be a thorough investigation of our practice as music educators. Over the years, however, as the systematic research methodology of the sciences held sway even in education, our research was continually called into question over the issue of validity. For some reason, however, we intuited what Husserl had pondered years before, that “… The methods of natural science…would be inappropriate for history, literature, or music. On the other hand, the methods of cultural science have to do with decisions, desires, and values, and would be inappropriate for chemistry…” (Sawicki, 1997, p. 239) Mary Helen and I had the wondrous good fortune of having our intuition affirmed and our work critiqued by Dr. Kurt Reinhardt, professor emeritus of Stanford University. Kurt had been a student of Husserl and a contemporary of Edith Stein. He translated into English Stein’s major philosophical work *Finite and Infinite Being* published in Germany posthumously after her death in the Auswitch death camps in 1942. It was Kurt who recognized in our research an application of the phenomenological method. I can still hear his words ringing in my ear when in one of our many discussions he said, “Fleurette, you’re a phenomenologist!” Affirmations like this gave us confidence to continue on as we had begun, but I must admit, it was ‘outside the formal camp’ of the academy.
dissertation. Now, however, I am asking myself, “What path have I followed these past thirty years in my search for ways to reach children more effectively through music?”

This question leads directly to the second image, the nautilus.

Each layered band of hardened shell of a nautilus is like the ‘documentation’ of the soft, daily spiralings of the ‘decisions’ it made in order to continue to live and grow. The notions of ‘soft’ and ‘hard’, and their connection to growth, are what brought the nautilus to mind as a metaphor to help distinguish the different ways I might have traced the growth pattern of my search.

In writing the dissertation I have chosen to reconstruct, to ‘re-member’, many of the ‘soft’, daily spiralings that grew into answers to the research question, “How can I reach children more effectively through music?” I have chosen to remember, simply because there is no one left to recount many of those ‘soft’ daily spiralings of growth. If, instead, I had chosen to focus on examining the ‘shell’ of the nautilus, the data so readily available in the written documentation I have at hand (See Appendix I), my dissertation would have become an entirely different document. What I have written is my response to the question as ‘motivation’, the question as “…executive...seated in a causal matrix…” (Sawicki, 1997, p.124) directing each decision in my search for ways of reaching children more effectively through music.
IN SEARCH OF THE WHOLE SONG

“What do children perceive as the whole song?” This was the question that Mary Helen Richards and I posed to each other when in 1969 we began working together, she as Director and I as Assistant Director of the newly forming Richards Institute of Music Education and Research, California. I was studying for my Masters Degree at the time, pursuing a double major in psychology and music education and this question came up as the direct result of what I was studying in the writings of the Gestalt psychologists. They made two claims that totally intrigued me: that our first perception is of something as a whole, and that the whole is greater than the sum of its parts.

Mary Helen and I began teaching together following a trip to Hungary in the spring of 1967. She had taken a group of teachers to observe the Kodály Method of music education. Even in the short time between that trip and the formal establishment of the Richards Institute in 1969, we had come to know each other’s thinking very well; we knew that we were on the ‘same wave length’ in searching for better, more effective ways of ‘reaching children through music.’ During our time together it was natural for us to puzzle over questions arising from my studies, thus, “What do you think children perceive as the whole song?” This proved to be a particularly generative question.

Mary Helen Richards (1921-1998) was born in Lincoln, Nebraska. She graduated with a degree in music from the University of Nebraska. Her first publication The Threshold to Music (1964) made a significant contribution to music education in that through it the Kodály Method became known throughout North America. Mary Helen, however, went on to make her own significant contribution to music education. She established the Richards Institute of Music Education (1969). It became the focus of a vibrant network of teachers engaged in the ‘work’ of the Institute, Education Through Music.

Mary Helen and I collaborated in teaching courses at New York University, Greenwich Village (June 1967), two summer courses in Threshold to Music at Dalhousie University in Halifax, Nova Scotia (1968, -69), and a summer course at College of the Holy Names in Oakland, California (1968). While I was completing studies at The University of British Columbia (1968-69), we collaborated in writing a manual for kindergarten teachers intended for publication.
It is now more that thirty years later and I realize that trying to understand ‘the whole song’ was a strong driving force in our inquiry. In phenomenological terms, it was a motivational cause⁹ that accounted for so much of our thinking and doing for many years.

**Dis/sembling assumptions**

**Dis/sembler number one, the anacrusis**

It has been a long and arduous task trying to dismantle the assumptions I held as a music teacher, but certain significant events have been particularly effective in bringing this about. Notably among these was the challenge posed by Kodály to Mary Helen, to ‘do something about the anacrusis’¹⁰ in oral English. Responding to this challenge set us in a head-on struggle with Western music notational practice. This struggle led to mapping¹¹, to codifying the stress/unstress patterns¹² of oral English, to song dots,¹³ ideographs¹⁴, and to many other non-conformist ways of notating songs. In retrospect, I realize that all these unusual forms of notation arose as solutions to an inherent incompatibility between the natural configuration of acoustic properties of oral English, and the theory governing Western music notational practice.¹⁵ Otherwise why would it be

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¹⁰ When the phrase, ‘the farmer’, is spoken, the word ‘the’ is the anacrusis. The anacrusis is an unaccented syllable, syllables, or word that precede the syllable receiving the principal stress in a word or phrase.

¹¹ See Notation: Identifying Problems/ Finding Solutions: pp. 27-35

¹² See the story of the deaf: p. 138-153

¹³ See song dots: pp. 86-87

¹⁴ See footnotes 43 and 44

necessary to go through such theoretical contortions in order to explain the notation of such simple songs as *Ring around a Rosy*\(^{16}\) and *The Farmer in the Dell*\(^{17}\)

Dis/sembler number two, classroom teachers

At first, establishing a close relationship with classroom teachers was a matter of expediency. Mary Helen often made the statement, “When Sputnik went up, my music program went down.” Cutbacks to music and the arts followed close on the heels of that event. We both knew that if children were to be able to sing every day, it would be classroom teachers who would bring this about. In our case, the classroom teachers who over the years did get involved with us have been teachers of extraordinary insight. They have been ones\(^{18}\) who saw the value of music in the education of children; ones from whom we learned so much about perception, about the sensory-motor connection, about the acquisition of literacy in language, and about how children learn. It was really they, in ongoing conversation with us, that helped us recognize: the *music* in oral language; that children are functioning in language when they *imagine* the words of songs in their ‘inner

\(^{16}\) According to music theory, *The Farmer in the Dell* is in 6/8 time. That means that the beat is a dotted quarter note (the dot adds half the value of the note which means that a dotted quarter equals three eighth notes). This complexity makes 6/8 a ‘compound’ time. It really has only two beats (two dotted quarter notes) in each measure, but since each beat has the equivalent of three eighth notes, the whole measure has six eighth notes, thus 6/8 time but only two beats! In ‘simple’ time signatures, the numbers in the time signature indicate how many beats in a measure and the value ascribed to each beat. Thus, ‘simple’ time.

Now all of this is a backdrop to understanding how to account for the “The” at the beginning of the *The farmer in the dell*. In notating the “The” a single eighth note is placed before the first barline (thus before the first measure). How does one count this? (It is, of course, absolutely necessary to be able to give a theoretical ‘ac-count’ for every note). In order to answer this puzzle, you go to the end of the piece. You will find that the last measure has the equivalent of only five eighth notes! What this tells you is that the “The” is really the sixth note of the last measure, not the first note of the song, so of course, you start the song counting “six” not “one”!

This type of verbal gymnastics is what I had to go through as a piano teacher of six, seven and eight year olds. It was so discouraging for them because they knew perfectly well how *The farmer in the dell* should sound. If, on the other hand, I waited until they understood the arithmetic, the children had long since lost interest in being able to play *The farmer in the dell*.

\(^{17}\) All the songs cited in this text, with the exception of those specifically referenced otherwise, are found in the following texts: Bennett, P. D. & Bartholomew, D. (1997 & 1999). *SongWorks I & II*; Richards, M. H. (1985). *Let’s Do It Again!*

hearing'; that children are mathematical thinkers when they categorize, sequence, seriate, notice similarities, differences and patterns in sound; that children are already walking solidly along the road of investigative inquiry that is natural science when they respond to the simple question, "What do you notice?"

**Dis/sembler number three: Observing children**

I became aware of a gift lodged within myself that has been perhaps the most effective tool in dismantling my 'music teacher' assumptions. By nature, I am an observer of children. I have become aware of this in so many of the most ordinary circumstances---at the grocery store checkout, waiting at a curb for the traffic light, in the elevator, passing a child on the sidewalk, in church---always, I find myself making 'eye contact' with a child and s/he with me. 'Look for the light in their eyes,' was Mary Helen's advice to teachers; that was our mutually agreed upon test for deciding whether something was 'working' or not. The children's response determined what we would keep and what we would throw away of the multitude of the ideas we tried. We never worked in a vacuum; we checked every game, every study technique, with children either those we ourselves were teaching or those being taught by the teachers in our courses. For more than thirty years, observing and responding to children has exerted the greatest influence in dismantling my assumptions about teaching music. It was through observing children that I came to understand the reciprocal relationship between singing and speaking; the effect on children-as-learners if they sing and speak every day; the support that singing in the language of instruction gives to children as they maneuver their way around the twists and turns of the path leading to literacy both in music and language.
A METAPHORIC INTERLUDE

One day as a little old lady rummaging around in her attic comes upon a matted mound of multi-colored yarn tucked under some old papers. She recognizes it. It was the yarn her friend was using when trying to learn to knit a sweater. As the little old lady picks up the yarn, she remembers amusedly the day when, after knitting for months and trying unsuccessfully to follow the pattern, her friend finally decided that the only solution was to unravel it and start all over again!

As the little old lady notices the several untangled strands of the wool resting on top she can see that the process was well underway before her friend was called away...

As I observe this imaginary scene I see in the expression on the little old lady's face that a decision is taking shape---she will untangle the mess! She takes the wool down stairs, places it in the knitting bag next to her chair and there it stays for the next several weeks, ready to be picked up and worked on whenever a free moment arises.

The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lumpy of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle and after loosening that all goes smoothly for the next little while.
As each colored strand is freed and lengthens, she rolls it into a ball, one for each color. It is a gentle process. It has to be. As the little old lady works her way through this self-imposed project, her mind is free to untangle the strands of her interconnected memories.

In writing this metaphor I feel that I am describing myself, but I am looking at myself from two different perspectives. In the one, I am the person who is actively engaged in the process of untangling for these past thirty years; in the other, I am writer, reflecting and actively engaged in tracing my way back through the interconnected threads of inquiry. The following may help to clarify.

Unraveling: One way of viewing the process

I have sorted through many experiences in my search to understand children-as-learners: how they perceive, how they create understanding and meaning; what they perceive, and in the case of the whole song, what they perceive as whole from the dual perspectives of music and language.

I have sorted through many experiences of myself as a teacher-learner: how my assumptions have colored what I taught and how I taught; and how these assumptions colored my interpretation of what I saw, and in many instances inhibited my ability to change in response to what I saw.

One stance in the metaphor is particularly significant from my vantage point as observer. The ‘little old lady’ was free to pick up the ‘matted mound of multi-colored yarn’ and engage in the actual process of unraveling. She is also free to step back and sort through the strands of this unraveling.

Thirty years is a long, privileged time to be free to sustain one focus of research within the teaching/learning process, namely searching out more effective ways of
reaching children through music. It is also a long time to be free to engage in this research as an independent not in the full employ of any one school district or any one university,\textsuperscript{19} free to dialogue with teachers from vastly different backgrounds, nationalities, expertise and teaching situations; free, in consultation with these teachers on-the-job, to explore curriculum, investigate inter-curricular connections, develop methodologies, teaching strategies and materials with them; free to benefit from having things ‘checked out’ with actual children in the classrooms of these same teachers. The teachers, on the other hand, have been free to pick and choose from what I have shared. I have made it a practice to keep track of the ideas, study techniques, folk song-games and teaching strategies that ‘worked’ for their students. I would include these in subsequent courses with yet other teachers.\textsuperscript{20} The thesis is the story of unraveling several of these developments as well as reflecting on their significance.

**Unraveling: Another way of viewing the process**

Another way of proceeding with the process of unraveling is to look at the initial questions that prodded Mary Helen’s and my inquiry.

- The question, “What shall we teach?” gave rise to our developing a new sequence of music ‘concepts’ arising from our analysis of English language folk song repertory.

\textsuperscript{19} The very first course in Canada in *Education Through Music* was offered the summer of 1969 in Chatham, Ontario. It was accredited by The College of the Holy Names, Oakland, California. I have referred back to Mary Helen’s introductory remarks many times in subsequent years. When she said, “We reach children through music...” she encapsulated both the focus and ordering of my search, placing the children first and music as an effective vehicle for reaching them.

\textsuperscript{20} I have the lessons plans of the last eight years of my teaching (1987-1995) on file (See Appendix II). It is so interesting to see this circularity documented in them even at the latter years of this process. When a particular strategy ‘worked’ effectively with one group, it was taken along into subsequent courses in order to further check its effectiveness.
• The questions, “How do children learn song?” “How can we lure children into wanting to repeat songs?” gave rise to the development of a broadly based repertory of folk song-games.

• The question, “How can we free children to write and read what they sing and hear?” gave rise to the development of numerous intermediate notations that allowed children to bridge the literacy gap between sound and symbol.

• The question, “What is the connection between singing and speaking?” opened up whole vistas of insight about: the music in the sound of language, and the language in the sound of music.

• Finally, or better, firstly, the questions, “What do children perceive as the ‘whole song’?” and/or “What is the ‘whole song’?” created a virtual dance between cause and effect. At one time the song was the cause, at another the children’s response led the way; at another time it was the song that shed light on the effect, at another time it was the children’s response that helped interpret what happened.

Whatever the line of questioning, whatever the context, the overriding question has been, and must continue to be, “What will this mean for children-as-learners?”

Finding your way through the text

This dissertation is a multi-layered narrative. One layer is autobiographical and historical, or more accurately ‘auto-pedagogical’ and historical, since I have included only those parts of my self-story that relate directly to me as a teacher and an investigator of children-as-learners. The text is historical in two ways. On the one hand it is historical in that developments and ideas are situated along a continuum of time. It is also historical
in that I have incorporated the thought of scholars and authors as it became part of my thinking along the way.

Another layer of text is totally practical and embedded in classroom practice. It is constructed around actual memories of particular teaching situations, or descriptions of classroom episodes constructed to demonstrate a particular perspective in teaching.

A final layer of text consists of scholarly reflections of my own. They address questions of deep meaning to me. At this particular moment in the history of Western civilization, at this time of our growing dependence on technology in every aspect of our lives as humans, I feel compelled to share some broad reflective observations about sound, about sound as produced by us humans in the form of speaking and singing; about song, the sound-form so characteristic of English; and about English, the language rapidly becoming the preferred language of trade, science, scholarship and technology. I feel compelled to alert educators especially at this time, to be more conscious of the value of engaging children in singing and speaking with one another. For many children the classroom is the only stable social environment they can count on, but only for the ten months of any particular school year and then their classroom society changes. In the classroom both speaker and listener occupy the same place. They are in proximity with one another, the ideal environment in which “Speech generation and listener comprehension are simultaneous events.” (Shlain, 1998, p. 42) Children in conversation in the classroom can create the possibility of establishing a social environment in which: the infinite numbers of acoustic variables produced by the voices of their classmates enhance their ability to perceive and process sound; their skills in interpreting the content of what is being said, are sharpened by seeing each other’s sincerity, cleverness, honesty,
cunning and forthrightness. Children who engage in live conversation in a classroom reinforce the Chinese aphorism, "Let us draw closer to the fire so that we may better see what we are saying." (Shlain, 1998, p. 42) It is my deep belief that what children say, helps them clarify their own thinking. What children say helps us teachers know what to teach. What children say is, before either of these, sound.

TEACHING MUSIC 'CONCEPTS'

It is important that I describe the context for the opinions, claims and assertions I make throughout this text. Prior to becoming Assistant Director of the Richards Institute of Music Education and Research in 1969, I was a music teacher. My teaching assignments from 1950-1968 were principally that of private piano teacher, and secondarily a teacher of classroom music in an elementary school, high school choral and church choirs. Although I studied music and how to teach piano, during all those years my experience was limited to one student at a time in Nova Scotia and one small school in Vancouver. These were the years of my becoming grounded in Western music theory, practice and piano pedagogy.

Following the trip to Hungary in 1967, my life changed totally. Between 1968 until the formal ending of my teaching career in 1995, I became an itinerate teacher of teachers. Winters and summers, year in and year out, I traveled the continent, from university to university, school district to school district, in Canada and the United States. The courses were dialogical in nature. Everything about them gave cause for the teacher participants to reflect on, and share from their own classroom experiences.

These two 'chunks' of experience, the one narrow and focused, the other, broad and inclusive, are the basis of any claims I make throughout this writing. Even though
this experience has been informed by conversations with hundreds of teachers from extraordinarily diverse teaching situations, the experience is narrow. It is limited by the fact that it is only my experience. As generalizations resonate with readers the claim to wider validity might be made, but to document that would create a totally different thesis.

M**usic Curriculum focus: ‘Concepts’**

**Music Curriculum focus: ‘Concepts’**

**21** and reading

In North America

Conversing with music teachers during 1960’s and early 1970’s, I was led to believe that although they might have wanted to teach their students how to read music, that goal was seldom reached. Music teachers found themselves responsible for programs: parent-teacher evenings, Christmas and spring concerts, festivals and musicals. They prepared the children by ‘rote’ for these performances, which meant that the teacher either sang the songs or played the parts on the piano and the children memorized the music as they went along. Formal lessons in theory and reading music were squeezed in between preparing for performances. What saved the day for many of these music teachers (and their performances!) was the fact that at that time some children studied music privately. For many children, however, their sole exposure to formal music education was through the instruction they received in the classroom, these children soon learned that if only one of them knew what to sing, the rest could follow closely behind.

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21 Throughout this entire writing I place the word ‘concept’ in single quotation marks when referring to what we music teachers taught as *music ‘concepts’*, for example, the beat, the rhythm, melody or phrase structure. According to this view, the ‘concept’ resides in the music itself, whereas according to the epistemology to which I subscribe, a ‘concept’ is an ‘object of thought’ that ‘resides’ in the mind of the thinker rather than in the thing external to the one doing the thinking. The imagination creates sensory images from the ‘whole’ of the thing as perceived by the senses, reason abstracts these sensory images and forms them into ‘objects of thought’, or ‘concepts’. Through the function of reason, the intellect works with these ‘objects of thought’ and constructs knowledge according to its own particular mode of reflection; it applies its tools of analysis, makes judgments about them, categorizes them, compares and contrasts them. Reason provides the intellect with a form of knowing which is totally different from that of the imagination; it is an act of abstraction and is carried on by reason as a function of the intellect. (See, *The song as object of thought*, pp. 197-200 of this document.)
This was the time after World War II, when several published music series began to flood the market. Publishers vied with one another to have their music ‘series’ adopted by school districts. Although each series had certain unique features, they were all fundamentally the same in that they were organized around the notion that teaching music was to teach a sequence of ‘concepts’.

Generally, within the context of school music instruction, music teachers seldom got beyond teaching the most rudimentary elements of Western music notational practice. In rhythm they taught about the beat, meter, simple and compound time signatures, note values and how to account for them. In melody music teachers taught about major and minor key signatures, how to find the starting note of a song, that major meant ‘happy’ and minor meant ‘sad’. These were all laid out in linear fashion.

In Hungary

The Kodály Method was no exception when it came to teaching a sequence of music ‘concepts’. The genius of the Kodály Method was the way each ‘concept’ was taught: each was located within the context of a folk song that flowed naturally out of the Hungarian language and each was expressed through movement. The teachers taught the song before drawing out the ‘concept’ for study and in addition, they were careful to see that the children experienced the same ‘concept’ in a variety of songs. In the early primary grades where the children were less likely to know the songs, the children learned them by playing singing games.

When it came to notation and the reading and writing of music, the Kodály Method followed Western notational practice. This presented its challenges. The sounds of Hungarian folk songs are stylistically quite different from traditional Western sounds.
This made it difficult for us non-native Hungarian musicians to replicate them even though both we, and they followed the same notational practice.\(^{22}\) I noticed that it was only by placing great emphasis on the interpretation of notation that the teachers were able to help their students attain the desired nuance of sound. As I observed and listened (I being a person totally dependent on notation for attaining the performance of a song), I noticed that reading the music of Hungarian folk songs was never simply a matter of reading the notation but was always enhanced by intense stylistic interpretation of the notation.

I did not realize it at the time, but this ‘conflict’ between Western notation and the inner workings of the sound of language was later to take on particular significance in our efforts to notate English language folk songs.

At Corte Madera School

Mary Helen’s and my situation was quite different from that of other music teachers in North America. We were volunteers in the school district, that meant that responsibility for performances was left to the music teachers on staff. Mary Helen had already established her credibility throughout the school district; she had put the Portola Valley School District ‘on the map’ (so far as music educators were concerned) with the publication of the *Threshold of Music*.\(^{23}\) For several years prior to my arrival, teachers

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\(^{22}\) I do not want to break the flow of the narrative at this juncture, but the point of working with a notational practice that is not derived from the acoustic characteristics of a language, turned out to be a very significant problem for Mary Helen and me. We tried to take advantage of the fact that the children could produce sounds quite naturally because they spoke English, but those sounds were very difficult to represent using Western notational practice as it has become fossilized by music theory over the last three hundred years. This topic will be taken up in more detail later. (See pp. 25-26 in this document.)

\(^{23}\) Richards, M.H. (1964). *Threshold To Music: The First Three Years*. For two years or so, prior to the publication of this text-manual, Mary Helen had been preparing home-made charts that she used in her teaching. She was experimenting with the sequence of music ‘concepts’ as shown in two children’s books she had received from Kodaly. The charts, with an accompanying manual, were published in 1964. It was this publication that music educators received with great enthusiasm all over North America.
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had come from far and near to observe the children of Corte Madera School as they moved through the carefully sequenced series of charts of the *Threshold*. The sequence followed, for the most part, the sequence laid out in the Kodály Method.\(^{24}\) In addition to the sequence, the *Threshold* also used the several intermediary forms of notation\(^{25}\) that had been developed or adapted by the Kodály Method. These forms of ‘reduced notation’ were very effective in helping the children express in writing the sound of the ‘concepts’ they were studying and were first introduced to North American music teachers in a systematic way through the *Threshold*.

For all its effectiveness, however, the *Threshold to Music* left unchallenged the assumption held by most music educators that to study music meant to study ‘concepts’ one by one. The prevailing conversation at the time was about which ‘concept’ to teach first, and which ‘concepts’ were appropriate for certain grade levels. As our general rule, Mary Helen and I were following the Kodály method in the selection of ‘concepts’, and in addition to that, we knew from this method that we must teach ‘concepts’ within the context of songs. Our biggest challenge was to find English language songs in which the ‘concepts’ could be identified with ease.

\(^{24}\) Mary Helen had diverted from the sequence of ‘concepts’ in the Kodály Method by introducing the triplet breakdown of the beat much earlier in the sequence than was the case in the Kodály Method. When she showed her adaptation of his method to Zoltan Kodály prior to the publication of the *Threshold*, he said to her, “It is much too soon to introduce the triplet to the children of this age.” Mary Helen recited several nursery rhymes that the children recited with ease (*Humpty Dumpty*, *Hickory Dickory Dock*, *Mary, Mary Quite Contrary*, and the like) after which Kodály conceded, “You’re right!” This was a very significant moment for Mary Helen because it brought with it a heightened awareness of the inherent organization of acoustic properties within different oral languages. It was an insight that guided much of our subsequent research into the characteristics of oral English.

\(^{25}\) The children would be asked to move to specific concepts (to walk the beat, clap the rhythm, represent so-fa with hand signals, change directions on phrases). There were lingual substitutions for rhythmic concepts (‘ta’ for a quarter note, ‘ti’ for an eighth note), tonic so-fa syllables and the moveable ‘do’ system for expressing melody, and reduced forms of written notation to represent these various concepts.
Searching for songs

We searched through volumes of collections of English language folk songs. We analyzed countless songs we each knew from childhood. We gathered many variants of songs from the teachers studying in our courses. The criteria we used in selecting songs were: that the ‘concepts’ of focus occur in easy-to-hear places, such as at the beginning of a song, in obvious repeated patterns, in recurring sequences, or at cadences. It was a matter of selecting and sorting.

At first, we used the sequence of ‘concepts’ in the Threshold as our norm. We began to notice that in the songs we were discarding, however, there were similar phrase patterns and common melodic and rhythmic elements. These were in songs as familiar as Oats and Beans and Barley Grow and London Bridge is Falling Down. We knew that the children would be able to sing these songs accurately and well, even though they did not ‘fit’ the sequence. We decided to check them out with the children.

Changing the sequence of ‘concepts’

Just as we had suspected, the children responded to the songs with delight and in many cases they sang the ‘new’ study ‘concepts’ more accurately than those in the Threshold (Richards, 1964.) sequence. We were intrigued. The following specific examples may help to clarify this.

The first melodic ‘concept’ in the Threshold (and also in the Kodály Method) was the interval of a falling minor third. The first two sounds of the song Bluebird, Bluebird Through My Window are an example of this interval: (blue-bird, so-mi). This interval is also the two sounds of the words, ‘rosey’ and ‘posey’ in Ring Around a Rosey. (Ring
around a so-mi... ) This interval occurs in dozens of Hungarian children’s songs, but it is very difficult to find in English language songs, especially in easy-to-hear places, such as at the beginning of songs, in repeated patterns or at the cadences. It is also difficult for our children to sing the minor third in tune when it is taken out of the context of the song for purposes of study.

On the other hand, when we asked the children to sing the interval of a rising fourth (as for example, in the first ‘The farmer’ of The Farmer in the Dell) they could sing that interval with remarkable ease and accuracy. They were also able to keep the interval in tact when we took it out of the song for purposes of study. Although Mary Helen and I still held to the mind-set that we must teach a sequence of ‘concepts’, within this mind-set we were shifting away from the sequence in the Threshold and towards developing a new sequence based on a new repertory of songs. On the surface this change might appear to be a simple matter, but as things turned out, embarking on creating a new sequence of ‘concepts’ meant that we had to change completely the way we taught notation.
THE WHOLE SONG; WHOLE/PART RELATIONS

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle and after loosening that, all goes smoothly for the next little while...

The auditory whole

Concurrently with teaching at Corte Madera School, I was studying for my Masters degree, taking a double major in music education and psychology. This meant that I had to do extensive reading outside the fields of music and music education. Mary Helen and I had long conversations about notions of perception found in the writings of the Gestalt psychologists. We pondered for example, the idea that "...the whole is greater than the sum of its parts..." or notions about boundaries, groupings, and figure-ground perception alluded to in the following quotation from Prentice (1959), informed by The Systematic Psychology of Wolfgang Köhler:

The gestalt psychologist would urge that we investigate all kinds of experienced orderliness impartially and do not suppose without proof that all order is a secondary effect of other influences. Certain kinds of segregation, certain kinds of part-whole relationships, certain kinds of boundary phenomena, certain kinds of dominance of one part of an experience over another tend to recur in a way that suggests lawfulness. The figure-ground distinctions are among these primitive kinds of order; so also are the facts of grouping described by Wertheimer; contrast phenomena and certain aspects of perceived movement provide still other examples (pp. 431-432).

26 See pp. 17, 18, 42
We wondered what this could mean for music education. Like dogs ‘worrying’ a bone, we became obsessed with the idea of trying to determine what children might perceive as an ‘auditory whole’. Our idea with regard to music or a song had always been that children construct their understanding of the ‘whole’ by assembling the ‘parts’, or ‘concepts’. Could this process be reversed, we queried; but of course, understanding is quite different from perceiving. It was an intriguing puzzle.

In search of a solution: Whole/parts and form

In music

The first place we looked for guidance were the music courses in Form and Analysis we both had taken as part of our formal education in music. In music, however, Form and Analysis came at the end of a long and arduous sequence of courses in theory, harmony, counterpoint and composition. Form and Analysis was like studying the architecture of music composition; it was a highly analytical process in which we studied the macro structure of a composition along with its interrelated sub-structures. Since it came at the end of the course of studies, we presupposed that a thorough knowledge of all the various theoretical systems was necessary in order to understand the form of a composition.

There were many notions to sort through. For several years, however, what got in our way in carrying out this sorting process was our assumption that form (interpreted as

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28 As music teachers, it was natural for us to connect the word ‘whole’ with ‘form’. In the study of ‘form and analysis’ the ‘form’ of a composition referred to the pattern of phrases, or sections in a composition. This was also the perspective of the Kodaly Method, the ‘form’ of a song was its pattern of phrases. These were both highly analytical processes but this was where Mary Helen and I started in our search for the ‘whole song’. In fact, we worked out of this perspective until the discovery of the primitive map. (See pp. 81-82 in this document.)
the phrase structure of a song) was synonymous with the *whole* (from the perspective of gestalt psychology).

In philosophy

In metaphysics I had studied the notion of ‘form’ from a perspective quite different from that of *Form and Analysis*. I brought these ideas into our discussions. ‘Form’ according to metaphysics is not something we arrive at through analysis. It is not a ‘concept’; rather, ‘form’ is what constitutes a *thing as this particular thing*. When applied to a song, for example, the metaphysical ‘form’ would be the totality of all the characteristics that all songs have in common, but as uniquely configured in one particular song. No one characteristic constitutes the ‘form’ of something.

The following might be an example of this. All human beings share common facial features, they have two eyes, two ears, one nose and one mouth. Yet in each individual person’s face, these characteristics are configured differently both with regard to the feature itself, and as the feature is related to the other features of the face. This impetus towards uniqueness constitutes the ‘form’ of an individual person’s face.

Just as one person’s eyes are cornered with smile wrinkles, and another’s heavily roofed with the wrinkles of a frown, these characteristics together express the ‘form’ of a person’s eyes. In order to apply this notion to songs, consider the following examples.

The two songs: *The Farmer in the Dell* and *Oats, Peas, Beans and Barley Grow* both have a similar phrase structure (a similar ‘form’ in music terms), they are both in six/eight time, both in a major key as well as sharing many other characteristics in common. Nevertheless, from the perspective of metaphysics, the *form* of each song is different; the form is what differentiates one song from the other. Notions such as these
from metaphysics began to influence the way we would proceed in our search for what children might perceive as the ‘whole song’.

**From teaching music ‘concepts’ to teaching the ‘whole song’**

We were still deeply immersed in the process of developing a new sequence of music ‘concepts’, of ‘starting over again’ as Mary Helen would say. Unquestionably, the *Threshold* (Richards, 1964) had limitations despite the fact that it was immensely popular among music teachers. The following anecdote illustrates this. It happened two years prior to my coming to work with her.

Music educators from all parts of North America had gathered at Stanford University to attend lectures by Zoltan Kodály. Grade four students from Corte Madera School who had studied the *Threshold* since grade one, had just performed as the ‘demonstration class’ at the session. Upon returning to the school, Mary Helen was leading the children back to the classroom when she overheard one of the boys say, “We sure know a lot of tricks but we don’t know much music!”

As an educator, one of Mary Helen’s greatest gifts was that she really paid attention to what children said. This was indeed the case in this instance. Mary Helen referred to the child’s comment countless times over the years we taught together. Even as we continued to teach separate ‘concepts’, we constantly reminded ourselves to situate the focus on ‘concepts’ within the flow of the music of the song.

**A time of mutual enrichment: The perspective of a classroom teacher**

For me, after all these years of thinking differently, it is difficult to enter once again into my ‘funneled’ way of thinking as a music teacher. The goal I shared with Mary
Helen was to teach children to read and write music and we found a strong ally in Alicia Seebold, one of the first grade teachers at Corte Madera School. Alicia’s goal was similar to ours, only in her case it was to teach children to read and write English. She, like we, believed that an aural/oral experience must precede reading and writing, but Alicia had the special insight of recognizing that singing songs was an experience of the flow of oral language. We spent considerable time observing Alicia during language instruction time and she was always present during our music classes. Through a process of mutual sharing, we learned much about the ‘music in the sound of language’ and the ‘language in the sound of music’. It was a time of rich cross-fertilization between our two disciplines.

At the same time, our problems were quite different from Alicia’s. In her case, the children came to school already able to speak English. Her task consisted mainly in helping the children associate the alphabet symbols with sounds they already knew and could produce. In our case, because the children knew so few songs, we had first to teach the orality of the music itself. Following that, there was the added inherent complexity of the notation, often far beyond the intellectual development of most children of that age. Notation represents simultaneously the three acoustic dimensions of pitch, duration, and the grouping of sounds. These are represented both visually and mathematically in symbol, which makes the task of reading music far more complex than simply associating sound with symbol and memory.

**SONGS: IDENTIFYING PROBLEMS/FINDING SOLUTIONS**

In this next section, my intention is to clarify some of the specific problems we faced in guiding the children towards music literacy. The first problem was to find a way
to teach songs so that the children would happily repeat them a sufficient number of times to learn them well. A second problem was the notation, as mentioned above. Over the centuries, as notation became standardized, it seemed to take on a normative authority of its own. By this I mean that it was not unusual to find cases in which the notation directed the performance, rather than the other way around. A third problem, following close on the heels of the latter, was the conflict between the way children naturally grouped sounds when speaking and the way sounds had to be grouped in written notation.

Finding songs and developing games

There are two ways generally accepted by teachers for determining whether or not children know a song well. First, children are able to sing the song accurately and independently, and second, they are able to imagine the song in their inner hearing. The teachers in Hungary had developed many techniques for helping the children sing songs beautifully, and in addition, they had developed ways of determining whether or not the children had acquired a ‘sturdy auditory image’ of a song. Mary Helen had already incorporated many of these techniques into the Threshold.

Learning songs

In Hungary we had observed that the teachers commonly had the children move while learning a song. Mary Helen had also included movement in the Threshold. (Richards, 1964) In Hungary, however, although there were hundreds of singing games, the teachers only used games in pre-school and the early primary grades; the older children accompanied songs with movements such as clapping or walking in order to express whatever ‘concept’ they were studying.

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29 In music books, songs such as Ring Around a Rosey and The Farmer in the Dell written in 2/4 rather than 6/8 time. This is to ‘simplify’ the notation, but those songs when performed that way are totally distorted.
In Corte Madera School, however, although initially we had very few singing games, we found that children of all grade levels were enthusiastic about playing any games we could find. This eager response of the children spurred us on to develop games. Singing games soon became the most efficient and desirable way for the children to learn new songs. The children would happily repeat songs dozens of times just to continue to play. In addition, we found that they would carry over into their study of the song many of the positive emotions that had come to life while playing the games.

**Developing games**

When Mary Helen and I planned for a class, we would create interactive game-like or dance-like activities that highlighted a particular ‘concept’. In the beginning, this was our method for developing games. If our idea ‘worked’, that is if the children were happy to repeat what we had prepared, that became the game for that song. If, on the other hand, the children were not satisfied with what we had developed, we simply asked them to help us ‘fix it’.

When the children started working on a game the focus usually changed. Our original intent was to create movements that expressed certain music ‘concepts’. The children’s focus usually turned towards making the movement more interesting, or towards creating situations that expressed the meaning of the words. Over time, these three (music ‘concepts’, movement, and the meaning of the words) melded together as we moved freely from one to the other when creating new games. This process resulted in our developing a small, initial repertory of singing games.

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30 The game Circle Left is an example of one developed around acting out the meaning of the words. In response to the question, “What else can the circle do?” the children will sing and perform actions such as, “Circle in...” “Circle out...” “Circle up...” “Circle down...”
Creating games: A teaching strategy

The strategy of asking the children ‘to create a game for a song’ became a fine tool for learning a song well. As the children worked on developing a game, (as different from playing the game once developed) it became another reason for them to ‘need’ to repeat the song dozens of times. This was, of course, our intent when starting the whole process. As it turned out, however, it was the beginning of a long-term commitment to singing games as a valuable tool for learning, especially for children of elementary school age.

Song experience games

As Mary Helen and I continued to teach courses during the school year in many school districts throughout the continent, we shared the games we were developing at Corte Madera School. Once back in their own schools, the teachers shared the games with their students. Many of these same teachers came together during summer courses, at which time they would share games and/or game-developments that their students had made. Years of ‘cross-pollination’ of ideas and feedback from these teachers resulted in our collecting an extensive repertory of ‘stand-alone’ singing games suitable for use in classrooms of children of all ages. At that time we referred to this collection of games as song experience games in order to distinguish them from traditional singing games.

31 In order to distinguish these from traditional ‘singing games’ we have named this repertory variously as, ‘song experience games’, ‘song games’, ‘folk song-games’. I have now opted for the latter name because it reflects not only that fact that they were developed by the ‘folk’ in classrooms all over the continent, but also that it is the ‘folk’ in classrooms who continue to play them.
NOTATION: IDENTIFYING PROBLEMS/FINDING SOLUTIONS

Western music notation: A problem

Music notation has taken centuries to evolve into its present form. In the early mediaeval times and the early stages of its development notation was used only to record the musical setting for texts sung throughout the liturgical year. These texts were from scripture or the liturgy and since they were repeated year after liturgical year, both the texts and the tunes were familiar to the singers. The notation was needed simply to help the singers recall details of the performance. Notation was not standardized but rather, it varied from monastery to monastery, cathedral to cathedral. Symbols that were not really 'notes' were grouped to show the proper grouping of words and the placement of the accent. No time measurement was needed. The singers simply sang the words as they would pronounce them in clear well articulated speech, and any 'theorizing' or explanation of the notation occurred on the spot and was connected directly with the performance at hand. In other words, the theory came out of the practice.

Most music teachers today reverse this process. Children learning to read music now start from one unknown (the notation), move through another unknown (the sound that the notation represents), to the performance of what the notation signifies. In other words, the practice (the singing) comes out of the theory.

Notating oral English: A problem

According to the patterns of acoustic properties already established within the language itself, in many instances the acoustic patterning or the clustering of sounds of oral

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33 This list of characteristics of early notation applied to the intermediate forms of notation that were to develop in our work with the children over the next several years. It has been interesting to trace the similarities between the two.
English follows a logic that is opposite to the logic governing the grouping of notation. The simplest utterances in English require complex theoretical explanations to account for their notation.\textsuperscript{34} This complexity was actually at the heart of Kodály’s challenge to Mary Helen to ‘do something about the anacrusis.’

What this complexity means for children is that the way they naturally hear the grouping and patterning of sounds in spoken English is quite different from the way they see notes grouped in written notation. The ‘rules’ they follow when speaking are different from the rules for grouping notes when writing music. Examine the following example from the song \textit{Oats and Beans and Barley Grow}. Notice in particular the word ‘and’. In speech, ‘and’ clusters toward ‘beans’ (‘and beans’) and ‘barley’ (‘and barley’). In notation, ‘and’ is grouped in the opposite way (‘oats and’, ‘beans and’).

\textbf{Figure 1.} Comparison of Speech and Music Grouping

Speech is grouped:

\begin{center}
\begin{tikzpicture}
\draw[->] (0,0) -- (5,0);
\draw[->] (2,0) -- (7,0);
\draw (0,0) -- (2,0) -- (2,1) -- (0,1);
\draw (2,0) -- (5,0) -- (5,1) -- (2,1);
\draw (5,0) -- (7,0) -- (7,1) -- (5,1);
\node at (0,0.5) {Oats and};
\node at (2,0.5) {beans\ and};
\node at (5,0.5) {barley\ grow};
\node at (1,0) {1};
\node at (2,0) {2};
\node at (3,0) {3};
\node at (4,0) {4};
\node at (5,0) {5};
\node at (6,0) {6};
\end{tikzpicture}
\end{center}

Notation is grouped:

\begin{center}
\begin{tikzpicture}
\draw[->] (0,0) -- (5,0);
\draw[->] (2,0) -- (7,0);
\draw (0,0) -- (2,0) -- (2,1) -- (0,1);
\draw (2,0) -- (5,0) -- (5,1) -- (2,1);
\draw (5,0) -- (7,0) -- (7,1) -- (5,1);
\node at (0,0.5) {Oats and};
\node at (2,0.5) {beans\ and};
\node at (5,0.5) {barley\ grow};
\node at (1,0) {1};
\node at (2,0) {2};
\node at (3,0) {3};
\node at (4,0) {4};
\node at (5,0) {5};
\node at (6,0) {6};
\end{tikzpicture}
\end{center}

\textsuperscript{34} See footnote 8 of the Introduction in this document.
The grouping of sounds is not simply a matter of duration; grouping effects the relative placement of stress energy within clusters of words, as well as the separation of one cluster from another. The ear receives messages from the vibrations set off by these several acoustic features. It is important, it seems to me and was evident in practice that for children in their first reading and writing experiences, congruency occur between what they hear (aurally) and produce (orally), and what they see in the symbols that represent these properties.

**Intermediate forms of 'notation'**

These problems with notation led to our developing several forms of intermediate 'notation' that allowed the children to represent separately several of the different acoustic features of a song. Although the process of developing these 'notations' extended over a period of several years, it began during the early years when Mary Helen and I were working together at Corte Madera School. These self-generated forms of 'notation' were in many ways reminiscent of the notational practices of earlier centuries: they were not standardized; they expressed clusters of sounds that often showed where important sounds occurred; no time measurement was needed because the singers simply organized the pacing according to the natural clustering of words; and any 'theorizing' or explanation of the meaning of particular symbols arose directly out of the performance.

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35 I am using the term 'intermediate 'notation' to refer to what eventually became a whole system of written symbols that differed from each other according to the particular acoustic property of the music of a song each expressed. Each symbol expresses the children's own experience of a particular property, usually an experience in movement. Maps were among the first of these intermediate symbols, but others soon followed: primitive maps, ideographs, song dots, melody graphs, stress/unstress dots and dashes. These symbols express the feeling of a song, or duration, or the one-to-one relationship of articulation of the separate syllables in the words of a song. I liken these forms of writing to 'intentional doodling'; they express visually what is usually attributed to the aural but which is not always immediately apparent in formal music notation or alphabet writing.
represented by the symbol. In addition to the development of these various ‘notations’ we developed several teaching strategies for engaging the children in creating, interpreting and sharing these ‘notations’.

In this next section I will share the story of the discovery and development of several of these intermediate forms of ‘notation’ and conclude with an example of the teaching procedures.

The first map

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle. After loosening that, all goes smoothly for the next little while...

Sometime during the school year of 1969 Mary Helen and I had prepared a lesson for the Kindergarten class. Our intent was to acquaint the children with the music ‘concept’, the short-short-long form. To do this we decided to use the song Yankee Doodle.

As it was a lovely warm California day we took the children outside. I was doing the teaching while Mary Helen observed. My plan was to have the children form two lines facing each other but leaving enough room between the lines so that each line could walk forward about four steps. On the first phrase, “Yankee Doodle went to town…” one

36 I recall innumerable experiences observing children who, after the making of their maps, explain to one another how they are to be interpreted.
37 The idea of calling these patterns ‘maps’ came out of this kindergarten class in Corte Madera School. The social studies curriculum included making a map of their local neighborhood. Over the course of several weeks the children showed where they lived, where their streets and houses were in relation to the school and to one another. They would track the path they followed when coming to school or going to the store. The children made the transfer from this tracking process and ‘mapping’ the sound of the song. The name map stuck.
line of children would walk forward. On the second phrase, “...a-riding on a pony...” the second line of children would walk. On the third phrase, both lines of children were to turn in the same direction and walk side by side in a double line as they sang the last phrase “...He stuck a feather in his hat and called it macaroni...”

What really happened was a state of utter confusion! The children had no idea how to maintain the shape of a horizontal line; they had no idea when or why they should stop, or when to start the next movement. Everything that could go wrong went wrong; the plan was totally unsuited for children of that age.\footnote{This was one of the outstanding examples of a mismatch between the children’s actual response to what we proposed, and what Mary Helen and I had imagined their response would be as we worked at home planning our classes. To be sure, not all of our mismatched attempts (and there were dozens of them!) triggered the unfolding of such a significant development as in this case of the disclosing of the first map. In many instances, however, such discrepancies between our plans and the children’s response led to very valuable insights into both the perceptual development of children and how children think.}

While I continued to try to sort things out with the children, Mary Helen withdrew from the confusion and went over to sit at the picnic table. Soon three little boys broke ranks and joined her. Time and again she re-told the story of how one of them flopped down on the bench across from her and said, “What in the world are we doing?”

“Well,” she replied, “It’s like this...” and she placed her two forearms on the table in front of her.

“One line of children walks forward while singing, ‘Yankee Doodle went to town...’” She moved one arm horizontally across the table.

“They stop right there, and the other line starts, ‘...a’riding on a pony.’” She moved her other arm towards the first.
“Then both lines turn and walk together ‘...He stuck a feather in his hat and called it macaroni...’” Because her hands had reached the edge of the table, she continued,

“And they all fell off the table!” At which point she let her arms fly off the edge.

The little boys were totally delighted and promptly wanted to try it themselves. They played the arm game several times, always laughing heartily at falling off the table. As they continued, the song got faster and faster until they had created three condensed ‘blips’ of sound and arm movements, the first two short, and the last one longer to correspond with the relative lengths of the three phrases of the song:

“B-l-l-l-p” “B-l-l-l-p” followed by a longer, “B-l-l-l-l-l-l-p”.

One of the little boys said, “It sounds like a speeded up tape recorder!”

When the class was over and they went inside, the little boys wanted to show the other children their new game, so we asked the teacher if the class might continue a bit longer. The little boys shared what they had discovered. They taught the other children how to play the arm game, first in time with the song, and then as the sound ‘blips’ of a ‘speeded up tape recorder’.

Mary Helen asked one of the boys if he thought he could write Yankee Doodle on the chalkboard. With no hesitation the child went to the chalkboard, sang the song and drew the arm movements he had been making (See Figure 2.1. p. 31). As he sang the song he drew the lines: the one on the left, from left to right, bottom to top; the one on the right, from right to left, bottom to top; and the longer line in the middle, from top to bottom. Both the design and the movement of making the design replicated the way he had moved his arms during the table play.
The first map was born.\textsuperscript{39}

**Figure 2.1.** First Map

![Diagram of a map](image)

The other two boys wanted a turn following the map and the children who had not been sitting at the table with Mary Helen, watched. Then everyone wanted to try. As we watched the others take their turns, we could see from the eagerness and accuracy with which they followed the lines that they also understood what the map meant.

For the rest of that year Mary Helen and I explored the notion of mapping songs; the idea took off like magic with the children.

\textsuperscript{39} Since this map evolved directly out of our desire to teach the children the phrase structure of the short-short-long form, we came to refer to this style of mapping, that is, one that expresses the structure of the phrases, a ‘form map’, although at the time of its creation, it was simply a ‘map’. 
From Folk Song to Masterwork: Triggering a response from teachers

By the end of the school year we felt that the time had come for us to share these new developments with other teachers. In June of 1969 we prepared our first book.\textsuperscript{40} We published it privately under the title, \textit{Mary Helen Richards Teaches: From Folk Song to Masterwork}.

By comparison with other music texts on the market at that time, \textit{Mary Helen Richards Teaches: From Folk Song to Masterwork} was such a departure from the norm that it launched us onto a path 'outside the camp' of most music educators, especially those using the Kodály Method. Despite everything, however, we felt secure. The children at Corte Madera School continued to be our guides, something clearly acknowledged in the dedication: "...to Mrs. Alicia Seebold, 'Mrs. Sweeney'\textsuperscript{41} and their children".

As I examine the text today, I realize that the ideas we introduced and the way we went about doing it, were more like glimpses of possibilities than well-developed strategies and ideas. As a text it fell far short of something that other music teachers could take up easily and apply in their teaching practice. Nevertheless, those glimpses were like 'sparks' that ignited enthusiasm among many (certainly not all) of the teachers studying in the courses we were teaching. Even today many of us teachers continue to explore the possibilities first introduced in the text \textit{Mary Helen Richards Teaches: From Folk Song to Masterwork}.

There are many signs of transition in this text. By this I mean, that ideas retained from the past veered slightly towards another direction. For example, the \textit{Threshold to

\textsuperscript{40} Richards, M. H. (1969). \textit{Mary Helen Richards Teaches: From Folk Song to Masterwork.}

\textsuperscript{41} The children called me "Mrs. Sweeney". 
Music had followed the sequence of 'concepts' of the Kodály Method; From Folk Song to Masterwork\textsuperscript{42} did the same but re-ordered the sequence. The Threshold to Music focused on the pentatonic scale; From Folk Song to Masterwork did that also but inverted the scale in response to our analysis of English language folk songs.\textsuperscript{43} Maps were introduced for the first time in From Folk Song to Masterwork. Even though these maps were not complicated,\textsuperscript{44} the fact that maps appeared was so far removed from traditional notation that they were the most difficult idea for most music teachers to accept.

**Early examples of form maps**

The following two maps taken from the text From Folk Song to Masterwork, are examples of the earliest style of mapping. They represent the similarities and differences in the pattern of phrases but they are not intended to be co-extensive with the singing of the phrases. They are, rather, more abstract geometric\textsuperscript{45} figures that represent the structure but less abstract than formal music notation, were the children able to use formal notation to represent what they understood of the phrase patterns.

\textsuperscript{42} From Folk Song to Masterwork: The chart for Rain Rain Go Away (p. 29) has all the earmarks of the quarter/eighth note patterns so characteristic of the Kodály repertory; it is definitely a So-Mi song; and the pictures resemble the style of the charts in the Threshold. Other traces of the Threshold style are found in Hey, Hey Look at Me (p. 31) and Twinkle, Twinkle Little Star (p. 34).

\textsuperscript{43} The basic scale used in the Kodály Method and the Threshold to Music, fell within the range Do Re Mi So La. The inverted arrangement went from Soi below Do, to Mi above Do: So, La, Do Re Mi. The reason for this is that many English songs begin with an unaccented syllable that precedes the first strong accent of the first principal word of the song. As a result of this, the voice often anticipates the tonic, or key-note by singing the unaccented syllable, or syllables on a lower pitch. For example, O Johnny Get Your Hair Cut; O Do you Know the Muffin Man, The More We Get Together.

\textsuperscript{44} In this text and at that particular stage in the development of this technique, maps were line drawings that represented the movement and patterns of phrases of a song. The idea of calling these patterns 'maps' came out of a Kindergarten class. The children made the connection between the way they were mapping their neighborhood, and called what we were doing “mapping a song.” The name stuck. Under the one attribution, maps however, we included what eventually became four distinct forms of symbolic representation. These are primitive maps, form maps, form books, and ideographs.

\textsuperscript{45} In actual fact, this form of representation eventually became formalized as 'ideographs'. We coined the word to connote that one symbol represented one musical idea. We toyed with the idea of calling them 'audiographs' since the ideas were clusters of sounds. But the name never took hold.
Figure 2.2. Early Form Maps from *From Folk Song to Masterwork*

[Diagram of form maps]

**Figure 2.2.** Form Maps for *Circle Left: From Folk Song to Masterwork* (p. 48)

**Mapping: An evolving process: The Child in Depth**

In October of 1969 Mary Helen and I collaborated on a second book *Mary Helen Richards Teaches: The Child in Depth.* It was also published privately. The maps in this text were still designed to represent the phrase structure or 'form' as a 'concept' rather than a particular song, but the style of maps is quite different. In *From Folk Song to Masterwork* the maps were more like static pictures representing the pattern of phrases of a particular form. In *The Child in Depth* the intent was that following the line would be coextensive with the singing of each phrase *as the song is being sung.* It should take as long to trace the lines of the map as it would take to sing any song in that particular form.

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47 This is an example of a map drawn to represent songs in the 'Idea Response' form. It consists of two simple phrases of the same length. Many of the children's songs fit this form.
The following two examples from *Mary Helen Richards Teaches: The Child in Depth* show a definite change. The first map fits songs in the Idea-Response form and the second fits songs in Short-Short-Long form.

**Figure 2.3.** Early Maps for Idea/Response Form *The Child in Depth* (p. 45)

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**Figure 2.4.** Early Maps for Short/Short/Long Form: *The Child in Depth* (p. 46)

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48 *Come and follow me,* and *Hickey Tickety Bumble Bee* are examples of this form.

49 This is another very common song form. We called it 'Short-Short-Long. We were able to find even more songs in this form that the 'Idea-Response' e.g. *The Farmer in the Dell,* *Sally Go Round the Sun,* *Little Sally Ann,* *Come Good Rain,* *Windy Weather,* etc.
The response of teachers

Gathering collaborators: The response of classroom and music teachers

As Mary Helen and I continued to work in Portola Valley, we were also offering courses elsewhere throughout the continent. Most of the teachers attending courses in Canada were classroom teachers where, unlike in the United States, music specialists were not common. In Canada it was customary for classroom teachers to be responsible for whatever music instruction their students received.

Over time, as teachers continued to come to our courses and share stories about their successes in using folk song-games and mapping with their students, attitudes began to change. This affirmation coming from teachers whose teaching situations were so different from ours, helped Mary Helen and me realize that the children from Corte Madera School were leading us along a good path for reaching children through music. Our confidence grew.

The general response of classroom teachers attending our courses was quite different from many of the music teachers. Classroom teachers were the first to point out to us that the folk song-games and mapping had implications far beyond what we had at first imagined. They made connections between sensory-motor coordination skills and movement exploration; between the skills used in reading maps and the tracking skills needed for reading and writing language; between the social skills needed for children to function constructively in the classroom and the social skills developed through playing the folk song-games.

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50 These courses were offered in Canada (particularly in Nova Scotia, Ontario and British Columbia) and in the United States (particularly in California, Indiana, Minnesota, Ohio, Colorado, Nebraska, Montana, Utah, Idaho, Washington, Oregon). Usually these courses consisted of 60 to 90 contact hours.
In the case of music specialists, sensory-motor coordination skills and eye-ear-motor tracking seldom entered into their conversation, although these connections were equally applicable for children learning to read music as in reading language. Thinking in these terms was a matter of being introduced to a new way of thinking and new vocabulary for the music teachers attending our courses. Their stories told of a conservatory type education in which the focus was more on developing excellence as a musician and performer than on teaching. Other factors also kept many music teachers apart from exposure to this type of thinking among teachers. Many were itinerant teachers who moved from school to school. They had no homeroom, or would have choir rehearsals after school that prevented their attending staff meetings. Situations such as these often kept music teachers apart from the conversations of the classroom teachers.

The ‘observation of children’ class: A bridge between classroom and music teachers

In order to bridge the gap between the perspectives of music and classroom teachers, as well as to provide a forum in which they could mutually enrich one another through sharing and conversation, Mary Helen and I decided to incorporate an Observation of Children class in all our courses. This class had three components: spending half an hour or so, observing children as they were being taught by one of the instructors; engaging in an extended period of guided discussion\(^{51}\) after the children had gone; and preparing written assignments\(^{52}\) in which they were to connect their

\(^{51}\) Guiding the discussions, no matter where courses were held, was a task that often fell to me if I were not doing the actual teaching. It seems that I have a particular gift for noticing and evoking insights from the observers about what they noticed. This is what I have been told all these years, so I trust that it is so on the basis of these affirmations.

\(^{52}\) Invariably in a summer course, we assigned one or more written assignments based on the Observation of Children class. These assignments were deliberately constructed to ‘force’ the participants to make connections between what they observed and their own teaching practice. We gave other written assignments connected with the observation of children during winter courses, in these cases the teachers’ own students, in which the participants were asked to choose a certain game, or study technique and track
observations and the discussions with their own teaching practice. For many of the teachers studying in our courses this was the only time since completing their teacher training that they had had an opportunity to observe children being taught. The Observation of Children classes grew to become a major component in our courses, a ‘course within a course’, so to speak. The teachers could see from observing and reflecting on the responses of the children, that playing folk song-games, mapping and sharing their maps with one another, were activities that held great meaning for the children.

Crossing disciplines

The two following anecdotes seem connected to our general struggle to bring teachers together in conversation around what we, (Mary Helen and I) and they shared in common, namely, the children, and music, and literacy acquisition.

It was some time during the school year 1969. Mary Helen and I had had a particularly exciting morning of teaching and, as usual, had dropped into the office of Mary Ostrum, the principal of Corte Madera School in Portola Valley, to share our excitement with her. After listening intently to our description of what went on, Mary said, “You know, Mary Helen, what you are doing is education through music rather than music education.” This was a powerful insight for us, but we knew that if it were so, it was not a matter of rather than music education but in addition to music education.

the children’s responses over several class sessions. They would be asked to make inter-curricular connections as well. Many of these assignments are in the files referenced in Appendix I.

53 I have videotapes on file of all the Observation Class sessions for the summer courses offered at The University of British Columbia for the years 1993, 1994, 1995. Although these courses happened much later in the overall development of courses than those being referred to here in the text, the format and organization of the Observation of Children class remained practically the same.

54 From that day forward, we adopted Mary Ostrum’s descriptive phrase Education Through Music (ETM) as the name of the work of the Richards Institute of Music Education.
From our perspective as music teachers there was no doubt in our minds that what we were doing was music education.

On another occasion, Dr. Arthur Banta, the superintendent of schools for Portola Valley said to Mary Helen, \(^{55}\) "The way you are teaching music, Mary Helen, fits in with all the criteria of the sensory-motor program we are now using in our schools." He then went on to explain the connections. Dr. Banta wrote about this in an article for the California Music Educators Journal, June 1968, in which he said:

... a host of... worthwhile pursuits vie to have their own interest grafted onto the root-stock of reading-writing-ciphering... When properly thought of, music is not one of the subjects grafted onto the root-stock, but is part of the root itself. Music is a way to teach reading, and is thus central to the basic learning art which the schools are established to teach. (Banta, p. 28) \(^{56}\)

Dr. Banta, along with the writings of the several authors \(^{57}\) that he suggested we explore, had a great influence on the development of my understanding of how the way we were teaching music crossed over the lines that often separated disciplines. Nevertheless, when it came to my understanding of how to teach, my thinking remained fixed in the belief that teaching was a matter of sequencing the ‘concepts’ from which, like building blocks, the children would construct their understanding of the whole. It was as if there were abstractions somewhere ‘out there’ apart from actual songs. These ‘concepts’ came

\(^{55}\) It was after returning home from this conversation that Mary Helen and I began to make a serious study of the details of the sensory-motor program. We were already quite immersed in it since the project that I was working on in connection with my Masters Degree had to do with my teaching a special class of children who had completed Kindergarten but who were deemed not ready to follow the reading curriculum in grade one. We developed several games for these children for the specific purpose of combining sensory-motor skill exercises with songs. As examples of these games, \textit{Roly Poly} is an application of the ‘rolling like a log’ exercise. \textit{Johnny Get Your Hair Cut} gave the children practice in ‘angels in the snow’ exercise.


together somehow to form the songs we sang. ‘Rhythm’ was something in and of itself, distinct from the rhythm of a particular song. The same was true for ‘melody’ and ‘form’. ‘Scales’ seemed to have an independent existence into which songs fit. This was reflected in the language when we would say, for example, “Such and such a piece is ‘in the scale’ of G major.” It is an interesting exercise for me to try to re-enter the mind-set out of which I organized my teaching in those early years. The ideal was to focus on one particular concept such as rhythm in many songs so that eventually ‘rhythm’ became a stand-alone ‘concept’, an abstraction that the children understood apart from the experience of the music they sang.

‘CONCEPTS’ IN TRANSITION

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle and after loosening that, all goes smoothly for the next little while...

One ‘concept’ in many songs

Setting up a music curriculum usually meant organizing it systematically around a progression of ‘concepts’: the steady beat, certain rhythms and time signatures, certain scales and intervals, certain phrase structures. A typical procedure for teaching a ‘concept’ might be something like the following:

- Select a song in which the ‘concept’ could be easily identified (at the beginning of the song, at the final cadence, or as a repeated pattern or sequence) or highlighted
in contrast to another ‘concept’ (the steady beat as different from the uneven pattern of the rhythm of a song).

- Pose questions, or challenges for the children to answer through movement, thus demonstrating their understanding of the ‘concept’.
- Help the children make associations between their movements and the arbitrary symbols of music notation.
- Find examples of the same ‘concept’ in many different songs.

**Many ‘concepts’ in one song: The first form book**

Our music classes in Alicia’s classroom were scheduled regularly for twice a week, although Alicia welcomed us into her classroom at any time. We had been moving systematically through ‘concept’ after ‘concept’, week after week, for several months, but we had also been observing Alicia’s teaching and the way she used stories and the children’s writing as the context for guiding the children towards language literacy.

The idea came to us to take one song, (in this particular case one that the children had never sung before) and develop a kaleidoscopic flow of the written symbols of several of the ‘concepts’ the children had been studying in other songs, and show how they came together in one song. It was a hybrid idea that arose from four sources: our understandings of Gestalt psychology, music theory, philosophy and Alicia’s use of language experience in teaching language literacy. Mary Helen and I decided to make a big chart *book* that we could read together as at story time. We thought that if we retained
the *look* of the phrase structure (the form) on each page it would demonstrate visually the sense that each ‘concept’ is really contextualized within the song as a whole.58

It was not unusual for us to pick up the telephone and say, “Alicia, we have an idea for thus-and-so, may we come and try it out with the children?” Her answer was always a ready, “Yes”. This was the case on the morning we shared the first form book, *Cotton Eyed Joe Form Book*, with her students.

Finding your way through the following pages of text

In the next section of this writing I will organize the text differently so as to reflect three separate perspectives of what happened in Alicia’s classroom on the morning we shared the *Cotton Eyed Joe Form Book*.

The columns on the left are the teacher’s words. As I was the teacher that day, I have reconstructed this conversation on the basis of what I know to be my style of interacting with children. The actual words are, of course, lost to memory. In the middle column, I describe what the children’s responses might have been, and what they might have done. In this case also, I cannot remember the conversation verbatim. I have tried to reflect what I still remember of the atmosphere of their engagement as we went through the pages of the Form Book. I have used the column on the right to clarify terms and elaborate on the context.

---

58 Only later did the children help us dismantle our still unchallenged assumption that the phrase structure was the ‘form’ of a song. For the moment, it was novel enough to think that six-year-olds would be intrigued to learn a new song by reading our book.
The classroom setting: "It's time to read a book!"

*Cotton Eyed Joe* Form Book

*Where did you come from?*
*Where did you go?*
*Where did you come from, Cotton Eyed Joe?*

*Came for to see you,*
*Came for to sing,*
*Came for to show you my diamond ring.*

*Where did you get it?*
*How did it grow?*
*Who could have made it, Cotton Eyed Joe?*

*Comes from the mine fields,*
*Comes from the ground,*
*Comes from the night with darkness all around.*

*Why does it sparkle?*
*What makes its glow?*
*Why is it gleaming, Cotton Eyed Joe?*

*What makes it glitter?*
*Sun from the skies,*
*Wants to be shining like your bright eyes.*

---

59 See p. 68 for the score of *Cotton Eyed Joe*
Cotton Eyed Joe

A Form Book
Figure 3.1. Cotton Eyed Joe Form Map

Form Map
<table>
<thead>
<tr>
<th>T.</th>
<th>“What do you think this might sound like?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.</td>
<td>“Does anyone have an idea?”</td>
</tr>
<tr>
<td>T.</td>
<td>“It will be interesting to see if what you notice really happens.”</td>
</tr>
<tr>
<td>T.</td>
<td>“This song is new to you. We’ve not sung it before. I’ll sing it and you follow the map with your finger.”</td>
</tr>
<tr>
<td>T.</td>
<td>“You can stay right where you are and let your finger follow the line in the air in front of you.”</td>
</tr>
</tbody>
</table>

While saying this, the teacher opens the Form Book to the first page and holds it for all the children to see. They are seated in a cluster on the floor in front of her, much as they would be for story time.

A form map is a linear representation of the feeling of the flow of the song. The design is organized according to the phrase structure of the song. Certain repeated patterns in melody or rhythm, as well as those that differ, may be reflected in the design of the flow.

It would not be unusual for a child to come up to the Form Map page of the book and point to the pattern at the beginning of the three phrases and comment, “These will sound the same.”

Or another might notice, “The last phrase is longer than the other two.”

Still another might take note of the phrase endings, saying, “They are all different at the end.”

Making a form map is a highly intentional process. The person designing it may highlight certain feelings or ‘concepts’ in order to evoke an awareness of these in the children. Making a form map is not the children’s task; their maps are free flowing unbroken lines through which they express the feeling of a song. A form map is an analytical construction that the children simply follow while singing the song; or they may follow it as someone else sings the song.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>The teacher sings only the first verse of Cotton Eyed Jo and the children trace the map in the air as s/he sings. They might try this a couple of times before s/he asks:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T.</strong></td>
<td>“Well, what do you think?”</td>
<td>The children share what they have noticed. A child might refer to the beginning of the phrases, and pointing to them, say, “These do sound the same...”</td>
</tr>
<tr>
<td></td>
<td>“Did the song do what you expected?”</td>
<td></td>
</tr>
<tr>
<td><strong>T.</strong></td>
<td>“Let’s sing it again and check this out for sure.”</td>
<td>Again, after following the map and singing the song, the teacher might ask:</td>
</tr>
<tr>
<td><strong>T.</strong></td>
<td>“Would someone like to come up and follow the map?”</td>
<td>Several children might come up to try. Crossing over the lines where the map loops around is sometimes a big stumbling block for children of this age. If this happens the teacher would guide the child’s hand so as not to break the flow of the movement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>During all of this time, the only verse sung is the first verse of the song.</td>
</tr>
</tbody>
</table>
Figure 3.2. *Cotton Eyed Joe* Phrase Map

Phrase Map
T. ‘Well, what do you think?’

'Do you think that you could make these phrase lines fit the song?’

T. ‘What good ideas!’

‘Let’s try it and see how it works.’

‘Are you ready?’

T. ‘Are they really too short? Could it be something else?’

---

The teacher turns to the Phrase Map. She guides them to notice ‘phrase’ in the title.

As the children examine the pattern of the phrases one child might remark, ‘There are still three...’ while counting the phrase lines on the chart. Another might want to return to the form map and then, moving back and forth between the pages, point and say, ‘The first two (phrases) are short and the last one is long. It’s just the same as the first map.’ Still another might say, ‘The lines are pulled out straighter on this page,’ while pointing to page 2.

The children sing the song and follow the phrase lines with their fingers in the air.

It would be usual for them exclaim: ‘It fits.’ ‘It’s easy!’

Or maybe a child might remark, ‘The lines are too short!’

A child who felt it had worked might volunteer to follow the phrase lines at the chart. The children sing the song and follow the phrases once again, just to check it out.

The phrase map is actually the first formal music notation the children have learned. In most scores a curved phrase line is drawn over several bars of notation to help the singer create a particular interpretation in performing a piece. In the Phrase Map all other aspects of notation are stripped away leaving only the phrase lines themselves for the children to follow.
<table>
<thead>
<tr>
<th>T.</th>
<th>“What do you think might have happened?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.</td>
<td>“Would you like to try it again and see if your finger can slow down and fit with the song?”</td>
</tr>
</tbody>
</table>
| T. | “What do you sing here?”  
  “...and here?”  
  “...what about here?”  
  “What do you think? Are they the same?” |

...addressing the child who found the lines too short...

“My finger went too fast!”

The teacher picks up on one of the ideas the children mentioned before and pointing to the beginning of the first phrase, s/he might say:

The children reply by singing, “Where did you...”

...pointing to the beginning of the second.  
“...Where did you...”

...pointing to the beginning of the last phrase  
“...Where did you...”

The children agree that they are.  
“They look the same and sound the same.”

S/he quickly turns to the next page.
Figure 3.3. Cotton Eyed Joe Beat Map

Beat Map
"What do you notice?"

"Would someone like to come up and follow the beats on the chart?"

There is instant recognition when the children see the beat page of the Form Book. The children have had many previous experiences reading the beat represented by the 'stem' of a note without the note-head attached.

Although the Beat Map looks quite different from the form or phrase maps, the beat strokes are grouped so as to retain the idea of three phrases—two short lines of strokes and the third, longer.

With this invitation several hands pop up, each child hoping to be chosen to lead the singing. With each new leader at the chart those sitting on the floor follow the beats with their fingers in the air. With each following they repeat the song.

At first, the teacher carefully guides the child’s finger, starting at the top of each beat line and filling out the time span of each beat with the movement. Soon, however, the children need no support from the teacher and with each new leader they have the opportunity to practice the fine motor auditory/visual coordination as they repeat the song.

From the perspective of musicality, this way of drawing the beat as a line helps establish the sense that beats are not so much evenly spaced percussive events, as they are evenly spaced spans of time.

Then it is time to turn to the next page.
Figure 3.4a. *Cotton Eyed Joe* Rhythm Map 1

Page 4

Rhythm Map

```
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```


T. "This is really familiar to you. Can you sing the whole song with the rhythm syllables?"

"Ta ti-ti ta ta..." With one voice the children start singing the rhythm names.

"Ta ti-ti ta ta
Ta ti-ti ti-ti ta
Ta ti-ti ta ta ti-ti ti-ti ta Rest

The children sing the song with rhythm syllables. This is a language they are very familiar with from past experiences reading the rhythm of songs.

They become totally intrigued, noticing every detail. They count the number of single stems (ta's) and double stems (ti-ti's).

They notice that the pattern (Ta ti-ti) is at the beginning of each phrase, connecting this with their previous similar observation about the form map. They notice that the longer pattern (Ta ti-ti ta ta) is at the beginning of the first and last phrases.

They are puzzled by the two slurs...

The Rhythm Map symbolizes the relative duration allotted to each articulation of rhythm of the music of the song. They are written so as to retain the visual shape of three phrases as in all the other charts.

There is nothing new to the children on this page except for the slur and possibly the tie. As was the case with every other symbol used in the Form Book thus far, combinations of ta's and ti's are familiar.

The children have read simple patterns such as these in many forms. What is new for the children is to have all the symbols for one song following along one after the other in this visually connected form.

The pairs of stems joined by a beam represent two eight notes.

The first slur (two different sounds allotted to one syllable) is under the notes sung on the word 'go' at the end of the second phrase. The second slur is under 'Eyed' towards the end of the third phrase.
<table>
<thead>
<tr>
<th>T.</th>
<th>The teacher points to the second phrase, guides the children to start at the beginning, focus, and stop at the first slur:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;Where did you come from Where did you go-o-o.&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;Go!&quot; (A child locates the word on the chart.)</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;That’s right!” “Two ti’s, two different sounds for ‘go-o’. That’s the slur</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;What about the other line? What else happens?”</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;Let’s try it again and see if you can hear it.”</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;Where did you come from Where did you go-o-o-o.&quot;</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;You hold the sound right here.” (A child points to the last ta of the second phrase.)</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;See how this line joins these two…”</td>
</tr>
<tr>
<td>T.</td>
<td>The sounds are tied together. We sing ‘ta ti-ti ti-tie’” “There are two new ideas: a slur and a tie.”</td>
</tr>
<tr>
<td>T.</td>
<td>&quot;Can you find the other slur? What words are we singing on that one?”</td>
</tr>
<tr>
<td></td>
<td>&quot;Where did you come from? Where did you go-o-o? Where did you come from, Cotton Ey---ed… “</td>
</tr>
</tbody>
</table>

The tie (the sound of one syllable is sustained through more than one note value) joins the last two notes of the second phrase.
"Eyed"

| T.       | “Now, here’s a challenge!”
|          | “Can you sing the words and point to the notes as you sing? That’s quite a bit trickier!”
| T.       | “Voices and fingers ready?”
|          | “Here we go...”

The children while still sitting before the chart, eyes focused and pointer finger positioned, they sing and carefully track the rhythm stems one by one.

“Where did you come from?
Where did you go-o-o
Where did you come from Cotton Eyed Jo?”

Singing the rhythm syllables is one thing, pointing to each separate stem is quite another. To track each syllable simultaneously while maintaining the one-by-one correspondence as they sing the song is a real challenge for children of this age. Even though they may not succeed, it is clear that they know what to do; this provides them with the motivation to try.

The rest is the last symbol on the age. It has ‘wings’ that let the sound ‘fly away’. The children have had many previous experiences letting the sound fly off on a rest.

T.       | “Let’s take a look at this next page.”
Figure 3.4b. Cotton Eyed Joe Rhythm Map 2

Page 5

Rhythm Map

[Diagram of rhythm map]

[Diagram of rhythm map]

[Diagram of rhythm map]
The stems are grouped as a vocal score on this page; those on the previous rhythm page are grouped as for an instrumental score.

In a vocal score the stems of the eighth notes are joined according to the syllables in each word, otherwise the beams 'hang down at the side'. In an instrumental score, the beams join the stems into groups according to the beat. This changes only the look of the chart; nothing is changed in the singing.

Changing the look of the symbol while retaining the sound, gives the children an opportunity to practice the perceptual skill of auditory constancy. In this case the 'auditory figure' of the rhythm of the song is retained, even as the symbol is changed.

When the children have taken the time to notice the differences between the two Rhythm Maps, (the 'ti's' that are not joined) and the things that are the same (the tie and the slurs) the teacher suggests:

"Ta ti-ti ta ta
Ta ti-ti ti-ti ta
Ta ti-ti ta ta ti-ti ti-ti ta Rest"

"Where did you come from?
Where did you go-o-o
Where did you come from CottonEyed Joe?"

T. “I think that you are ready to check some of the things you have noticed.”

“Let’s sing the rhythm syllables and then the words.”

T. “Would one of you like to lead us at the chart?”

“Time for the next page.”
Figure 3.5. Cotton Eyed Joe Interval Map

Interval Map

Where → 1 → 1 2 2
        ↓  ↓

Where → 1 → 1 5 2
        ↓  ↓

Where → 1 → 1 2 2 3 2 2 3 → 1
        ↓  ↓  ↓  ↓
T. "There's lots to talk about on this page, isn't there?"

"You're puzzled?"
"Let me show you how it works."
"As you sing the song, draw the sound from each word to the next."
"If your voice stays on the same sound, the arrow is straight."
"If your voice goes up, the arrow goes up; and if your voice goes down..."

T. "That's right! You've got the idea!"

The interval map surprises the children more than any other map. Although many things are familiar—numbers, arrows, three phrases, the same short, short, long pattern, an actual 'word' in print—they are puzzled as to what they all mean.

Some children simply count the numerals: how many '1's' and '2's'. One might notice the word 'where' at the beginning of each phrase. Another puzzle over the single number '5' and what that might mean.

They do not question that it is the song; the big question is why the arrows—some going up, some down, and some straight.

"What do they mean?" pointing to the arrows.

"The arrow goes down!"

The interval map is a way of expressing the movement of the various pitches of the melody. It shows the melody as a series of individual pitches: higher than, lower than, the same as. In other words the position of each pitch in relation to the pitch of the one immediately before, and the one immediately following it.

The numbers indicate the size of the interval between each pitch. The sounds move along much like the children hop along the number line in their math class. But in this chart, the numbers (except for the single '5') have less importance for the children than the arrows. The numbers are there just in case some children will make the connection.
| T. | “Are you ready to try it?”
“You might want to slow the song down a bit. There are many jobs to do at one time.”

| T. | “Ready? I’ll guide your fingers here at the chart.”

| T. | “Do you hear the beautiful sound you are making?”

| T. | “Let’s try it again, only this time, don’t sing the words. Let’s just sing, “Loo” as we follow the arrows once again.”

| T. | “Let’s see what’s on the next page.”

| The Interval map gives the children an opportunity to practice the auditory skill of conservation once again, only this time it is the ‘figure’ of the melody of the song. When children are able to slow down (or speed up) their singing of a song, this is a strong indication that the song has been conserved ‘as a whole’ and that it is established in memory.

The conservation of melody is also practiced when the children sing the song while doing other tasks such as following the arrows, or substituting a single syllable such as “Loo” for the words. If these alterations do not disrupt the connectedness of the melody, it is a good clue that the children know the song as a whole.

The children’s voices come clearly into focus as they sing and follow the Interval Map. The sensory-motor alignment—eyes, voice and fingers working together—seems to work like magic in bringing their voices clearly into unison.

All of the Form Book experiences up to this point (especially the process of tracking the one-to-one relationship of the two rhythm maps) have contributed to the accuracy of pitch placement the children achieve in following the Interval Map. Nevertheless, tracking the melodic contour with the arrows invariably brings about an accuracy seldom achieved in the other pages of the Form Book.

In using the word, ‘know’ I do not mean to suggest that this is a consciously cognitive knowledge; rather, it is an experiential one. I believe that the procession of experiences immediately preceding the Interval Map, support their retaining a sense of the interconnectedness of the experiences. It would seem that by representing the different acoustic properties of the music, the children are able to arrive at an understanding of the diversity within the unity of the song without really ‘thinking’ about it. The phrases hold it together.
Figure 3.6a. Cotton Eyed Joe So-Fa Map 1

So-Fa Map

M M M R D

M M M L₁ S₁

M M M R D L₁ S₁ L₁ D D
When the children see the So-Fa Map, there are sounds of a happy familiarity. They have had many previous experiences singing songs in So-Fa syllables, as well as playing movement games using the hand and arm signals. They are in familiar territory.

With no hesitation they burst into singing the so-fa syllables and accompany each syllable with its appropriate hand sign.

The next page, however, has a little surprise in store for the children.
So-Fa Map 2
“Does something puzzle you?”

“What do we sing for ‘F’?”

“Do you see something new?”

The ‘F’ stands for ‘Fa’.”

Are there any other new syllables?

“Do we have a leader?”

“Don’t worry about the hand signals, just sing the syllables like a new verse for the song.”

A child volunteers and with finger poised ready, the children sing the tune in this new arrangement of So-Fa syllables.

“Are you ready for still another new challenge?”

The children have sung many songs that include all seven notes of the major scale: Do, Re, Mi, Fa, So, La, Ti, Do’.

Until this time, however, in reading they have concentrated only on one particular form of the pentatonic (five note) scale: So, La, Do, Re, Mi.

This chart provides the children with still another opportunity to practice conserving the ‘figure’ of the ‘whole song’ since the melody has been transposed to another set of So-fa syllables. Nothing changes except the So-fa names. (There are three possible placements of this same configuration of intervals in the major scale.)

The actual pitches of the song are retained in singing this chart, whereas in ordinary transposition both the ‘figure’ (the song) and the ‘ground’ (the key) are shifted lower or higher into a new key.

In any case, in singing this chart the children are unaware of this shift of ‘ground; the ‘figure’ is simply given new names.

The children check through the So-Fa letters, one by one, and come up with the answer: “No! We know all the others.”
Figure 3.6c. Cotton Eyed Joe So-Fa Map 3

So-Fa Map 3

T T T L S

T T T M R

T T T L S M R M S S S
<table>
<thead>
<tr>
<th>T.</th>
<th>“Do you see another new syllable on this chart?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.</td>
<td>“There are lot’s of ‘T’s’! Three here (pointing to the first phrase) three here (pointing to the second) and three here (pointing to the third).”</td>
</tr>
<tr>
<td>T.</td>
<td>“How many does that make?”</td>
</tr>
<tr>
<td>T.</td>
<td>“Nine.”</td>
</tr>
<tr>
<td>T.</td>
<td>“The syllable ‘Ti’ sounds just like the letter, ‘T’.”</td>
</tr>
<tr>
<td>T.</td>
<td>“Let’s sing this new So-Fa verse.”</td>
</tr>
<tr>
<td>T.</td>
<td>The children sing it without hesitation. The teacher immediately turns to the next page.</td>
</tr>
</tbody>
</table>
Where did you come from?

Where did you go?

Where did you come from Cotton-eyed Jo?
“Can you find anything on this page that you have seen before?”

They examine every detail, making connections as they recognize the things experienced in previous pages of the Form Book: the stems, the beams, the slurs and tie.

They are especially happy to see the words. Some were already busily checking the verse they had been singing all along.

“See the black dots, the heads on the notes?”
“Follow them like a dot-to-dot puzzle and you might notice something.”

“Is there someone who would like to try it at the chart while the others do it in the air?”

“Yes!”

Different children take turns either following the note heads or tracking the words of the text.
A vivid memory

On the morning we shared the *Cotton Eyed Joe Form Book* for the first time, in addition to remembering the general sense of excitement, for all these intervening years I have treasured one memory in particular.

A child came up to the chart. She wanted to follow the note heads, dot-to-dot. It seemed that she had made some connection while watching the others and wanted to check it out. She did this while the children sang the song and watched the movement of her finger. Before returning to her place, she asked me to find the Interval Map, and then, turning to me, she pointed to the number ‘5’, saying, “Five means a big step down…” She then turned back to the score page, pointed to the two dots, the first one higher and the second a fifth lower. She sang slowly and deliberately, “…you go - o…” as she traced the descending dots. Then, her satisfaction so apparent, she returned to her place.

The song a ‘track’ for reading

*Cotton Eyed Joe* was a new song for the children. Prior to this lesson we had never sung it in class. Part of our strategy in developing the Form Book was to see if using a procession of symbols shown within the context of the form, might be an effective way of introducing a song that had no game.

Starting with the form map, the focus on each subsequent page was on a separate music ‘concept’: phrases, the beat, rhythm, and melody. Only the single text, the word “where” appeared prior to the score page. There was nothing to prepare us for what happened as we moved into the next few pages of text in the Form Book. The children simply read and sang the remaining verses, word after word, chart after chart.

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60 The note heads are the circular part of the note that represents the pitch of the sound to be sung. They are placed either on or between the lines and spaces of the staff.
Verse 1

Where did you come from?

Where did you go?

Where did you come from Cotton Eyed Joe?
Verse 2

Came for to see you

Came for to sing

Came for to show you my diamond ring.
Verse 3

Where did you get it?

How did it grow?

Who could have made it Cotton Eyed Joe?
Verse 4

Comes from the mine fields

Comes from the ground

Comes from the night with darkness all around.
Verse 5

Why does it sparkle?

What makes it glow?

Why is it gleaming Cotton Eyed Joe?
Verse 6

What makes it glitter?

Sun from the skies.

Wants to be shining like your bright eyes.
The song a ‘track’ for reading (cont’d)

As the children read and sang the text of all the verses of *Cotton Eyed Joe*, I found myself being distracted by Alicia’s expression. I could see her excitement and intense pleasure at what was happening. When the session was over and the children had gone out to play she explained.

From teaching these children every day, Alicia knew what they were able to do. She had a good knowledge of their level of functioning as readers. On this occasion, she saw them leap into a whole different level of competence. They ‘burst into reading’, was the way she described what she saw. They figured out many new words without hesitation (I remember helping them with ‘glitter’ and ‘gleaming’) but in addition to simply decoding words, they formed the words with ease and a flow that had not been apparent before.

In our discussion, what bewildered us was the fact that nothing in the preceding pages of the Form Book had been directly connected to the text with the one exception, the word ‘where’ on the interval page. Everything else focused entirely on the music ‘concepts’. Yet there seemed to be a carry over into the children’s reading of the text. Of course, we will never know what really went on for the children that day, but I have since reflected on what it might have been.

Throughout the process of reading the first pages of the Form Book, the children had had many opportunities to engage the perceptual skill of constancy. Perhaps it was these many and varied opportunities that helped the children conserve a strong aural image of the acoustic properties of the song. My guess is that the song, strongly conserved, had become what I would describe for want of better words, a ‘track’
for reading.

I shy away from claiming that it was only the song that did it; no one thing is a ‘quick fix’ for reading language. I do believe, however, that because certain songs enhance the acoustic properties of spoken language, these songs have enormous potential for structuring the process of transference from sound-to-symbol.

As for me, the biggest surprise was that a class of first grade children could sustain ninety minutes singing one song. The most significant lesson I learned from the experience was that apparently for children, the ‘whole song’ is both words and music.
BACK TO THE WHOLE SONG: CHILDREN ADJUST OUR UNDERSTANDING

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle and after loosening that, all goes smoothly for the next little while...

From form maps to primitive maps

Despite rich insights about the whole song gleaned from the Cotton Eyed Joe Form Book and the transformation of form maps as traced in the two texts, From Folk Song to Masterwork and The Child in Depth, Mary Helen and I still retained our original notion that the phrase structure was the 'form' of a song. We still assumed that an understanding of 'form' was something that we construct from attaining a thorough knowledge of all the separate 'parts' that make up a song. The maps we made, the guidance we gave the children when making their own maps, the maps we shared with the teachers studying in our courses, and the maps they in turn shared with their students, all expressed the whole song as patterns of phrases.

Primitive maps: One step closer to the 'whole song'

One day sometime in the early 1970's, Mary Helen and I were observing a music teacher and her students in a classroom in Ontario. They were mapping the song Sally Go Round the Sun61. The teacher had prepared the children carefully. They had discovered the three phrases and noticed that the first two were short, and the last one long. They had expressed the phrases through movements, gross and fine, and were now ready to map

61 See Appendix III
the song. Several children found a place at the chalkboard, and while everyone sang the song, they made their maps.

The teacher noticed that one boy's map showed the three phrases clearly. I cannot, of course, remember exactly how it looked, but it might have been something like the following:

**Figure 4.1. Sally Go Round the Sun Form Map 1**

![Figure 4.1](image)

When they began to share, the teacher asked this boy to show the rest of the class how his map worked. Everyone sang as he retraced the path he had drawn, but his finger hardly made it to the end of the second phrase when the whole song was finished.\(^{62}\) His reading went something like the following:

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\(^{62}\) It was apparent to the three of us teachers what had happened. The child, instead of crossing over the lines in re-tracing the loops, had traced around the outside of each loop. This slowed down the movement of his finger.
The teacher allowed him to try a couple more times, but when she sensed his discomfort at what was happening, she did not press him any further. She realized that the boy, rather than connecting the flow of his map with the flow of the song, had simply drawn a picture that represented what he understood about the song. If the teacher had noticed the child during the actual mapping process, she might have seen this disconnection between what he was drawing and when he was drawing it. The map showed the three phrases and their relative shape. It showed that the beginning of each phrase had similar text, "Sally go round..." It showed that the first two phrases were short and the last long. All of these were things the children had studied and demonstrated through movement prior to making their maps. It was only when the teacher saw the child getting frustrated at not being able to bring his drawing into
confluence with the singing of the song, that she became aware of the disconnection. It was a moment of significant insight for that teacher. She responded by saying,

"Let's try something different."

"Just let your finger go with the song!" She continued, "Pretend you have a magnet on the end of the chalk. When the song starts, let your chalk move wherever it wants to go with the song!" Then she added, "Don't forget the magnet; if your chalk stops, it doesn't leave the chalkboard!"

Again, I do not remember exactly what he drew, but it might have looked something like the following:

**Figure 4.3. Sally Go Round the Sun Primitive Map**

![Figure 4.3. Sally Go Round the Sun Primitive Map](image)

When Mary Helen and I saw the child's response, and when we saw the map that he had made, we knew that we were witnessing something significant. We realized that perhaps, finally, we were seeing what a child perceives as the whole song, namely, a
continuous, unbroken sound that flows from beginning to end. This is what we saw expressed in this child's map.

The teacher then gave all the children a chance to make this kind of map. They put the ‘make believe magnet’ on the tip of their chalk, and without any breaks in the line, they mapped the song. Mary Helen and I could see that the children knew what they were doing; it was apparent in the intentional way they performed the task. We eventually named this style map, a primitive map.63

From that day forward, whenever we mapped with children we left them free to map the feeling of the flow of the whole song from beginning to end. We no longer struggled to have them develop maps that showed the pattern of the phrases. On that day, in that classroom, we realized that form maps presuppose a prior understanding of the phrase structure of the song. Form maps are fine for persons who have a thorough understanding of the music or text of the song, or for teachers who want to lead their students towards a particular focus of study; but for the children, the primitive map expresses what they perceive as the whole song.

Song dots: A further insight into the ‘whole song’

A further piece of the puzzle in our search for what children perceive as the ‘whole song’ was put in place twelve to fifteen years later than the time period I have been describing to date. The event that I will be describing took place neither at Corte Madera School, nor even among children, rather it was during the Sound Skills Class of a winter course at the University of Windsor, Ontario, sometime between 1982 and 1985. As a forward thrust in the development of intermediate forms of notating the

63 We named this unbroken free flowing map a primitive map of a song, not because it was less sophisticated than a form map but because it represented the more fundamental feeling of the flow and movement of the music of the song.
‘whole song’, as well as assisting our movement away from teaching ‘concepts’, the
discovery of song dots has taken on a significance almost equal to mapping.

The cultural setting

In this area of South Western Ontario there is a large Francophone population. For
many teachers, French is both their home language and the language of instruction, since
there are many Francophone schools. Many Francophone teachers attended our courses at
the University of Windsor, but since the course content was entirely English, these
teachers came not so much to learn the song repertory, but to familiarize themselves with
the pedagogical strategies and teaching techniques that were a major emphasis in our
courses. Teachers generally found that the strategies we shared for engaging children in
movement, problem solving, and social skill development could be applied easily to other
song repertory (including French songs) as well as other areas of the curriculum. Still for
all this, it was a disadvantage for the Francophone teachers not to be able to use the songs
in their teaching. This disadvantage was felt the most during Sound Skills Class.

Whereas English speaking teachers would ‘complain’ that they could not ‘get the
songs out of their head’ (either because we had repeated them so many times during the
course of an evening, or because the children had wanted to play the games so many
times during the school day) the Francophone teachers found it hard to remember the
songs from one class to the next. Their ‘complaint’ was that the songs ‘disappeared’
as soon as they tried to put either words or music on paper.

The first song dots

A particular scene from one class is lodged in my memory. I was standing in the
doorway watching as the teachers worked individually in their notebooks. We had been
focusing on a particular rhythmic pattern and their challenge was to locate where it occurred in a particular song. The procedure was first, to write the words of the song and then write the rhythmic notation over the syllables where they thought it fit. A Francophone teacher was sitting on the floor immediately to my right and as I watched what she was doing I became totally intrigued with what I saw.

Instead of writing the words of the song and then putting the notation above them, which was the procedure we were following, this teacher was creating a mixture of words, and free-hand marks, and notation on her page. Yet I could tell that she knew what she was doing. My curiosity got the better of me and I asked her to explain her process.

She said that it was easier for her to remember and keep track of the tune than the words. So when she forgot the words, she used the tune to track what was missing and then for the missing words she filled in the blanks with small pencil strokes, one for each separate syllable. It was possible for her to do this because of the one-to-one correspondence between syllables and melodic pitches. This teacher had devised a nicely organized system for ‘notating’ the song. The remarkable thing was, that her system of ‘notation’ tapped into a feature that was common to all three of the acoustic systems she was working in: the words, the tune, and the rhythm. It was such a good idea!

Following our private chat I asked her to share her process with the rest of the class. When they tried her idea, it seemed to push everyone, both Francophone and English speakers, to a higher level of competence in performing the task at hand.

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64 One of the strongest characteristics of the folk song literature we use in our teaching is that with very few exceptions, there is a one-to-one relationship between notes of the melody and the syllables of the words of the lyrics. This is why her procedure was able to work so efficiently.
As for me, this experience pushed me into a deeper level of reflection. I realized that in trying to solve her own problem, this teacher had found a way to represent an aspect of articulation shared by the lyrics, the melody and the rhythm. She represented the ‘lowest common denominator’, the one-to-one correspondence common in the articulation of all three. She helped me see the whole song from still another perspective.

THE WHOLE CHILD

It is not my intent to describe the ‘whole child’. What I would rather describe are certain learning experiences that have the potential to call forth a child, ‘wholly’. We educators can never be the active agents of a child’s learning; it is the child who chooses both to engage in and sustain learning. What we can do is offer children situations that have the potential to draw them into becoming active agents of their own learning both as individuals and socially.

After more than thirty years of observing children ‘wholly’ absorbed while playing folk song-games, I am convinced that this particular form of social play holds great potential for evoking a ‘whole child’ response from children. In this next section I will elaborate on this.

Observing the ‘whole child’ at play

While observing children as they play folk song-games, I have seen children express physical/perceptual and social/emotional responses, I have also seen them express imaginative/cognitive and musical/language responses during play. But these separations and categories are only useful for purposes of describing. In the lived experience of children playing, perceptual, cognitive and social responses are all
interconnected; one experience never acts in isolation of the other two. A child is ‘all of a piece’.

**The social/emotional child**

I have observed individual children express emotional responses that spiral back and forth through the full range of: anticipation and disappointment, embarrassment and pride of accomplishment, laughter and tears, hope and fear, frustration and satisfaction. I have seen these same children gain the stamina needed: to sustain emotional fluctuations, to grow in their ability to empathize with others; to express social responsibility and caring, to touch others with respect and receive the touch of others. I have seen children advance towards an understanding of distributive justice: taking turns and giving turns away, listening to others’ ideas and freely sharing their own, assuming the responsibility of leadership and accepting the role of collaborative follower. I have seen them grow in integrity---learning to do what they say, consistently.

**The physical child**

A child’s body is his/her instrument of learning whether that body be beautifully coordinated or clumsy; at the same time the child’s body is his/her instrument of play. With this in mind, I have marveled at the scope of physical engagement of children while playing folk song-games---their bodies firmly located in a particular space, their minds intensely focused for extended durations of time. These are qualities of children fully engaged in learning.

**The child’s body: Perceiver/receptor**

Children must use all manner of sensory involvement in order to maneuver their way through the play of folk song-games: visually they must distinguish figure from
ground, perceive the positions of others in space as well as accommodate to the spatial relations of others at play. They must visually track the movement of a chase, and at the same time learn to rivet their gaze on the one spot of safety when being chased. I have seen children intensely motivated to fine-tune their aural skills, to discriminate directionality, timbre, pitch, and dynamic variations in the voices of others.

The child's body: Mover/expresser

The movement responses of children are more obvious to the observer than other forms of response. I have seen the fluidity with which children move during play: fast and slow movements, gross and fine, high and low; imitative and original movements, spontaneous and sustained movements, axial and locomotor movements. It seems as if certain game situations make it utterly impossible for children to resist responding with full-bodied expressive movement.

The musical child of language

While movement is what we see during folk song-games, oral language of communication and expression is what we hear. Children sculpture exquisite patterns of sound, during play, patterns both spoken and sung: some descriptive, others dialogical, some aloud, others quietly imagined. The songs, because they are sung time and again, ritualize language; the games evoke from children endless varieties of speech patterns that they send spinning out from them in freely improvised flights of fancy.

Summary

The list is endless. I believe that these moments of social play, moments of strategizing and solving problems, of imagining and making decisions, of singing and speaking are significant moments that children fill with the intensity of being ‘wholly’
engaged in learning; they are the 'stuff' from which children create memory, metaphor and meaning.

**Reaching the perceiving/moving child**

Revisiting The Child in Depth: The perceptual/motor connection

In my previous referencing of *The Child in Depth* (See p. 35 in this document) it was in connection with mapping and how even in the short span of the few months between its publication and that of *From Folk Song to Masterworks*, it is possible to trace changes in the mapping process as it evolved. *The Child in Depth* is important historically for another reason. In it Mary Helen documents explicitly, some of the connections that Dr. Banta (See p. 42 in this document) had made in conversation with her, between our teaching of music, the perceptual-motor program, and the reading readiness program that was being implemented in the primary and elementary grades in the Portola Valley School District at that time.\(^{65}\)

I remember the enthusiasm we felt as we studied the writings of Godfrey & Kephart\(^{66}\) especially Kephart’s later text *Slow Learner in the Classroom*, or read from Frostig\(^{67}\) quotations such as the following:

> The central goals of movement education are the promotion of good health and a sense of well-being and the development of sensory-motor skills and of self-awareness...A well administered movement education program---one that is integrated with all subjects in the school curriculum (Fleming, 1968)---can achieve much more. A child’s physical fitness and the quality of his movements influence (and in turn are influenced by) all of his psychological abilities---his abilities to communicate, to perceive, and to solve problems---and the way he feels and interacts with others. Such a program can also help to enhance creativity of children and even improve their ability to learn academic

\(^{65}\) This was the late 1960’s and the early years of 1970.


skills. Basic characteristics of a child—for instance, speed of response, the ability to focus attention, and the ability to exert control—can be enhanced. And children's awareness of their environment and of time and space dimensions of all experiences can be shaped. (Frostig, 1970. *Movement Education*, p. 17)

For Mary Helen and me, the focus on ‘health and welling being’ was like a breath of fresh air. We also wanted to bring music experiences back into the daily lives of children, we wanted to move away from the heavy emphasis on performance, and we wanted to demonstrate how music is connected with the education of children.

In the case of both programs, (movement education and the way we were teaching music) the key to their implementation lay in the hands of the classroom teacher, only the classroom teacher worked with the children every day and that was why it was so important to make the broader connections with other areas of the curriculum. The more Mary Helen and I read about *movement education* and the more we saw how it was being implemented by the teachers in Corte Madera School in the reading readiness program, the more we saw connections between it and the way we were teaching music. *The Child in Depth* (1969) was the first text in which Mary Helen articulated these connections explicitly. To make this point, I include the following lengthy quotations and tables from *The Child in Depth*:

The first table is one outlined by the teachers of the kindergarten and first grade at Portola Valley School. It indicates the areas in which a child must achieve success before he can progress comfortably and happily as a student in the primary grades. It is directed more particularly to the area of reading, where pressure ordinarily occurs on the child in the primary grades.
Table 1
Language arts readiness in kindergarten and early primary

In the development of auditory discrimination the child must:
1. Identify familiar sounds.
2. Distinguish beginning and ending consonant sounds.
3. Identify rhyming words and elements.
4. Distinguish similarities and differences in words and sounds.
5. Repeat syllables, words, phrases, and sentences correctly.
6. Distinguish gradations from soft to loud.

In the development of visual discrimination the child must:
1. Distinguish likenesses and differences in objects or designs (in terms of size, shape, color, pattern, direction, number of objects, etc.)
2. Supply missing details.
3. Locate identical letters, words or patterns in a series.
4. Match pictures, designs and patterns.

In the development of visual motor coordination the child must:
1. Make controlled coordinated movements within a designated area.
2. Trace lines, patterns and shapes successfully with finger and crayon.
3. Copy designs and patterns accurately.
4. Draw basic shapes, designs, or numerals.
5. Write his name legibly.
6. Write the most frequently used alphabet letters.

In the development of thinking and reasoning ability the child must
1. Arrange ideas in order.
2. Classify objects according to various criteria.
3. Detect absurdities.
4. Predict outcomes; draw conclusions.
5. Apply learnings to related situations.
6. Solve many problems encountered in work or group situations.

In the development of perception the child must acquire:
1. Perception of position in space.
2. Spatial relationships.
3. Fine motor coordination.
4. Figure ground perception.
In the development of oral language and communication the child must:

1. Communicate experiences and ideas logically.
2. Tell and retell stories in front of the group.
3. Create experience stories and imaginative stories.
4. Develop ability to follow directions.
5. Develop awareness of left to right progression.
6. Develop an awareness of "what reading is."
7. Develop visual and aural memory. (Richards, 1969, p. 3)

Following these references to language arts with their embedded references to movement education, Mary Helen continues:

**Identifying familiar sounds**

Music has many devices for helping children to listen:

"What song is this?"

When this question is asked, rhythm patterns of the song may be clapped, and the child recognizes the song from the rhythm pattern. At other times the rhythm pattern may be written, and the child recognizes the song from seeing it. In reading it, he also feels it and hears it with his inner hearing. Thus, his auditory discrimination, his visual discrimination and his visual-motor coordination are all involved.

Understanding form involves becoming aware of repetitions. Actions in singing games are repeated when phrases are repeated. Awareness of repetitions is emphasized by constant use of inner hearing.

**Table 2**

Language arts readiness through music

A song with a form AAB or short-short-long, may be experienced in many ways:

1. The first A may be sung, the second A clapped, and the B heard in the inner hearing.
2. The first A may be clapped, the second A stepped, and the B sung.
3. The children may sing the first word of each A, and clap the B.
4. The children may walk in one direction with the first A, in another direction with the other A and then stand still and sing the B.
5. The first A might be directed by the left hand, the second A by the right hand, and the B sung.
6. Variations of this type help the child to concentrate on remembering sequences, being always aware of similarities and differences. (p. 4)
To be sure teaching music was still our focus, but even as this remained firm we developed a deeper sense of the value of the way we were teaching music for children-as-learners. Mary Helen writes:

...To be taught thoroughly, music must create joy. It must move with spirit and spontaneity, and yet must be taught carefully with attention to relationships and details. Its presentation must gradually unfold to the child, moving from the known to the unknown in careful well-ordered steps.

When music is taught in this manner, there is a strong relationship between the activities of the music program and the general activities of the kindergarten classroom...(Richards, 1969, p. 2)

At the same time as we were seeing these connections we also found that movement education provided us with language and a rationale for selecting movements when creating certain games\(^{68}\) and sequencing the study of music ‘concepts’\(^{69}\).

It was very much to our advantage that Mary Helen and I just happened to be in the Portola Valley School District at a time when the administration was taking an active leadership in offering workshops and readings in support of the movement education program. We just happened to be able ‘to ride the tide’ of this support. Of all the people who made the connections most apparent, however, the children took the lead. It was they who most readily transferred study strategies from one program to the other.

### Reaching the ‘whole child’ through play

In this next section I will thread together the three emphases: reading readiness, movement exploration and the study of music and how these connections are expressed

\(^{68}\) Kitty Kitty Casket, Johnny Get Your Hair Cut, Roly Poly, Our Old Sow (the primary grade version), On This Hill

\(^{69}\) Challenges such as, “Can you figure out a way to make scissors on the top part of your body?” “...with one arm and on leg?” “...angel in the snow scissors?” Setting up challenges such as these all came directly out of the movement education program.
in structuring the two folk song-games *Sing With Me* and *Johnny, Get Your Hair Cut*. I will use references from Frostig and Kephart to reflect on the task/skill connection.

**Tasks and skills: The connection**

*Sing With Me*[^70]

*Sing With Me*

*Sing with me all together*

*Sing with me all together*

*Sing with me all together, won’t you be my partner.*

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<thead>
<tr>
<th>Setting up the tasks</th>
<th>The children respond</th>
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<tbody>
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<td><strong>Task 1</strong></td>
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<tr>
<td>T. “Let’s sing this song together and as we sing, let’s walk freely around the classroom. Look for an open space.”</td>
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| T. “The song tells us when to start moving. When the song stops, that’s when we stop. Are your voices ready? Here we go... *Sing with me*...” | *Sing with me all together*  
*Sing with me all together*  
*Sing with me all together, won’t you be my partner.* |

[^70]: See Appendix III for the score
The children repeat this activity a sufficient number of times both to get the feeling of singing and moving freely in the available space and to practice managing their own personal space among each other. They practice coordinating the movement with the song. That is, they learn to start, continue and stop with the song. This is the first essential 'rule' of the game.

**Task 2**

T. “What actions have we been doing?”

“Starting, stopping, singing, walking...”

T. “Were any of these actions named in the song?”

“Singing”

T. “Up until now we’ve been walking as we sing. Can you think of other ways of moving?” “We’ll put that word in the song.”

“Run!” “Walk!” “Skip!” “Jump!”

T. “John, you’ve just heard several ideas, please choose one, and we’ll try it out.” “Or maybe you’d rather suggest a different movement.”

“Hop!”

They sing while performing the new movement:

*Hop with me, all together*

*Hop with me all together*

*Hop with me all together, won’t you be my partner?*

Task 2 is repeated several times, the verb is changed according to the children’s suggestions.
### Setting up the tasks

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### The children respond

|     | **“Three”** |
|     | **“Someone could mark it on the chalkboard while we sing.”** |
|     | **“We can show it with our fingers.”** |
|     | **Sing with me all together** |
|     | **Sing with me all together** |
|     | **Sing with me all together, won’t you be my partner.** |
|     | **The children verify that the words ‘sing with me’ occur three times.** |
|     | **“Run! Skip! Hop!”** |
|     | **“Slide! Twirl! Hop!”** |
|     | **“Run! Skip! Hop!”** |
| T. | “Be sure to check your space, and you really need to use your ears!”
“Here we go... Run with me...” |
|---|---|
|   | Run with me, all together!
Skip with me, all together!
Hop with me, all together!
Won’t you be my partner?” |

Task 3 can also be repeated several times, alternating the sets of movements according to the children’s suggestions and always singing the original *Sing with me*, in between.

Changing the movements in Task 3 helps the children develop an awareness of the structure of the song, something that the children will use later on in their study of the music. At the same time, however, the structure of the song becomes an auditory support for the children as they learn to play with, and change varieties of movements quickly.

Coordinating singing and moving and changing movements in response to auditory cues, are goals in both the sensory-motor coordination and the music program. According to Kephart, developing responsiveness to auditory cues is a skill that effects children’s performance as learners:

Auditory information is also related to motor activity and this relationship needs to be established in the child. Just as in some children visual information appears to exist independent of the activities and responses of the organism, so in some children auditory information seems to be separated from the activities of the organism. It is probable, however, that in the normal child, auditory stimuli are as intimately related to motor responses, as are visual responses. It would therefore, seem that the child needs to develop an auditory-motor match in the same fashion that he develops a visual-motor match. Since auditory stimuli are extended in the time dimension, such a match is particularly important in motor responses which extend over time...” (Kephart, p. 260)

“...When the child has developed a relationship between auditory stimuli and bodily movement, he should learn to use these auditory data to control or direct a movement. He should learn to begin an activity or cease an activity in response to an auditory signal... (p. 261)

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71 Kephart, N (1971). *Slow Learner in the Classroom.*
What Kephart says about the hook-up between auditory data and movement response applies also in the cases of Tasks 1 and 2. In those instances one movement lasts for the duration of a whole verse, whereas in Task 3 the movements change with each phrase.

Johnny Get Your Hair Cut

Johnny Get Your Hair Cut

O, Johnny get your hair cut, hair cut, hair cut.

Johnny get your hair cut, just like me.

<table>
<thead>
<tr>
<th>Setting up the tasks</th>
<th>The children respond</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task 1</strong></td>
<td></td>
</tr>
<tr>
<td>T. “What would Johnny need in order to get his hair cut?”</td>
<td>“Scissors.”</td>
</tr>
<tr>
<td>T. “Can you figure out a way to make scissors with your body?” “What could we use?”</td>
<td>The children take a few seconds to experiment with different combinations: fingers, hands, arms, legs, jumping jacks.</td>
</tr>
<tr>
<td>T. “It looks as if you have lots of ideas.”</td>
<td></td>
</tr>
<tr>
<td>T. “Each person decide on a pair of scissors of your own choice.”</td>
<td></td>
</tr>
<tr>
<td>T. “I’ll know that you’re ready when I see you waiting for the song.”</td>
<td></td>
</tr>
</tbody>
</table>

See Appendix III for the score.
<table>
<thead>
<tr>
<th>T.</th>
<th>Let's sing the song here... Ready...</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.</td>
<td>“I noticed that many of you were making hand scissors. Did you notice if all the hand scissors were the same?”</td>
</tr>
<tr>
<td>T.</td>
<td>“For this next turn, choose one of those ideas or make up a different pair of hand scissors.”</td>
</tr>
<tr>
<td></td>
<td>Here we go...O, Johnny...</td>
</tr>
</tbody>
</table>

| T.  | Oh, Johnny get your hair cut, hair cut, hair cut. Johnny get your hair cut just like me. |
|     | “I noticed this kind.” (The child demonstrates.) |
|     | “Mine were hand scissors. They were like this.” (Another child demonstrates.) |

| T.  | Oh, Johnny get your hair cut, hair cut, hair cut. Johnny get your hair cut just like me. |
|     | The music goal is to have the children repeat the song many times. The children become so intrigued with the movement challenges that they are not conscious of the fact that the song is sung over, and over again. In the meantime, the song slips into their memory with no conscious ‘study’ at all. |

**Task 2**

| T.  | “Let’s go back to your original ideas, or you can try a different pair of scissors this time.” “Arm scissors, leg scissors... anything you want to try.” |

| T.  | Here we go...O, Johnny... |

| T.  | Oh, Johnny get your hair cut, hair cut, hair cut. Johnny get your hair cut just like me. |
"Here’s a new job!"
“Find a partner, and each of you teach your partner how to make your scissors.”

“Take a few moments to learn and practice. Then we’ll sing the song twice, once for each person’s idea.”

In performing this task, the children engage in practicing eye-ear-motor coordination. Making many varieties of scissors also requires that they stay in the same place while moving different body parts. They practice the balance necessary to do this.

Kephart categorizes the type of movement explored in *Johnny Get Your Hair Cut* as ‘balance patterns’ and discusses the significance of these for children in the following quotation:

The principle constant in our environment is the force of gravity. It is from that we derive spatial relationships...Since this force...is the only constant, spatial relationships are derived from it as a starting point. When this zero point is well established, spatial relationships can be secure...It is therefore very important that the child learn the nature of the force of gravity and his relationship to it. It is through his maintenance of posture and balance that he gains this knowledge...Postural relationships must be sufficiently flexible to permit the maintenance of balance while the body parts are moving, and thus changing the weight relationships around the center of gravity...(pp. 9 -10)

Further on, he writes:

Balance patterns are those movements which maintain a position in space and a relationship to gravity. They include both so-called static or stationary posture and purposeful activity or movement of the body while remaining in the same place...The primary balance patterns are standing and sitting. Other patterns, which also involve movement of the body in the same place and thus are also included among balance patterns, are twisting or turning, bending, straightening or stretching, swinging or rotating... (p. 93)
Learning about *movement education* and its application in the area of the perceptual-motor development of children was a very important ‘find’ so far as motivating the children to repeat songs, and evoking good breath energy to support their singing. As a teacher, however, *movement education* was like an injection of new life for me. I found that using the body and body movement as referent, greatly enhanced my observation skills. It gave me new language for structuring study challenges, new and more systematic ways for keeping track of the children’s responses.

**Reaching the social/emotional child**

Folk song-games are effective vehicles for the development and practice of social/emotional skills. In these next pages I will take two folk song-games, describe them and then reflect on each from the perspective of their potential to support the social/emotional development of the children-as-learners.

*A Rig-a-Jig-Jig*

**A Rig-a-Jig-Jig**

*As I was walking down the street, down the street, down the street,*

*A friend of mine I chanced to meet, Hi ho! Hi ho-o! Hi ho!*

*A rig-a-jig-jig and away we go, away we go, away we go!*

*A rig-a-jig-jig and away we go, Hi ho! Hi ho-o! Hi ho!*

*Game description.*

The children stand in a circle. One child walks around the inside of the circle as everyone sings: ‘*As I was walking down the street, down the street, down the street,*’ and on the words ‘*...a friend of mine*’, the child stops, turns to the nearest child and shakes his/her hand while singing, ‘*...Hi, ho! Hi-ho-o! Hi-ho!*’ On the words, ‘*...A rig-a-jig-*
jig...' while still holding right hands, the two children cross their left arms, grasp left hands and make a quick zigzag motion with their arms. On the words '…and away we go...' they take off together, arms still crossed, and skip around the inside of the circle. They stop on the last ‘...ho!’

At the end of the song the two children separate, and as the song is sung again each repeats the procedures described above. This time there will be four skippers, the next time eight, and so in geometric progression until all the children in the circle are picked up.

During the final turn(s) all the children mill around among each other on the walking part, scramble to find a partner to shake hands with on, ‘...a friend of mine...’ and then skip around in couples until the end of the song.

Reflection on the social skills

Many children feel a strong reticence, or self-consciousness, when reaching out to others. It is not always because they do not want to, but is often simply that they do not know how. Other children feel threatened by having to approach another, sometimes from fear of being rejected. Still other children actively avoid associating with certain classmates for any number of reasons.

A game like Rig-a-jig-jig can be an opportunity for children to practice ‘managing’ their emotional responses as they learn to perform ‘appropriate’ and respectful social behaviors towards others. As with every other skill, there is no way to acquire it except through practice. By playing a simple little game like Rig-a-jig-jig: stopping and facing the one ‘the song selects’ on the words ‘...a friend of mine’; shaking hands and skipping with that person; these are opportunities for children to practice
sustaining a respectful relationship with others even as they hold and acknowledge their emotions, whatever they may be. Over time, and with repeated opportunities to practice, children can learn to use their emotions to enhance, rather than inhibit their ability to relate with one another. This is a ‘life skill’. It is a skill that is needed in childhood through to old age, but as with any skill, it takes practice in order to learn it.

**Bumpety Bumpy Yellow Bus**

*Bumpety Bumpety Yellow Bus*73

*Bumpety, bumpy yellow bus,
Oh, you can say your name for us!*

*The game description*

The children sit cross-legged in a circle so that all can see each child. They hold their hands one on top of the other, palms down. On the first word, ‘Bumpety…’ they gently tap one knee with both their hands. On the word ‘…yellow…’ they cross over the mid-line and tap the other knee. On the word ‘…you…’ they gesture towards the child whose turn it is, and on the final word ‘…us…’ they gesture towards the group.

The child addressed by the group simply says his/her name clearly and the other children repeat it carefully and respectfully. This procedure is repeated, one child at a time around the circle.

Despite the brevity and simplicity of this game, children need many opportunities to develop a sense of it as a whole. *Bumpety, Bumpety Yellow Bus* incorporates a whole complex of interconnected systems: the words and music of the song, the sequence of

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73 *Bumpety Bumpety Yellow Bus* is an adaptation made by Ann Shaner, a kindergarten teacher in Big Fork, Montana. Mary Helen and I developed the original name game, *Hickety Tickety Bumble Bee* during the years we taught in Corte Madera School.
movements, the visual and auditory coordination of gestural movements with lyrics, and the timing of movements.

**Reflection on the social skills**

*Bumpety Bumpty Yellow Bus* is usually played in classrooms of primary age children. It is more than a ‘getting acquainted’ game since it is the first of a series of developments for studying the sound of the children’s names, but it is a treasure in and of itself. It does not necessarily follow that because children know one another’s names, they will call one another by name, or use other’s names with respect when interacting with one another in the classroom. Children need many opportunities to practice these social skills if they are to become habitual ways of acting with one another.

For some children the intense emotional responses evoked by the game can be quite overpowering: to be singled out with all those eyes looking at the one child, all those voices singing the child’s name, all those hands gesturing—‘demanding’ a response. Some more withdrawn children ‘shrivel up’ under the weight of this intensity and are unable to utter a word. Others react with silly movements and flail about to cover up their embarrassment. Still others make facial grimaces that cause the sound of their names to be distorted. Children such as these can learn to move beyond their natural embarrassment by experiencing the same pattern many times. They see the turn coming around the circle towards them, passing through them, and then moving on to the next child. It is this predictability that helps them learn to sustain uncomfortable emotions.

On the opposite end of the emotional spectrum are the children who simply cannot wait for their turn. They become agitated at the slow pace of the game, they get overly excited as their turn approaches, and then, because their ‘time in the sun’ is so
short, they succumb to an unbearable ennui. The restlessness of these children is not
easily dispersed.

Then, there are the children who respond with utter delight no matter what. They
beam with pleasure, say their names so carefully, just to make sure that everyone will say
them properly.

Although the natural focus for most children is having a turn, for me as a teacher,
imbedded in *Bumpety Bumpety Yellow Bus* is the invaluable social skill of practicing
giving turns to one another. In an ordinary size classroom, each child receives a turn only
once in one playing of *Bumpety Bumpety Yellow Bus*, but each child gets twenty, or so,
opportunities to practice looking at another child, gesturing towards another, and
addressing each by name with respect. Singing the names, adds another dimension to the
experience. Each child can say, “Since my name sounds beautiful, I am beautiful.”
Similarly of another, since others’ names sound beautiful, *they* are beautiful and worthy
of my time, my attention, my voice.

Children actually have to learn how to engage in this type of social play. It takes
time. It takes the assurance that there will be regular, predictable opportunities to play
folk song-games, before they can settle into simply enjoying the play. When young
children can count on something happening chances are that over time their emotions
settle and they can begin to look beyond themselves. It is my belief, and my long
experience of working with children and their teachers bears this out, that one of the
surest ways for young children to develop emotional stability is for them to be able to
acquire a sense of predictability about the way life evolves around them.
The reason I am discussing this at such length, is that it has also been my experience that teachers often interpret the agitation of children to mean that a particular game is not an 'appropriate game' for a particular group of children. That truly may be the case. The game may be either too challenging, or too easy for them. But in more instances than I want to remember, teachers will lose heart too soon when a game falls apart. Sometimes the very 'hanging in' over several days gives children the opportunity they need to develop their emotional 'muscle' (at whichever end of the emotional spectrum that need lies) to first learn to sustain, and then come to enjoy the treasures that lay tucked inside the social play that is folk song-games.

**REACHING THE CHILD IN SOCIETY**

When children first come to school usually it is the family that has formed the fundamental socio-cultural context governing their lives. This is most likely the case even for children who spend much time in the day care and pre-school setting. In this next section my intention is to reflect on the school as a socio-cultural context for structuring the type of citizenship necessary to sustain a participative democracy; and specifically to locate folk song-games within this context.

**Culture and yogurt**

In using the word culture I must clearly state that I am not referring to 'high' culture i.e. classical music, visual arts, and drama. Rather, when I use the word 'culture' I am referring to something as natural as yogurt, yet something equally selective as yogurt in gathering the necessary components for growth. In order to grow a tasty batch of yogurt it takes a delicate balance of starter, milk, time and warmth. The ‘culture’ of the
yogurt is all of these functioning in healthy interaction one with the other. Remove any one and the result will not be yogurt.

This ‘homey’ interpretation of the word ‘culture’ has grown out of my lengthy and intense study of folk song-games, which, I have come to believe can help create a classroom culture that nurtures learning, decision making and social responsibility—three essential characteristics for citizens in a participative democracy.

**Song-games as folk song-games**

In traditional usage, the word ‘folk’ refers to the story, music or dance that has been passed on aurally/orally among a people from generation to generation. ‘Folk’ as a descriptor in these instances, refers more to the artifacts of culture (stories, songs and dances) and how they have been passed on, than to the people themselves. Originally this was the way I also interpreted the word ‘folk’. From the late 1960’s through to the mid 1970’s I spent endless hours researching and analyzing folk songs based on this interpretation of the word ‘folk’. I thought that having ‘authentic’ songs was the key to developing a good music education program.

My understanding of ‘folk’ has changed since that time. I still value and use ‘authentic’ songs, but my reason for valuing these songs as key to a good music education program has changed. A different set of criteria for ‘authenticity’ has emerged as a result of observing what happens among children who sing songs in the context of playing folk song-games. Much as insights become clearer during a good lecture as one transparency is layered on another, my idea of ‘folk’ song has shifted from the song to the children. When certain transformations occur among the children singing them, the songs become ‘folk’ songs because of the children singing them.

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74 This interpretation is different still again, from the folk genre of popular music.
Children as folk

A significant characteristic of children as ‘folk’ is that the children know one another. They call one another by name. They know each other’s voices. They know how each other’s minds work and they learn to incorporate this knowledge into the fun of the games. They know the strategists and those with quirky, subtle humor. They know the shy ones and those who are totally out-going. They know those who need time to make decisions and those who are always a step ahead of the game. They know those who need to watch before getting involved and those who need to muddle along in order to figure things out. Knowing these things about one another also adds to the fun. They know those who find it hard to think of an idea and those whose ideas are hard to contain. They know, as well, those who really need a turn and those who happily give their turn away. These characteristics emerge among children as they grow into becoming a ‘folk’.

What seems to be key, however, among children who become ‘folk’ is their overriding desire to continue to engage with one another, to play and to learn new games. Time, and many opportunities ‘to do it again’ seem essential for children who are ‘folk’. As I enumerate these descriptors of children who become ‘folk’, I am conscious that I am not just ‘making these things up’, they are not just creations of an ‘idealist’s’ imagination. These are the characteristics of children at play described by countless numbers of teachers who have observed these attitudinal changes occur among their students.

Memories of actual classroom scenes are in great part what motivate my present search into the reasons why young children, especially children of elementary school age, show such apparent satisfaction when given the opportunity to play folk song-games together in the classroom. Memories cause me to wonder what it is that prompts children
when engaged in this form of social play, to say repeatedly, “Let’s do it again?” or “May I have the next turn?” What is it that intrigues them? What is the culture they are creating? What are these ‘folk’ working on?

**History**

After spending more than thirty years teaching teachers I am aware that as the years have passed by, fewer and fewer teachers have played singing games of any kind in their childhood. We in Canada are now into the third generation of persons who have lived, if not our entire lives, at least most of our lives as citizens of a post World War II, industrialized, technologized nation. It has become apparent to me through my teaching that only elders like myself, or the fewer numbers of younger adults who grew up in rural Canada can recall playing any type of singing games as children. There are fewer and fewer of us who played games, passed from older children to younger, shared aurally/orally, in the neighborhood, school yard or at church picnics and parties. Fewer for whom singing games, as an integral part of child culture, have become internalized in memory. These memories, it is important to note, are not simply a matter of recall, they are body memories that have become constructs of sensory-motor responsiveness, of the

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75 This past winter I was asked to give a workshop as part of a professional development day for elementary school teachers in the Coquitlam School District. It came as no surprise to me to find younger teachers present who had never heard of several of the ‘traditional’ singing games. We had to start literally ‘from scratch’ for them to be able to share the folk song-games with their students.

76 The following is an example of this phenomenon. In June of 1967 following our return from Hungary, Mary Helen taught a course at New York University, Greenwich Village, NY. I assisted her in teaching this course. I had already begun sharing in the search for folk songs and singing games. Within the space of a week we collected more than thirteen variants of the singing game, *Little Sally Ann* from among the participants. These teachers had grown up in diverse, separated neighborhoods in several of the United States as well as Canada, prior to the days of television, prior to the extensive spread of published music series in schools. The words were different in some variants and the tune in others, but in all cases the game was the same. The singing game was learned aurally/orally in childhood neighborhood play.
way we organize our thinking, our language and music. For many of us we retain them as strong cultural referents even to this day.

**Continuity**

Just as the singing games that were *live* childhood experiences for us have endured into our future in the form of our *live* memories, these games are embodiments of *live* experiences of children of past generations. They can be likened to extension chords that transmit socio-cultural energy from one generation to another.

Previously in this writing I have referred to the ‘whole song’ and the ‘whole child’; keeping this notion of ‘wholeness’ in mind and from the perspective of the players, singing games are ‘whole’ experiences of temporality in which the ‘now’ holds the *immediate* past in retention and protends their future as one enduring ‘now’. As socio-cultural ‘artifacts’, singing games themselves hold the *live* experiences of children of former times in retention and pretend their experiences as folk, into the future to create with us a socio-cultural wholeness. Through being played they form one *live* cultural ‘enduring now’. (Bartholomew, 1985, p. 85-88)\(^\text{77}\)

**Historical cleavage**

Although I describe this continuity with a passion, my overriding awareness is that this socio/cultural continuity has been broken for contemporary children. Like an enormous cleaver, World War II thrust itself onto the socio-cultural environment of the so-called ‘developed nations’ of the world. It has caused a rift, a cleavage that has continued to widen. The widening escalated at a relentless pace as we in the west sustained the Cold War and allowed ourselves at the same time to be swept up in the

heady euphoria of economic and technological development. Fifty years is a long time to live through such a dramatic cleavage. One of the results of this social change is that younger adults of today use quite different childhood memories as their social referents for ‘the way things are’ for them.

Bridging the gap

In many ways the situation of our children can be compared with what has happened to indigenous peoples whose younger adults and children have been deprived of the experience of growing up within the oral traditions of their culture. They are now in the position of having to learn these traditions vicariously. In order to do this they must depend on the few remaining elders to share their live memories; memories that are also not just words, but body memories, internalized social ways of being, movements, skills and context. Although learning vicariously in this way is not ‘authentic’ in that the life skills to which these aural/oral traditions were hooked are no longer an integral part of the life style needed to survive, nevertheless, the spirit can still enliven the re-enacting of these memories.

Since becoming involved in teaching folk song-games I find that my task has been more a matter of teaching the games to teachers than of sharing them with children.78 In former times, however, it was children who gathered informally in extended family settings, the neighborhood, the community hall and church, and used

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78 Just two months ago I was invited to a birthday party of the father of one of my neighbors here in Vancouver. There was a young woman teacher at the party who I learned in conversation, was from Windsor, Ontario. She recounted how her mother, a public school teacher, would come home from a course she was taking at the University of Windsor, gather her children (one of whom was this young teacher), and play the singing-games she was learning. This young teacher began singing several of these songs and went on to describe the games. It turned out that I was the teacher of that course. I feel that this is an example of the vicarious embodiment that can still happen today. I was an adult sharing children’s games with her mother, an adult; she in turn shared them with her own children and the students in her classroom; and now a young teacher holds these games as childhood memories and is ready to share them with her students.
these gatherings as occasions for playing together. Today, in the absence of these more
traditional forums for being together\textsuperscript{79}, the classroom has become the only place where
children gather outside the home in a stable social environment; ‘stable’ only in that it
lasts for ten months. The classroom is now the place where children learn skills of
citizenship, where they learn, for example, to sustain responsibility towards one another
in order to see a project through to completion. These socio/cultural ‘learnings’ come \emph{in
addition} to the traditional role played by the classroom as the place of academic learning.

The effect of this has become increasingly noticeable over the last thirty years. I
have become aware of it from being in dialogue with classroom teachers in various parts
of Canada, the United States and Japan.\textsuperscript{80} Whereas formerly, when children came to
school they were expected to \emph{apply} the social skills they learned outside of school, now
the classroom is the place where it is expected that they be \emph{taught} these skills. Teachers
are now being held responsible for both the social and the academic development of
students. The result is that mentoring the social development of children has become a
major source of strain and burnout among elementary classroom teachers.\textsuperscript{81}

\textbf{REACHING THE CHILD IN SOCIETY: EXPERIENCING PARTICIPATIVE

DEMOCRACY}

\textsuperscript{79} To address the question \emph{why} occasions of neighborhood gathering are less usual in our society, would be

\textsuperscript{80} The teachers of English with whom I work in Japan have spoken on several occasions about the fact that

\textsuperscript{81} To document this claim would be a very interesting and revealing study, but it falls outside the

parameters of this present work.
In this next section I reflect on the interdependence of song and game within the one unit of experience, the folk song-game. Of the many perspectives that could be explored, my focus is on the folk song-game as social play and the role it plays for children, not simply in their own personal and social development but also for children learning to live with others in society.

**Folk song-games: A clarification**

In a folk song-game there is no ontological connection between the song and the game. By this I mean that the song can ‘stand alone’ apart from the game and still be recognized as ‘that particular song’. With the game, however, it is different. Apart from the song, the game becomes a different game. (See *Streets and Alleys* and *Our Old Sow* below) This does not mean that the song is unaffected by the game; rather the experience of the song is remarkably enhanced by the game. Between the song and game there is a rich reciprocity, as the diverse qualitative experiences of the game—social/emotional, perceptual/cognitive, music/language experiences—associate themselves with the song, much as multi-colored iron filings cluster around a magnet, the one enhancing the other.

**Governance and law: A distinction**

Just as the game enriches the experience of the song in a folk song-game so does the song influence the game, but more overtly. The song governs the flow of the game, the timing and duration of the events, much as a parent governs the movement of a child piggy-backing on his/her shoulders. The rules of the game determine what events will take place and their sequence. Although the song effects the game in other ways, such as creating the mood and spirit, it is my belief that the close interdependence of song and game, allows children to experience in a very real way the interplay of governance (the
song) and the rule of law (the game), much as these are played out in the functioning of a participative democracy.\footnote{I make this claim with no apologies for not fully developing ideas in support of it. Perhaps the few examples that follow will demonstrate without explanation some of the important ideals upon which participative democracy rests.}

In order to clarify, I will first contrast two games, the one a folk song-game and the other not. Following this I will examine different degrees of the relationship of song to game in two other folk song-games.

It is important at this stage in the development of this argument, to make the point that these games are not simply ‘examples’ of living under governance and law; they are experiences of the actual implementation of these two fundamental principles of participative democracy. Only the purpose for which the action is undertaken distinguishes a so-called ‘real’ game of tag undertaken in the name of democracy, (a war on terrorism, for example) from a ‘play’ game of tag in which children negotiate the balanced relationship of give and take as in a real participative democracy. The fact that \textit{Our Old Sow} is considered to be ‘just a game’ blinds us from recognizing that the principles operating within the human interaction of the game are not ‘just play’.

\textbf{Examples of contrasting forms of governance}

In \textit{Streets and Alleys} governance is placed in the determination of someone other than the players themselves. In \textit{Our Old Sow}, however, governance rests with the song but since the players are the ones singing the song, governance rests ultimately with the players themselves.

\textit{Streets and Alleys: Governance from without}

\textit{Streets and Alleys} is a game commonly played in physical education classes. In this game the children form a grid of however many rows and columns that can be
created by the number of children and the available space. The children in the grid form
the social infrastructure for the game. They establish space between each other by
extending their arms, touching the hands of the persons standing next to them in either
direction. The grid provides the setting for the two children who are the actors in the
game of tag.

The rule for the children forming the grid is that when the teacher blows the
whistle, all face one direction (the streets) when the whistle blows again they face the
other direction (the alleys). There are three rules for those playing tag: they may not duck
under the extended arms of the children in the grid, they may not chase each other around
the room apart from the grid, when one is tagged they change roles. The teacher blows
the whistle three times to signal the end of the game. Each gives the next turn to a child
standing nearest him/her in the grid.

In *Streets and Alleys* although the rules of the game function much as the rule of
law in a democracy, governance remains in the hands of the teacher. The grid of children
form the social infrastructure, the actors in the tag game have limited freedom and
autonomy in making decisions---they can choose to go here or there---but they are unable
to make predictions or reasoned judgments about when they can go. They simply do not
know when the teacher will blow the whistle. Their responses remain at the level of
simple reaction, which makes *Streets and Alleys* an excellent game for practicing
perceptual-motor co-ordination skills, for developing agile maneuverability, and it is
great fun at this level. The one blowing the whistle, however, has full freedom to
manipulate both the game of tag and the rules of the game (the law). My point in
describing this game is to highlight the contrast between the functioning of governance
when it resides in the hands of someone outside the action of the game, and when it is in
the hands of the players, as is the case in this next game *Our Old Sow*.

*Our Old Sow*: Governance from within

*Our Old Sow*

*Our old sow is getting very fat,*

*Ky-mo-ko-mo-kee-mo.*

*Three-foot-two across the back,*

*Ky-mo-ko-mo-kee-mo.*

The folk song-game *Our Old Sow* follows all the same rules of *Streets and Alleys* with one difference. The structure of the song is used to govern the movement of the grid. There are four phrases in the song, so the grid changes with each phrase. ‘The farmer’ becomes the chaser, ‘the old sow’ becomes the chasee.

*Our old sow is getting very fat,* (The grid faces the direction of streets)

*Ky-mo-ko-mo-kee-mo.* (The grid faces the direction of alleys.)

*Three-foot-two across the back,* (The grid faces the direction of streets)

*Ky-mo-ko-mo-kee-mo.* (The grid faces the direction of alleys.)

Transferring governance from the whistle blower to the song ultimately changes who is responsible for sustaining the game. In *Our Old Sow* all the players, both those forming the grid and those playing tag are responsible for keeping the game going. Those playing tag often become so involved in the chase that they are unable to sing during their turn, nevertheless, because they know the song they know when the grid will change.
There interaction with the grid can be quite intentional, thus making it possible to negotiate the game of tag rather than simply react to the whim of the one blowing the whistle. Even as they learn to make quick decisions, they are able to make them based on prediction and strategy. The song as governor raises the game of tag to a whole other level of human engagement, in actual fact it transforms *Streets and Alleys* into a totally different game.\(^{83}\)

*Circle Left: The song as governance*

Whereas in *Our Old Sow* the phrases of the song are used as the norm of governance, in the three following examples, the lyrics of the song function as norm. In the first game of *Circle Left* the rules of the game are: to do what the words say, to begin when the song begins, and end at the cadence. As in *Our Old Sow*, the players sing the song, but rather than using the phrases as norm, in *Circle Left* it is the lyrics that determine the actions. The governance of the game is still in the hands of the players as in *Our Old Sow*, but in *Circle Left* the players are more vitally engaged in deciding what the lyrics (and actions) will be. In the second game of *Circle Left*, the connection between the lyrics and game is even tighter. In addition to the lyrics determining the actions, the pattern of repetition of the lyrics (determined by the phrase structure of the song) become

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\(^{83}\) Over all these years I have sometimes experienced a certain dismissive attitude from some teachers (not all, of course, but always some) with regard to the value of using folk song-games in school. These teachers have been known to say that the children of today have access to so many more sophisticated forms of play, and have so many more curricular requirements than formerly, games such as these have no place in today's classrooms. Even in Hungary in 1967, singing games were not used above the primary grades.

These experiences compel me to relate the following conversation that took place at a meeting of teachers on February 11, 2002; it's about *Our Old Sow*. A certain music teacher from an inner city public school told us how she had used the song *Our Old Sow* from kindergarten through grade seven in her teaching that day. The game for the young ones was a simple crawling /rolling movements of 'old sows' enjoying the cool mud of the pigpen. In early primary grades, the streets and allies retained their positions for the whole song rather than having to change on the phrases. Finally, when she described the grade sevens, she told of how they transformed *Our Old Sow* from a chasing tag to one of strategy and prediction. Her comments came as unsolicited affirmation for the longevity of the game. Even for today's 'sophisticated' grade seven children, it was as much a form of participative learning as for the children of thirty years ago.
the norm of governance of the actions. This means that the players have even greater opportunities to assume the governance of their own activities.

**Circle Left: The lyrics as governance**

| T. | “We join hands and make a circle for this game. The words of the song will tell us what to do. I’ll sing it, but of course, you join in as soon as you think you have figured out the pattern.” |
| T. | “Just do what you hear...Ready?” |
| T. | “What does the song tell us to do?” |

"Circle left..."
"...but we don’t all know which is left!"

---

**Circle Left: a second grade classroom scene**

- The teacher sings the "ready" on the same pitch as the starting pitch of the song
- There is probably a very short time lag between the children hearing the song and doing what it says. The circle begins to move. Things become quite untidy in this initial response, even at this age, so that by the end of the song everyone settles into laughter and the movement trickles off at the end of the song.
“Let’s check what you heard.”

The confusion in the movement may have been caused by the fact that some children may not be sure of the difference between left and right. Others ‘know for sure’ and spontaneously show this once they realize what the song is telling them to do. Minor chaos often follows because what some ‘know for sure’ may be that left is right and right is left!

In order to help the children sort out left from right, the teacher continues:

T. “Everyone hold up the hand you use to write with. Take a look around. Most of us are holding up our right hands, but there are a few who write with their left hand.”

T. “Sean, you are one of them.”

“Will you please lead us towards the left this time?”

“That’s the direction we want to move!”

T. “Ready...”

Circle left, do-oh-do-oh!
Circle left, do-oh-do-oh!
Circle left, do-oh-do-oh!
Shake your fingers down!
T. “Did anyone hear the song tell us to do something else?”

T. “Let’s check by singing the song all by itself. We’ll sing it once or twice before starting the game again.”

T. “Ready?”

T. “Now, what do you think? Does the song tell us to do anything else?”

T. “How shall we do that?”

T. “That should work. Let’s try it this time.”

T. “Voices ready? Here we go...”

| Circle left, do-oh-do-oh! | Circle left, do-oh-do-oh! |
| Circle left, do-oh-do-oh! | Circle left, do-oh-do-oh! |
| Shake your fingers down! | Shake your fingers down! |

One child frees his hands from those on either side and makes a generous movement, raising his hands above his head and wiggling his fingers as he shakes his hands down to the floor.

The children sing the song, move the circle to the left, and insert the child’s movement idea into the final phrase.

The children simply sing the song so that they can focus on the words.
T. “Up until now we’ve been singing only the one verse, ‘Circle left...’”

T. “Is there some other direction the circle can move?”

T. “Let’s try that!”

“Circle right...!”

Circle right, do-oh-do-oh!
Circle right, do-oh-do-oh!
Circle right, do-oh-do-oh!
Shake your fingers down!

T. “Any other ideas?”

“The circle could go ‘in’!
“...Up!”
“...Down!”
“...Round!”

T. “You’ve lots of ideas!”

T. “Let’s try ‘circle in.’”

“Ready...”

Circle in, do-oh-do-oh!
Circle in, do-oh-do-oh!
Circle in, do-oh-do-oh!
Shake your fingers down!

T. “Oh! Oh! What’s happening here?”

The children refine their skills; learning to wait until the song starts before moving; to stop before the fourth phrase, face into the center and insert the finger-shaking idea, and finally, to stop at the end of the song.

After singing the words ‘circle in’ three times the children find themselves in a very tight cluster in the center. With much laughter they take up the challenge and sing and circle to the left.
“Do you think we can manage ‘Circle left’ in this tight cluster?”

Circle left, do-oh-do-oh!
Circle left, do-oh-do-oh!
Circle left, do-oh-do-oh!
Shake your fingers down!

With each new idea the children perform their learning of space, position in space, movement, balance, sequence, prediction, problem solving and all manner of ways of being together in society.

Circle Left: Lyrics extend the domain of governance

On another day when playing the game Circle Left again, the teacher might extend the song-to-game connection still further. In the former playing of Circle Left the lyrics remained the same for the first three phrases. The children had time to get their movements aligned with the song. The following game is an example of using the phrase structure of the song to change and sequence both the words and movements more quickly. Imagining the words without singing them is also used as a tool of the analysis.

“How many times do we sing the words, ‘circle left’ in this song?”

“Think the song in your inner hearing and check it out.”
<table>
<thead>
<tr>
<th>T.</th>
<th>“Remember to try not to take others thinking time away from them. Hold on to your own idea until everyone has had a chance to listen to the song in their own minds.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.</td>
<td>“Well, what do you think?”</td>
</tr>
<tr>
<td>T.</td>
<td>“Let’s check it together.”</td>
</tr>
<tr>
<td>T.</td>
<td>“Here we go …”</td>
</tr>
<tr>
<td>T.</td>
<td>“So, what do you think? How many “circle lefts?”</td>
</tr>
<tr>
<td>T.</td>
<td>“Let’s try antiphonning it the other way around this time.”</td>
</tr>
<tr>
<td></td>
<td>Much has to be in place before the teacher can pose a task such as this to the children. It is one thing for children to know a song well enough to sing it. It is quite another skill for them to have developed an auditory image that allows them to think and analyze the song. This process entails the use of many skills, the most obvious of which is auditory memory.</td>
</tr>
</tbody>
</table>

| | “Three times!” |
| | Circle left, X-X-X-X |
| | Circle left, X-X-X-X |
| | Circle left, X-X-X-X X X XX X |

| | If the children are able to do as the teacher suggests, it is a sign that they have developed an auditory image of the song as a whole, and an image of the group singing the song as a whole. Otherwise they would not be able to keep together. |
T. “Sing the ‘circle left’ in your inner hearing and sing everything else aloud!”

XXX do-oh-do-oh!
XXX do-oh-do-oh!
XXX do-oh-do-oh!
Shake your fingers down!

T. “Now for a new game challenge!”

T. “What if, instead of performing one movement for all three times, we do three different movements?”

T. “Any ideas?”

We could go circle left, circle right, circle left...

Circle left, do-oh-do-oh!
Circle right, do-oh-do-oh!
Circle left, do-oh-do-oh!
Shake your fingers down!

T. “Let’s do it!”

“We could go ‘right’, ‘left’, ‘right’...”

This type of antiphonning involves working between two auditory images. It takes just as long to imagine the song as to sing it aloud. Since the children are used to singing the song aloud together, they can be guided to develop this more intense, two-track form of ‘listening’ to one another. Listening to others requires more than a simple use of the ears; it’s a matter of being visually attentive to body language as well. The listening challenge posed to the children by this task requires a conformity that is quite different from imagining the song together while someone keeps the ‘steady beat’. In this latter case everyone conforms to something exterior to themselves; in the former, they are ‘listening’ to the image of the sound of the group. Both forms of listening are useful, but they engage quite different types of listening and imagining as well as a different engagement with one another.
| T. | “Indeed we could!”
    | “Let’s try that!” |
|----|--------------------|
|    | Circle right, do-oh-do-oh! |
|    | Circle left, do-oh-do-oh! |
|    | Circle right, do-oh-do-oh! |
|    | Shake your fingers down! |
|    | “What about ‘in’, ‘out’, ‘in’?” |

<table>
<thead>
<tr>
<th>T.</th>
<th>“That should work!”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Circle in, do-oh-do-oh!</td>
</tr>
<tr>
<td></td>
<td>Circle out, do-oh-do-oh!</td>
</tr>
<tr>
<td></td>
<td>Circle in, do-oh-do-oh!</td>
</tr>
<tr>
<td></td>
<td>Shake your fingers down!</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T.</th>
<th>“Oh! Oh! Here we are—all stuck down here in the middle!”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Up’, ‘Out’ ‘Left’!”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T.</th>
<th>“Great idea!”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Circle up, do-oh-do-oh!</td>
</tr>
<tr>
<td></td>
<td>Circle out, do-oh-do-oh!</td>
</tr>
<tr>
<td></td>
<td>Circle left, do-oh-do-oh!</td>
</tr>
<tr>
<td></td>
<td>Shake your fingers down!</td>
</tr>
</tbody>
</table>

The children often forget to predict what will happen as a result of their suggestions, or in some cases, they make the suggestions deliberately, just for the fun of experiencing what they have predicted in their imaginations! In this case the children find themselves at the end of the third phrase all scrunched up together still facing the problem of having to raise their hands above their heads, shake their fingers and swoop down to the floor on the last phrase.
**Darby Town:** Lyrics change the form of governance

In *Our Old Sow* the phrases of the song are the norm of governance. In *Circle Left* the lyrics of the words become the norm in that what is done is determined by the words. In the second game of *Circle Left*, the norm governing the actions is determined by the structural patterning of the lyrics. In the following folk song-game *Darby Town*, while the lyrics still function as the norm of governance, the connection between the game actions and the lyrics of the song is different in that what takes place arises from the players interpreting the meaning of the lyrics.

In order to explore this, I invite you to imagine with me once again as I reconstruct the memory of an actual class of fifth grade children that I taught in Columbus, Ohio, sometime in the late 1970’s.

**Darby Town:** Lyrics as governance

While I was teaching a course in Columbus, I had occasion to visit and teach in several of the schools. They were amazing structures, each the commissioned work of a different architect and each with its unique design. I mention this because of the design of the windows in the school I was visiting that particular morning. They were tall, each reaching from ceiling to floor, giving the feeling that the foliage of the surrounding deciduous trees were present right there in the classroom. It was a sunny fall day and the movement of the leaves outside dappled sunlight on the surface of the natural wood floors. It was a fifth grade class and we were standing in a circle ready to play.
Darby Town

As I went down to Darby Town,
'twas on a summer's day,
I saw the finest ram, sir,
that ever was fed on hay.

And if you don't believe me
and think I tell a lie,
Just you come down to Darby Town,
and see the same as I!

Tra-la-la-la-la-la-la-la,
Tra-la-la-la-la-la,
Tra-la-la-la-la-la-la-la,
Tra-la-la-la-la-la,
Tra-la-la-la-la-la-la,
Tra-la-la-la-la-la,
Tra-la-la-la-la-la-la,

Before starting the song, I had stepped into the center of the circle.

T. Has anyone any idea what this game is about?

Child 1: "Well, it's a summer day."

Child 2: "A guy's going down town?"

I turned to the right and started to sing.

As I walked around the inside of the circle near the children, I caught their eyes as I passed by.

On the words "I saw the finest ram, sir, that ever was fed on hay..." I stopped in front of the child nearest me, faced the child and made exaggerated gestures to describe this extraordinary ram.

As I sang, "And if you don't believe me and think I tell a lie...", I pretended that I saw disbelief in the child's eyes. So as I sang "Just you come down to Darby Town and see the same as I..." I took the hand of this 'reluctant' neighbor and lured him into the circle.

On the "tra-la-la's..." we skipped together, hand in hand, around the inside of the circle.
By the time we neared the end of class, all the children were singing, all moving, gesturing, pretending disbelief and reluctance as the persuasive neighbors drew them into the circle. Finally, it was time to forewarn the children that the next turn would be our last. My partner was a blond, tousled-haired boy. To this day I remember the thrill of skipping with him; he floated in the sunlight as we sang our last ‘Tra-la-la-la!’ When the song stopped he turned to me, and with face flushed from exertion he said: “I could just f-e-e-l the warm breeze blowing through my hair that time!” The image of that child and the intensity of the abandon with which he entered into the experience remains with me to this day.
Varying degrees of engagement in governance

In the first game of *Circle Left* the words say what to do. In the second game of *Circle Left* while the words continue to govern the actions, the structural patterning of the words (which happens also to correspond to the phrase structure of the music) is used to create an even tighter correspondence of actions to words. With each change of phrase there is a change of words and actions. In *Darby Town*, however, the connection of action to words is a matter of dramatic interpretation. The scope and variety of expression is limited only by the time allotted to each idea by the lyrics of the song.

In all three cases the governance of the rules of the games resides with the players themselves because they are the ones singing the song, they are the ones acting out the meaning of the words. The song provides not only the temporal framework for *when* and *how long* each movement lasts but it also sets the spirit and mood of the movements. These games are examples of the symbiotic relationship between governance and law that the children can explore 'performatively'. Just as in making a participative democracy 'work', for these games to 'work' each player must assume responsibility for carrying out the law within the spirit of governance for which they also assume responsibility. The same principles apply in each instance.

Recapitulation

The time has come to return to the metaphor of unraveling. Up to this point in my narrative, I have found several threads ready to be loosened from the 'matted wool and wound back to the point that to pull any harder would cause them to break'. Each of these threads has had its own distinct color, but were closely knit together during these thirty
years of inquiry. I have identified my own long-lasting orientation as a teacher of music 'concepts'. I have told how we needed to change the sequence of 'concepts' as a result of our research of English language folk songs. I followed the thread of our search for the whole song and how, after the form book experience it led us to realize "...that for children, the 'whole song' is both words and music..." (p. 77 in this document). I recounted how our search for more effective ways to teach songs led to the development of a corpus of folk song-games. I told of the 'confrontation' of the acoustic structuring of English with Western music notation, and how solving this problem led to the development a repertory of intermediate 'notations'. I shared how classroom teachers helped us at every turn to understand that the folk song-games, teaching/study techniques and intermediate notations were effective ways for educating the whole child through music.

It is now time to pick up the 'matted lump of wool' and loosen still another thread of inquiry, specifically the thread dealing with the connection between singing and speaking, between the words and music of the songs. This connection is so clearly obvious to me today, but it took several vastly different experiences and many years of trial and error working through ideas with children and teachers, to arrive at this clarity.
THE WHOLE SONG: LANGUAGE AND MUSIC

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle and after loosening that, all goes smoothly for the next little while...

In this section I will again pick up the historical narrative of our work with three different groups of students: the deaf, Mien refugee women, and students of English in Japan. Each of these contributed to our understanding of the connection between singing and speaking in ways that were connected but inherently different. Finally, I will conclude this section with a reflection of my own on a song as a prosodic event.

The deaf

In the public schools of San Mateo County, California in the 1960's and 1970's, there were three distinct schools of thought concerning the education of the deaf. These differences were reflected in the way classes for the deaf were organized. In some classes the curriculum was taught exclusively through signing; in others they used both signing and speaking; and in still others they used only speaking. The intention behind the latter was to prepare the deaf children to be able to function competently in a hearing society.

Mariam Allen was the classroom teacher in one of these orally based classrooms for the deaf. Although she was a speech pathologist, Mariam was much happier using her specialized knowledge to help students learn the curriculum rather than simply helping them learn to speak.

84 This terminology is not appropriate usage in classrooms today; but in the 1960' and 1970's, the time of which I write, the word 'deaf' was common usage. See Allen, M. (1974).
The steady beat

One strong assumption that Mariam had about teaching the deaf to speak was that the children must learn to keep a steady beat in order to pace the articulation of words and phrases properly. Mariam found that this was a very challenging task. Her students were very capable of keeping a beat steady so long as there was a visual model to follow; but take the model away, and they were lost. It was because she was struggling with this that Mariam decided to attend a workshop on *Threshold to Music*. It happened to be one of the first workshops that Mary Helen gave in the San Francisco Bay area shortly after the publication of *Threshold* in 1964.

For Mary Helen and Mariam it was the beginning of a remarkable collaboration between two remarkable educators. When I came to live in California in 1969, I was received into this collaboration with a very warm welcome.

I remember visiting Mariam’s classroom one day; to my surprise, she was alone. “Where were the children?” She had sent them out to run around the school building three times! When they arrived back in the classroom, short of breath and showing signs of a good strong heart beat, Mariam had them sit at the table, place the fingers of one hand lightly against the pulse in their neck and then with the other hand tap their heartbeat on the table. She found this to be very effective for helping her students learn what it meant for a beat to be ‘steady’. From this they learned to make a steady, evenly paced, downward gesture with one hand while they practiced saying words and phrases.

Shortly after this visit Mary Helen visited the classroom; I was not there. She and Mariam were chatting during recess when one of the older boys came up to Mariam and addressing her, said four syllables, each with a separate, downward gesture, just as he had
learned. To Mary Helen’s amazement, Mariam immediately reached in her pocket and gave him the key.\textsuperscript{85}

A flash of insight

When the boy had left, and after looking at Mary Helen’s puzzled expression over what had just transpired, Mariam had a flash of insight. “Look what I have done!” she said, “No wonder you couldn’t understand what was going on!”

“No ordinary speaker would gesture that way when saying, “Give me the key!”

As she said the words she gestured downward with her hand in front of her chest, one stroke for each word:

**Figure 5.1. Beat Gesture**

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\ & \ & \ & \ & \ & \ & \\
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\end{align*}
\]

Give me the key

There is only one gesture to the phrase, ‘Give me the key’!

“Watch---” she continued, and repeating the statement, ‘Give me the key’ several times, she made only one gesture with each repetition. The gesture ended each time on the word, ‘key’.

**Figure 5.2. Language Stress Gesture**

\[
\begin{align*}
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\ & \ & \ & \ & \ & \\
\ & \ & \ & \ & \ & \\
\ & \ & \ & \ & \ & \\
\end{align*}
\]

Give me the key Give me the key Give me the key Give me the key

“We’ve got to find a better way!” she exclaimed.

\textsuperscript{85} This story became one of the ‘legends’ that Mary Helen recounted time and again over the following years because of its significance to the development of our work with the deaf and subsequently our work in language.
In the following quotation from her book, *Dance of Language* Mariam Allen (1974) describes what eventually became that ‘better way’:

...Speech has often been taught, sound by sound, syllable by syllable, and phrase by phrase. The result has been quite stilted and unintelligible. Rhythm has also been taught, but if the rhythm of each word is taught, that rhythm may change when the word is incorporated into a sentence. If the rhythm of each sentence is taught, the memorization job becomes too large...

By using the (song) experience games...teachers can gather many aspects of speech and language into a combined whole. The child learns to use his body rhythmically by responding naturally to traditional games, songs and poetry of childhood. As he is doing this, he is learning visual-motor perception and coordination, in addition to establishing a basic sense of rhythm. Learning to feel rhythm in this manner can be fun, so it can be learned without tension often associated with learning speech. Once a child has learned to feel and has internalized many rhythm patterns, these patterns can be linked to language rhythms...(p. 5)

Following the experience with the key, Mariam began teaching her students to play dozens of folk song-games: *Johnny, Hold your Hand Up; Come and Follow Me in a Line; Did You Ever See a Lassie; Cickety Clack; Sally Go Round the Sun; Row, Row, Row Your Boat; Puncinella.*

The deaf students did not sing the songs as hearing children do; they accompanied the movements of the games with a paced babbling-type vocalization that became clearer and more defined as they repeated each game day after day. Mariam’s voice was enhanced electronically, as was the students’ hearing with electronic hearing aids. With the help of this enhancement, something of the sound became ‘the song’ for them. Based on what they conserved, they developed a sound-to-movement association with each game, each particular sequence of positions and postures, and for facial expressions and

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87 At the time of publication of this text, what I have now come to call folk song-games were called song experience games.
gestures. Week after week, Mariam guided them through an extensive repertory of folk song-games.

Holland

Sometime during this period Mary Helen and I visited the Ruewenberg Boys School in Sint Michielsgestel in the south of Holland. Mariam suggested that we do this because she knew of the school’s fine reputation for using music to teach their students to speak Dutch. We spent several days observing the curriculum and methodology used in the school, and in addition we had many opportunities to speak to instructors and the director.

In one of these conversations the director said, “The deaf don’t hear sound, but they do perceive it.” This comment stayed with me because the director was speaking about this as we were observing high school boys performing a ballet. The floor on which they were dancing was made of reinforced concrete rather than wood; this, the director pointed out, was precisely to avoid the vibrations of sound being transmitted other than through the medium of air. The whole conversation was startling to me because never before had I entertained the possibility that ‘there is more to sound than meets the ear’.

Among the many remarkable things we learned at Sint Michielsgestel, two became very important in our work in Mariam’s classroom. First, the systematic organization of the patterns of words and phrases of spoken Dutch that they had developed; and second, the most extraordinary and systematic way they had structured the students’ engagement with these patterns.

Each phrase was set to a tune composed to replicate in both melody and rhythm the way the phrase was usually spoken. The students learned to play these phrases on
flute-like instruments, as well as on the keyboard of small wind-organs. Both of these instruments had been especially designed to engage the students' breathing as it would be naturally engaged when speaking those words or phrases. In addition, they had developed a system of dance-step patterns consisting of single and double steps to match the stress/unstress relationship of syllables within phrases. When these were danced simultaneously with vocalizing the phrases, the movement 'forced' the phrases into their proper shape.

**Back in California**

When we returned to California we were full of enthusiasm; eager to put into practice what we had seen in Holland. Our enthusiasm was soon tempered, however, by the limitations of the public school budget. Of all the things we shared, the one thing possible that captured Mariam’s imagination, was the possibility of organizing English into language rhythm patterns. She saw immediately how such an organization might help her students. It was not long before all three of us were totally involved in the task.

**Counting**

Mariam’s students were learning to count aloud in their speech class. As she listened to them: “One” “Two” “Three” … “Seven” “Eight” “Nine” “Ten” “Eleven”… she recognized that the same patterns of articulation occurred in the counting as occurred in many phrases commonly used in the classroom. She also noticed that these patterns could often found in easy-to-hear places in the songs—at the beginning, the end, or the cadence of phrases. When she shared this with us, Mary Helen and I became totally intrigued. The following example may add some clarity.
Puncinella


**Puncinella**

*Oh, look who’s here, Puncinella, Puncinella!*

*Look who’s here, Puncinella from the zoo!*

*Oh, what can you do, Puncinella, Puncinella?*

*What can you do, Puncinella from the zoo?*

*Oh, we can do it, too, Puncinella, Puncinella!*

*We can do it, too, Puncinella, from the zoo!*

*Oh, who do you choose, Puncinella, Puncinella?*

*Who do you choose, Puncinella from the zoo?*

These are the lyrics of a folk song-game that Mariam’s students dearly loved to play. In this game ‘Puncinella’ stands in the center while the children form a circle around him/her. The circle moves when the song starts, the children gesturing towards ‘Puncinella’ as they sing: *Oh, look who’s here, Puncinella, Puncinella! / Look who’s here, Puncinella, from the zoo!* As the song moves into the second verse: *Oh, what can you do, Puncinella, Puncinella? / What can you do, Puncinella, from the zoo?* The circle stops and the children watch as ‘Puncinella’ performs a movement for all to see. It might be jumping jacks, or knee bends, or a simple tap on the nose. Everyone imitates the idea while singing the third verse: *Oh, we can do it, too, Puncinella, Puncinella! / We can do it, too, Puncinella, from the zoo!* During the last verse, the circle moves around ‘Puncinella’ once again: *Oh, who do you choose, Puncinella, Puncinella? / Who do you
choose, Puncinella, from the zoo? Meanwhile, ‘Puncinella’ covers his/her eyes, and with finger extended, spins around in the direction opposite the movement of the circle. Everyone stops on the final cadence. ‘Puncinella’ opens his/her eyes, and ‘following his/her finger’ walks towards the child that ‘the song chose’ to be the next ‘Puncinella’.

The word ‘Puncinella’

The word ‘Puncinella’ occurs twelve times in the game sequence described above. When the children know how to play the game well, when there are few interruptions to the flow, it takes approximately one minute to complete one sequence. In five turns (although the children are usually reluctant to stop after so few) the word ‘Puncinella’ is repeated sixty times. Although the repetition itself is very significant, the way the vocalization occurs is noteworthy as well. With each repetition, the word is ‘forced’ into its proper shape by the song; in addition, because the word is sung, the use of breath energy is enhanced in each repetition. This enhancement applies whether the children are actually ‘singing’ or simply babbling a vocal line. These two considerations were an important part of the rationale for using music at Sint Michielsgestel in Holland.

A puzzle

In our case the word ‘Puncinella’ took on a significance of its own. In order to see this, please perform the following challenges:

1. Repeat the word ‘Puncinella’ several times; pace the repetition evenly.

2. Substitute each actual syllable of the word with the simple syllable ‘do’ (this is the schwa, a reduced vowel sound that closely approximates the sound ‘uh’). Imagine that you are saying ‘Puncinella’, but articulate it as: ‘do do da do’ ... that is, four
syllables with the stress on the third. Repeat this pattern several times; pace each set evenly as before.

These two steps make up one part of the puzzle. The next two steps make up the other part:


As you move into the twenties, “Twenty-one” ‘də də də’, “Twenty-two” ‘də də də də’, ‘Twenty-three’ ‘də də də də...’ can you hear that one of these ‘twenty’ numbers sounds like ‘Puncinella’ or ‘də də də də’...?

4. If you heard that ‘Twenty-seven’ ‘də də də də də’, matches ‘Puncinella’ ‘də də də də də’, you found the one that fits! Check it out by saying,

‘Twenty-three’ ‘də də də’, ‘Twenty-four’ ‘də də də’,

‘Twenty-five’ ‘də də də’, ‘Twenty-six’ ‘də də də’,

‘Twenty-seven’ ‘də də də də’, ‘Puncinella’ ‘də də də də’,

‘Twenty-seven’ ‘də də də də’, ‘Puncinella’ ‘də də də də’.

Mariam spent her days surrounded with the sound mixture of the babbling and articulate speech of her deaf students. There must have been something about the quality and patterning of those sounds that set her up to recognize that the same patterns occur in the counting sequence as in the songs. Of course, we were all ‘on the hunt’, so to speak; but whatever it was, this insight became, what in the words of Peter Senge (1990), could be described as a “...moment of high leverage”. (p. 64) From that moment on, we three

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collaborators totally immersed ourselves in the task of trying to take advantage of the connection between singing and speaking and finding ways to explore that connection.

**Language rhythm ‘families’**

One day when Mary Helen and I visited Mariam’s classroom, the walls under the two chalkboards were completely covered with brown wrapping paper. Two of the older boys were busily writing, each on his own separate paper; a competition was underway. Their challenge was to see which of the two could collect the most ‘twenty-seven’ words or phrases. The game had been running for several days, and when we arrived the boys were each adding new words to their lists: ...Michael Jackson; Mrs. Allen; California; San Francisco; San Mateo; What’s the matter?; Turn the lights on; I don’t want to; avocado; sweet potato; fresh tomato; Let me see it; Merry Christmas; Happy birthday; Hold your hand up; Where’s the candy?; I can’t hear you; I’m all finished; Where’s my jacket?; In the basket... (As you read this list can you hear ‘Puncinella’ ‘dō dō da dō’?)

The other students were sitting in a cluster in front of the lists of words. They were checking each entry to see if it fit:

*Oh, look who’s here, Michael Jackson, Michael Jackson!*

*Look who’s here, Michael Jackson, from the zoo!*

//

*Oh, look who’s here, I don’t’ want to, I don’t’ want to!*

*Look who’s here, I don’t’ want to, from the zoo! ...*

**Categorizing language rhythm ‘families’**

Over the months that followed we collected and categorized patterns of language rhythms, placing them in ‘families’. We used the numbers of the counting\(^89\) sequence as

\(^89\) It is an important point that the choral chanting of counting aloud be used as the norm. In other contexts the stressed syllable is often changed. For example, “thirteen” is stressed “thir-teen” in the counting
‘family names’; for a ‘family’ with no corresponding number, we used the names of the months of the year (July and January); and in some cases we created names (eleventy and twenty-seventy).

Mariam observed from her daily work with her deaf students, that many phrases in ordinary speech fit into thirteen ‘families’ of language rhythm patterns. These are: ten, seven, seventy, January, July, eleven, eleventy, twenty-one, twenty-seven, twenty-seventy, seventy-one, seventy-seven, one hundred and one.

**Working with language rhythm ‘families’**

Finding the patterns was only the beginning; developing study techniques and ways of working with them was still another challenge. We developed dance-step patterns for each of the families; these were similar to those we had seen in Holland. We also developed individual hand clapping patterns and partner clapping routines. As the children ‘sang’ the song, it became the ‘sound track’ onto which they overlay these patterned movements. Substituting words as well as the movements became games in themselves, tongue twister games. Since the children had already conserved both the numbers and the song, they had only to concentrate on the one task of getting the new words to fit. It was a time of happy social interaction for the children, a time for practicing sensory-motor and articulation co-ordination. We knew that things were ‘working’ for Mariam Allen’s deaf students when they were able:

- to say the numbers in the stream of counting (this was something they had already learned to do in speech therapy.)

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sequence, but in other contexts it is often pronounced “thir-teen”. “Seventeen” is sometimes stressed on the first and sometimes the last syllable, whereas “seventy” never changes. In order to check whether a number fits, go back to the way the number sounds when counted aloud in the counting sequence.
• to speak the patterns as they occurred in a song (see the phrases in bold type in the following examples)

• to accompany the number ‘families’ with hand clapping patterns. (Allen, p. 39)

• to substitute words and phrases into the number ‘family’ clapping patterns, as well as into the songs (pp. 67-70; the account on p.140 of the dissertation)

• to map songs and locate the number ‘families’ on their maps. (pp. 54-58)

For us, it was a time of trial and error, of organizing and re-organizing, of sorting and re-sorting. We threw away many more ideas than we kept but the following are a few examples of ones that ‘worked’ for Mariam’s students:

a) *Come and follow me in a line, in a line.*

*Come and follow me, we will stop like this!*

>//

*Come and follow me twenty-one, twenty-one.*

*Come and follow me, twenty-one like this!*

//

Other twenty-one words and phrases: up the hill; to the store; Mr. Smith; have a seat; make your bed; look at that.

b) *Did you ever see a lassie, a lassie, a lassie?*

*Did you ever see a lassie go this way and that?*

*[Go this way],[and that way],

*[And this way], [and that way],

*Did you ever see a lassie go this way and that?*

//

*Did you ever see eleven, eleven, eleven?*

*Did you ever see eleven go this way and that?*

*[Eleven],[ eleven],

*[Eleven],[ eleven],
Did you ever see eleven go this way and that?

//

Other eleven words and phrases: my brother; the donkey; an apple; Maria; Old Grumbler; the farmer; together; banana; potatoes.

c) Old Grumbler was dead and lay under the ground, [Under the ground], [under the ground].
Old Grumbler was dead and lay under the ground, Way high up!

//

Old Grumbler was dead and lay seventy-one, Seventy-one, seventy-one.
Old Grumbler was dead and lay seventy-one, Way high up!

//

Other Seventy-one words and phrases: hold out your hand; Mr. O'Neill; please take your seats; open your books; go to the store; let's get some lunch; over the sea; Jonathan Smith.

Nonsense syllables

Mariam seriously questioned the wisdom of teaching deaf children words that they would never use in ordinary speech. We could all see the value for them of using numbers in the counting sequence, “But when,” Mariam asked, “would a deaf child have to say, ‘Hickety Tickety bumble bee’, or ‘A-rig a jig jig’?” These were valid objections. She also questioned the value of inserting the numbers and word phrases out of context, such as ‘Old Grumbler was dead and lay seventy-one’ or “Look who’s here, I don’t want to, from the zoo!”

Our doubts soon evaporated, however, when we looked at the children and their joyous response to what they were doing. They loved the games, the hand clapping, the
partner work, the word substitution, the feeling of the nonsense words; and we were not sure why.

I have come to believe that the patterning of the sound itself had a ‘meaning’ of its own for them. Maybe it was the shape, maybe an acoustic coherence that we hearing people take for granted. The principal of the boys school in Sint Michielsgestel in Holland had said, “The deaf don’t hear sound, but they do perceive it.” Maybe it was the feeling of forming words in their mouths that the students enjoyed, much as we see infants playing with the feeling of making the sounds of language. Mariam’s students enjoyed the ‘sense’ of recognizing the patterns of sound. They enjoyed inserting these patterns into the flow of the song much as children enjoy putting together the pieces of a puzzle.

Criteria: Shift from meaning to sound

We began to step back from imposing criteria based on whether or not words would be ‘useful’ to deaf children and whether the referential meaning of words ‘made sense’. We selected words and phrases simply as patterns of sound; if it turned out that the words made ‘sense’ that was just an extra bonus. We launched with abandon into singing: ‘hicky tacky bumble bee’s’, ‘clickety clack’s’, ‘ky-mo-ko-mo key-mo’s’, ‘oh my lilio’s’, ‘swing a lady ump-tum’s’, ‘hi ho the derrio’s’, ‘do-oh do-oh’s’, ‘toe-roll-de-rye-doe’s’ and any number of other nonsense syllables that rippled along in the folk song-game repertory.

We watched the children’s responses. We watched to see if they could select the patterns accurately within the flow of the song. We watched to see if they could manage the sensory-motor co-ordination needed to put movements, or other words onto selected
patterns of sound. We watched to see if they enjoyed the many and varied study activities. Most importantly we watched and listened for carry-over into other classroom situations, or other areas of curriculum. If what we saw affirmed these criteria, those were the songs, and language rhythm patterns, and study techniques that we retained and worked with.

By 1974 things were clear enough for Mariam to write about them in her book *Dance of Language* (1974). Some things have changed since this publication, especially in the area of notating the rhythm ‘families’ in Western music rhythmic notation, but the core ideas have remained in tact. (See the story of dots and dashes pp.157-160 in this document.)

### Notating language rhythm patterns: A problem

One of the biggest problems facing us (not the children) was trying to notate the language rhythm patterns. Western music notation did not work. The notation was simply not flexible enough, and if accurate, it was mathematically too complex.\(^9\) As an example of this complexity examine the following possibilities among many, for notating a ‘seven’ pattern:

\(^9\) We did find that the reverse process was very effective. By that I mean using the language rhythm patterns to interpret the performance of music notation. Singing certain patterns of notation as language rhythm patterns added a dimension of musicality to the performance that was not easily attained from reading the notation itself. This application, however, had nothing to do with our work with the deaf.
Figure 6. Several Notations for the ‘Seven’ Pattern

After the publication of *Dance of Language* our first move away from music notation was to represent each language rhythm family with patterns of squares, empty squares for the unstressed syllables, a filled in square for the stressed syllable. Classroom teachers found this system quite useful. So for a few following years ‘Apartment Blocks’ such as the following, popped up on the chalkboards of many classrooms of the teachers studying with Mary Helen and me during the 1970’s.

Language Rhythm ‘Family’ Apartments

Figure 7. Language Rhythm Family Apartments
The mentally handicapped

Simultaneously with the work we were doing with Mariam, Mary Helen and I were going back and forth regularly to south-western Ontario. In those early days one classroom teacher who contributed perhaps more than any other to the growth of our understanding of how folk song-games effect the general learning of children, was Margaret Wharram.

When we met Margaret in 1970, she had just accepted a new position as a music teacher in the hospital school for the mentally handicapped at Cedar Springs, Ontario. This was after she had spent several years as a classroom teacher in a country school in southwestern Ontario. Margaret had a special gift for being able to deconstruct any particular learning task, for being able to sort through the various factors involved in the task, isolate the essentials, and then re-build or replicate it. She had a remarkable instinct for how things fit together sequentially. She nudged her students along the way by reconstructing the process with steps so tight and logical that the various tasks made sense to them and they could do it themselves. Mary Helen and I observed Margaret’s classes at the hospital school over a period of several years; it was like watching the learning process through a microscope. An inner logic held things together so that her students could move through tasks with competence and independence. The result was that her students could ‘play their way’ as ‘folk’ through the learning process. In innumerable ways, Margaret’s teaching changed the way our own teaching evolved.

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91 This terminology is not appropriate usage today, but in the 1960’ and 1970’s which is the time of which I write, ‘educable’ handicapped, ‘non-educable’ handicapped were in common usage. Margaret’s students were the educable handicapped residents in the Cedar Springs Hospital School for the Mentally Handicapped in South Western Ontario.

because when things made sense to Margaret’s students, they invariably made sense to other students as well.

One contribution made by Margaret and her students warrants being described in more detail because implications drawn from this insight have had such far-reaching effects in the way we\textsuperscript{93} have come to teach both music and language. It is related not so much to the development of folk song-games as to the more general sequence in the learning process.

Margaret, like most of the teachers in our courses, and like Mary Helen and I\textsuperscript{94} believed that it was the beat that held music together. We believed that the first music concept that must be taught is the steady beat. In fact to this day, you can examine the curriculum of any music program and in one form or another, it will say, “The children must be able to maintain a steady beat.”

\textbf{From beat to rhythm}

One day as Mary Helen and I were observing in Margaret’s class, she was struggling to bring the students to an understanding of the beat so that they could express it in movement. I do not remember exactly what she was doing, I only remember that at one point I leaned over to Mary Helen and whispered, “Take a look at the children’s movements, I think they are feeling the rhythm rather than the beat.”\textsuperscript{95} As we continued to watch, we realized that yes, this was what was happening. The children were moving

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\textsuperscript{93} The network of teachers gathering at the courses Mary Helen and I taught, as well as those who became teaching assistants.

\textsuperscript{94} See also Mariam Allen, p. 132 in this document.

\textsuperscript{95} In the songs of folk song-games the easiest way to experience the difference between the rhythm and the beat, is to sing the song and walk as you sing. If you tap your hands on each step you take, your tapping will be even and will usually fit with the song. The regular, even ‘steady’ step is a beat. If, however, as you sing a song, you take a step on every syllable in every word, the effect will be quite different. You would be stepping the rhythm. The rhythm usually matches the articulation of the syllables in these songs, it is a variety of long and short steps, is irregular and uneven, but it also fits with the song.
more to the rhythm than to the beat. After class we mentioned this to Margaret. She did
not believe us, but agreed to check it out. In her next class with those students, she taught
as if it were the rhythm rather than the beat that was 'holding the music together' for
them. It was an extraordinary experience to see the change in their response; their
movements though not perfect were far more accurate than previously. What did this
mean? Simply put, I feel that it meant that those students were more 'tuned in' to the
words of the song than to the beat. Since the rhythm in these songs is in a one-to-one
relationship with the syllables of the words, in music terms, it meant that the students
were more able to externalize the rhythm than the 'steady beat'. This was like a
revelation to us and it, along with everything else that was going on at this time, triggered
a 'revolution' in the way we taught from that time on.\(^{96}\)

The Japanese connection

During the winter of 1978, Professor Tadahiko Inagaki of Tokyo University was
on sabbatical at Oberlin University. Mary Helen and I had come to teach a course at the
Oberlin Conservatory of Music that same year. Professor Inagaki was the first Japanese

\(^{96}\) This event of noticing Margaret's students' response and making this connection was another example of
our 'stumbling onto' an insight while we were actually looking to do something else. It is only in retrospect
through a reflective unraveling, that I see its significance. If children learn to sing a song, by that very fact
the beat (not only the beat selected as the norm for organizing the notation, but several other beats as well!)
\textbf{must be present} in that performance. I have come to see that having children learn to keep 'the steady
beat' has more to do with their learning to group written notation than with learning that the song has 'a
steady beat'. Or if it is a matter of performance, it may be that keeping 'the steady beat' is a matter of
learning to conform to a referent outside the song in order to keep together with others when the
performance is too complicated for them to do it themselves. How many times do we see pictures in music
instruction books of little children with their short legs learning to conform to the beat of a teacher's drum.
If left to themselves, chances are that the children could sing the song with the teacher, walk with evenly
paced steps (unless they have legs of uneven length) but their beat would be different from the teacher's.
There are any number of 'steady beats' in a song. The point of the story of Margaret's students is that it
was the rhythm that they were able to replicate more accurately than the beat. If the song is sung 'the' beat
(the beat for organizing the notation) and several beats other than that beat are already functioning in the
singing of the song.
scher to attend one of our courses. Upon his return to Japan he included a chapter on *Music Games*\(^97\) in the publication of his year’s research.

**A research project**

Akiko Inagaki, Professor Inagaki’s wife, along with their two young sons, accompanied her husband to Oberlin. Akiko, a linguist and scholar of English language education, had previously made a study of how their two young sons had learned to speak Japanese. She decided that this year of sabbatical would be a perfect opportunity for her to make a similar study of their learning to speak English. Although a fluent speaker of English, she determined not to influence her study in any way by speaking English in her sons’ presence. Akiko kept meticulous records of the vocabulary and phrases she heard her sons use during the course of the school year; upon returning to Japan she analyzed the data.

**Analyzing the data**

Although I have never read the published results of Akiko’s study, in conversation many years later Akiko told me of how she became intrigued at what she was finding in her data. She mentioned such things as ‘circle left’ and ‘here we are together’. She was also conscious of the fact that her sons always used prepositions and articles, something she knew to be deeply problematic for Japanese learning to speak English. Most of all, she noticed when listening to the boys speak that they *sounded* English even after returning to Japan.

\(^97\) This was a book which he later showed me but which I unfortunately have never been able to read. I know, however, that it received an award in Japan that year as one of the top ten publications in the non-fiction category.
Follow up

Akiko went back to Oberlin. She wanted to check on what seemed unusual findings. She visited all the elementary schools in the city, including the two her sons had attended. She gathered details about the curriculum and instructional practice in each school. What she found was that there were no significant differences among the schools except for one thing. In the schools her sons attended, the music teachers used music games as an integral part of their music instruction. In the case of the younger son, his classroom teacher also used music games every day as part of his language instruction program. All three teachers had taken the course that Mary Helen and I had taught at the Conservatory.

When she returned to Japan Akiko published a book about her research. She made a strong case for the value of using music games as a basis for English language instruction. As a result of this publication, many Japanese teachers of English began to gather around Akiko.

First visit to Japan

In 1980 Akiko invited Mary Helen to come to Japan; the invitation was extended to include me. That was the beginning of a long period of collaboration that has extended to the present day. Mary Helen and I were the first of many teachers from Canada and the United States to work with Akiko both in Japan and on this continent. At first we taught the teachers Akiko had gathered and then through them our teaching has extended to a network of teachers all of whom use music games in their Japanese language classes.

98 There are now several formal groupings of teachers in Tokyo, Nagoya, Osaka and Fukuoka City under the title English EdVentures in Japan. For almost twenty years, members of these groups have come to North America to take courses and attend workshops and conferences. But more importantly they meet together in their respective locations once a month during the school year. They sponsor courses in Japan in
As a result of our ongoing and open exchange of ideas, my understanding of English and its acoustic properties has been greatly deepened. I have come to understand more clearly: what it means when we say that English is a stressed language; how important it is for children as learners-of-English that they sing songs which ‘hold’ the acoustic properties of oral English in tact. Particularly, I have come to value the codification of the stress/unstress patterns that were developed in our work with the deaf.

It has been the teachers of English in Japan, more than any other group of teachers who have used the stress/unstress patterns consistently in their teaching. They more than those of us who already speak English understand how the hand clapping techniques, the number family names, the various forms of notating the patterns that have evolved over the years, help children acquire an ‘ear’ for English. It is they who have also been systematic and consistent in using these techniques; so they have a ready vocabulary to represent stress/unstress relationships in groups of English words, or syllables. In order to demonstrate this I will describe a situation that occurred only recently.

Stress/unstress ‘families’: Tools of self-help

Seven young Japanese women have come to live with me in Vancouver. They have come to ‘live in English’ while studying English at various language schools in the greater Vancouver area. Two of these young women accompanied their mother as very young children when she attended one of our summer courses at the University of Windsor and both participated in the Observation of Children class during that course. the summer and workshops in the spring of alternating years. Their goal as a group of teachers is to mutually enrich one another’s teaching practice through sharing. The story of English EdVentures in Japan warrants a complete dissertation in itself. What these teachers have done can serve as a model of teachers-helping-teachers in ongoing professional and personal growth. In this writing I can discuss only a few of the nuclear ideas as they relate specifically to my own work.
Back in Japan they also studied English in their mother’s studio. They know dozens of folk song-games and they know the meaning of the number patterns and how to use them. Having these young women stay with me has proven to be a splendid opportunity to interact with persons with whom I have ‘tools’ that we share in common.

A common frame of reference: Practical application

One afternoon, Makiko, one of these young women and I were driving along West 10th Avenue looking for a particular street address. As we drove by, she read the streets signs in typical Japanese syllabic fashion: “Tla-fa-ga”. (Trafalgar)

“It’s an ‘eleven’, Makiko.” I said in support of her efforts.

After briefly turning the sound over in her imagination, “Tld-faa-gd,” she said, the stressed syllable beautifully elongated, and relaxed schwa’s on either side.

I could hear ‘Trafalgar’ very clearly even though the ‘r’ and ‘l’ were left unaltered.

We continued driving along.

“Ma-ku-do-na-r/lu-do!” This ‘English’ word rippled off her tongue with the fluency of familiarity.

“Wow!” “What’s that?” and I quickly turned my head to read the sign.

“MacDonald Street!” I exclaim. “What did you say?”

“Ma-ku-do-na-r/lu-do,” she laughingly replied.

“That’s another ‘eleven’! Can you figure it out?”

99 The sound (sometimes written as ‘r’ and sometimes ‘l’) sounds like a combination of both that is really neither when spoken. I have solved this difficulty for myself by writing both ‘r’ and ‘l’ as ‘r/l’.

100 This is a typical example of what we came to call ‘Japanish’. It is very common to take common English words or names and then say them according to the rules of Japanese phonetics and syllabication. ‘Ba-r/lan-ti-a’ (When shaped as ‘twenty-one’ becomes ‘volunteer’); ‘Be-i-su-bo-r/lu’ (When turned into a ‘ten-ten’ spondee, becomes ‘base ball’); ‘Fu-r/lo-r/le-tto’ (This complexity of syllables, when spoken as a ‘July’ becomes ‘Fleurette’).
Once again she took a moment to work it out in her inner hearing, and then she said, “MacDonald”, six syllables compressed like magic into three with the stress placed perfectly!

What I found from experiences such as this is that Makiko and I share a common frame of reference. I do not have to model the pronunciation of words and phrases by actually saying them; all I do is provide an oral/aural model of the pattern, and from that she constructs the pronunciation herself. The hand clapping patterns express the loud/soft relationship among groups of syllables; these verbal patterns model the loud/soft relationship also, but in addition these verbal number patterns model the relative duration and vowel energy among syllables. Makiko and I have played with many words and phrases this way. She is able to shape the sounds of words based on the auditory image of the patterns she has learned.

**From ‘language rhythm patterns’ to ‘stress/unstress patterns’**

In our original work with the deaf, we (Mariam, Mary Helen and I) named the codification of stress patterns, ‘number families’ or, ‘language rhythm patterns’. Our focus at that time was on the fast/slow relationship, or the relative duration of syllables in words, and words in phrases. We tried to write the patterns by using music rhythmic notation. This notation gave no indication of the loudness of a sound except as notes occur in relation to the bar line. In this notation the stressed note is the one immediately following the bar.

In our work with the Japanese we had a different emphasis. Placing stress on syllables is a major difficulty for Japanese learning to speak English. In order to emphasize this change of focus we renamed the number families, ‘stress/unstress
patterns'. To notate intensity, we devised syllable blocks (See Language Rhythm Family Apartments, p. 153 in this document) but in this instance, the blocks gave no indication of relative duration among the syllables. The filled in blocks showed the added weight of stressed syllables; the unstressed syllables were left empty. It was only later in our work with the Mien refugee women that we would find a way of pulling together both duration and stress in a written symbol.

Teaching English as a second language

In the fall of 1980, Mary Helen underwent major surgery for cancer and from that time until her death in 1999, her direct involvement in teaching courses and developing materials was greatly curtailed. At the time of her surgery we were still riding the wave of excitement over what we had learned in Japan, happily that wave proved strong enough to sustain Mary Helen’s enthusiasm to stay involved even while undergoing chemotherapy and radiation. We had learned so much from working with the deaf. In addition the teachers in Japan had affirmed many of the study techniques we had developed in our work with the deaf. Seeing their response gave us the confidence that we could ‘try our own hands’ at teaching English.

The Mien women

Our first challenge was to find a class to teach. Mary Helen’s husband, Professor Cedric Richards of Stanford University, researched the adult ESL classes throughout the San Francisco Bay area. With the help of this network of educators we were able to gather a group of thirteen Mien women, refugees from the hill country of Laos. They were living in San José at the time. We arranged for a woman of their own community to care for the children in the same building where we were teaching the class. For two
years Mary Helen and I, along with our friend Laurel Luebs from Palo Alto, gathered from 1:00-3:00 on Monday and Thursday afternoons of the weeks I was not away teaching. Our project had begun.

Working with the Mien women turned out to be an unexpected gift in ways too numerous to mention, but it proved especially valuable in furthering our understanding of the process of acquiring literacy. On one occasion a professor of anthropology from San José State University visited our class. He was researching this community of refugees because they were among the few immigrants coming into the United States whose language had never been written. He explained that this meant that the Mien were a pre-literate\textsuperscript{101} rather than an illiterate people.

Our experience in working with the Mien women was that in many ways they shared challenges that were similar to both the deaf and our own young children learning to read and write. The startling thing in the case of the Mien women was that although they could hear, they did not realize that writing was connected with the \textit{sounds} of the words we were saying.

We knew that they did not know English words and their meaning; that is why they were coming to English language classes. What I did not realize for the first few classes was that because they had no previous experience of literacy itself, they did not yet realize that a written symbol codes the \textit{sound} of a word, not what the word refers to. They did not realize that the connector between what I wrote and the meaning of what I wrote was the \textit{sounds I was speaking}. (The sounds I was speaking, of course, had no meaning for them either.) That the written word had no meaning in itself as a ‘thing’ on

\textsuperscript{101} ‘Pre-literate’ as distinct from ‘illiterate’—illiterate refers to those who belong to a literate society but continue to be unable to read and write; pre-literate refers to those whose language has not been written down.
the page was not clear to the Mien women in the beginning. The following episode was very significant in helping me realize this.

Chun Lieuhm

The Mien women like many other Asian peoples had difficulty pronouncing ‘l’ and ‘r’. My name ‘Fleurette’ was particularly troublesome for them to pronounce. By the same token, I found it almost impossible to get my tongue around the pronunciation of their names. My difficulty was compounded by the fact that I was trying to decipher the sound of their names from the spelling ascribed to them by the immigration officers. Chun Lieuhm’s name was a case in point.

During one of the sessions I was teaching a name game. Chun Lieuhm and I were having a tough but humorous time trying to pronounce each other’s names. As we were bantering back and forth, I went to the chalkboard and while saying each name I wrote it in dots and dashes. I did not write the spelling:

Figure 8. Stress/Unstress: Dots and Dashes

- -  - -  
(Chun - Lieuhm)  (Fleur - ette)

As soon as I did this, a response of recognition rippled through the room. They chatted among themselves about something they were clearly recognizing as new. I knew that it was not because they suddenly realized that I was ‘Fleurette’ and she was ‘Chun Lieuhm’, that had long since been established. Something else had clicked into place that
altered the flow of their response. There is no way to know what really happened for them at that moment, I only know that something changed.

In subsequent years as I have used the dots and dashes consistently with children, teachers here in North America and in Japan, and as I have seen how readily participants in my classes associate sound to symbol when using them, I have reflected on that class with the Mien refugee women. This is what I think might have happened for them. They heard the obvious contrast between the sounds of our two names. They saw that despite the differences in the sounds of the names, the written pattern represented something about them that they recognized as similar. It was at that moment of recognition that the women made the sensory/cognitive connection that writing represents sounds. In the immediacy of the simultaneous speaking and the writing, in the absence of a time lag between hearing the sounds (that were so different and referred to two different people) and seeing that the same pattern of dots and dashes applied to something about the sound that they recognized—it was this convergence that bridged the literacy gap for them.102

Dots and dashes

The big question for us was, what was it about the dots and dashes that made this happen? What made it possible for the women to bypass ascribing meaning to the actual writing and connect it to the sound? What of the sound is represented by the dots and dashes? What was the difference between the dots and dashes and the stress/unstress blocks that we were using with the deaf and other teachers were using with the children in their classrooms?

102 It is my cherished hope that some day research can be carried out to test this hunch.
Speech, gesture and writing

As I remember back to that moment and the movement I was feeling in my body as I wrote the two sets of dot/dash for my and Chun Lieuhm’s names, I have begun to make another connection. I believe that in writing the dots and dashes I expressed the gestural, body movements that accompanied my speaking of the words. Even as I type and say ‘Fleurette’ and ‘Chun Lieuhm’, I am aware of an ever so slight movement forward in my head and body, my eyebrows arch ever so slightly; and these movements end on the syllables '-ette' and '-Lieuhm'. My body performs a minutely orchestrated dance of gesture and stance as I speak the words.

According to Leonard Shlain\textsuperscript{103} (1998) in his book, \textit{The Alphabet versus the goddess: the conflict between word and image}, “...Gesture is such a vital component of speech that it is nearly impossible to have a conversation without it. In some cases it is the more expressive mode. Anyone asked to describe a spiral staircase will inevitable accompany the spoken answer with a corkscrew motion of the hand...” (Shlain, pp. 40-41)

In this light it is conceivable to imagine that making the dots and dashes became an extension of my gesture. It is likely that as I stood before the Mien women my gestures were exaggerated as I struggled to pronounce and express our names. It is likely that I performed a \textit{gestural dance} to the sounds of the names as I spoke them. The Mien women felt it, saw it, and heard it; the dots and dashes expressed it as I wrote on the chalkboard. In addition, the dots and dashes remained there to represent what they had

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{103}] Shlain, L. (1998). \textit{The Alphabet versus the goddess: The conflict between word and image.}
\end{itemize}
\end{footnotesize}
seen and heard. It was a meaning we felt, but a meaning of which neither they nor I were conscious at the time.\textsuperscript{104}

In another quote from Shlain, he describes the connection between speech and gesture:

To speak, we need the cooperation of both hemispheres of the brain, and we use both areas of the retina, and we employ both hands. Although speech is generated primarily from the dominant left brain, articulation requires the activation of muscles controlled equally by both hemispheres. Retinal cones and rods both engage when we speak and listen; in many instances, the listener's eye gathers more about the meaning of the speaker's message than does his ear. Gesture is also a bicameral activity with both hands participating. Their role varies, depending on the emotional content of the conversation and the ethnic background of the speakers, but gestures are always present. (p. 40)

Writing as we know it, is also generated primarily by the dominant left brain. (Shlain, p. 40) As both articulation and gesture require the activation of both hemispheres, I am convinced of the possibility that gesture, extending into dots and dashes, also requires the activation of both hemispheres.

Linear writing usually happens after the fact; speech is framed in the present. In the case of the dots and dashes, all three modes, speech, listening and writing, were ‘framed in the present’.

\textsuperscript{104} Prior to the experience of this class, Mary Helen and I had tried different ways of writing the stress/unstress relationship between the syllables in words and words in phrases. (Stress as the loud/soft relationship) was the relationship we were focusing on both in the number families, the hand and partner clapping games and in writing.) The following are examples of what had become the form most used by teachers:

\begin{verbatim}
Fleur-ette
Chun-liuhm
\end{verbatim}

Although the squares expressed the different ‘weight’ of the stressed and unstressed syllables, they were drawn and filled in after the words were spoken. The squares were not connected with a bodily gesture.
From dots and dashes to mapping

Once the Mien women recognized that writing represents sound\(^{105}\), they were able to understand what we were doing when we started placing words and phrases into categories and groups of patterns. In addition, they were able to understand what it was they were doing when we had them map songs. Mapping, that is primitive mapping, (See p. 76) was their first experience of writing. From mapping we moved right into cursory writing; we even used certain songs to track the flow of making the letters. We carried on class by class, playing folk song-games, mapping songs, hand clapping, stepping, and writing the stress/unstress patterns, playing word substitution games and locating patterns and word phrases on the maps.

Another look at intermediate notations

Using dots and dashes to represent the stress/unstress\(^{106}\) relationship in sounds was quite different from the phonics/alphabet connection we had been struggling to teach the Mien women. Alphabet writing is a totally learned, laid-on process, a matter of arbitrarily superimposing one system (a representative system of writing) onto another (a phonetic system)\(^{107}\). Music notation, as theory-bound as it is, comes closer to looking like the

\(^{105}\) For the Mien women who had no experience of writing the language they spoke (because their language had not been committed to writing), that a symbol is connected to the sound of the spoken language (something basic to the writing of English) totally passed them by. They neither knew the sound, nor the symbols, nor that those were the two things being connected. Capturing this fundamental insight was what seemed to free them to write. Making the further association of the referential meaning of the symbols of writing was something that came about through the experiences of classes.

\(^{106}\) It was at this time that we changed from calling the speech patterns 'language rhythm patterns', to call them 'stress/unstress' patterns. We stopped struggling with trying to write them in the rhythmic notation of music.

\(^{107}\) There is no connection between the look of 'a' and the sound of 'a' in the words cat, after, all, above.
sounds it represents. The stress family blocks we used with the deaf and children in classrooms, although they represented the loud/soft relationship in word patterns, were drawn after the fact of speaking the words. Only the dots and dashes seemed to bring together in simultaneous confluence, the sounds, the movement, and the visual in written symbol. In this way the dots and dashes resemble primitive maps (See p. 77 in this document), they are different, however, in that they represent some of the specific acoustic features of the sound.

Dots and dashes, a second look

Dots and dashes as symbols, I now realize, represent visually many of the acoustic properties that converge to create the stress of English. The dash takes longer to make and looks longer than the dot; the stressed syllable is always given more time in relation to the unstressed syllables. There is ‘more’ to the dash than to the dots; the stressed syllable always has a fuller vowel than the unstressed syllable. Conversely, the dots, because they are smaller, can be interpreted as showing the reduced, less full vowel sounds of the unstressed syllables. In a remarkable way, the dots and dashes seem to capture these several acoustic properties of the stress/unstress relationship in English speech. This may account for the fact that the Mien women seemed to ‘understand’ the dots and dashes so readily.

Speech patterns as prosody

When Mariam Allen recognized that the same patterns of articulation occur in the sound patterns of counting aloud, in the folk songs, and in ordinary conversation, she gave voice to an insight that, in the light of ensuing developments, was quite remarkable.

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108 The up/down movement of notes on the staff (graph) evokes the association of the up/down movement of sounds. Many notes grouped together indicate many and faster sounds more readily than single unattached notes.
In her case the immediate effect was that her deaf students gained competence in speaking. In our case (Mary Helen's and mine) the number patterns pushed us forward along the path in our search for more effective ways of 'notating' the sound of spoken and sung English and of interpreting music. In my own case, working with the numbers and the stress/unstress patterns supported my growing appreciation of the connection between singing and speaking, as well as a deepening realization of the music in oral language and conversely, the language in music. Mariam's insight led to my coming eventually to realize:

- That, contrary to what I formerly thought, stress, or accent is more than the relative loudness and softness among syllables.
- That stress is more than relative variations among the fundamental frequencies or vocal pitch of syllables.
- That stress includes more than variations in the formant energy that create the varying timbral qualities of vowels.
- That stress is more than the relative duration of syllables or words.

The stress/unstress patterns include all of these.

In codifying stress/unstress patterns, first as number families, then as language rhythm patterns, and finally as stress/unstress patterns, we have codified models of prosody (See p.190 in this document). We have codified tools that children can use to improve their ability to perceive, cognitively process and produce the patterned sounds of both music and language.
Literacy as it relates to our children

Print surrounds the children of our society. They see people reading books and newspapers, and people read books to them; they see words in advertising and on the computer screen. Despite this inundation with written language, I have come to believe that in many ways very young children (and some children well into primary grades) are like persons of a pre-literate society whose principle perceptual field of language experience is sound. I also believe that initially it is the sound of oral language that children learn to associate with the referential meaning attributed to words. Language-as-sound is principally what children perceive and process cognitively well into elementary school years. If this is so, then what this could mean for elementary age children is that during the years prior to their having established the phonetic/alphabet connection as literate thinkers, they continue to be aural thinkers because for them language is an oral experience. If this is really the case, it would seem all the more important for children in our present society with its fierce drive towards alphabet literacy, that they be given many opportunities to learn from experiences similar to those that were so helpful to the Mien women.

Our children even more than ever, need opportunities to experience the enhanced patterning of the acoustic properties of their language; they need to sing songs that hold those properties in tact. They need many opportunities to engage in forms of writing that express the movement and gestural connection between the sound of speaking and the feeling produced by the sound. They need opportunities to map songs and poetry, to transcribe stress/unstress patterns into dots and dashes. Our children need opportunities to express in writing the meaning and flow of the sound of language. As was the case with
the Mien women I believe that having these opportunities will enhance the acquisition of literacy in elementary age children.

**SINGING SONGS AND STUDYING MUSIC: A DISTINCTION**

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle. After loosening that, all goes smoothly for the next little while...

**A perspective from the past**

When I began this journey of inquiry some thirty years ago, the statement “It is good for children-as-learners to sing songs together in the classroom every day”, is something I would say as spontaneously as, “It is good for children to play every day.” I had no idea how searching out reasons in support of this belief would fill so many years of inquiry. That it is good for children-as-learners that they simply sing songs every day is not something generally believed by contemporary educators.

Although I would now qualify this belief statement even further to read, “I believe that it is good for children-as-learners to sing songs together every day in the classroom in the language of instruction,” my primary focus still remains with children whose mother tongue\(^{109}\) is English. My hope is to develop an argument that supports my

\(^{109}\) The issue of non-native speakers will be taken up in a later writing. I hold that it is similarly good for them to sing songs in the language of instruction, but for these children the songs seem to be put to a different ‘use’. It would seem that for these children the songs support the process of acquiring a new language. For native speakers, however, singing songs enhances and confirms in a special way the processes in which they are already engaged as they function in the sound of language.
belief so that it is to children's benefit that they sing songs in the language they already perceive, cognitively process and produce as their mother tongue.

Although I am a music educator, this thesis is not about the formal study of music. In my view there is a distinction between 'singing songs' and 'studying music.' These two processes, though complementary, engage children differently; the one (singing songs together) can become a context for the other (studying music) but it is my belief that singing songs together has value for children-as-learners in and of itself. Singing songs may, but need not, lead to the formal study of music.

In former times\textsuperscript{110} (by this I mean roughly the second quarter of the last century, from the 1930's through the 1960's) it was a generally accepted practice in Canadian schools that classroom teachers sang songs with the students in their classrooms. There was nothing special about this, no justification was needed. Only Kindergarten teachers were required as part of their teacher preparation to be able to play the piano.\textsuperscript{111} In the case of other classroom teachers they would invite us children to sing as naturally as they would fling open the windows and summon us to an energetic round of jumping jacks. Singing songs was something we did as transition from one activity to another. It was a normal activity, a way of bringing fresh energy into the classroom. We might sing song-parodies for learning rules of grammar, math facts, history dates, the rivers and lakes of the St. Lawrence system. It was something we did simply because it felt good to sing and because it was still generally accepted that we could remember facts better if they were put to song.

\textsuperscript{110}I am not only a music teacher, but a senior citizen as well; this gives me a distinct advantage in speaking of 'former times'!

\textsuperscript{111}When I was teaching piano I taught several of these young women attending normal school who were preparing to be Kindergarten teachers. They had to pass Grade VI Toronto Conservatory piano exams to be accepted!
From ‘former times’ to the present: A contrast

In contemporary classrooms singing songs has become less and less a ‘natural’ occurrence. It is not unusual today for children to go through school without ever singing a song, especially in schools that have no music teacher. The reasons for this are many and diverse, but I believe that one significant reason is the commonly held belief that singing songs is ‘teaching music’. Teaching music requires special training and it should therefore be left to the music specialists.

My hope in writing this thesis is to shed the light of a different perspective onto the practice that was just ‘taken for granted’ in the ‘old days’. My reason? To enrich the lives of today’s children with the daily practice of singing songs in the classroom. It is something like our use of electricity; we turn lights on and off every day, but most of us take for granted the infrastructure of the field of electrical energy that makes this possible. Singing is another whole field of energy that if tap into it by singing songs, can enhance both the lives of children-as-learners as well as their study of music and language. This is my belief.

Bridging the belief gap

A few years ago I was invited to give an in-service workshop to the entire staff, Kindergarten through grade seven, of a local elementary school. Their music specialist had been cut and the staff needed help in meeting the fine arts requirements of the Instructional Resource Packet (IRP) recently released by the Ministry of Education for the province of British Columbia. It was in early November, at the peak of what had been the most glorious fall we had enjoyed in years. The school was surrounded on three sides

\[112\] I also believe this to be true.
by a mixed forest of deciduous and evergreen trees. The following is a loosely constructed reconstruction of a metaphor I shared at the beginning of the workshop.

**Songs and Leaves**

...The leaves have been particularly magnificent this year, probably because of our dry summer, but how could this effect what goes on in our classrooms? In Kindergarten, maybe the children could collect and arrange leaves, identify their shapes and colors. The grade one children might draw, color and cut out leaves. In Grades 2, 3 and 4, they might move into identifying and naming, categorizing, charting the function of leaves in the life cycle of trees. Possibly in Grades 5, 6 and 7 the children might move into photosynthesis, track the effect of light on the growth and color of leaves, they might examine how leaves fit into the general ecology of a bioregion. I really do not know the curriculum in the various grades; I was just brainstorming with myself to create a list of possibilities.

One thing I do know, however, is that the more a teacher is fascinated with leaves, the more s/he learns about them, that much more will the topic of leaves pop up in all areas of the curriculum in his/her classroom. Teachers automatically make cross-curricular connections in their teaching, no matter what the grade level...

**Making connections**

...Now, to my connections! I have come to see that children's songs and leaves have much in common. Children’s songs are as fundamental to the ‘ecology’ of music, language, perception, cognition and the social development of children, as leaves are to the ecology of our natural environment. In fact, with regard to leaves, because of over-exposure to commercial technologies, they have become especially important for us at this time of heightened air and soil pollution. Leaves are essential in earth’s ability to maintain a healthy balance in the air as well as a healthy balance in the topsoil. Similarly, at this time when the cultural environment of our children is so afflicted with over exposure to commercial technologies and social alienation, I believe that singing songs together is of particular importance for helping children maintain a healthy balance in their classroom learning environment...

...The up-shot of these musings is that I make no apologies for the songs we will be singing during this short workshop. They are old, simple songs, the language is archaic and the social situations that gave rise to them are out-dated. These songs are as simple and natural as leaves. It will not surprise me if the songs are not familiar to you, I am finding that as the years pass, fewer and fewer teachers have learned
them. I have also found that they are easy to learn even for those who consider themselves to be non-singers.

...The question is why bother with songs like this? This is a valid question and one I hope we will reflect on during these next couple of hours.

The workshop

As we moved into the activities of the workshop, we played the folk song-game, *Rig-a-Jig-Jig* before the break. This song is an adaptation of an old sea chanty. I was careful to share different variants of the game so as to demonstrate that game activities can be changed to accommodate differing levels of development and social maturity among students. Following the play we moved into small groups for discussion and sharing of ideas.

Prior to the workshop I had selected excerpts from the *Instructional Resource Packet (IRP) for Fine Arts* and written them on the chalkboard. My hope was that in discussion the teachers would make connections between what we had just experienced and the content of the document, but it did not work out that way. They did not mention the IRP's. Instead, the ‘upper grade’ teachers were quite forthright in suggesting, among other things, that everything, the songs, the movement and the social engagement was entirely inappropriate for the level of sophistication of their students.

It did not surprise me when these teachers did not return after the break. Nine or so others of the teachers of the younger grades, did return and we continued on until the end of our scheduled time. I had mixed feelings as I left the school but I had offered to help any who might want to continue.
Following up on the workshop

A few days after the workshop, I received a phone call. The voice on the other end said:

"There are two of us teachers who would like to learn more. Would you be able to come? I am embarrassed to ask because we're only two."

I inquired, "How many children will be reached by those two teachers?"

"Forty-three."

Judging from her comments as we continued to talk, something had clicked for these two teachers during the workshop. They had 'gathered some leaves' and had tried some of the ideas with their students. The response of the students intrigued them, but they realized that they needed more help in order to continue.

That was all I needed I agreed to meet with them, and we did so once a week for the next few months.

But there is a sequel...

As we were getting ready to leave at the end of one of our sessions, one of the teachers wanted to show us the display table which her teaching assistant had prepared. It was a seasonal display in which many exquisitely illustrated books about trees were placed tastefully on a table among arrangements of dried leaves. It was beautiful.

When I entered her classroom, however, I have to admit my attention was drawn immediately towards the outside. Her classroom was practically inside a forest of deciduous trees. The artistic display paled before the vibrant fall colors. I did not intend to be blunt; the question just burst out of me,

"Have the children been out exploring among the real leaves?"
“No!” But her ready answer was immediately followed with ---“Oh,o,o!”

At the time, I picked up from her expression that she had remembered the workshop and the need for children to ground their initial encounters with print in many live, sensory experiences. This was a topic we continued to explore in connection with singing and speaking language and the need for young children to connect print with the prior experience of the sound of their speech.

Conclusion

Singing songs together in the classroom is as real an elemental engagement with sound, as releasing children into the glory of autumnal colors is an elemental engagement with light. There is no further reason needed for either engagement than to do it for the sake of itself. This is my belief. After years of reflecting on this engagement with sound, I have come to the point at which I am now able to articulate notions that confirm this simple belief and which are grounded in reason.

THE NATURE OF A SONG

The position I take is that a song is a coherent acoustic wholeness, a ‘thing’, a music and prosodic\textsuperscript{113} event. I take the further position that certain songs are especially suitable for use by children-as-learners. We can examine separately each of the above descriptors of a song (coherence, acoustic, music, prosodic, and event), but it is their interconnectedness, especially as this interconnectedness occurs within certain songs, that makes those songs particularly compatible for use by children-as-learners. My intent is to

\textsuperscript{113} “...prosody will be defined as the suprasegmental features of speech that are conveyed by the parameters of fundamental frequency (perceived primarily as vocal pitch), intensity (perceived primarily as loudness), and duration (perceived primarily as length). The term suprasegmental indicates that the phenomena of interest are not confined to phonetic segments. In fact, they often are observed over much larger intervals—syllables, words, phrases, sentences, and even discourses.” (Kent, R. & Read, C. 1992, p. 149)
address these qualities separately but also as interrelated, thus clarifying what I feel is the nature of a song. I will ground my considerations in philosophy (metaphysics specifically as expressed through grammar, and phenomenology) psychology (specifically as it relates to perception and cognition) and natural science (specifically as it applies to acoustic analysis).

**A song as ‘thing’**

We have little difficulty identifying a chair as ‘a thing’. Recently I asked a class of university students who are preparing to become high school teachers, “Is a chair a thing?” Their response was a unanimous and unhesitating, “Yes.” When I asked them a similar question about a song, their response was not only not unanimous, but even for those who could consider that a song is a ‘thing’, their “Yes” was tentative and couched in several qualifiers. I noticed their hesitation, and asked them to say more about what they thought a ‘thing’ was. The conversation was casual and thoughtful. They mentioned such points as that a ‘thing’ is whole yet has parts which stick together, that it is separate from other things. As we examined their ideas we found that in each case, what they said about a chair could also be said of a song. They ended up agreeing that in calling a song ‘a thing’, we are referring to something that attains a wholeness (albeit, an acoustic wholeness), to something that is a physical phenomenon because it consists of moving molecules, to something that has identifiable boundaries both as to length and texture, to something that has parts which are subsumed into its wholeness and yet are inextricably related to one another. Nevertheless, despite these characteristics which are common to both song and chair, we still perceive a certain nebulosity in a song, we still hesitate to call a song ‘a thing’.
A song as physical coherence

Despite what appears nebulous or transient in a song, I have come to quite a different understanding of a song’s physical properties through performing an acoustic analysis (See Appendix II, p. 219) of the recorded sound of children’s voices singing and speaking the words of a song. This analysis was made using *Computerized Speech Laboratory* (CSL), a digitized acoustic analysis program developed by Kay Elemetrics. The static images\(^{114}\) showed with a remarkable physical coherence, single instances of the patterned molecular movement that had been set in motion by the children’s voices. As a viewer I was able to listen to the sounds and simultaneously trace their flow in the design of these images created by the sounds. Patterns which we recognize by ear are replicated in a one to one correspondence (both numerically and pictorally) on the screen. This simultaneous ratification by two senses confirms the ‘thingness’ of a song, the physical coherence created within these particular sounds. I see and hear the acoustic patterns created by the words either spoken or sung. I see and hear patterned coherences that can be distinguished easily from both silence and other sounds; patterns with clear beginnings, duration and endings. I see and hear patterns of dynamics, rhythm and pitch; groupings of parts with parts, and parts within whole chunks or phrases. As I look and listen, as I move from one sample to the next, these patterned groupings of acoustic properties sound and look remarkably similar even though they were produced by many different children on many different occasions. The song was the constant.

\(^{114}\) These images were different from moving pictures in which our eyes remain relatively stationary while the images move, whereas in the instance of these computer images, the image is stationary and our eyes do the moving along them.
This whole process of analysis has enhanced my awareness of the physical coherence of the acoustic properties of sound organized by what we call a song.

Although I had known this intuitively, without the help of technology, and prior to performing this analysis, I had no additional evidence to confirm what I had arrived at by ear alone.

**A song and our perception**

Singing, as a general category of vocally produced sound, includes a subcategory, singing songs. There can be singing of language without singing songs\(^\text{115}\), but not songs without singing: this is expressed in the two simple sentences, ‘I sing.’ and ‘I sing a song.’ The latter includes the former. According to grammar, the first sentence represents simply a subject/verb relationship. The second sentence implies that the action of the verb is directed towards a particular object, ‘a song’. It is a typical English sentence, subject/verb/object.

\(^{115}\) Not all cultures have songs, although most known cultures have singing. Peoples of other cultures express their language in elevated ways such as through singing, but they do not necessarily have structured songs such as our, *Sally Go Round the Sun*, or *The Farmer in the Dell...* I first became aware of this distinction through an experience in the early 1980’s when teaching English to the Mien women. Our purpose was to teach them English, both oral and written and our principle ‘teaching tools’ were dozens of children’s folk song games. By repeating the songs many times in the context of the games, they were able to learn the songs and sing them independently.

As the months moved along we began to be able to communicate quite well. On one occasion we asked the women to share some of their children’s songs with us. Our request was met with a bewildered exchange among themselves. The result? They had none. They explained (and their explanation was later corroborated by an anthropologist from Santa Clara University who was studying this group of pre-literate immigrants at the time) that in their culture they sang only as an occasion was lived. They sang their love, for example, when they were actually expressing love to another.

What they tried to communicate became a little clearer to us during another class. We were playing the game *Old Grumbler*. At the beginning of this game, Old Grumbler is dead and lying ‘under the ground’. As the story progresses, apple trees grow over his head, the apples ripen, the east wind comes and blows them off the tree. An old lady comes along and boldly steals the apples from Old Grumbler’s grave. Old Grumbler jumps up, chases the old lady and gives her ‘a knock’. Old Grumbler returns to his grave, lies down ‘with a smile on his face.’ All parts of the story are dramatized as the song is sung.

We played the game on many different occasions. The women would happily take the part of every character except Old Grumbler. Never once would any one of them be ‘dead’, despite the fact that Old Grumbler was lively enough to frolic around and chase the old lady in order to give her an imaginary knock! It became evident to us from the women’s response that the word/event connection was quite different for them than it is for us. Fortunately for us (and for them), we had songs in English; it was the songs and singing shaped as it is in songs that made it possible to share, repeat and express the meaning of the language within the context of structured play.
If we were to keep the same sentence structure and change the verb to ‘see’, it
would be, ‘I see’, ‘I see a chair.’ The nuance of meaning is quite different. The agency
of the subject ‘I’ who says, ‘I sing a song’, is quite different from the agency of the ‘I’
who says, ‘I see a chair.’ What seems key in creating this difference of agency, rests with
the difference in the objects of the sentences, rather than with the ‘I’ who sings and sees.
The chair is perceived as something permanent, something that stands alone, something
‘out there’, away from the ‘I’. The song on the other hand, is perceived as something
transient, something in time.

The ‘I’ as agent, the song as event

The ‘I’, in ‘I sing a song’ is an agent who must actively sustain the song for the
entire duration of its live existence. I can think of few instances of subject/object
relationship (other than speaking) that require of the ‘I’ such flexibility of physical
response and for such prolonged periods of time, as does singing a song require of its
singer. In many ways a song is like a fetus, it cannot exist as a separate ‘thing’ except as
it is sung;\(^{116}\) the umbilical cord can never be cut. For the entire duration of a song’s
existence, it requires the immediate mediation\(^{117}\) (Schillebeeckx, 1980. p. 814) of the ‘I’
who is singing it. Each sound is live for as long as the singer sings it; the same is true for
the hearer(s) even when the one hearing the song is also the one singing it. This sustained
interdependence of the ‘I’ with the song may account in part for our blurred perception of
a song as a separate ‘thing’. Our perception of the song is that it is more an ‘event’ than a

\(^{116}\) I am excluding any considerations of electronically produced sound in this discussion. Although we
have learned much about the acoustic properties of vocally produced sound from the research done in the
area of its synthetic production, the context of this entire writing is the classroom where children and
teacher are singing the songs they hear.

\(^{117}\) Schillebeeckx, E. (1980). *Christ: The Experience of Jesus as Lord*. At this point in the text, I am making
an analogy of what this author calls an “extreme analogy of inter-subjectivity.” (p. 817)
‘thing’, because no matter how sound waves are produced, they pass by our ears one at a time and then disappear from our immediate perception.

**Permanence in transience/transience in permanence**

Although a chair is shaped and produced by a human agent, once it is properly assembled it retains the molecular coherence that allows it to stand ‘out there’ on its own. The ‘I’ who is looking at the chair, has time to move around it, time to relate to the chair with several of his/her senses, to re-cognize (re-know) it as the same chair when returning to it at another time. For all this apparent permanence, however, physicists tell us that the molecules in a chair are constantly moving. They even say that there is more empty space between the molecules of matter in a chair than there are molecules of matter. From the perspective, however, of the ordinary ‘I’ who sees the chair, it is not moving. It is permanent. This leads to the conclusion that what we perceive is often quite different from the reality of the ‘object’ itself, and this brings me to what we perceive as a song.

**Attaining coherence in transience**

Singing a song is an intentional act; it is not done by chance. In order to perform this act, however, something more than our immediate sensory perception must serve as a guide in shaping acoustic properties into the configuration of a particular song. The following metaphor may be a good starting point in clarifying some of the issues involved in this process.

Imagine for a moment that someone is asked to critique a figure skating program from a key hole that is so positioned that the appearance of the skater comes into view.

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118 It is a conscious choice on my part to put the word ‘object’ in quotation marks except when referring to the object of a sentence. This thrusts me into the philosophical debate on subjectivity/objectivity which to pursue at this juncture would contribute nothing to the discussion. Physical coherences that exist apart from me, are ‘objects’ only in so far as they relate to me, in and of themselves they are subjects. Their objectivity is one of language i.e. the object of a sentence.
only sporadically. This situation would make it impossible for the judge to attain a sense of the program as a whole.

If on the other hand, the program is viewed from the perspective of the skater, the sense of the program as a whole would be quite different. This would be the case even if both the skater and the judge knew the program ahead of time. The skater, like the viewer at the keyhole, also experiences each *live* movement of the program only one movement at a time; but unlike the key hole viewer, the succession of movements is connected for the skater. Each of the same separate movements that appear sporadic and disjointed to the key hole viewer, are for the skater, somehow joined even as the actual *live*, sensory experiences, are separate. For each, the movement that came before has already passed, and the movement to come has not yet arrived. Yet the skater joins all the movements in a cognitive structure of the program to create a whole, a coherence. This is the structure that the skater uses to shape, sequence, seriate each successive movement each time s/he repeats the program. Ordinarily, the skater forms this inner structure of the program after countless repetitions of the program as a whole.

Challenges similar to those facing a skater also face the ‘I’ who would say, “I sing a song.” In order to sing or repeat a song, the ‘I’ must have developed a cognitive structure of the interrelated acoustic instances that go to make up the song, in order to be able to sing the song again. This internalized pattern or structure is what the singer uses to model the re-creation of the song each time s/he repeats it.
Experiencing the song as a whole

Douglas Bartholomew\textsuperscript{119} makes a distinction between our experience of the present and absent aspects of a song. He quotes from Husserl (1964):

The sound is given; that is, I am conscious of it as now, and I am conscious of it ‘as long as’ I am conscious of any of its phases as now. But if any temporal phase...is an actual now...then I am conscious of a continuity of phase as ‘before’, and I am conscious of the whole interval of the temporal duration from the beginning-point to the now-point as an expired duration. I am not yet conscious, however, of the remaining interval of the duration. At the end-point I am conscious of this point itself as the now-point and of the duration as expired...‘During’ this whole flux of consciousness, I am conscious of one and the same sound as enduring, as enduring now.\textsuperscript{120} (p 44)

Bartholomew then takes the notions further in ways that are more specific to the point of my writing, namely, how we create the whole song from its successive parts and in addition, how we are conscious of the song as a whole. “The parts belonging to the consciousness of the immanent object, Husserl calls the primal impression, retention, and protention.” (Bartholomew, p. 85)

To paraphrase this, ...the parts belonging to the consciousness of a whole temporal object we are experiencing, are three: the present sensory impression, the sensory impressions of the immediate past, and the sensory impressions yet to come. Bartholomew continues:

He (Husserl) distinguishes the parts of the temporal object from the parts of the consciousness of that object. In the now-phase (a part of the temporal object) we experience the primal impression connected to retentions (of elapsed phases) and protentions pointing, with a certain indeterminancy, towards phases yet to come. All of these parts, both the phases of the temporal object and the parts of our consciousness of


\textsuperscript{120} Husserl, E. (1964). The Phenomenology of Integral Time Consciousness, M. Heidegger (Ed.). J. S.Churchill (Trans.)
the flow of time, are moments inseparable from each other in any given awareness. (pp. 85-86)

As I read this explanation, my imagination takes me back to the metaphor of the skater. It is never good to carry a metaphor too far but perhaps this one can sustain one further extrapolation.

The skater’s ‘primal impression’ is his/her successive movement through each ‘now-phase’ of the parts of the performance. The skater retains each successive ‘now-phase’ (those of us watching get a sense of those retentions in the skate marks that remain on the ice.) The protentions direct the energy that propels the skater towards the next ‘now-phase’. All the while, these three lived successive phases are retained as one coherence in the consciousness of the skater. They are ‘inseparable from each other in any given awareness.’

The same would apply to singing a song, (except that the ‘primal impression’ of each successive ‘now-phase’ of the singer, leaves no ‘skate marks’ to remind those listening of the ‘now-phases’ that have past). Only the singer retains the consciousness of the three phases as one whole song.

**Meaning in coherence**

Marianne Sawicki (1997)\(^{121}\) in the following quotation from her text, *Body, Text, and Science: The Literacy of Investigative Practices and the Phenomenology of Edith Stein* takes us into yet another interpretation of Husserl. She addresses the topic of how a subjectivity arrives at a sense of meaning, of knowing and recognizing coherences appropriately as these occur in things. She writes:

(A thing)…is recognized by virtue of seeing that an essence has been fulfilled: that some possible way of fitting together does in fact obtain in the case at hand. Something clicks for the scientist. A pattern pops out. (Sawicki, 1997, p. 69) …When something ‘clicks’…the instantiation of an ideal form of coherence122 has been recognized. Ultimately, the ‘click’ is what can be shared…Physical observations…are…felt-into…(that ‘click’) occurs for the scientist as he considers the observations or representations occupying his consciousness. Why can this alive and self certifying experience of scientific discovery be shared? Because the forms of logical validity already are shared; they inhere in any i123(subjectivity)… They are recognized as appropriate coherences because any i(subjectivity) already knows what a coherence is. Any I(subjectivity) is such a knowing… (p. 70)

Even assuming this to be the case it still remains that beyond the act of simple recognition, a structure or pattern is needed if an ‘I’ is to say, “I sing a song.” In order to intend the shaping of acoustic properties into a “…way of fitting together…” so that “…Something clicks…” and “…a pattern pops out…” (Sawicki, p.69) the pattern itself must precede the singing.

To intend to sing a song, or to sing a song again, all new molecules must be disturbed, set in motion and freshly formed into appropriate acoustic coherences. In actual fact what would seem to be retained, what is really repeated in singing a song, is the pattern rather than the song as ‘thing’. It is the pattern that we recognize as the same, since all the physical components that make up the song-‘object’ are different from one singing to the next.

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122 At this period in the development of Husserl’s thought, he had not yet developed the solution of the transcendental subjectivity to which he moved later. Stein never moved in that direction. Stein accounts differently for what is described here as “an ideal form of coherence.” Suffice it to say that Stein’s solution rests in the human body; but she interprets the body to include the physical, sentient, ensouled and psychic body.

123 Although Sawicki accounts for her use of the small ‘i’ and differentiates it from the capitol “I”, the distinction she makes does not contribute to clarity in my present writing. For this reason, I have consistently interpreted ‘i’ with [subjectivity] in brackets.
At the time of singing, the pattern\textsuperscript{124} of the song predetermines what the singer\textsuperscript{125} will follow. The singer, by conforming to this "...ideal\textsuperscript{126} form of coherence..." (Sawicki, p.70) creates something that we can recognize (re-know), but the live experience of a song is an assembling of new acoustic coordinates. The song-'artifact' is new at each singing.

\textbf{A gathering point}

Before moving on to the final points of this discussion it may be helpful to summarize the main points developed thus far in connecting my position that a song is a coherent acoustic wholeness, a 'thing', a music and prosodic event.

First, I addressed my claims that a song is a 'thing', that it is grounded in the natural world, a coherent wholeness of material acoustic properties, an event. I focused on the need for a singer since by its very nature a song needs a singer in order \textit{to be}. This led to an examination of some inherent properties within a song. Those properties which are perceptually challenging to the singer, namely, the perceived transience of a song and its symbiotic relationship of dependence on the singer, were discussed at more length. Finally, and immediately prior to this gathering of ideas, I arrived at the point of suggesting that in order to say, 'I sing a song' something beyond the song, singer, and singing is needed. That 'something' is a pattern or structure.

\textsuperscript{124} The existence of patterns for organizing vocal sound is particularly important in the whole development of my theory that it is especially good for children to sing songs in their mother tongue. Prosody, I believe, is the connection, a connection that I will make later on in this writing.

\textsuperscript{125} In this case, the singer functions as 'singer'. Although the singer could also have the relationship of composer of the song, in which case s/he establishes the structure that serves as the model for each subsequent singing by whomever is singer of the song.

\textsuperscript{126} In the context of this writing, for me to pursue a discussion of the word 'ideal', what and where it resides, is a topic that lies outside the scope of the present writing.
Convergence of two sound systems

In this last section my intent is to lay the ground work for making the claim that a
song is simultaneously a music and prosodic event. Each word, ‘simultaneously’,
‘music’ and ‘prosodic’ are significant to this claim.

Sound

The fundamental point to be made is that sound is the primary focus of both
music and prosody. The particular focus of this thesis is the sound produced by human
vocalization in the form of singing and speaking. That a song is music would seldom be
challenged; but that a song is prosody may not be so readily evident. Prosody has to do
with the sound of speech; it deals with speech as an acoustic phenomena. In the text, The
Acoustic Analysis of Speech, (Kent & Read, 1992)\textsuperscript{27}, the authors write:

The purpose here is not to provide a rigorous and comprehensive
definition of prosody...This is a matter of intense debate within linguistic
theory...Rather, our purpose is to summarize acoustic correlates of basic
prosodic phenomena: vocal fundamental frequency, intensity and
duration. (p. 150)

Within the context of this writing, my treatment of prosody will be even less rigorous and
comprehensive because my interest is not in taking sides in the “intense debate within
linguistic theory”. (p. 150) My interest is rather to take advantage of the authors’
description of prosody because it fits so tidily within the line of argument I am pursuing
at the present writing. Kent and Read write:

...prosody will be defined as the suprasegmental features of speech that
are conveyed by the parameters of fundamental frequency (perceived
primarily as vocal pitch), intensity (perceived primarily as loudness),
and duration (perceived primarily as length). The term suprasegmental
indicates that the phenomena of interest are not confined to phonetic

segments. In fact, they often are observed over much larger intervals—syllables, words, phrases, sentences, and even discourses. (p. 149)

I am including a song among these ‘larger’ prosodic intervals. Although the words of a song are sung rather than spoken, it will be seen that the criteria in the description of prosody still applies. Words that are sung also form a stream of oral language in which suprasegmental acoustic features ‘are not confined to segments’ but retain the discernible parameters of the temporal delineation of syllables, words, and phrases. The fact that the words are sung has more to do with the production of the sound and the resultant qualitative alteration of the acoustic features than with changing the features themselves. In sung speech, the parameters of each of the above acoustic features are intensified, broadened or more precisely articulated. These changes in production have led to our renaming the acoustic features when we refer to them in the context of a song. In music we perceive fundamental frequency as melody, intensity as dynamics, and duration as rhythm. The main points, however, are that acoustic properties, whether spoken or sung, are observed not as segments but “…over much larger intervals—syllables, words, phrases, sentences…” (Kent & Read, 1992, p. 149) and that they fall within the parameters of the natural phenomena we call sound.

Speech as Sound

Prior to this point in my writing, I have discussed the notion that because of certain qualities which inhere in a song it is difficult for us to think of it as a ‘thing’. We confront a similar difficulty when thinking of speech as sound. Ordinarily when we think of speech, our thoughts leap over the sound and focus on the meaning of the words. Even as I use the word ‘meaning’ in the above sentence, no ambiguity is implied. We
automatically think that the meaning of a word is the reality to which the word refers rather than the sound of the word.

DeSaussure (1959)\(^{128}\) spoke about the strength of the connection between word and referential meaning. His context was different from mine (he was addressing the connection between sign and idea) but his allusion to the connection between sound and meaning is clear. He said, “...Each linguistic term is a member, an *articulus* in which an idea is fixed in a sound and a sound becomes the sign of an idea.” (p.13) Further to this, he said:

...Language can also be compared with a sheet of paper: thought is the front and sound is the back; one cannot cut the front without cutting the back at the same time; likewise in language, one can neither divide sound from thought nor thought from sound; the division is accomplished only abstractedly, and the result would be either pure psychology or pure phonology. (p.13)

By trying to raise awareness of the function of *sound* in speech, my intention is not to confine myself to ‘pure phonology’ rather I would expand the notion of *meaning* in spoken language. I would expand ‘meaning’ to include the notion that a particular meaning inheres in the sound of speech *because* it is a physical acoustic coherence. This meaning is in addition to, and different from the referential meaning of the words. It is the meaning of recognizing “...that an essence has been fulfilled: that some possible way of fitting together does in fact obtain in the case at hand...”(Sawicki, 1997, p. 69), that is, in the sound. The meaning of acoustic coherences is already present in speech as prosody, but when these acoustic coherences are more clearly delineated by singing the words,

especially as this occurs in certain songs,\textsuperscript{129} this meaning is enriched. At this point a transliteration of the above quotation from a transliteration of deSaussure seems fitting:

A song can also be compared with a sheet of paper: words are the front and music is the back; one cannot cut the front without cutting the back at the same time; likewise in a song, one can neither divide music from the words nor the words from the music; the division is accomplished only abstractedly, and the result would be pure music or pure language.

In which case I would add, the result would be something other than a song.

\textbf{Meaning in the Sound of Speech}

The meaning of music inheres in the sound, but it has not been my experience that we educators often speak of the meaning that inheres in the \textit{sound} of speech itself. I believe that meaning does inhere in the sound of speech, simply because of the fact that speech consists of patterned molecular coherences. The following example may help to clarify my perspective.

If I see a thing, a particular pattern of molecular coherences configured in a shape that I recognize as 'a chair', that thing retains its molecular coherence whether I name it 'chair', or whether I sit in it, or not. In its own configuration, the particular patterning of molecular coherences of a chair differentiate it from a bed, or a knife, whether or not I sit in the chair, lie on the bed, or cut with the knife. I believe that the same applies to the patterned configuration of molecular coherences we name 'the farmer in the dell', or the 'twenty-seven' stress/unstress pattern.

These patterned coherences have a meaning for us native English speakers that, for example, totally bypasses the Japanese people with whom I have been working these many years. The patterned coherences of the sound of English are among the most

\textsuperscript{129} This notion of 'certain songs' has to be left to a later writing. It is very important but it can only be alluded to within the limited parameters of this writing.
difficult things for them to recognize when learning English, even when they have a fine knowledge of the syntax and referential meaning of English. It takes so much hard work on their part before they recognize the patterns of English speech. In our case, however, we readily recognize that the sound of the words “the kitten on the chair” fits the same pattern as “the farmer in the dell”; or that “Mrs. Sweeney”, “Merry Christmas” “Put your coat on” “In the basket” fit the ‘twenty-seven’ pattern, despite all the different combinations of vowels, consonants and syntax in these phrases. There is a coherence in the patterning of the sound to which I am ascribing meaning as something we recognize, or ‘re-know’. Following this line of reasoning makes the quotation from Sawicki relevant to the topic of knowing meaning, of recognizing coherences in the sound of speech. She writes, “…the forms of logical validity already are shared... recognized as appropriate coherences because any i [subjectivity] already knows what a coherence is. Any i [subjectivity] is such a knowing...” (Sawicki, 1997, p. 70)

Previously in this writing, I have established that speech is sound, and that speech is sound configured into patterns of molecular coherences, it seems logical to me to claim that because of this, meaning inheres in the sound of speech in and of itself. Following on this, a song holds two sources of acoustic meaning within the same structured patterning (the meaning in the sound of speech, and the meaning in the sound of the music). For this reason it might be said that a double meaning inheres in the sound of a song since it is simultaneously a music and prosodic event.
REACHING THE THINKING CHILD

...The process is simple and always the same. She examines the tangle; finds a loose, unconnected strand; loosens it and traces it back into the matted lump of wool. She works at the tangle until she knows that if she pulls any tighter at the strand it will break. She leaves that thread, picks up another one that was loosened by her pulling and repeats the same process. She finally comes to the one real cause of the tangle. After loosening that, all goes smoothly for the next little while...

In writing about 'reaching the whole child through play' (pp. 84-103 in this document) I have discussed how within the flow of play structured by folk song-games, children engage their bodies perceptually and expressively through movement, they become engaged socially and emotionally, and in addition, I have offered many instances of children engaged as thinkers. In this next piece my intention is to focus on the child as 'thinker' within a context that is slightly different from that of playing folk song-games. I will examine ways of reaching the 'thinking' child through the study of song (a process distinct from, but similar to the play of folk song-games). The topic of thinking opens up areas of epistemology that must be addressed before moving to practical examples of actual work in the classroom.

According to the cultural historian Thomas Berry, it is natural for us human beings 'to think', we are wired to think. What informs our thinking and what we 'think about' is where the difference lies among us humans. For me, these notions of 'thinking' and 'thinking about' have served as the entry point into vast areas of philosophical discourse around subjectivity and objectivity, essence and existence, and epistemology.

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130 Berry, Thomas (1994). Dreamer of the Universe.
In order to clarify this, I must pick up my metaphoric “...matted mound of multi-colored yarn...” and start untangling a fresh strand of wool from my own story.

**First strand in the unraveling: An historical catch-up**

When Mary Helen and I started to ‘do something about the anacrusis’ and reconfigure the sequence of music ‘concepts’, it was by accident that we ended up developing a whole new corpus of folk song-games. The response of the children at Corte Madera School, reinforced by the response of the students of other teachers, led us to change our thinking about the purpose of playing folk-song games.

At first we were simply trying to find ways to lure the children into wanting to repeat the songs because we believed that in order for children to study ‘what’s in a song’, they must first know the song well. Then as we started to change the sequence of music ‘concepts’, the process of creating movements to express these ‘concepts’ rapidly took on a life of its own. As the children started to help us ‘fix’ the movements and make them more interesting, they soon led us away from moving to music ‘concepts’ and towards moving to the words and/or to the song-as-a-whole. Had we realized it at that time, this shift of focus initiated by the children could have been a strong clue to us in our search for what children perceive as the ‘whole song’; but that insight was lost on us at the time.

What excited us was to see how these ‘games’ worked with exquisite efficiency in helping us reach our original goal, and to see how the children totally lost sight of the fact that they were repeating the same songs countless numbers of times. They simply wanted to keep playing the games.
Second strand: ‘Thinking’, and ‘thinking about’ a song

In the section immediately preceding this, I reflected on the notion that a song is a ‘thing’, an acoustic coherence which despite its transient nature, is distinguishable and has clear parameters: a beginning, duration and cadence. I made the point that a song can have a ‘live’ existence only insofar as it is sung by the singer and that this relationship of dependence of the song on its singer seems to blur our awareness of the ‘otherness’ of a song as a ‘thing’ apart from the singer. Nevertheless, we know that we can identify a song and that a song is something other than ourselves.

Just as we can ‘think’ the sentence ‘I sing a song’ by ‘hearing’ the words in our minds, and just as we can also analyse this sentence as having a grammatical subject ‘I’ followed by the verb ‘sing’ followed by an object ‘song’, so also can we both ‘think’ a song, and ‘think about’ a song. My point in making this connection, is simply to bring to the fore an awareness of what children as ‘thinkers’ have at their disposal when they know a song.

A third strand: My epistemological stance

Before unravelling this strand it is important that I state clearly that the perspective from which I enter this discussion is philosophy. Nothing that I claim in the following pages comes out of the cognitive sciences or psychology.

The song as an object of thought

As a young adult (between 1947-1965) I was not able to study philosophy and theology simply because it was commonplace to think that we women did not have the type of brain that could deal with the abstract thinking. I had entered a religious congregation at the age of eighteen, and even though I could not study philosophy
formally, I found that the convent library was a great place to pursue philosophy as a ‘hobby’. I read everything I could get my hands on. I did not realize, however, that the books that captivated my attention were completely out of sync with the contemporary ‘world of philosophy’ outside my convent walls. Books on the dualism of Descartes, the social political theories of Karl Marx, the atheistic existentialism of Jean-Paul Sarte, and the phenomenological existentialism of Martin Heidegger (writings I learned later were dominating the world of philosophy at that time) were no where to be seen on our convent library shelves.

My first guru was Thomas Aquinas. He was the medieval philosopher who syncretized the philosophy of Aristotle for Christian, principally Roman Catholic, consideration. As a philosopher Thomas Aquinas’s discourse was totally grounded in the human experience of the natural world. He followed Aristotle in moving from the observation of nature to abstraction.131 (Maritain, 1961. p. 21) What happened as a result of this focus, was that Thomism became my interpretive lens as in later years I moved out into the broader ‘world’ of philosophy. My inclination was always to search out strains of Thomistic philosophy in education, psychology (especially psychology originating in Europe, where it was not as entrenched in natural science as in America), and even science itself. To this day my tendency is to reach back into these ‘old fashioned flowerings’ of Western thought when trying to make sense of things.

As evidence of this bias, examine the paragraph I wrote above in which I say that the “…relationship of dependence of the song on its singer seems to blurr our awareness of the ‘otherness’ of a song as a ‘thing’ apart from the singer...” and that we “…can both ‘think’ a song, and ‘think about’ a song...”. Notions such as these come directly out of

Thomistic philosophy as born out in the following quotation from Jacques Maritain (1961), a champion of the revival of Thomistic philosophy in the last century. He writes in *Existence and the Existent*:

...Truth follows upon the existence of things...Truth is the adequation of the immanence in act of our thought with that which exists outside our thought...Thus knowledge is immersed in existence...the existence of material realities is given us at first by sense; sense attains the object as existing; that is to say, in the real and existing influence by which it acts upon our sensorial organs. This is why the pattern of all true knowledge is the intuition of the thing that I see, [in the case of a song, the thing that I hear] and that sheds its light upon me. (Aristotle, *On the Heavens*, Bk. III; Thomas Aquinas, *De Veritate*. 12, 3 ad 2 and ad 3) Sense attains existence in act without itself knowing that it is existence. Sense delivers existence to the intellect; it gives the intellect an intelligible treasure which sense does not know to be intelligible, and which the intellect, for its part, knows and calls by its name, which is *being*. The intellect, laying hold of the intelligibles, disengaging them by its own strength from sense experience, reaches, at the heart of its own inner vitality, those natures or essences which, by abstracting them, it has detached from their material existence at a given point in space and time. (p. 21)

The way this might be interpreted if applied to a song is that the sense of hearing ‘delivers’ the song to the intellect as an ‘intelligible’. The intellect then ‘lays hold’ of it, ‘disengages’ it by its own strength, and ‘abstracts’ it from its material existence of its ‘being sung’.

**Christian Existentialists**

During these same years I was also reading the ‘Christian existentialists’, Henri Bergson (1946)\textsuperscript{132}, Jacques Maritain (1937)\textsuperscript{133} and Etienne Gilson (1952)\textsuperscript{134} all of whom were busily engaged in a rebuttal of the dominant trends in philosophy after the First World War. (Maritain, 1961, p. 16 and fly leaf). Maritain more than any of the others

\textsuperscript{133} Maritain, J. (1937). *The Degrees of Knowledge*.
\textsuperscript{134} Gilson, E. H. (1952). *Being and Some Philosophers*. 
clarified for me what I have since applied in thinking about a song as a thing and about
the child, as the singer who subsequently transforms the song into an object of thought.

He writes:

...All this simply amounts to saying that the concept of existence
cannot be detached from the concept of essence...At the instant when
the finger points to that which the eye sees, at the instant when sense
perceives, in its blind fashion, without intellection or mental word, that
this exists; at that instant the intellect says (in a judgment), this being is
or exists and is at the same time (in a concept), being...Generally
speaking, simple apprehension precedes judgment in the later stages of
the process of thinking; but here, at the first awakening of thought, each
depends upon the other. The idea of being (‘this being’) precedes the
judgment of existence in the order of material or subjective causality...”
(pp. 32-35)

It is through the immediacy of dependence of song on singer that the child, as ‘creator’ of
the song, comes “...to grips with the experience of sense by transcending sense...”. The
necessity of this immediacy is for me, at the heart of my belief that it is so important for
the child as ‘thinker’ to sing songs. Singing a song is a fundamental and primary
encounter of a child as ‘subject’ with a song as ‘object of thought’.

A fourth strand: The imagination

Finally, and in order to fill in one more piece of the philosphical puzzle I have
been reconstructing, I must jump over the fifty years between the early 1950’s to 1993.
This was the year I was introduced to the writings of Dom Bede Griffiths (1994) just
three months after his death in 1993.

Griffiths was a contemporary literateur and friend of C. S. Lewis, and while both
of these scholars moved from agnosticism to a more than usual commitment to
Christianity, Griffiths’ path, unlike Lewis’, led to Catholicism. In addition, Griffiths
entered a Benedictine monastery in England where he continued to steep himself in

Western thought. Nearing the age of forty, Griffith responded to a further call to join a Benedictine Monastery in India. He went there fully expecting to continue his pursuits as a scholar of Western thought. What happened, however, was that when in search of 'the other half of his soul' (as he was known to say), he made his final move to Saccidananda Ashram in southern India. There Griffiths became a renowned scholar of the major religious traditions of the world. He pursued this focus until his death at age eight-seven, without however, shedding his deep knowledge of Western thought.

In his last and greatest work, *Universal Wisdom*, Griffiths (1994) moves with fluidity from east to west when discussing the intellect and reason. He writes:

> In every advanced language a distinction is made between reason and intellect, between 'ratio' and 'intellectus', and 'dianoia' and 'nous', and in India between 'manus' and 'buddhi'...The intellect is the faculty which 'knows'...by direct reflection on itself...Reason can then develop this knowledge by logic and analysis and mathematical theory and so evolve a scientific method... (p. 19)

Griffiths also describes the intellect in Thomistic terms, as a 'faculty' that calls into service the function of several organs in order to carry out its "...direct reflection on itself". (Griffiths, p. 19) Among the 'organs' of the intellect he mentions reason, memory and imagination; what he writes about the imagination has particular significance in the context in which I write. He says, "... [the imagination] reflects the world not by means of abstract concepts but by images which make reality present to us in its concrete existence..." (Griffiths, *Universal Wisdom*, p. 14)

Peter Senge (1990) writes similarly of Einstein in *The Fifth Discipline*:

> Einstein said, 'I never discovered anything with my rational mind.' He once described how he discovered the principle of relativity by imagining himself traveling on a light beam. Yet he could take brilliant

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*136 I would add further, that the imagination reflects the world by means of images derived from the senses and that it is these images that make reality 'in its concrete existence' present to us.*
intuitions and convert them into succinct, rationally testable propositions. (p. 169)

According to Griffiths, the imagination is primary among all the organs of the intellect. Quoting Coleridge, he claims that "...the imagination is the 'prime agent of all human perception.' " (Griffiths, 1994, p.20)\textsuperscript{137} The agency of the imagination is key to understanding Griffiths' interpretation of the functioning of the human intellect.

**A metaphor**

In sorting through the elements of this epistemology, I have come to think of the imagination as a 'transformer'. In the creation of electrical energy we do not use the flowing water directly to turn on our lights; it is only when the potential energy in the flowing water passes through a transformer that it is ready for use as electrical energy. In like manner, reason does not abstract sensory impulses directly; only after the imagination transforms the sensory impulses into sensory images, are they ready for use by reason. In the context of this epistemology, the imagination is truly the primary, essential agent to the workings of all the other organs of the intellect.

**Tracing the agency of the imagination**

The imagination according to Griffiths, is the agent by which the data gathered from the concrete, live, sensory experience of the world, is transformed into sensory images. Reason then works on these sensory images and turns them into 'objects of thought', or concepts. In writing about this Griffiths (1994) again refers to Maritain:

As Jacques Maritain has pointed out, the intelligence of primitive man, that is, of human beings before the age of reason, was under the primacy of the imagination. The imagination, the image-making faculty, is the mode in which most people even today come to know the universe. We all form images of people and of things around us, and it

\textsuperscript{137} In this context, the word 'prime' does not mean 'superior' so much as 'essential to', or 'foundational to'.
is through these images that we come to know the universe...Reason proceeds by abstraction, by ‘drawing out’ the rational concept from its embodiment in the imagination... (p. 12)

A Western bias is reflected here, simply by the turn of such phrases such as, ‘primitive man’ and the ‘age of reason’. Although the ‘age of reason’ can refer to a particular age in the development of a child, in this instance the term refers to the particular ‘advancement’ in human thought that is so adulated in the West. It often implies superiority over the ‘intelligence of primitive man’ although this is not the implication of this quotation. Even though ‘reason’ has exerted a strong driving force in the domination of other cultures through economic colonialism, scientific thought, and ultimately technological development, most of the world’s peoples live in predominantly aural/oral societies even today. These peoples have sustained strong oral cultures for far longer periods than the time span of what we refer to as the ‘age of reason’ in the West. To imply that somehow oral peoples are inferior because they have not developed the functions of Western ‘reason’ is, in my opinion, a bias of the West.

It is my belief that the way we educate children also reflects this bias. Elementary school age children are also aural/oral people, yet our schools steer them with relentless pressure away from the aural/oral towards literacy. It is as if their use of other forms of

It is not the literacy, per se, that I question, but rather the process of literacy acquisition that blocks out orality. Nevertheless, I feel empathy for those who hold to symbol-to-sound bias for teaching literacy. I simply recall the twenty or so years I spent focused on teaching music literacy and music ‘concepts’. Only after having so many opportunities to observe children and their responses, and after having the freedom to follow up on what the children showed us, have I been able to see literacy acquisition from a different perspective.

In the late 1980’s into the early 1990’s, as I moved about the continent teaching courses and visiting classrooms, I noticed real efforts by some teachers to bring about a change in the way they taught reading and writing. These teachers were using the “Whole Language” program (I am referring to the years prior to this program being taken up by educational publishing industry.) Also, I was very encouraged as I moved about several school districts of British Columbia during the years when The Year 2000 Document was being prepared by the Ministry of Education and was piloted in several schools. Culturally, politically, and economically, however, it is very difficult to allow children the time to move naturally from sound-to-symbol as was the case in these two examples and is what I have been describing in this dissertation.
intelligence (i.e. the imagination) indicates an inferior, rather than a different form of knowledge. We hurry children along the path of abstract thinking as if it were the epitome of all forms of knowing. I recognize this bias in myself as an educator, simply because I spent so many years with my gaze focused on teaching and sequencing music ‘concepts’ with the ultimate view in mind of teaching music literacy.

What concerns me is that by reducing the opportunities for children of elementary school age to enter directly into sensory engagement with the sound, i.e. the sound of music and oral language; by reducing the opportunities for children to engage aurally/orally in “…the mode in which most people even today come to know the universe….“ (Griffiths, 1994, p. 12), we may be depriving our children of opportunities to engage their imaginations in the production of strong sensory images of both music and language. What I mean ultimately, is that we may actually be blocking rather than furthering, the natural functioning of intellection in our children especially if these opportunities are lost to them at a time when orality is their stronger mode of engagement as learners.

Sensory images of sound

My conclusions in connection with the issue of ‘thinking a song’ and ‘thinking about a song’, are that when a child ‘thinks’ a song s/he creates the sensory image of a song as a perceptual whole that, as we have seen above, is for children both music and language. (See p. 131 in this document) When a child ‘thinks about’ a song, s/he engages in abstract thinking. It is to the advantage of children of elementary school age that they be given many opportunities to construct strong aural images of the sound of both music and language in order to construct, and learn to manipulate concepts of abstract thought.
Thinking about songs

What I will describe in the next several pages is an imaginary vignette but one based on many such experiences with children. The children, perhaps a class of eight or nine year olds, are seated in a conversation cluster on the floor facing the chalkboard. I would have prepared six form maps of songs that the children already know well and posted the maps side-by-side on the chalkboard. The children busily examine them; there is no sound, but it is very apparent that they are busy about something---fingers in the air, moving, starting, stopping, retracing a pattern.

The maps I had created each expressed certain unique characteristics of the song, while at the same time they showed characteristics that all six songs have in common, namely, the common phrase pattern of two short phrases followed by a long phrase.

It is important to note that the children would have known each song well before entering into the process I will be describing. They would have played the games many times, mapped the songs, and shared their maps with one another. In addition they would have engaged in many study techniques to help them develop a sturdy auditory image of each song as a whole. I would be sure, at least to the best of my ability, that each child was able ‘to think’ the songs before proceeding in this manner. The purpose of this class is to guide the children to do some ‘thinking about’ the songs. Experience has shown that form maps are particularly effective for nudging children along the path of abstraction.\(^{139}\)

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\(^{139}\) Please note: In setting up the text I have repeated the maps on each page simply to help the reader keep track of the imaginary conversations described in the right column. The maps are in the following order: 1) Clickety Clack; 2) Daddy Loves the Bear; 3) High Stepping Horses; 4) Oats and Beans and Barley Grow; 5) Swing a Lady Umptum; 6) The Farmer in the Dell. See Appendix III for the scores.
**Figures 9.1-3.** Form maps: Connecting ‘thinking the song’ and ‘thinking about the song’

1. 

2. 

3. 

4. 

5. 

6. 

T. “Take a moment to examine these maps. Then we’ll see what we can find out about the songs and you can share some of the things you notice.”

This challenge is familiar to the children. As you watch them you can see how they track one or other of the maps. It is very evident that they are ‘thinking’ a song and testing it against a particular map.

T. “Well, what do you think? Any ideas?”

Ch. 1: “I think this (pointing to #3) is *The Farmer in the Dell.*

Ch. 2: “I tried this one (pointing to #4) and it’s *The Farmer in the Dell!*

T. “That’s very interesting. We should try them both just to check out your ideas. Ready? We’ll sing (#3) first and then (#4)...”

Ch. 3: “I think this one (#4) fits better.”

T. “What makes you think that? Can you say why?”

Ch. 3: “Well, this (S/he points to the pattern of the second phrase) is higher where the song is higher.”

Ch. 2: “The words are the same here, and here and here.” (S/he comes to the map, follows it as s/he sings the song. Then she continues...)

“The farmer in the dell, the farmer in the dell, the farmer in the dell...here, here and here!” (S/he points to the repeated pattern in the 1st and 2nd phrases and at the end of the 3rd phrase.)
T. “Do you think that all of these maps are maps of *The Farmer in the Dell*?”

Ch. 4: “I think that this one (s/he points to #1) is *Cickety Clack. It looks fast, and Cickety Clack is fast.*”

Ch. 5: “It looks like the game!”

“Move and stop. Move and stop. Move, and move, and stop!”

T. “Those are interesting observations. Let’s try them out.”

“Would someone like to be the leader?”

Ch. 1: “I think this one (pointing to #6) is *The Farmer in the Dell.*”

T. “We’re back at *The Farmer again!* “What makes you think that that map is really *The Farmer*?”

Ch. 1: “It really fits!” “Hi! Hi! The berrio is perfect! And all *The farmer in the bells* have an anacrusis!”

It would not be at all unusual for a child to spot the anacrusis, (the unaccented syllable ‘the’ that precedes the stressed syllable ‘far-’ in ‘farmer’.), and call it by name. It is something that we would have identified and moved to in many songs, and we would have located the anacrusis in their own maps.

T. “Do you know what? That is exactly the song I was singing when I made this map!” (#6) “Let’s try it together and see if you think that it feels like *The Farmer in the Dell....*”

All ch: “It’s perfect!”
In this brief exchange, although the maps were the visual anchor for the conversation, the auditory image of the song was what the children used as reference in “…‘drawing out’, or abstracting the rational concept from the image(s) ‘embodied’ by the imagination...” (Griffiths, 1994, p.12). At first when examining the maps, the children
did not sing the songs aloud; they simply thought the songs and tested what they were thinking against the figures of the maps.

According to Griffiths reason abstracts the rational concepts from sensory images prepared by the imagination. (p. 19) In forming these concepts, reason applies the tools of analysis in accordance with its own particular logic. Reason notices when things fit; it makes judgments about these concepts, categorizes them, compares and contrasts them. It puts concepts in sequence and arranges them in series of various kinds. Reason is an 'organ' of the intellect that provides the intellect with a form of knowing that is totally different from that of the imagination. Whereas the imagination creates sensory images of the 'whole' of what is perceived, reason abstracts concepts from these whole sensory images and constructs knowledge based on part-to-part, part-to-whole relationships.

A shift of mind

In his book *The Fifth Discipline*, Peter Senge (1990) writes about our need for a 'shift of mind' in order to see "... interrelationships rather than linear cause-effect chains, and [to see]... processes of change rather than snapshots..." (p. 73) He posits that "... systems thinking [is] a philosophical alternative to the pervasive 'reductionism' in Western culture..." (p. 185) which he says is expressed in our chronic pursuit "... of simple answers to complex issues." In a further comment Senge implicitly connects systems thinking with education when he writes:

Research with young children has shown that many [young children] learn systems thinking remarkably quickly. It appears that we have latent skills as systems thinkers that are undeveloped, even repressed by formal education in linear thinking... (p. 73)

In writing this dissertation I feel that I am writing an account of my 'shift of mind'. Whereas I began as a totally 'snapshot' driven music teacher who encapsulated
the art of teaching of music in the one notion of teaching music ‘concepts’ one-by-one; and whereas I held that mind-set for years, even as I followed the children in our search for what children might perceive as ‘the whole song’; now I view things differently. This change has come as a result of my reflecting on my interactive practice of many years with children-as-learners and their teachers.

In this final piece, I will push my examination of the topic ‘reaching the thinking child’ a little further, specifically to ‘reaching the systems thinking child.’ In order to do this I will draw principally on the writings of the organizational theorist, Peter Senge in his book, *The Fifth Discipline: the practice of the learning organization.*

First plank in my argument: The song, a thing, a whole

I have made the argument (p.177 in this document) that a song is a ‘thing’, a physical, coherent wholeness with unique acoustic properties that are circumscribed by its structure.

According to Senge, systems thinking is a discipline for seeing wholes, “…a discipline for seeing the ‘structures’ that underlie complex situations …” (pp. 68-69) In systems thinking the term ‘structure’,

does not mean the ‘logical structure’ of a carefully developed argument or the reporting ‘structure’ as shown by an organization chart. Rather, ‘systemic structure’ is concerned with the key interrelationships that influence behavior over time. These are not interrelationships between people, but among key variables…it is very important to understand that when we use the term ‘systemic structure’ we do not just mean structure outside the individual. The nature of structure in human systems is subtle because we are part of the structure. This means that we often have the power to alter structures within which we are operating. (p. 44)

Senge was, of course, not thinking of a song when he wrote this, but I posit that a song as an acoustic event is by its nature, an interrelationship over time, between human behavior
and acoustic variables. I posit further that a song is a human system, since it is a human construct, an artifact of music and language both of which are human acoustic systems. (See p. 174 in this document) I have already posited that the structure of the song must reside in the singer, since the singer is absolutely necessary to the full duration of the song’s live existence, and a knowledge of the structure is necessary in order for the singer to be able to repeat it. Certainly the singer has the power to alter the song, since the structure is part of the singer.

A metaphor

I know how to bake a loaf of bread. In saying this I am saying that I know how to bring together within the structure of a loaf of bread, the workings of several sub-systems of natural phenomena: heat (if the water is too hot or cold the yeast cannot grow); living organisms (if there is not something for the yeast to eat and drink it will not grow); sequence and timing (if salt is added directly to the yeast it will not grow).

I also know how far I can go in altering these sub-systems of interactions before what I produce is totally different from the loaf of bread I intended to bake. I can change ingredients, up to a point; I can alter the sequence of combining ingredients, up to a point; I can adjust the time and temperature, up to a point. The ‘point’ in each of these separate sub-systems of interactions is determined by the parameters imposed by the structure of a loaf of bread.

Despite this knowledge, however, I know nothing for example, about the chemical reactions that take place when I alter the sub-systems of interactions; when, for example, I change the flour, or alter the temperature, or extend the time either of growing or baking. The process of knowing how to bake a loaf of bread gives context and
meaning, should I want to study those chemical reactions, I know how to set up the context for that study. In fact, that context may even have been the motivational spark that triggered my desire to pursue the study of chemistry. If, however, I waited until I understood the chemical reactions before starting to bake bread, I might never have had the joy of actually baking and eating home-made bread once I left my mother’s kitchen.

**Applying the metaphor**

Kent and Read (1992) in their text *Acoustic Analysis of Speech* list the interaction of three separate systems of acoustic variables in prosody of spoken language:

> ...fundamental frequency (perceived primarily as vocal pitch), intensity (perceived primarily as loudness), and duration (perceived primarily as length)...” (p. 149) In addition, these authors subscribe to the further interpretation that prosody is the interrelatedness of these “suprasegmental” acoustic features over larger intervals of time, such as in words, phrases or sentences. (p. 149)

Named differently, these same variables of fundamental frequency, intensity and duration also occur in the music of a song. Phrases of prosody have their counterpart in music phrases; fundamental frequency in vocal pitch corresponds to the series of variations in pitch we call the melody of a song; duration or variations in length of sounds, in the rhythm of music; and intensity in music is expressed in the variations of accented and unaccented sounds, as well as gradations of volume within the phrases of a song.

Just as my knowledge of bread making is a knowledge of the interrelatedness of several sub-systems of natural phenomena, so also when a child knows how to sing and think a song, s/he brings together within the one ‘wholeness’ the interrelatedness of the several sub-systems of acoustic interactions. S/he has a built in referent; as Sawicki (1997) writes, “[A thing]...is recognized by virtue of seeing that an essence has been
fulfilled: that some possible way of fitting together does in fact obtain in the case at hand. Something clicks ... a pattern pops out.” (p. 69)

The child who knows a song also learns how far s/he can go in altering these acoustic sub-systems before going beyond ‘the pattern’ established by the structure; before the song becomes a totally new ‘thing’. A child who knows a song can change the melody, up to a point; s/he can change the sequence of the rhythm, up to a point; s/he can adjust the placement of stress, up to a point, (just as in the case of altering the ingredients in baking a loaf of bread); but the child knows when s/he has gone beyond the parameters imposed by the structure (See p.183 in this document) because s/he knows, and can sing and think, the whole song.

Second plank in my argument: The song, a complex system

I have argued that a song is both a music and prosodic event. (See, p. 134 in this document) I now take this argument a step further and claim that as a music and prosodic event, a song is a complex of sub-systems of acoustic properties that function within each of two interrelated acoustic systems, music and language. We can examine each of these sub-systems separately, but all of them interact in concert to produce what we perceive as a particular song during a particular singing of that song.

My belief is that if a child can sing a song, the child knows the song; and I believe that this is an actual knowledge. Further, if a child knows a song, the child knows how to manipulate all of the sub-acoustic systems functioning in the song, and demonstrates that knowledge when singing the song. A corollary to this is that if a child knows a song, s/he actually knows the interrelationships of the acoustic sub-systems determined by the structure of the song. Knowing the whole song is different from
perceiving the song as a whole, which is what I claimed previously. I believe that this knowledge of the whole song is what makes it possible for the child to ‘think’ the song as a whole, and that when s/he thinks a song, s/he is functioning as a systems thinker.

Questions addressed and developed

In addressing the question, “What is a song?” I have established that:

• a song is a ‘thing’, a physical coherence;
• a song is both an acoustic and prosodic event (See p.181 in this document); and have addressed each of these attributes (‘thing’, coherence, acoustic, prosodic and event) separately.

I have developed the notions that:

• the temporal nature of a song places special demands on the child as perceiver and processor of the song, and as a corollary to this,
• the song for its live actualization is dependent on the child-as-singer.
• we can hear a song being performed,
• we can ‘think a song’ as an object of thought (See p.188 in this document), and
• we can ‘think about’ a song as a thing (See p. 195 in this document), but
• we hear the ‘live’ song only insofar as it is an event, something that occurs in time. (See pp.170-179 in this document)

The importance of these notions for children-as-learners lies in the realization that for a child to repeat a song, s/he must structure it afresh with each repetition. This places a child in a particularly dynamic relationship of subject with object of thought. (See p.188 in this document)
The song as language

Were these the only reasons for children to sing songs, they would be significant, but I make the further assertion in the dissertation that what holds for the song as music, holds equally for the song as the carrier of the sound of language. Just as we can ‘think’ the sound of the music of a song, we can think the sound of the words. I make the point that children of elementary school age who are principally aural/oral learners, focusing on the sound of language could be to their advantage, both as learners (See p. 188 in this document) and thinkers. (See p.195 in this document) I make the argument that by placing the study of the sound of language within the context of a song that holds in tact the acoustic parameters of language, strengthens both the process of thinking the sound of words and thinking about the sound of words.

In a very practical way, it is my belief with regard to children-as-learners, that even though the words and music of a song express two separate systems of human vocal production (See p.188 in this document), singing certain songs brings these two systems together in compatible confluence. Children who speak a language already have competencies in perceiving, processing and producing human vocalization. It is my belief, that singing and studying songs in which the acoustic properties of speech are enhanced, will help children acquire and continue to develop competence in the sound-to-symbol process which is literacy.

\[140\text{ We can, for example, ask ourselves the question, “Does the phrase “in the dell” at the end of the song sound the same or different from the “in the dell” at the end of the first phrase of the song?” Or we can ask about the music “Which sound seems to be “Do” (the home key) in this song?” These questions both direct the thinking towards the sound of the words or music of the song.} \]
FINALE NOTE

...The process is simple and always the same. She examines the
tangle; finds a loose, unconnected strand; loosens it and traces it
back into the matted lump of wool. She works at the tangle until
she knows that if she pulls any tighter at the strand it will break.
She leaves that thread, picks up another one that was loosened by
her pulling and repeats the same process. She finally comes to the
one real cause of the tangle. After loosening that,
all goes smoothly for the next little while...

Singing in the education of children

One of the reasons for writing this dissertation has been to establish a rationale for
my belief that it is to the advantage of children-as-learners that they sing songs together
every day in the classroom in the language of instruction. During the course of this
writing I have made a distinction between 'singing together' and 'studying music' (See p.
169 in this document) and have put forth the opinion that these processes engage children
differently. The one (singing together) can become a context for the other (studying
music), but I have made the point that singing songs together, in and of itself has value
for children-as-learners.


Epilogue

...As each colored strand is freed and lengthens, she rolls it into a ball, one for each color. It is a gentle process. It has to be.

As the little old lady works her way through this self-imposed project, her mind is free to untangle the strands of her interconnected memories.

I have come to the end of this untangling. The "matted mound of multi-colored yarn..." is separated "...each colored strand... into a ball, one for each color..." As you examine the balls of wool, it is easy to see that they are not fresh off the store shelf. The strands are rippled and misshapen, having spent so many years tightly interwoven and held in a certain shape. But there they are...resting nicely in "...the little old lady's... knitting bag next to her chair..."

Although the wool is not new, it is incredibly fine wool. The "...little old lady..." will be sure to wash it, stretch it...and as she sits in her chair, she muses about how it could be used in still another project...for the sake of tomorrow's children...
APPENDIX I

After examining my files I realize that they reflect two distinct periods in my teaching activities. One period, (1967-1991) includes documentation of the years I worked directly with Mary Helen Richards. It begins prior to the establishment of the Richards Institute of Music Education and Research in California (1969) and in Ontario, Canada (1970) and extends through to my leaving the Institute (1991). The other begins with my moving to Burnaby, B.C. (1986) and extends through to the last course I taught in 2000. There are five years (1986-1991) when the two periods overlap, I was teaching for both the Richards Institute (in the United States and Ontario) as well as in British Columbia. Since 1991, however, all my teaching has been in British Columbia.

The period (1967-1991)

Itinerant teaching: A deliberate choice

Mary Helen and I had chosen to be an itinerant teaching team for a very specific reason. We found that those able to attend the first two summer sessions at College of the Holy Names, Oakland, (1968-1969) were a very select group of teachers. Some had fewer family obligations to keep them home in the summer, some were sent by their universities, others simply had the funds that allowed them to combine a trip to California with taking a summer course. Mary Helen and I felt that the possibility of reaching children would be greater if we could take the courses to local school districts1 where the

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1 As a remarkable example of the benefit of this idea is the story of Marion, a third grade teacher in Deer Lodge, Montana. Mary Helen and I went into that school district to teach a summer course sometime in the late 1970’s. The person who organized the course, Betty Hoffmann, was president of the Montana Music Educators Conference at the time and a local Deer Lodge music teacher. She had contacted all her teacher friends so that we would have a registration large enough to warrant our coming. Deer Lodge had a population of 5,000 at the time. Among those registered was Marion, a rancher’s wife. She was never free to leave home in the summer. Marion had just two years before retiring from teaching.

The next summer when Mary Helen and I arrived in Deer Lodge for the second course, we were so surprised to see Marion. We asked her why she would think of taking a course since this was her last year of teaching. She replied, “I want to make my last year the best year of all.” She continued, “I know the course will help me, because after last summer’s course, I realized that for the first time in my teaching
teachers could then receive credit from the local universities. This idea did not originate with us in fact it was teachers from Ontario who posed it as a possibility. Our first venture was to go to Chatham, Ontario, in the summer of 1969. The course was credited by The College of the Holy Names but was attended by more than 100 local classroom and music teachers. The first course in the United States to be named *Education Through Music* was held in Fort Wayne, Indiana, in 1970. The next year we went to Colorado Springs. The pattern of offering summer courses gained momentum and Mary Helen and I crisscrossed the continent summer and winter from that time onwards.

Organizing the course content especially between 1967 and 1983 was a matter of developing it, course by course, class by class. Each course had to be re-organized and planned in response to what we were learning as we went along. What finally found its way into the publications *From Folk Songs to Masterworks* and the *Child in Depth* (See pp. 30 and 33 of this document) was only the beginning.

For the courses following those publications, and immediately prior to the each summer course (in those early years we did two, four-week courses each summer, one in the United States and one in Ontario) we would prepare a new syllabus. These would include new folk songs (we were always looking for songs that fit in with the new sequence of concepts) new study techniques, new referencing of the authors we were reading, or who were recommended to us. Over a period of years as feedback would trickle back from the course participants that certain games or study techniques really worked well with their students, those were what were included in the more formal publications cited in the following list of instructional materials we used in our courses.

career I knew the color of every child’s eyes.” She was of course referring to particular folk song-games in which children are distinguished by the color of their eyes.

2 Examples of these cited in the list of instructional materials are: *The River of Symbols* and *Read, Sing, and Dance.*
Preliminary Publications


Partial Listing of Instructional Texts and Materials Prepared for Courses in Education Through Music (In chronological order)


Sweeney, F. (Unpublished) *Sound Skills Overview*

*A gathering network of teachers*

A core group of teachers kept coming to the summer courses year after year. These began to form into a strong network of teachers who joined Mary Helen and me early on in our search. Although Mary Helen was listed as the author of the written materials, time and again she said that in reality she was the scribe for the group. All of
us were involved in the process of trying out materials, giving feedback based on the response of the children. All of us were writing, revising, reading and sharing.

Staff development

Many of the teachers in the network became teaching assistants during summer courses as well as in courses held in their local areas during the winter. Preparing teaching assistants became a major task; we had staff development retreats in Combermere, Ontario, and elsewhere and always it seemed that preparing for classes each day during summer courses took as long as the actual teaching. The need for continual staff development was so critical to the success of the courses as can be inferred from the following letter that I wrote to my friend Maureen Reagan in Nova Scotia shortly after moving to Burnaby, B.C. in 1986:

...At present, the most extensive use of ETM (Education Through Music) is in the education of classroom teachers in the Province of Ontario. We have been associated with the University of Windsor since 1970 but in recent years our involvement there has seen an enormous expansion. Just this past year, including the summer study program, we have instructed 825 teachers in ETM in 12 different cities in that Province. There are only three permanent Institute Staff persons carrying on this instruction but we have the marvelous help of teachers who have taken three or four courses in ETM and who use it every day in their own classrooms. These Teaching Assistants range in the number of 35 persons, most of them classroom teachers and some of whom have learned all they have ever had in formal music education from their courses in ETM.

Staff development had become a very big job!

The Mien Project: Lesson plans, pictures and notes

The file for the Mien Project (See p. 155 in this document) is unique in that it has the day by day lesson plans, snap shots of the women engaged in playing folk song-

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3 See Staff Development Course, Summer 1989 in Corvallis, Oregon, as listed in my teaching notes above.
games, mapping, reading and sharing maps. The file also contains hand written letters from some of the women who had to move away from San José.


The documentation for this period consists mainly of course notes. Those courses for which I still have detailed notes are listed in the following table. I have not chosen to include the notes for the innumerable workshops and conferences at which I presented during this period, since these seldom had any impact on the process of unraveling referred to in the dissertation.

**Organization of my class notes**

The file folder for each course is organized according to the same pattern: separate pages for each session organized in a format that allowed me to gather the information quickly in order to plan the next class.

Each course entry contains:

- the sessions organized under separate class headings: repertory, philosophy, sound skills, observation of children and comalia;\(^4\)

- my lesson plans for each of these separate classes to which after completing a session, I added hand written memos to myself to remind me of what had actually occurred and what was omitted. In some instances I jotted down the reason for the on-the-spot changes in plan;

- suggestions or questions that arose during a class and which I felt needed to be addressed in the following class;

- a running description of the folk song-games, variations of games, study techniques covered from week to week;

\(^4\) In 1966-1967 I worked with Dr. Helen Creighton the renowned Canadian Musicologist and folklorist. My task was to listen to tapes of 'her singers' and transcribe the songs into music notation. It was Helen who first told me about the practice in Nova Scotia in former times for neighbors and friends to gather to sing and dance together. They called this gathering a *Come-All-Ye*. In *Education Through Music* courses we adopted this practice and coined the name *Comalia* from the expression 'come all ye'. We always gathered to sing and dance at the end of each session, as a way of reviewing and expanding the participants' familiarity with the repertory they were learning during the course.
course requirements, evaluation procedures, class lists, attendance and grading sheets, and photographs of the participants;

- the written assignments based on the texts, philosophy class, the observation of children (either their own students or those in the observation class);

- occasionally I have included more formalized reflections of my own. I sometimes prepared these to help summarize points around certain topics being developed in a particular class;

- a few photographs of me teaching the children in some teacher's classroom. There are even occasional street directions to the school I had scheduled to visit on the days in between classes.

The way my courses were scheduled forced me to keep meticulous notes. This was essential if I were to retain any consistency in the flow of course content. For example, during the fall of 1991 I taught courses in Cranbrook, Duncan and Prince George. This meant that one week, I would teach Tuesday and Thursday evenings, and all day Saturday in Cranbrook, repeat the same schedule in Prince George the following week, and the third week move on to Duncan and do the same. I might have one week at home and then repeat the same schedule or a slight variation of it, for the second and third sessions of the course.

Examples of these are: De-mythologizing the aesthetic experience; Experience-Reflect-Record; Assessment chart: The song experience game.
The scheduling of courses

Table 1. Courses Conducted between 1989 and 1996

<table>
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<tr>
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<td>Staff Development Course</td>
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<td>1990 (Summer)</td>
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<td>- do -</td>
<td>I</td>
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<td></td>
<td>I</td>
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<tr>
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<td>I</td>
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## Reflection Booklets

One piece of significant documentation is totally missing from my files, namely, the Reflection Booklets of the participants. Every participant in every class wrote in a Reflection Booklet. The following is a typical description of what was intended by this requirement. It is a quote from the course requirements for the UBC Summer Course, 1993:

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6 The way we came to incorporate Reflection Booklets into our courses is typical of so many things that became part of our regular practice. Ann Shaner, a kindergarten teacher from Big Fork, Montana, had experienced this form of written ‘conversation’ in a *Math Their Way Workshop* and brought the idea back to our planning committee.
At the end of each day, ten minutes are scheduled for participants to write their thoughts in a Reflection Book. The purpose of this is not so much to write an account of class activities, but as a means for each to communicate reactions, perceptions and questions arising from the class experience. The instructor responds to each reflection and the booklet is returned at the beginning of the next session.

From the outset we clearly established that Reflection Booklets were not journals and had no direct connection with the grading process. They served a totally different function. Often they were used as a forum of expression for those who felt embarrassed to ask certain questions during class, or for those who hesitated to ask for more explanation about some point that others took for granted. We always returned the booklets at the end of each course because invariably these written 'conversations' were tailored to the individual.

For me, the person teaching the course, it is difficult to express without going into great detail, how the 'conversations' carried on in the Reflection Booklets shaped my teaching. I know that I often altered my presentation of the course content as well as my teaching style as a result of what was shared within their pages. The Reflection Booklets also helped me personalize my memories about the people in the class as well as the particular direction my teaching was taking in a particular class. In thinking about it, I feel that the Reflection Booklets helped me greatly to re-enter the flow of each particular course. It was always a struggle to maintain a sense of connectedness and continuity because of always moving from one location to another in teaching the courses.

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7 These were specifically prepared for this purpose and distributed at the beginning of a course.
APPENDIX II

A. Compatible confluence of words and music in songs

The following quotation from *The Acoustic Analysis of Speech*, in which the authors Kent and Read (1992) describe prosody, guided me to examine the notion of compatibly confluence between words and music in a song:

...prosody will be defined as the suprasegmental features of speech that are conveyed by the parameters of fundamental frequency (perceived primarily as vocal pitch), intensity (perceived primarily as loudness), and duration (perceived primarily as length). The term suprasegmental indicates that the phenomena of interest are not confined to phonetic segments. In fact, they often are observed over much larger intervals--syllables, words, phrases, sentences, and even discourses. (p 152)

The authors do not mention song; but in the case of a song "...the acoustic correlates of basic prosodic phenomena: vocal fundamental frequency, intensity and duration ... are regulated..." (Kent and Read, p.149) and in addition, their interaction is determined by the parameters of the song. For example, melody changes fundamental frequency in the music just as vocal pitch changes it in the flow of speech; rhythm in the music of a song, organizes sounds in patterns of varying duration just as the articulation of vowels and consonants produce patterns of duration in the sound of speech; and phrases in the music of a song, group sounds as phrases and chunks group words in speaking.
B. English as a stressed language

The problem of stress in English has been a major focus in writing this dissertation. (See this document: p. 2, the anacrusis; p. 3, footnote; p. 24, notating oral English; pp. 144-150, language rhythm families; pp. 156-158, the Japanese; pp. 159-167, teaching English as a second language.) So often over the years, in reference to a particular word or syllable, I would make the suggestion to teachers or children, “…Make this syllable (or word) louder…” or ask, “Which one is louder?” The response would be: “…But I can’t hear any difference! They all sound the same to me!” “And yet,” I would say, “You speak English so well and place the stress exactly where it belongs!” “It puzzles me that you speak as well as you do, if you do not hear the difference?”

Conversations such as these together with reading in Kent and Read that, “…Stress in English, whether contrastive or lexical, is not merely a matter of intensity but involves all three acoustic parameters—duration, intensity, and fundamental frequency…” (Fry, 1995) I decided to begin a more formal examination of stress in English as related to the particular songs that had become the basic repertory of my teaching practice.

C. Analysis of acoustic properties in music and language of song

During the winter term of 1997-1998, I made audio recordings of forty-nine students from Nestor Elementary School in Coquitlam, British Columbia. The children ranged in grade level from Kindergarten to grade six and all have had the same music teacher throughout their school years. Each child sang and spoke the words of three songs familiar to them: Come and Follow Me; When I Was Young; and Puncinella.
After the recording sessions, I made six entries for each of the 49 children into the digitized acoustic analysis program, Computerized Speech Laboratory (CSL) developed by Kay Elemetrics (that is each child singing and speaking the three songs). From these vast quantities of data, I selected one sample phrase, from one song for further detailed analysis. The sample phrase was “...we will stop...” excerpted from the song *Come and Follow Me*:

*Come and follow me in a line, in a line.*

*Come and follow me, we will stop like this!*

Several factors entered into my choice of this phrase.

- It is a ‘twenty-one’ pattern. (See p. 146 in this document)
- It falls within the flow of a whole phrase. (I thought that positioned in the flow rather than at the beginning or end of the phrase, the music would have exerted less of an impact on the phrase when it was spoken).
- It is easy for children to both focus on, and/or extract this phrase from its context within the whole song. (I knew this from many experiences of playing the game and mapping the song with children.)
An important clarification

It is important that I state clearly that the analysis of the computer generated spectograms, tables, and graphs that follows, in no way meets the criteria of a rigorous acoustic or statistical analysis of the data. I realized after beginning such an analysis that to complete it would take me far beyond the scope of the present writing. Nevertheless, I have found that even from making a cursory analysis on my own, certain questions arise, and certain possible alternatives suggest themselves that may possibly help children in the classroom deal with the 'problem of stress' in English.

What follows is the result of my asking myself, "What do you notice?" The following 'noticings' are what I have gleaned from puzzling over the computer generated graphs, and tables. I wanted to see if there is evidence that stress involves more than making a syllable, or word 'louder', (Kent and Read, 1992). I wanted to see if I could find evidence of this in the data.

Selection of subjects. From among the forty-nine subjects, I selected the data of four sample subjects for a more thorough examination. I used the following considerations in my selections:

- I remembered that most of the children who came at the beginning of the recording sessions were from the early primary grades, those from the upper grades came towards the end.

- I also remembered that it took me several recordings to get used to the procedures: wording the instructions for consistency, managing the actual taping procedures, and recording necessary information following the taping.

---

1 A spectogram is a multi-dimensional picture that displays among other things, information on intensity and time. Time is recorded horizontally and frequency is recorded vertically.
Bearing these two considerations in mind, I decided to select randomly from between subjects 20 and 45. I chose one sample subject randomly from subjects 20-29; two, from 30-39; and one from 40-49. The four subjects were: 023; 032; 037 and 041

D. Spectograms and linear graphs of the four sample subjects

The digitized acoustic analysis program, *Computerized Speech Laboratory* (CSL) developed by Kay Elemetrics produced the following spectograms and linear graphs.

In each figure, the spectogram and linear graph record the subject singing “We will stop.” The bottom two frames are of the subject speaking the words.

The spectograms show variations in amplitude, or concentrations of energy. The frequency range (indicated on the left side) is measured in kHz.\(^2\)

The linear graphs show variations in energy (measured in decibels)\(^3\) and duration (measured in milliseconds).

I have performed three tasks in addition to that of the computer:

- I indicated exactly where each word begins and ends (the vertical lines added to the graph).
- I added the text of the words.
- I recorded the decibel readings at word junctures and recorded the time at those juncture points.

---

\(^2\) Hertz is the measurement of the oscillation in the flow of electricity.

\(^3\) A decibel is a unit of a logarithmic scale used to measure the power level or intensity of sound. The range of intensity that can be picked up by the ear is so great that it is convenient to express these values as a function of the powers of 10, thus decibel.
Figure 10.1. Spectogram for Subject 23
Figure 10.2. Spectogram for Subject 32
Figure 10.3. Spectogram for Subject 37
Figure 10.4. Spectogram for Subject 41
Numerical computer analysis of spectograms

**Table 2.a.** Numerical analysis of duration (in 0.020 millisecond intervals) and energy levels (in decibels) for Subject 23

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Table 2.b. Numerical analysis of duration (in 0.020 millisecond intervals) and energy levels (in decibels) for Subject 32

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<tr>
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<tr>
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<td>0.581</td>
<td>35.29</td>
</tr>
<tr>
<td>31</td>
<td>0.601</td>
<td>29.12</td>
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</table>
Table 2.c. Numerical analysis of duration (in 0.020 millisecond intervals) and energy levels (in decibels) for Subject 37

<table>
<thead>
<tr>
<th>Frame</th>
<th>Time (sec)</th>
<th>Energy (db)</th>
</tr>
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<tbody>
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</tr>
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</tr>
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<td>76.26</td>
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<tr>
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<td>76.89</td>
</tr>
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<td>76.39</td>
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<td>75.17</td>
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<td>75.29</td>
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<td>62.31</td>
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<tr>
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<td>0.44</td>
<td>52.38</td>
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<tr>
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<td>77.6</td>
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<td>0.54</td>
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<td>0.56</td>
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<td>0.62</td>
<td>52.97</td>
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<table>
<thead>
<tr>
<th>Frame</th>
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<th>Energy (db)</th>
</tr>
</thead>
<tbody>
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<td>0.14</td>
<td>68.52</td>
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<td>8</td>
<td>0.16</td>
<td>68.6</td>
</tr>
<tr>
<td>9</td>
<td>0.18</td>
<td>66.2</td>
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<td>0.2</td>
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<td>0.28</td>
<td>60.13</td>
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<tr>
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<td>0.32</td>
<td>70.17</td>
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<td>0.34</td>
<td>70.21</td>
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<td>18</td>
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<td>64.89</td>
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</table>
Table 2.d. Numerical analysis of duration (in 0.020 millisecond intervals) and energy levels (in decibels) for Subject 41

<table>
<thead>
<tr>
<th>Singing</th>
<th>Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>41csvwws</td>
<td>41cspwws</td>
</tr>
<tr>
<td><strong>Time(secs)</strong></td>
<td><strong>Energy(db)</strong></td>
</tr>
<tr>
<td>1  0.001</td>
<td>1  0.004</td>
</tr>
<tr>
<td>2  0.021</td>
<td>2  0.024</td>
</tr>
<tr>
<td>3  0.041</td>
<td>3  0.044</td>
</tr>
<tr>
<td>4  0.061</td>
<td>4  0.064</td>
</tr>
<tr>
<td>5  0.081</td>
<td>5  0.084</td>
</tr>
<tr>
<td>6  0.101</td>
<td>6  0.104</td>
</tr>
<tr>
<td>7  0.121</td>
<td>7  0.124</td>
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<tr>
<td>8  0.141</td>
<td>8  0.144</td>
</tr>
<tr>
<td>9  0.161</td>
<td>9  0.164</td>
</tr>
<tr>
<td>10 0.181</td>
<td>10 0.184</td>
</tr>
<tr>
<td>11 0.201</td>
<td>11 0.204</td>
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<td>16 0.304</td>
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<td>20 0.384</td>
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<td>22 0.424</td>
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<td>25 0.484</td>
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<td>26 0.501</td>
<td>26 0.504</td>
</tr>
<tr>
<td></td>
<td>27 0.524</td>
</tr>
<tr>
<td></td>
<td>28 0.544</td>
</tr>
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</table>
Summary of loudness (in decibels) of four sample subjects

**Table 3.a.** Geometric mean of energy (in decibels) of Subject 23

<table>
<thead>
<tr>
<th></th>
<th>Singing 23cswws</th>
<th>Speaking 23cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>41.30</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>43.0</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>40.9</td>
<td>stop</td>
</tr>
<tr>
<td></td>
<td>33.30</td>
<td>40.10</td>
</tr>
<tr>
<td></td>
<td>40.70</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.b.** Geometric mean of energy (in decibels) of Subject 32

<table>
<thead>
<tr>
<th></th>
<th>Singing 32cswws</th>
<th>Speaking 32cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>44.7</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>45.2</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>38.0</td>
<td>stop</td>
</tr>
<tr>
<td></td>
<td>41.9</td>
<td>41.1</td>
</tr>
<tr>
<td></td>
<td>38.0</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.c.** Geometric mean of energy (in decibels) of Subject 37

<table>
<thead>
<tr>
<th></th>
<th>Singing 37cswws</th>
<th>Speaking 37cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>72.5</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>73.7</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>68.5</td>
<td>stop</td>
</tr>
<tr>
<td></td>
<td>67.8</td>
<td>68.1</td>
</tr>
<tr>
<td></td>
<td>63.5</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.d.** Geometric mean of energy (in decibels) of Subject 41

<table>
<thead>
<tr>
<th></th>
<th>Singing 41cswws</th>
<th>Speaking 41cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>50.9</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>51.6</td>
<td>Will</td>
</tr>
<tr>
<td>stop</td>
<td>46.3</td>
<td>Stop</td>
</tr>
<tr>
<td></td>
<td>45.8</td>
<td>45.2</td>
</tr>
<tr>
<td></td>
<td>40.8</td>
<td></td>
</tr>
</tbody>
</table>
Summary of duration (in milliseconds) of four sample subjects

**Table 4.a.** Duration (in milliseconds) of Subject 23

<table>
<thead>
<tr>
<th></th>
<th>Singing 23cswws</th>
<th>Speaking 23cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We</strong></td>
<td>0.160</td>
<td>0.300</td>
</tr>
</tbody>
</table>
| **will** | 0.140         | **We** | 0.160
| **stop** | 0.320         | **will** | 0.080
| **stop** | 0.320         | **stop** | 0.340
| **Total duration** | 0.520 | **Total duration** | 0.580 |

**Table 4.b.** Duration (in milliseconds) of Subject 32

<table>
<thead>
<tr>
<th></th>
<th>Singing 32cswws</th>
<th>Speaking 32cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We</strong></td>
<td>0.060</td>
<td>0.200</td>
</tr>
</tbody>
</table>
| **will** | 0.140         | **We** | 0.060
| **stop** | 0.260         | **will** | 0.120
| **stop** | 0.260         | **stop** | 0.200
| **Total duration** | 0.460 | **Total duration** | 0.380 |
Summary of duration (in milliseconds) of four sample subjects (cont'd)

**Table 4.c. Duration (in milliseconds) of Subject 37**

<table>
<thead>
<tr>
<th></th>
<th>Singing 37cswws</th>
<th>Speaking 37cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>0.200</td>
<td>0.080</td>
</tr>
<tr>
<td>will</td>
<td>0.120</td>
<td>0.060</td>
</tr>
<tr>
<td>stop</td>
<td>0.240</td>
<td>0.200</td>
</tr>
<tr>
<td>Total duration</td>
<td>0.560</td>
<td>0.340</td>
</tr>
</tbody>
</table>

**Table 4.d. Duration (in milliseconds) of Subject 41**

<table>
<thead>
<tr>
<th></th>
<th>Singing 41cswws</th>
<th>Speaking 41cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>0.120</td>
<td>0.100</td>
</tr>
<tr>
<td>will</td>
<td>0.100</td>
<td>0.120</td>
</tr>
<tr>
<td>stop</td>
<td>0.240</td>
<td>0.280</td>
</tr>
<tr>
<td>Total duration</td>
<td>0.460</td>
<td>0.400</td>
</tr>
</tbody>
</table>
E. Human judges

Twelve human judges were asked to listen to the same recordings of the 49 children singing and speaking the words of the phrase “we will stop”.

The judges were instructed to indicate which word/words they heard as ‘most important’. I phrased the instructions this way to avoid giving the impression that ‘stress’, or ‘accent’ necessarily means ‘louder’.

Report of judges opinion

Table 5a. Judges perception of the most important word for Subject 23

<table>
<thead>
<tr>
<th></th>
<th>Singing 23cswws</th>
<th>Speaking 23cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>1</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>0</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>6</td>
<td>stop</td>
</tr>
<tr>
<td>All three equal</td>
<td>3</td>
<td>All three equal</td>
</tr>
<tr>
<td>We and stop equal</td>
<td>2</td>
<td>We and stop equal</td>
</tr>
<tr>
<td>We will</td>
<td>0</td>
<td>We will</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>Total</td>
</tr>
</tbody>
</table>


Table 5.b. Judges perception of the most important word for Subject 32

<table>
<thead>
<tr>
<th></th>
<th>Singing 32cswws</th>
<th>Speaking 32cspwws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>1</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>0</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>6</td>
<td>stop</td>
</tr>
<tr>
<td>All three equal</td>
<td>1</td>
<td>All three equal</td>
</tr>
<tr>
<td>We and stop equal</td>
<td>4</td>
<td>We and stop equal</td>
</tr>
<tr>
<td>We will</td>
<td>0</td>
<td>We will</td>
</tr>
</tbody>
</table>

Table 5.c. Judges perception of the most important word for Subject 37

<table>
<thead>
<tr>
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<th>Singing 37cswws</th>
<th>Singing 37cswws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>0</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>0</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>9</td>
<td>stop</td>
</tr>
<tr>
<td>All three equal</td>
<td>1</td>
<td>All three equal</td>
</tr>
<tr>
<td>We and stop equal</td>
<td>1</td>
<td>We and stop equal</td>
</tr>
<tr>
<td>We will</td>
<td>1</td>
<td>We will</td>
</tr>
</tbody>
</table>


**Report of judges opinion (cont’d)**

**Table 5.d.** Judges perception of the most important word for Subject 41

<table>
<thead>
<tr>
<th></th>
<th>Singing 41cswws</th>
<th>Singing 41cswws</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>0</td>
<td>We</td>
</tr>
<tr>
<td>will</td>
<td>0</td>
<td>will</td>
</tr>
<tr>
<td>stop</td>
<td>8</td>
<td>stop</td>
</tr>
<tr>
<td>All three equal</td>
<td>2</td>
<td>All three equal</td>
</tr>
</tbody>
</table>
| We and stop equal| 2            | We and stop equal| 1
| We will        | 0               | We will         |

**Summary of judges opinions**

Twelve judges were asked to indicate which word of the three, “we”, “will”, “stop” they heard as most important as sung and spoken by the four selected subjects (23, 32, 37 and 41). This means a total of 48 instances of listening. (12 judges times 4 subjects, equals 48.)

**Table 6.a.** Summary of judges’ opinion of most important word for the four sample subjects

**Singing:** In 44 of the 48 instances the judges heard “stop” as the most important word. That is, in 92% of the instances the judges heard “stop” as the most important word.

**Speaking:** In 43 of the 48 instances the judges heard “stop” as the most important word. That is, in 90% of the instances the judges heard “stop” as the most important word.
F. Summary of computer analysis of energy

The Geometric mean measured in decibels at intervals of 20 milliseconds for each of the words: “we”, “will”, “stop” showed that:

Table 6.b. Summary of computer analysis of the geometric mean of energy for four sample subjects

| Singing: In all cases of the four sample subjects, the geometric mean of the actual energy used to produce “stop” was less than that recorded for either of the other two words, “we” or “will”. That is, less energy was used to sing “stop” than either of the words “we” or “will”, 100% of the time. |
| Speaking: In three cases of the four sample subjects, the geometric mean of the actual energy used to produce “stop” was less than that recorded for the other two words, “we” or “will”. That is, less energy was used to speak “stop” than either of the words “we” or “will”, 75% of the time. |

G. Preliminary Conclusions

The discrepancy between what the judges heard as the ‘most important’ word and the actual loudness as analyzed by the computer, would indicate that what we hear as ‘important’ (or louder, or stressed) may result from the action of acoustic features other than loudness, or the actual level of energy expended.

H. Examination of ratio of discrepancy of loudness between singing and speaking

There was another discrepancy that also raised my curiosity and that was the 25% difference in the four sample subjects, between the number of instances of “stop” being actually less loud than “we” and “will” in the singing, and the number of times “stop”
was actually louder in speaking. I wondered if there was a similar ratio of difference between singing and speaking in all 49 subjects. Analysis of the data showed the following:

**Table 6.c.** Summary of computer analysis of the geometric mean of energy for the total number of subjects

<table>
<thead>
<tr>
<th>Singing</th>
<th>Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>In 42 of the 49 subjects analyzed, the geometric mean of the actual energy used to produce “stop” was less than that recorded for either of the other two words, “we” or “will”. That is, less energy was used to sing “stop” than either of the words “we” or “will”, 86% of the time.</td>
<td>In 33 of 48 of the subjects analyzed (one was considered faulty and could not be used) the geometric mean of the actual energy used to produce “stop” was less than that recorded for either of the other two words, “we” or “will”. That is, less energy was used to speak “stop” than either of the words “we” or “will”, 69% of the time.</td>
</tr>
</tbody>
</table>

Although in the four samples subjects “stop” was sung 25% fewer times with less energy than “we” or “will”, than when spoken; and although in the case of the full number of subjects, “stop” was sung 17% fewer times with less energy than “we” or “will”; the relative difference between the actual energy used in singing and speaking “stop” is still great enough to warrant a further investigation. What factors other than the actual energy used effect our perception of what is ‘most important’, or ‘loud’ or ‘stressed’? How does singing and/or speaking effect our perception of what we hear as ‘most important’, or ‘loud’ or ‘stressed’? It would appear from examining the data that singing equalizes the difference of the relationship between the stressed and unstressed
(17% as compared with 25% in speaking) yet in both instances “stop” is generally perceived as most important.

I. Summary of relative duration among the words of four sample subjects

Table 6.d. Summary of relative duration for four sample subjects

<table>
<thead>
<tr>
<th>Singing: In 3 of the 4 sample subjects it took longer, to sing “stop” than the words, “we” and “will” combined. That is, 75% of the time, “stop” lasted longer than the “we” and “will” combined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking: In 4 of the 4 sample subjects it took longer, to speak “stop” than the words, “we” and “will” combined. That is, 100% of the time, “stop” lasted longer than the “we” and “will” combined.</td>
</tr>
</tbody>
</table>

Table 6.e. Summary of relative duration for total number of subjects

<table>
<thead>
<tr>
<th>Singing: In 29 of the total of 49 subjects it took as long, or longer, to sing “stop” than the words, “we” and “will” combined. That is, 59% of the time, “stop” lasted as long as, or longer than the “we” and “will” combined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking: In 38 of the total of 49 subjects it took as long, or longer, to speak “stop” than the words, “we” and “will” combined. That is, 78% of the time, “stop” lasted as long as, or longer than the “we” and “will” combined.</td>
</tr>
</tbody>
</table>

The ratio of relative duration among the three words in singing and speaking is not identical between the four sample subjects (75% to 100%) and the total 49 subjects (59% to 78%). There is, however, a parallel trend between the two. In more cases of
speaking however, “stop” took longer than “we” and “will” combined, than in the singing. A question arises: “What, if any, is the influence of the song on the relative duration of the three words?”

J. Possible implications

Nothing conclusive can be drawn from observations of such a small sampling of data, but I find it interesting to note the interplay between loudness and duration in our perception of what we hear as ‘most important’ word in a phrase. This is born out in a further quotation from Kent and Read:

Stress in English, whether contrastive or lexical, is not merely a matter of intensity but involves all three acoustic parameters—duration, intensity, and fundamental frequency... (Fry, 1955). Stress also affects segmental properties such as vowel and consonantal articulation (Kent & Netsell, 1971; de Jong, 1991). Segments in stressed syllables tend to have larger articulatory movements than syllables in unstressed syllables... Therefore, a vowel in a stressed syllable usually has a distinctive formant pattern...(whereas)... Acoustic distinctiveness usually decreases in unstressed syllables...(Kent & Read, p.152)

What I take from having made these observations is that the duration of syllables may have more to do with what we hear as ‘most important’ than energy or actual loudness of the word. It is conceivable that when persons do not hear a syllable as ‘louder’ it may in fact not be ‘louder’. On the other hand, from examining these data we can see that the chances are greater that the ‘most important’ syllable is longer than any of the individual (unaccented) syllables and that in many cases, the ‘most important syllable’ may be longer than the total number of unaccented syllables in a phrase.
K. Implications for the classroom

What I have gleaned from studying these data is to suggest that teachers, when teaching children about the accent in words or phrases, in addition to their usual intervention “Make it louder...”, they also say, “Make it longer...”. This additional focus may help children attain the desired effect of stressing a particular word or syllable in spoken English.
APPENDIX III

Figure 11. Scores

Clickety Clack

High Stepping Horses

Sally Go Round the Sun
Johnny Get Your Hair Cut

Oh! Johnny get your hair cut, hair cut, hair cut!

Johnny get your hair cut, just like me!

Daddy Loves the Bear

Daddy loves the bear and takes him ev'rywhere.

Swing a Lady Umptum

Swing a lady umptum, swing a lady round, Swing a lady umptum

And promenade a-round!
Sing With Me

Sing with me all together. Sing with me! all together Sing with me

All together, won't you be my darling!