

YOUNG CHILDREN AS SONG-MAKERS

A Study of Some Musical Processes in the Invented Songs  
of Children Aged 5 to 7

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## ABSTRACT

The thesis draws upon the works of Langer, Paynter, Sloboda, Serafine and other writers concerned with musical cognition, in presenting the view that music's structural wholeness is central to its meaning as a symbol of our experience of time. It argues that young children can experience this fundamental aspect of music and engage in musical thought processes.

It examines research which, taking language acquisition as its model, has shown that children acquire a musical language by developing cognitive schemes from their experience of the songs of their culture. It presents case study evidence that children aged 5 to 7 make musical structures which can embody their feeling lives and meet their need to make models of time. The rich variety of forms they use is compared with those in a wider world of song.

Current approaches to composing at Key Stage I emphasise the exploration of sound materials and the expressive characteristics of musical elements, particularly with instruments, and suggest that structural aspects come later. This view is supported by a model of musical development devised by Swanwick and Tillman; that theory is examined here, but it is further argued that, while operational understanding of musical structure may develop later, intuitive, enactive knowledge of music's symbolic structure may be available to young children, and may show itself in their invented songs. It is also suggested that vocal and instrumental music making may reveal different aspects of children's musical understanding.

The main implication for research and teaching is that we should value and encourage infant's vocal play, avoiding undue emphasis upon what children know about musical structure and giving authority to thinking and knowing within the act of music-making itself.

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## A NOTE ON TRANSCRIPTIONS

### **Time**

I have provided metronome markings as a general indication of tempo. Many of the singers used a very flexible tempo and metre which are not easy to indicate accurately without a cumbersome overload of signals. I have tried to indicate changes in metre when it seemed that these were integral to the piece and were not merely hesitation or stumbling over a word. Where the latter seemed to have occurred, I have not altered the time signature but have included the additional notes or rests, together with the cue "hesitates".

### **Pitch**

Crossed note-heads are used as a reminder that many of the children were not using well-developed singing voices, although the distinction between crossed and standard note-heads cannot be very finely drawn. Intonation is not very secure in many cases; even where the notes indicate a diatonic melody, there may be some straying from the key centre which traditional notation cannot represent without an elaborate system of additional signs. It is essential to hear the children's own performances on the accompanying cassettes and to consider the transcriptions only as a general guide.

I have not always observed the convention that a bar-line cancels an accidental, but have added sharps or flats where any possibility of doubt might otherwise exist.

All the singers have been given pseudonyms.

## CONTENTS OF AUDIO-CASSETTES

Most of the music examples in the text are on the accompanying audio-cassettes; those not on the audio-cassettes are marked \* in the Table of Musical Examples (pages 6 to 12). Examples 3 to 25 are taken from the research literature. Other items not presented on audio-cassette include standard songs and a very few of the children's songs which were on a cassette which was damaged after I had transcribed its contents.

Cassette I = Examples 1 to 104

Cassette II = Examples 105 to 181

Cassette III = Examples 182 to 232

(See Table of Musical Examples for details of each example)

### A NOTE ON THE RECORDINGS

The recordings were made in school classrooms, corridors and, occasionally, in the playground. The sounds of normal school life, as well as outside traffic, can be heard as background to many of the songs. Recordings had to be made as the songs were produced, and the quality of recording is variable. Children sometimes turned or walked away from the microphone. They might begin by taking a deep breath which suggested a loud song to follow, but then whisper - or the other way round - so that speedy adjustments to recording levels had to be made. Sometimes, children sang so quietly that it was impossible to get a good signal. I have included examples in spite of poor recording, where they have provided good illustrations of children's practice.

## PREFACE

There has, until now, been no detailed study of songs invented by children aged 5 to 7. The idea that even young children can make music of their own is now well established (Orff, Addison, Paynter); but what such music is like and how it relates to children's development has, until recently, hardly been explored.

The influential study by Swanwick and Tillman (1986) takes a broad, developmental view of the compositions of children aged from 3 to 11, but, though songs are included, there is an emphasis on instrumental work. The Swanwick and Tillman sequence does not seem to account fully for songs such as those which I have collected from 6-year-olds (see, for instance, Examples 1 and 2, by Christine). In particular, Swanwick and Tillman, and Ross and Bunting, seem to suggest that young children cannot grasp musical structure. Had Christine merely progressed through the sequence more quickly than other children? What exactly do Swanwick and Tillman mean by "grasp"?

I argue, in a consideration of the literature on musical cognition in chapter 2, that structure is fundamental to music's meaning; so fundamental that we might expect it to be apparent even in the music of young children.

I have taken as my starting point Langer's exploration (developed by Paynter) of music as a model of time, in which the import of a musical work lies in the structural relationships and the resulting sense of wholeness. I have explored accounts of musical thought processes by Serafine and Sloboda as a basis for analysis and as further support for the idea that structure is fundamental to music's meaning. In particular, I have (following Sloboda) asked whether young children have inner representations of music's form, and if so, what these might be like.

I have been influenced by Loane's (1984 and 1987) study of the compositions of older children as models of what he calls "consciousness-time"; but while Loane primarily seeks to interpret aspects of the children's feeling lives revealed in their music, my

own work looks at early development of the structural aspects which enable such models to be formed.

The suggestion, by Swanwick and Tillman and others, that a grasp of music's structure is a rather late acquisition, seems to associate it with the development of analytical awareness and understanding. But the writings of mature composers examined in chapter 2 suggest that there is an element of composition which, even for them, is largely intuitive and outside their conscious control; an aspect of musical thinking which is experienced purely in the act of making music and which cannot be experienced otherwise. I argue (with Gardner) that young children, working intuitively rather than analytically, might experience music's meaning in a similar way.

In chapters 4 and 5, I examine studies of infant song acquisition (by the Project Zero team, Dowling etc.) which, taking infant language acquisition as their model, have shown that children acquire a musical language by developing cognitive schemes from their experience of the songs of their culture, and which have begun to show what such schemes are like. Song acquisition studies have focused mainly upon pre-school children's developing ability to reproduce the songs of their culture rather than to invent new songs. My study examines the continuation of this process in the early school years but in relation to the children's own inventions.

There is a danger that, from the standpoint of adult, western European classical music, one's ability to understand the significance of young children's musical activity might be restricted or distorted. So, in chapter 6, I have examined some aspects of song-making in early traditional music, and considered the model of children as folk-singers provided by studies of their playground songs, as a broad context in which to consider their invented songs.

I have adopted a case study approach (cf. Bunting, Loane, Glover), in the belief that an in-depth examination of the work of a few children can complement the global developmental view (chapter 7). I have presented detailed descriptions of the songs of four children (chapters 8, 9 and 10) which, I suggest, show that children aged 5 to 7 can work with musical structure to embody their feeling lives and

to meet their need to make models of time (Paynter). The children used the musical thought processes identified in chapter 2 and seemed to be working according to schemes (cf. superordinate plans) which governed how their songs went. While some of these schemes were common to all four children, they also seemed to be working to their own interpretations of how music goes, and to have their own agenda.

Chapters 11 and 12 apply the findings of the case studies to the songs of the other twenty-eight children in my sample, and attempt to draw some conclusions. I discuss three "categories" of songs, but stress that these are offered as ways of interpreting children's work, rather than as classes into which each piece may be expected to fit. Interesting parallels with early traditional music are noted.

I suggest that, even at 5 to 7, children differ in the strategies they use to make a song and in the variety of representations they have of how a song goes. I describe six schemes, all of which are used by the most successful song-makers but not by all of the other children. Differences between the most successful children and others also show in the way they use borrowed material. Some, as well as borrowing whole tunes, abstract smaller units from them and work with these to make their own songs.

All of the children showed that they were acquiring simple song forms, and in many cases, they were working with the kind of structural forces that produce the necessary progressions and recessions that, in turn, delineate the form; ie. making pieces which are satisfying symbols of time (Paynter).

Christine, the singer of Examples 1 and 2 which were the starting point for this study, did prove to be one of the more successful singers; but it is by no means certain that she had progressed through the phases of Swanwick's and Tillman's sequence early. Indeed, her most complex examples of musical thinking, such as Example 1, occurred before she had begun to work consciously and deliberately with the musical vernacular, and before she could recall her songs or analyse them verbally. Other children also produced satisfying and quite complex musical structures when they were still, apparently, in the earliest of Swanwick's and Tillman's modes. The

implication is that music's structure can indeed emerge, along with musical vocabulary, at an early age.

Swanwick and Tillman refer to early "glimmers" of understanding of structure in children of 4-years-old, which, they say, are more likely to be seen in songs than in instrumental pieces; it is this early awareness which is the subject of my study. The grasp of structure which these young children exhibit is not, perhaps, that referred to by Swanwick and Tillman, in that the children could not consciously and deliberately control their music. It seems to be, rather, an implicit, enactive understanding, which enables children to play with musical ideas, combining them in satisfying new relationships, before they begin to take a conscious hold upon the musical vernacular.

Considering the implications for pedagogy, in the light of current practice described in chapter 7, I suggest that the most important aspect of music-making is not necessarily one which children can discuss, but one which they need encouragement to explore on their own terms in their song play. It seems likely that children may perform differently with different media; having developed an early vocabulary through song, they may produce more developed musical inventions vocally than with instruments.

While training children to imitate, using a limited vocabulary, may be valuable in improving their intonation, the pattern of song acquisition outlined here suggests that children will select their own vocabulary from the songs of their culture, and they may do things which we could not predict and which would be inhibited by exclusive use of a simplified, teacher-controlled vocabulary in song-making.

The main implication for teaching and research is that we should value and encourage children's vocal play, alongside work with instruments, avoiding undue emphasis upon what children know about musical structure, and giving authority to their thinking and knowing within the act of music-making itself.

## ACKNOWLEDGEMENTS

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Richard Addison's writings, and the opportunity to work with him in the Durham Youth Opera Group in the late 1970s, first prompted me to explore free composition with young children.

John Paynter has been an enlightening influence upon music education for most of my professional life, and I am grateful for his challenging and illuminating help as my supervisor. I have particularly benefitted, in the development of this thesis, from his thinking on musical structure and on music as a model of time.

The early chapters of Hargreaves' account of the developmental psychology of music (1986) provided an invaluable introduction to much work that was new to me. Inevitably, my review of that particular literature covers similar ground, though I have, of course, made my own study of relevant material.

Others who have encouraged me to think that this work is of some value, and who have influenced the form it has taken, include Brian Loane, whose work provides sensitive insight into what children may be doing when they make their own music; and many of my students in initial and in-service teacher education.

My colleagues in the University of Durham School of Education provided encouragement and support. I am grateful to the University for granting a term's research leave in the summer of 1991 and for a grant towards the cost of travel to schools.

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Above all, I must thank the thirty-two young singers who so generously shared their songs with me.

My husband, Colin, has been a constant source of encouragement. This thesis is dedicated to him, and to Paul Davies whose time for singing proved all too short.

#### AUTHOR'S DECLARATION

No part of this work has previously been submitted for a degree in this, or any other, University.

A summary of the main argument, with illustrations from the case studies and from chapter 11, appeared as an article, Listen to my Song, in British Journal of Music Education (1992) 9, 19-48.

CHAPTER I - CHRISTINE'S LAH SONG

Example 1: Christine (6:0)

♩ = 108

(to Lah)                      lah lee.              Lah (etc.)

lah lah yee,

lah (etc.)                      slower

Analysis of this song, which Christine produced when she was just 6-years-old, suggests that she is capable of complex musical thinking. She has produced two clear musical ideas, (x) and (y). She repeats the rhythm of (x) to different melodic fragments (1-6); she interrupts and extends (x) with sequential repetition (7-11); she introduces the new idea at bar 12 and proceeds to work this as successfully as she did (x).

She uses repetition, exact (13) and at different pitches and removed in time from the original (16 and 19); sequential and extended repetition (14-15); repetition in diminution and with a new sequence (17-18); and she abstracts and repeats the rhythm to a new melody (20).

At first, there seems to be no obvious interchange of the two ideas between sections of the piece. But a strong sense of unity is

achieved because the two ideas are themselves related, (y) being an inversion of the last three notes of (x).

There is clear but flexible phrasing. There is a sense of direction and overall shape, with an upward, aspiring beginning and a falling end; and overall, there is an impression of authenticity, commitment and expressiveness.

This little piece provokes many questions.

Is it an isolated example? How does it relate to any other songs Christine might make or to songs by other 6-year-olds? Could she make pieces like this to order? She has created a tightly-knit whole using motivic development techniques which we would normally associate with a much more mature student of composition. So in what ways can a 6-year-old be compared to a mature composer? Is she a precocious or exceptionally gifted musician?

Example 2: Christine (6:3)

$\text{♩} = 72$

I had a lit- tle kit- ten, he loved me lots, so one day I

bought him a new bowl and a bean bag. One day he died, and

I was ve- ry up - set, but I did - n't cry.

Example 2 was also produced by Christine at the same period. In this poignant piece, Christine uses a simple song form to contain, organise and resolve feelings associated with the loss of her kitten.

She seems to have the wherewithal to work with music as a symbol system, making a coherent form which can embody her feeling life.

This I take to be the meaning of music. Musical thought processes involve making relationships between musical events in time, and the organisation of our feeling lives into structured wholes. At what point, then, do children begin to enter into this process? In what way can they be considered as musical thinkers and what is the nature of young children's musical thought?

Much of the literature on musical development (which will be considered in chapter 3) seems to take the view that composition must attend upon the development of operational thought, and indeed there is a sense in which that must be true. But childhood is also presented as a time of "unselfconscious experimentation" in music (Ross, 1984, p.129). Just what might be going on in all this experimentation? What is the significance of the intriguing suggestion by Gardner (1973, p.vi) that the child of 7 or 8 is already a participant in the artistic process, i.e. pre-operational art-making?

As I continued to collect children's songs, it became apparent that Examples 1 and 2 were not isolated instances. Such pieces were occurring often enough, and across a sufficient number of children, to make it seem as if further study would be both justified and rewarding.

Central to my investigation is the thesis that even while they are still discovering music - exploring sounds, acquiring expressive vocabulary and developing manipulative skills - young children are also working with music's structural possibilities and its wholeness. For this is the meaning of music; and young children are actively engaged in seeking meaning in their world.

Lacking experience and vocal and instrumental techniques, and often still without a secure sense of tonality, can young children enter into the creative musician's experience of making musical symbols? Can they think with musical ideas? Have they already got some kind of hold upon music's essence, not just sounds, patterns and gestures,

but also the relationships in which musical meaning lies? And if so, what kind of a hold is it, and how does it relate to the mature composer's experience?

First, we need to consider what is meant by "musical thinking"; this will be the subject of chapter 2.

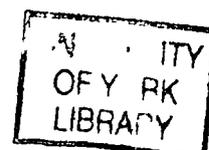
## CHAPTER 2 - WHAT IS MEANT BY THINKING IN MUSIC?

There is a considerable body of literature, stemming in particular from Langer (1942, 1953), which maintains that although the arts do not deal in formal propositional knowledge, they are, nevertheless, ways of knowing which we should recognise and value. The investigation of music as cognition, and of the nature and development of the musical mind has gathered momentum in the last decade (e.g. Sloboda, 1985 and 1988, Dowling and Harwood, 1986, Swanwick, 1988, Serafine, 1988 and Bamberger, 1991). What kind of knowledge are we dealing with? In what way is music an act of cognition? What are musical thought processes?

There has been a particular emphasis, in some curriculum materials, on children's development of the concepts which music, as an activity of mind, involves. This is reflected in the Department of Education and Science (1985) list of the musical characteristics which children should be acquiring in their early school years, as pitch, duration, timbre, intensity. (See also Kendell, 1976, p.21.)

But confusion may arise between using musical processes and being consciously aware of them and able to talk about them. Young children are still only learning to reflect upon, analyse and discuss their experiences in all areas. Acquiring such skills is fundamental to their cognitive development generally; and developing the ability to verbalise about music is of course useful if they are to organise their understanding and communicate it to others. But this will not necessarily lead them to experience music; nor is it a prerequisite for making music that they should be able to verbalise about what they do. The emphasis on musical concepts in the DES document, and in other writing on the music curriculum influenced by the DES, encourages the view that children might only be presumed to be working with these elements if they can consciously identify them. I do not subscribe to this view.

The meaning of music is not in pitch per se, nor in duration, timbre or intensity in themselves. Thus describing these as musical concepts



is not sufficient to help us to understand how children, or indeed adults, think in music. Definitions of musical cognition, if they are to explain the act of music itself, must deal with relationships of musical events in time, rather than with the surface materials, the tools with which music as time is presented.

Cognitive activity involves the use of symbols as well as concepts. The idea of music as a symbolic presentation of our experience of time has been most fully worked out by Langer (1942, 1953). She argued that the tonal structures of music are similar to the forms of human feeling:

forms of growth and of attenuation, flowing and stowing, conflict and resolution, speed, arrest, terrific excitement, calm, or subtle activation and dreamy lapses - not joy and sorrow perhaps, but the poignancy of either and both - the greatness and brevity and eternal passing of everything virtually felt. Such is the pattern, or logical form, of sentience; and the pattern of music is that same form worked out in pure, measured sound and silence (1953, p.27).

For Langer, music does not deal with specific, individual feelings, but with the morphology of feeling, the ebb and flow of our feeling life, of our consciousness in time. Our experience of time is not of the measured, undifferentiated divisions of clock time, but of tensions; "time exists for us because we undergo tensions and their resolutions" (ibid., p.112). Music is the organisation of our consciousness of time and of our feeling life into symbolic form.

Why do we need music to work out the forms of our feelings in this way? Music is the unfolding of a series of temporal events, and the establishing of a set of relationships between those events. In organising them, we can determine what kind of events they are to be; we can mentally grasp and hold them; we can impose order and coherence upon them; we can bring them to satisfactory conclusions; and we can go back to the beginning and experience them again (even if not exactly the same, for repetition itself changes the events).

This idea has been developed by Paynter (1992):

Because the mind finds it difficult to tolerate uncertainty, the inconsistency of existence is a perennial problem for humanity...Uncertainty is our problem: making models is our answer...forcing intractable diversity into forms that can be retained or that might in some way give the illusion of resisting the uncontrollable extent of space and the unstoppable flow of time (pp.15-16).

Thus, "music spreads out time for our direct and complete apprehension by letting our hearing monopolise it - organise, fill and shape it all alone" (Langer, 1953, p.111). The materials upon which we work are sounds which are perceived in terms of their expressive characteristics; but expressive sounds are not music, they are the materials out of which music is made. What gives them their deep meaning as musical events is their structural relationships, cohesion and wholeness as events in time.

In order to present music as a symbol of feeling, Langer needed to define very carefully her own meaning of the term "symbol", arguing for the validity of what she described (after Cassirer) as non-discursive symbols. Language uses discursive symbols, words which are assigned to specific items or ideas in a one-to-one relation. In addition, words can be used together to express something symbolically by the way they are combined. Comparison between music and language will occur at other points in this study, but it is important to note, with Langer, that music is not a language because its elements are not referential symbols "with a reference fixed by convention" (ibid., p.31); music cannot be translated into words. For this reason, Langer, recognising difficulties in speaking of music's "meaning", suggested replacing "meaning" by "import". "Music has import and this import is the pattern of sentience - the pattern of life itself as it is felt and directly known" (ibid., p.31).

Not all would agree with Langer's use of the term "symbol" in relation to music (see, for example, Meyer 1956, Best 1985). Full discussion of definitions and terms is beyond the scope of this

study; but Langer's use of the term "symbol" will be accepted here, with the recognition that this is in the sense of non-discursive, or presentational, symbol.

Fundamental to the organisation of feelings, and of music, according to Langer, is rhythm; not the simple occurrence of events in time, but rather the ebb and flow of progression and recession, expectation and fulfilment, or frustration leading to new workings out, new expectations. Paynter echoes Langer, when he writes:

The flow of musical time is controlled by progression (moving towards moments of tension or excitement) and recession (drawing away from tension) (1992, p.175).

Earlier writers had identified a relation between rhythm in music and the dynamic form of emotion. Hanslick (1854/1957), for instance, considered that it is the "dynamic properties" of feelings that can be represented in music; but since he argued that "movement is only one of the concomitants of feeling, not feeling itself" (p.24), this did not cause him to modify his strong assertion that music did not really represent emotion at all (p.22).

Langer's assertion that "Everything that prepares a future creates rhythm; everything that begets or intensifies expectation...and everything that fulfils the promised future, in ways foreseen or unforeseen, articulates the symbol of feeling" (1953, p.129) anticipated the comprehensive working out of similar ideas by Meyer. Seeking an explanation in cognitive terms for the feeling aspect of music, Meyer based his analysis on the psychological theory of emotion, which states that "emotion or affect is evoked when a tendency to respond is arrested or inhibited" (1956, p.14). Thus music, he argues, evokes affective responses because it creates expectations, inhibits them, and provides meaningful and relevant resolutions (ibid., p.23).

The account of the psychology of musical meaning offered by Dowling and Harwood seems very similar to Meyer's. Dowling and Harwood suggest that, at the point at which expectations are frustrated, the mind begins "a search for a cognitive interpretation of what happened

- a search for meaning. The arousal and the interpretation join together in producing an emotional experience of a particular quality" (Dowling and Harwood, 1986, p.214). The cognitive interpretation need not, however, be consciously analysed.

Such an explanation of the emotional effect of music, which seems to be in terms of stimulus and response, may describe more convincingly the effect upon the listener than the experience of the composer. It also seems that the "emotion" concerned is, at least in Dowling's and Harwood's explanation, a sense of achievement at finding a satisfactory interpretation for the unexpected, "an interpretation that integrates the event into the meaningful pattern of the piece" (ibid., p.215). Langer distinguished such intellectual satisfaction from the forms of feeling symbolised in the music itself (Langer, 1942, p.259).

Meyer's work emphasises the role of speculation in musical composition - the composer finding ways to create and frustrate expectations, to create the tensions which Langer saw as common to music and to our experience of time and of our emotional life. As will be seen in chapter 3, the "Speculative mode" of composing is an important aspect in the theory of musical development presented by Swanwick and Tillman (1986). Swanwick refers to "unique relationships brought about by musical speculation - the transformation of sound and gesture into musical structure" (1988, p.30). Swanwick argues (after Meyer) "that musical structure depends on our having musical expectations" (ibid., p.63), and that these expectations enable us to appreciate "speculative elements; structural tensions and resolutions, various forms of contrast and surprise" (ibid., p.129).

According to the explanations offered by Meyer and Swanwick respectively, the response to music involves knowledge of a style, the musical vernacular, within which expectations can be set up. Since young children are still only acquiring the musical forms of their culture, this kind of musical thinking would seem to be unavailable to them; and as will be seen in chapter 3, the model of musical development devised by Swanwick and Tillman reflects this conclusion.

Swanwick defines "what music essentially is" in terms of "interesting sounds as expressive gestures embodied in coherent forms" (1988, p.24). He seeks to account for the way in which the expressive character of music is perceived, related to Langer's distinction, which he quotes, between "an emotion directly felt and one that is contemplated and imaginatively grasped" (Langer, quoted in Swanwick, 1988, p.25). The question is, if music is the form of feeling, how are feelings presented in music and how are they recognised?

Swanwick answers this with the suggestion, based on Lee, that music's expressive character relates to movement, that music presents "the schema (literally the 'ghosts') of past movements. In music we can discern an immense range of manner of movement; reaching out, retraction, coalescence, extrusion, integration, disintegration, the rhythms of development and growth are fundamental to all living forms" (Swanwick, 1988, p.27).

This seems very similar to Langer's forms of feeling, with the emphasis on progression and recession. Swanwick sees movement as postures and gestures which relate to feeling, and quotes Wolff's analysis of gestures and their relation to emotional states. Swanwick finds that there are parallels between patterns of posture and gesture and "the ways in which people say they hear music" (ibid., p.28). For example, music may be perceived as "sad" if it has "postural qualities of heaviness, passivity and inward-lookingness" (ibid., p.29). Swanwick concludes that the "expressive character of a musical passage is thus determined by our perception of its apparent weight, size, forward impulse, manner of movement and other components of posture and gesture" (ibid., p.29).

This is an interesting explanation of the relation between the characteristics of emotional states and the expressive qualities which we perceive in music. But music is not simply symptomatic of feeling; it is, in Langer's sense, symbolic of the forms of feeling, it organises and presents our experience of our feeling life in coherent ways. Thus Swanwick emphasises that the most important thing about music is not the sound materials or the expressive gestures in themselves, but "the transformation of sound and gesture into musical

structure" (Swanwick, 1988, p.30). By musical structure is meant "the effect with which one expressive gesture is heard to relate to another" (ibid., p.31).

There are two aspects to this organisation - the basic "need to make gestalten, to see everything as form", together with "an equally strong tendency to 'violate a gestalt', to frustrate expectations and to make new groupings" (ibid., p.31). Thus, as already noted, Swanwick, following Meyer, sees speculation as a fundamental characteristic of structure, or thinking in music; this comes after one has acquired a set of patterns or norms against which departures and surprises can be appreciated.

The model of musical development which Swanwick, with Tillman, devised, based on the view of musical thinking referred to here, will be considered in chapter 3.

Cognitive developmental psychologists, for example, Serafine (1988) and Sloboda (1985), have examined structural processes within music as cognitive processes related to our temporal experience, against which we can examine what it means to think in or with sound. Serafine has expressly worked out her explanation in relation to children's musical thinking. Her empirical research was designed to discover whether children's understanding of certain generic musical processes is qualitatively different from that of adults. First she attempted to identify the processes concerned in musical thinking, which I summarise here.

The thinker in music must first have a musical idea, a "basic, coherent unit ... which can be extended or acted upon after its initial statement". This unit might pervade the entire piece, or "only provide the springboard for other, different units" (Serafine, 1988, p.75). Serafine has termed the construction of such units "idiomatic construction", because "a unit's coherence depends critically upon its abiding by the organisational rules of some idiom" (ibid., p.75).

Serafine does not discuss this initial idea in terms of what Witkin (1974) has called the "holding form" (which will be considered

later). Her basic unit may be just the first musical event; but it seems likely that such an event might carry within it the seeds of the whole piece. Other musical units are added to this first event, in what Serafine describes as "motivic chaining". The resulting combination is a new unit, not just a string of add-on ideas.

Musical thought, then, is a train of musical events, i.e. events proceeding in time. These events are organised and relationships develop between them in various ways. One form of organisation results from the grouping of events into phrases. Another way in which musical events are organised and brought into relationship with each other is through repetition and alternation, or patterning; and Serafine points out that patterns create two types of expectation, namely continuation and cessation. This echoes Langer's account of music in terms of progression and recession.

Serafine identifies four other processes at work in music, namely, closure, transformation, abstraction and hierarchy.

Serafine's account of closure (1988, p.80) also echoes Langer, for she says that while movement creates "expectations of continuation and advancement towards some point of rest or arrival", closure indicates rest, cessation. Serafine particularly considers classical, tonal closure; but she notes that other cultures indicate closure in their own ways; for example, Peyote songs end with four long, even notes on the tonic (from Nettl, 1956b).

Transformation is one of the key ways in which relationships are set up between musical events. Transformations, and the resulting similarity of apparently differing events or structures, result in a sense of unity and cohesiveness (Serafine, 1988, pp.80-81). Their effects need not be consciously perceived but they must be aurally experienced.

Abstraction is "the process by which some aspect of a musical event is removed or considered apart from its original context and is relocated elsewhere in the composition" (ibid., p.83). It generates unity and wholeness over long spans of time. Abstraction is a prerequisite for transformation. Transformations produce relationships

between temporal events, but to create or to perceive these relationships, we need to be able to abstract from one event to another, over short and long spans of time.

The final process listed by Serafine is hierarchic structuring. This is the process whereby "we make sense of the multiple sounds in a piece by construing them along a continuum of more important/less important". The cognitive process of hierarchic structuring, then, "involves the imposing of a more simplified, reduced structure, on the vast array of sounds in the piece" (Serafine, 1988, p.85). Again, what is under consideration is what gives music its impetus, its progression and recession, and sense of wholeness.

Serafine includes hierarchy as a separate item in her list of processes, but it would seem to be inseparable from the musical and cognitive processes of abstraction and transformation. The deep structure generates a number of surface structures through transformation; and our perception of unity depends upon our being able to abstract and recognise (consciously or subconsciously) this underlying structure.

Serafine's account of cognitive-musical processes, outlined here, provides a useful background to the consideration of young children's musical inventions as examples of the products of musical thought. Serafine argues that "the evidence of the existence of such processes is in large part the evidence in compositions themselves" (which I take to include children's compositions), so "formal analysis is a necessary route to discovering how internal, cognitive-musical processes become externalised in compositions" (ibid., p.233).

There may be difficulties in this approach, for some writers, such as Sloboda (1985), would argue that we still do not know that what we see in the finished product provides a reliable account of what actually happened in the composer's mind during the process of composition. But so long as this is borne in mind, analysis of children's music along these lines should be at least as valid as analysis of mature composers' music; and in most cases, analysis of the finished product is all we have.

Serafine reinforces the view that musical thought involves the use of cognitive processes in time, and offers an indication of what such processes might be. The emphasis on the structural aspects of music's meaning, on the relationships between musical events through transformations, patterning etc., and on the fundamental nature of progression and recession (or continuation and cessation) in music, echoes Langer, and encourages the idea that these are what we should be looking for in seeking the musical thought processes of young children. Serafine did not apply her analytical approach to the inventions of children. Rather, she played musical items to children, and asked them to perform tasks designed to show whether they perceived the musical processes to be tested. (Consideration of the results of the tests will be deferred until later in this chapter.)

An important point which should be borne in mind when dealing with the generic processes of musical thought is that identifying such processes, and discovering them in a musical work, may only show that the composer has the tools with which to make a successful piece of music, not whether he or she has used these tools to make a successful musical whole.

The processes of repetition, alternation, transformation, closure etc. (outlined by Serafine) are important markers of music's structure; and the element of surprise, or frustration of expectation, is important in sustaining our response to a piece of music (Swanwick, Meyer). But these things must be seen in the light of the overall structural goals of the music, in terms of progression and recession, with how a musical work represents a whole piece of time, and how we know that it has said what was to be said and can now cease. As Paynter points out,

Each event has its own importance...; but where it happens, when and in relation to what is even more important (1992, p.18).

Sloboda, too, argues that although music

uses patterning to achieve structural goals;...the structural coherence of a piece is not to be found solely within the patterning. These principles do not have starting points and goals built into them. They can be applied over and over again to any musical idea whatever, so that an indefinitely long piece of music could be produced (Sloboda, 1985, p.56).

Sloboda is particularly concerned with the structural goals, the "superordinate structures or plans which seem to guide and determine the detailed note-by-note working out" (ibid., p.102); and he suggests that one way of investigating such structures might be through analysis of sketches left by composers. As illustration, he considers sketches made by Beethoven for his piano sonata op.10 no.3. While the two sketches and the final version differ in surface details, Beethoven keeps several clear musical features, which include a descending four-note scale from D as a thematic motif; a four-bar phrase as the basic musical statement; and "classical sonata form as a large-scale structure" (ibid., p.106).

Sloboda concludes from his analysis that

the sketches provide compelling evidence that successive solutions were generated within the limits set by initial constraints or plans,... a persistent harmonic and rhythmic plan...for the structure of the section, within which melodic alterations could be made (and that Beethoven) was making successive attempts at 'filling-in' a structure which, in certain respects, was already specified in his mind" (ibid. p.106).

Sloboda's idea of a superordinate plan seems similar to what Langer calls "commanding form", the initial conception of the work, of which she writes, "Once the essential musical form is found, a piece of music exists in embryo". There are many possible ways of proceeding, but the composer has to choose what is right for the initial idea (Langer, 1953, pp.121-122). Langer distinguishes this initial idea from Schenker's *Urfinie*, for that is the end-product of a structural

analysis and is similar for many works, whereas the commanding form is peculiar to an individual piece.

In the light of Langer's interpretation of music, it is not surprising to find that she considers that

the commanding form of a piece of music contains its basic rhythm, which is at once the source of its organic unity and its total feeling. The concept of rhythm as a relation between tensions rather than as a matter of equal divisions of time...make it quite comprehensible that harmonic progressions; resolutions of dissonances; directions of 'running' passages and 'tendency tones' in melody all serve as rhythmic agents (Langer, 1953, p.129).

Witkin's "holding form" also seems to be relevant here. Witkin refers to the initial idea for a work as its "sensate problem". Because sensate experience is constantly changing, while the creative act takes time, the artist/composer needs to capture the sensate impulse in a "holding form". This suggests a conscious formation, part of the working-out process; but Witkin acknowledges that in reality, "this often follows so closely upon the evocation of the sensate problem that it is usually indistinct from its consciousness" (1974, p.181).

The holding form is "the seed of which the full expressive form is the flower" (ibid., p.181), which suggests that, as Sloboda and Langer would argue, the holding form contains within itself the whole of the piece. Witkin echoes Langer in his suggestion that "the sensate problem itself consists of the structure of sensate disturbance ...'contrasts', 'discords', 'identities' etc." while "it is the essential gestalt of the disturbance that is held in the holding form" (ibid., p.182).

Paynter (1992) puts this slightly differently; he does not refer to a commanding or holding form, but suggests that the

overall direction of any musical work is to a large extent determined by the character of the ideas and the amount of time

they need to expand fully and make themselves understood (Paynter, 1992, p.190).

Paynter (1970a and 1992) has also drawn attention to an aspect of the structure of works of art which relates to this idea of overall goals, namely the Golden Section.

Just as visual artists and architects have, for many centuries, recognised the dramatic significance of the so-called Golden Section, composers, too, have understood intuitively that the most effective point for the principal climax is somewhere in the region of two thirds of the way through a work (1992, p.190).

This placing of the climax is "not calculated, but felt"; and from this point "the controlled recession can begin" (ibid., p.191).

The work of Arnheim (1962) also provides support for the idea of superordinate plans, this time from visual art. Arnheim analysed Picasso's sketches for Guernica, and concluded that goal-directed thinking lies at the heart of the creative process. But Winner (1982) considers that there are some unsatisfactory aspects to the analysis of sketches. For example, the sketches do not prove that the "artist's vision" is always there from the beginning. Sloboda acknowledged this, too, commenting on the extent to which superordinate plans are always provisional.

Winner also argues that while analysis of sketches may give an account of work done after the initial conception, it does not explain the source of the initial idea itself. Thus "the most fundamental aspect of the process remains shrouded in mystery. . .no psychological studies have yet been able to reveal much about how the artist gets the first glimmerings of an idea for a work" (Winner, 1982, p.45). This point will be considered again later. But there is considerable support in the literature for the view that the composer's initial idea may crucially determine the whole course of the piece.

Sloboda (1985) develops the idea of superordinate plans in a discussion of the analogy of music and language. Reference has

already been made to the comparison of music with language, in terms of their different symbolic characters, and the fact that music has no intrinsic referential quality. But the analogy can also be used to illuminate reflection upon musical thought in terms of structure and unity, and the nature of cognition. I summarise Sloboda's discussion of this topic here.

Sloboda compares the work of Chomsky with that of Schenker, in the light of Lashley's "classic argument" that there are "hierarchical models of sequential behaviour in which the whole sequence is, in crucial respects, mapped out in the mind before any behaviour is instituted" (Sloboda, 1985, p.16). Thus the cognitive aspect of our experience of music "involves forming an abstract or symbolic internal representation of the music" (ibid., p.3).

Fundamental to the theories of Chomsky and Schenker is the idea of differentiation between deep and surface structure. The surface structure is what actually appears, while the deep structure is "an abstract entity....from which ... surface structures can be derived by the application of transformational rules" (ibid., p.13). The meaning relationships are contained in the deep structure, and it is this which gives coherence, since it means that "events quite far apart in both linguistic and musical sequences can have a close structural relationship" (ibid., p.16). The deep structure of language exists in thought before being expressed in a sentence. Similarly, Schenker would claim, a composer begins with an intuition of the **Ursatz** underlying it, which guides and unifies the process of generating the individual notes (ibid., p.17).

As already noted, the analogy of music with language should not be taken too far. There may also be crucial respects in which they actually function differently in relation to deep and surface structure (though these do not, I think, diminish the emphasis upon, and significance attached to, coherent structural relationships in our assigning meaning to both language and music). The differences between music and language are reflected in differences in the work of Chomsky and Schenker. For example, while Schenker showed that **Ursätze** could be found in a very large body of tonal compositions, he did not produce a formal generative grammar for deriving

compositions from **Ursätze**. (Later writers are attempting to provide generative grammars for music; see, for example, Lerdahl and Jackendorff, 1983, and Sloboda, 1988).

Another difference between Chomsky and Schenker is that the **Ursatz** is itself a piece of music, arrived at by progressive reductions, whereas the deep structures of language are not actual sentences. But, despite the differences, there are significant similarities between the theories of Chomsky and Schenker, and a comparison between them, particularly in the context of Lashley's theory, emphasises music's structural wholeness as fundamental to its meaning.

While acknowledging that the analogy of music with language needs considering with care, Sloboda explores it further in ways which are relevant and thought-provoking in terms of this study; especially his consideration of what a "musical thought" might be, and the idea of a pre-existent, intuitive idea which guides and unifies the working out of a musical piece.

The deep structure of language is closely related to the thought it represents. So Sloboda asks, "Is there any entity which bears the same relationship to a musical sequence as a thought bears to a linguistic sequence?" (1985, p.20.) This is an intriguing idea, and we must be a long way from having a definitive answer. Perhaps such an entity might be a sense of completeness, of the rightness of scale related to the relative proportions of progression and recession (Paynter, 1992).

Langer, in her speculation as to what the universal elements of music might be, suggests something along these lines, when she writes, "the essence of all composition....is the semblance of organic movement", which is rhythm, or the "preparation of a new event by the ending of a previous one" (1953, p.126). Sloboda suggests a similar possibility, namely that "the mental substrate of music is something like that which underlies certain types of story" (1985, p.20). In the stories to which he refers, "a starting position of equilibrium or rest is specified. Then some disturbance is introduced into the situation, producing various problems and tensions which must be

resolved. The story ends with a return to equilibrium" (Sloboda, 1985, p.20).

Booth (1981) suggests that this is a universal element in story: "The shape of all narrative is departure and return; perhaps all fiction is even chiasmic, coming back past its markers in the reverse order of the way it met them first" (p.72).

The nature of music universals has been the subject of much discussion, (some of which will be referred to in chapter 6). But while the debate continues, the suggestion that "creation and resolution of motivated tension" might be fundamental aspects of musical thought (Sloboda, 1985, p.22), and the linking of form in music with form in story, suggest possibilities for thinking about the development of musical meaning and thought in the young child. In particular, Sloboda's argument that the "*highly structured internal representation*", or *superordinate plan, is fundamental to music's* meaning encourages the view that we might expect structural matters to be central and early in children's musical development, as they are in linguistic development.

This thesis addresses the questions: do children have internal representations of music, and, if so, what are they like and how do they manifest themselves? This has already begun to be explored in studies of infant melody acquisition, which will be considered in chapters 4 and 5.

It was noted earlier, in connection with musical analysis as a means of investigating musical thought processes, that while such analysis can illuminate the steps that creators have taken, it cannot reveal the mental processes which led them to take such steps (cf. Winner, 1982, p.45). Consideration of sketches leading up to the final form of the work can give us more detailed information, but still deals with the steps taken rather than the reasons which artists had for choosing them, reasons which are presumably governed by the initial idea, or inspiration.

The mental process might be illuminated more fully by asking the artist or composer to think aloud while engaged in creating a new

work. Such "process tracing technique" has also been applied to poetry and drawing (by, for example, Perkins, 1981). Perhaps such a process can give an insight into the source and nature of the composer's "inspiration"?

What seems to be revealed by such studies is that apparent flashes of inspiration are arrived at by a series of "very small logical steps, quite accessible to consciousness if one bothers to look very carefully" (Winner, 1982, p.46). So Winner considers that "inspiration" can be seen to be just a "very fast form of cognitive reasoning". But while "the bulk of the creative effort can be explained by goal-directed logical thought" (ibid., p.49), this still does not fully explain how the artist gets the initial idea, or the holding form, in the first place.

Composers themselves often suggest that inspiration - getting the ideas - is different from the craft-work of composing, as is seen from the following analysis by Sessions (1939):

The first stage in [the composer's] work is .... 'inspiration'. The composer... 'has an idea' ..... consisting of definite musical notes and rhythms which will engender for him the momentum with which his musical thought proceeds.... the inspiration takes the form....not of a sudden flash of music, but a clearly envisaged impulse toward a certain goal for which the composer was obliged to strive (ibid., p.21).

This goal is provided by the composer's "vision of the whole", which Sessions calls "conception"; this seems similar to the commanding or holding form already discussed, as a global view of the piece to come, which "takes the form of concrete musical materials - perceived, however, not in detail but in foreshortened form" (ibid., p.22).

Sessions continues:

After inspiration and conception comes execution. The process of execution is first of all that of listening inwardly to the music as it shapes itself (ibid., pp.22-23, my emphasis).

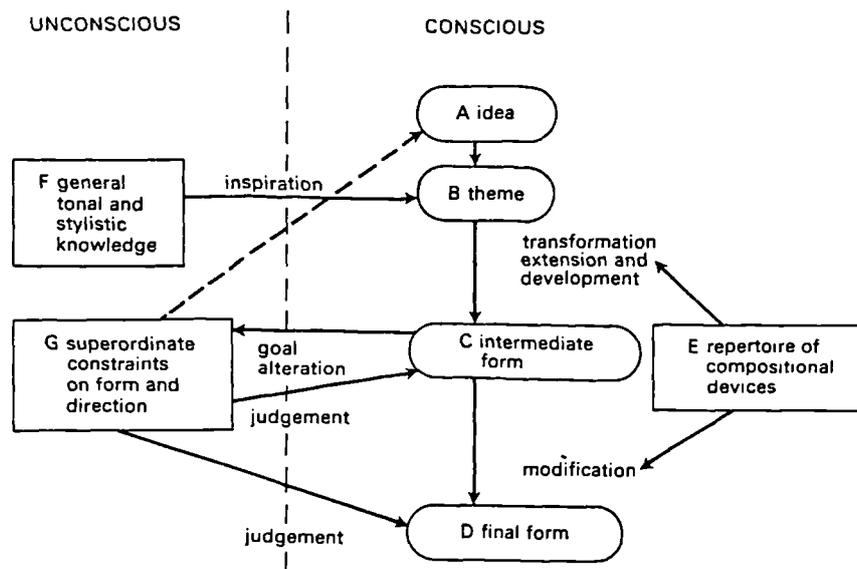
This process is governed, it seems, by superordinate constraints implied in the initial idea, by which the composer is able to recognise satisfactory extensions and transformations during the working out process. But there still seems to be an initial stage which may be largely intuitive or subconscious. If the source of the initial idea and the superordinate constraints on form and direction, i.e. the fundamental aspects of musical thought, are unconscious, perhaps children might have similar unconscious musical thoughts which they can express even if they lack the memory and analytical powers to take conscious choices or to refine their material. In this respect, one further extended quotation from Sessions' account is illuminating.

[The composer] is not so much conscious of his ideas as possessed by them. Very often, he is unaware of his exact processes of thought till he is through with them; extremely often, the completed work is incomprehensible to him immediately after it is finished. Why? Because his experience in creating the work is incalculably more intense than any later experience he can have from it; because the finished product is, so to speak, the goal of that experience, and not in any sense a repetition of it (1939, p.26).

This is not to suggest that the composer's mental activity is suspended (what Howard, 1988, describes as the "hands off" or even "hands aflutter" - with surprise - form of expression); but the thinking takes place so completely within the music that it is not until it is finished that the composer can detach himself, or herself, from it. And even then, a composer may not be able to "explain" the piece verbally. One is reminded of a comment by Vaughan Williams about his 4th symphony, viz. "I don't know if I like it, but it's what I meant" (Howes, 1954). Perhaps similar was the comment by one of my most successful and prolific song-makers, Mary; she declined to try to repeat or talk about her songs, saying "How can I sing it again? I just made it up", suggesting that, for her, the song could not be abstracted from the total experience of making it.

Sloboda provides an illuminating diagram in relation to this discussion (included here as Figure I), which provides a useful background to consideration of the way in which a 6-year-old musician may resemble and differ from a mature composer.

Figure I : Typical compositional resources and processes, from Sloboda, 1985, p.118



The division into "unconscious" and "conscious" represents, for Sloboda, the distinction between "those processes on which a composer is able to report fairly easily and those on which he is not" (1985, p.118). This does not necessarily imply a qualitative difference between the two sets of processes; it may be that (as Winner suggests) more refined investigation procedures may make apparently "unconscious" processes more accessible to recall.

Sloboda includes in the square-edged boxes "knowledge or structures that are stored in long-term memory, [which] have been built up over the years, and ..can be applied to new compositional problems" (ibid., pp.118-119). The curved boxes correspond to the successive stages in the composer's mind during the composition of a particular piece. Box B represents the initial idea, the "thematic kernel that springs 'unbidden' to mind out of the storehouse of thematic knowledge (F)". Box A indicates that "sometimes a more or less

specific idea of the kind of music required precedes an actual theme in awareness" (or the two come so close that they seem to occur together?)

Box C "represents the results of applying composition techniques of transformation and modification (E) to the original theme. Its contents are then judged against criteria of 'rightness' (G) and, if found wanting, are modified until a satisfactory final form (D) is reached" (Sloboda, 1985, p.119).

Sloboda emphasises that the diagram does not claim to represent a theory of composition; but it offers a useful summary of some of the aspects of composition to which psychologists such as Sloboda and Winner have drawn attention; and the children's songs to be analysed in this study will be considered in its light, particularly with regard to the relationship of young children's inventions to those of mature composers (intuitive, or "unconscious" ability, compared with more analytical work).

I have suggested that we might look for evidence of musical thought processes in the musical inventions of 6-year-olds. This suggestion is not, initially, encouraged by the results of Serafine's (1988) empirical study, which suggest that children aged 5 and 6 have hardly any of the cognitive musical processes which she identified as evidence of thinking in music.

Serafine's 5- and 6-year-olds were unsuccessful at all the tests involving tonal features (including patterning and motivic chaining). They could recognise subdivisions into phrases if these were very clearly signalled by rhythm as well as harmony. They were not successful on tests of closure (tonal cadences), motivic (melodic) abstraction or hierarchic levels (recognising the underlying structure of a melody). But half could match transformations (which involved melodic transformations but could have been matched on rhythm alone), and one fifth could do the rhythm abstraction test, which leads Serafine to conclude that "some young children do show sensitivity to the subtle features of musical passages, such as

transformation and abstracted rhythmic patterns" (Serafine, 1988, p.228).

But Serafine's general conclusion is that the majority of the cognitive processes are not developed until the age of 10 or 11, though a few are apparent at 5 or 6, and a few more at 8. Whether it is operational thought that is needed or specifically tonality, Serafine's results would suggest that Christine's "lah" song is a very untypical piece for a 6-year-old.

Christine has an initial idea which has implications for the continuation of the piece; phrasing (rhythmic and melodic); motivic chaining; patterning (rhythmic and melodic); and closure. She has abstracted the rhythm from the initial motif and repeats it in other melodic guises in what seems to be transformation. It is not so easy to say whether she has a sense of hierarchy, or of a superordinate form, but there is a feeling of wholeness and a sense of direction; all this in spite of the fact that the tonality of this piece is not very secure.

Two possible explanations for the difference between Christine's song and Serafine's assessment of what young children "know" in music suggest themselves. One is that the 5- and 6-year-olds in Serafine's test sample were not able to show what they knew because of the nature of the tests. Serafine was fully aware of likely difficulties in this respect and designed the tests accordingly; for example, to alleviate difficulties caused by asking children to verbalise their responses, she presented the tests in the form of games, where children had to point to dolls or respond with some other action. Nevertheless, she acknowledges that in some cases, the nature of the test may have affected the youngest children's results (Serafine, 1988, p.232).

Another aspect to note is that Serafine found children of 5 and 6 insensitive to closure in music, when it was tested in terms of tonal cadences. In the light of the general results in relation to tonality, this is not surprising. But closure would seem to be fundamental to the experience of wholeness in music, so it would be surprising if this really had to wait until the age of 8 or even 10.

Serafine herself recognised that there are ways of indicating closure other than tonal cadences (Serafine, 1988, p.80). She describes all the processes under consideration as generic, pan-stylistic, saying that "while it cannot be proved that they are universals they certainly encompass a good many styles" (ibid., p.73).

Yet the music used in her tests is almost entirely western tonal music, and, as already noted, it was in the tests involving tonal features that the 5- and 6-year-olds were unsuccessful. They were more successful at tests in terms of rhythm, and might even have been able to identify melodic processes if these had been presented differently. Perhaps young children's invented songs might show them to be using closure, and even some of the other musical thought processes, but in non-tonal or pre-tonal ways?

What Serafine's results do support is the idea that there are cognitive processes at work in musical thought; that these processes can be identified and tested; and, the main stress of her argument, that reflective awareness of them appears to be developmental rather than dependent upon training, in that the 10-year-olds performed better on the tests than the 5-year-olds.

But Sloboda's diagram, with its identification of areas which are not easily accessible for report, suggests the possibility that children might be able to use musical processes even though they cannot yet grasp them in any way other than within the act of music itself. The "unconscious" areas include the "knowledge or structures that are stored in long term memory" and the "thematic kernel" which "springs 'unbidden' to mind out of the storehouse of thematic knowledge" (Sloboda, 1985, p.118). The idea of a distinction between musical knowledge which can be expressed verbally or recognised in the context of musical tests, and musical thought which is inherent in the act of making music and cannot be translated in any way is, I think, crucial to an understanding of musical thought in young children, and will be developed further in subsequent chapters.

There are other interesting features in the results of Serafine's research. As already noted, the youngest children failed the tests involving melody and tonality, but were more successful with rhythmic

ideas. They were also more successful at tests involving global perceptions rather than details. These points anticipate a sequence for music acquisition which will be examined further in chapter 4.

To sum up, this chapter has begun to address some of the questions posed in relation to Christine's songs, in particular questions relating to the nature of musical thinking. Such thinking appears to involve the cognitive organisation of temporal processes. The processes of musical thought, as identified by cognitive psychologists, include initial idea, motivic chaining, patterning (repetition and alternation), phrasing, closure, abstraction, transformation and hierarchic structuring.

But such processes must occur in terms of overall structural goals so that the completed work has a sense of wholeness and rightness in terms of the initial idea. The working out, for a mature composer at least, involves a series of choices, governed by the superordinate plan, or holding form, implicit in the initial idea, but informed also by the accumulated knowledge of possibilities. The initial idea seems less amenable to conscious generation; this seems to be the area of "inspiration" or intuition.

Young children do not seem to have musical thought processes, if these are measured in tests such as those devised by Serafine. Nevertheless, they may be able to use such processes, for example, in their own musical inventions, even though they appear to be unable to recognise them. Christine's songs suggest that this is the case. Further consideration of what is already known about young children's musical inventions is necessary; this will be the subject of chapters 3, 4 and 5.

#### A note on the use of the terms "form" and "structure"

In the discussion in this chapter, the terms "form" and "structure" are sometimes used as if they are interchangeable. But a distinction does seem to be implied. Sloboda, for example, refers to Beethoven using classical sonata form as a large-scale structure (1985, p.20) and, discussing patterns in music, states that "structural coherence

is not to be found solely in the patterning" (Sloboda, 1985, p.19). This seems to refer to the fact that "form" is not simply a pre-set mould into which new ideas can be cast, but that, even if a pre-existing form is used, the composer must work according to the structural implications of the initial idea(s) for each piece.

Swanwick makes a distinction between *gestalt*, "the basic need to see everything as form" and "an equally strong tendency to violate a *gestalt*, to frustrate expectations and to make new groupings" through speculation (1988, p.31). Speculation seems to be the essence of structure, for Swanwick refers to "unique relationships brought about by musical speculation - the transformation of sound and gesture into musical structure" (*ibid.*, p.30).

Paynter (verbal communication) suggests an analogy with architecture, referring to the structural forces which operate in the shaping of a work, while the piece which results is the form, the formed shape. Swanwick uses form in a similar way in his definition of music as "interesting sounds as expressive gestures embodied in coherent forms" (1988, p.24).

Langer and Witkin use the term "form" in a way which seems to include the above definitions of structure. Langer's "commanding form", for example, is a composition's "basic rhythm which is at once the source of its organic unity and its total feeling...a relation between tensions" (1953, p. 129). Witkin, similarly, refers to the "holding form" as encapsulating "the essential movement of the sensate impulse", and explains that the "the sensate problem itself consists of the structure of sensate disturbance" (1974, p. 182).

In discussion of deep and surface structure in relation to language and music, "structure" seems to refer both to the formed expression and to the underlying relationships.

It is not always easy to be consistent. Swanwick and Tillman, for example, write that "it is on [the] ability to identify new relationships that any grasp of musical form is predicated" (1986, p. 324), when, in the context of Swanwick's own discussion, one might have expected to find the term "structure". I have tried to maintain

a distinction in my own use of the terms, in particular to avoid any suggestion that a musical form is a fixed, inorganic frame which can simply be used as a pre-set mould into which to put ideas.

The Concise Oxford Dictionary (1976 edition) has a definition of form which echoes that suggested both by Swanwick and by Paynter, as "the mode in which [a] thing exists or manifests itself". The same dictionary includes, in its definition of structure, "the manner in which a building or organism or other complete whole is constructed", which seems to refer to the handling of structural forces or relationships.

In my use of "form", then, I refer to the formed piece, the shape or pattern which we hear; while I take "structure" to mean the forces, the dynamics of the relationships between musical ideas.

### CHAPTER 3 - ASPECTS OF MUSICAL AND ARTISTIC DEVELOPMENT

An attempt to analyse what happens in children's musical minds was made by Bunting (1977), who identified eight "modes of musical perception" in listening or composing (pp.3-4), thus:

- A. Neurological: the reaction of the nervous system to sensations of sounds, quite independently of the analytical mind
- B. Acoustical: the resonance or dryness of sounds
- C. Mechanical: physical activity in relation to an instrument or the voice
- D. Illustrative: a way of giving music meaning by association
- E. Social: the relationships between the different people engaged in the music making
- F. Vernacular: the "syntactical mode", in which we recognise music as being "in our own language"
- G. Speculative: in which a composer may seek out new ideas by speculating on accepted musical conventions
- H. Symbolic.

If we ask what music is a symbol of, Bunting's answer is: "mysteriously, musical rhythms and tensions seem to mirror the flow of feeling within us in a direct and non-illustrative way". Bunting here seems to be echoing Langer, though without explicit reference to her emphasis on the organisation of events in time, the progression and recession of music's "flow".

Bunting considers that the modes form a hierarchy from the lowest, A, to the highest, H, but that they do not exist independently of one another; and for the most satisfying musical experiences, they come together in a synthesis. All the modes can be available to young children, so Bunting does not link these modes to a chronological sequence of development. However, there is some suggestion of a developmental model, for the various modes may assume more or less significance at various times.

For example, Bunting considers that, in the primary and lower secondary school, children will show equal interest in the Illustrative, Vernacular and Speculative modes of composing; in the later secondary school years, there will be a narrowing of focus as children concentrate on the Vernacular; while the Symbolic level seems to wait for its fullest realisation till later adolescence. As well as changing emphasis between individual modes, development would be seen in an increasing ability to synthesize the modes. Younger children might only be able to work in one or two at a time.

Bunting also briefly considers the growth of musical concepts, which he identifies as pulse, metre, tonality, scale and consonance (not form or timbre), and it is here that he explicitly mentions young children, thus:

Any 4-year-old singing a nursery rhyme is using most of these concepts but he is using them passively, imitating his parent or teacher, rather than actively discovering how to achieve the same effects for himself (1977, p.4).

Bunting refers to Piaget, saying that children need to achieve an operational grasp of the basic musical concepts in order to use them "creatively". This notion that operational thought is needed in order to make music has been challenged by other writers, most notably by Gardner, as we shall see; while the idea that children simply imitate songs parrot-like does not lie easily with Piaget's view of the young child as actively forming mental constructs, nor with research into infant song-acquisition which will be reviewed in chapters 4 and 5.

With the exception of G and perhaps of H, Bunting's modes tend to be more obviously ways of acting in relation to music than within music itself. They do not explore how it is that music functions as a symbol of "the flow of feeling within us". But Bunting's identification of different ways of operating in music is valuable in beginning to unpack the complex activity in which children participate when they make a song, and as we shall see, it influenced the model of musical development devised by Swanwick and Tillman.

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Ross (1984) also suggested an outline for the process of development in the arts, in a sequence which related stages to chronological ages. He identified four periods of development in music, which parallel similar development in art and drama.

1 (age 0-2) is a period of pure sensuous engagement with sound materials, characterised by experimentation and recognition, and solace in relating a sensuous structure to a feeling mood.

2 (age 3-7). Children are perceiving tune as an aural phenomenon and using it improvisationally to accompany e.g. movement, dramatic games etc. Musical doodling, particularly vocal doodling, is a feature of expression at this stage, along with progressive mastery of sound structures and patterns. It is a period of unconscious conventional assimilation, unselfconscious experimentation and delight, in which the powers of anticipation develop.

3 (age 8-13). Children become concerned with the conventions of musical production; their capacity for grasping simple musical structures becomes fully developed.

4 (age 14+). Perception of music as a form of communication and language of personal expression means that musical compositions become symbolic structures (Ross, 1984, pp.129-130).

This outline has some similarities to Bunting's, in beginning with the quality of sound for its own sake, then a later preoccupation with the conventions of the vernacular and eventually an ability to appreciate and use music as a symbol of one's inner life.

Ross makes an interesting point, which highlights the importance of motivation in artistic activity, that "expressive impulse" may outstrip competence by the time adolescence is reached, which may result in a "motivational crisis" and subsequent disengagement with making and doing in music, or in the other arts (ibid., 1984, p.129). Other writers have made similar observations (for example, Plaskow, 1964, and Cottle, 1973); and, as we shall see, Gardner also draws attention to the fact that development in the arts, at least in terms of making and doing, is all too likely to fall off after early

childhood, rather than proceed in a steady linear advance as cognitive development appears to do.

Bunting and Ross, then, made a valuable start to the task of developing a broad overview of children's engagement with music. Both stress the symbolic nature of music, though they see this as an aspect of maturity. Their view seems hardly to consider infant school children as "musicians" at all, if by musicians is meant users of music as a symbol of our experience in time. They link music's symbolic function to the conscious awareness and understanding which comes with mature, operational thought. Young children are seen as experimenting with materials of sound, enjoying its sensuous quality and acquiring sound patterns, imitating songs and engaging in vocal doodling, working with the elements of music which will only later come to have symbolic significance for them; though Ross does refer to "progressive mastery of sound structures" developing between the ages of 3 and 7.

A comprehensive and influential account of children's musical development in relation to composition is that of Swanwick and Tillman. They take important ideas from Bunting and Ross, but the main theoretical influence is that of Piaget, not, they say, "the Piaget of tightly-formulated stages of development but the Piaget concerned with fundamental human processes, the ways in which we make sense of and grow in the world" (Swanwick and Tillman, 1986, pp.306-307). In particular, they relate activity in the arts to Piaget's account of human play, taking three elements of play identified by Piaget, and relating them to three aspects of musical behaviour, as outlined below.

The Piagetian concept of mastery is equated with the sheer delight in sound and the development of control over sound-making materials. Elements of mastery include "the handling of voices and instruments, the development of ensemble skills, the use of notations, delight in the virtuosity of others" (ibid., p.307).

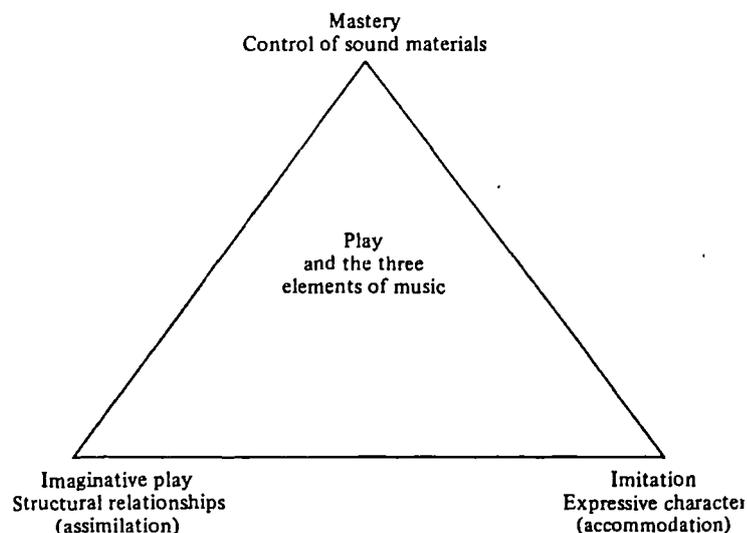
Piaget's concept of accommodation, by which the child imitates the world or seeks to accommodate to it, is given an ingenious interpretation by Swanwick and Tillman. They do not use imitation in

the obvious sense of children imitating what is sung or played to them. What is imitated in artistic behaviour, at least in stories, drama, poems and paintings, they suggest, are "events in life". In music, "Imitation is obvious enough in programme music and opera" but also occurs in abstract music, where it is expressive gestures and characteristics which are imitated (Swanwick and Tillman, 1986, p.308). This reflects Swanwick's interpretation of the nature of expressiveness in music as inherent in gestures and movement, already considered in chapter 2.

The complementary process to accommodation, according to Piaget, is assimilation, where the child brings objects and situations into subjection to his own mental structures, in imaginative play. This, say Swanwick and Tillman, is seen most clearly in music in composition. "In imaginative play we create a world of transformational relationships which we ourselves govern," and, in compositions, musical vocabulary "is transformed by the creation of new relationships" (ibid., p.309, their emphasis).

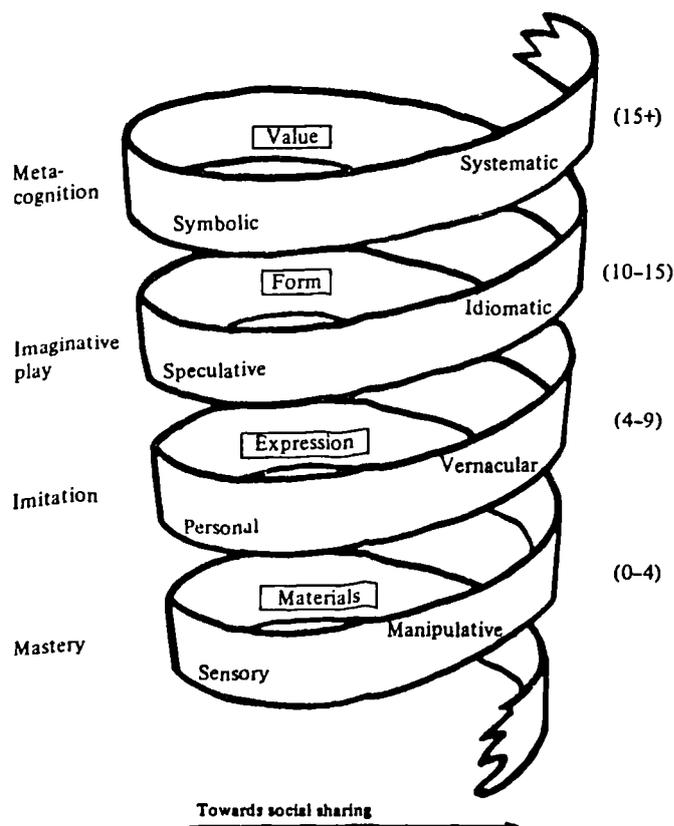
Swanwick and Tillman summarise the relationships between the Piagetian concepts of play and their analogous musical elements, in a diagram (reproduced here as Figure II).

Figure II: Play and the Three Elements of Music (from Swanwick and Tillman, 1986, p.309)



Swanwick and Tillman have worked out, on the basis of this analysis, a way "to interpret and order the musical offerings of children in a developmental way" and to demonstrate that "the musical compositions of children tend to follow a broad sequence of development through stages of Mastery, Imitation and Imaginative Play in that order" (1986, p.309). They refer to Bunting and Ross, and take several of Bunting's modes into their own developmental model. This they present in summary as a spiral, showing how the processes of musical development "lead us through four fundamental transformations" (reproduced here as Figure III). It is relevant to consider the description of these processes, and of the eight modes, in some detail, first outlining what Swanwick and Tillman say, then discussing some implications.

Figure III: Musical Development (from Swanwick and Tillman, 1986, p.331)



At the first level, of Materials, there occurs the Sensory mode, from birth to 3 years. In this, the child is concerned with sound; there is much experimentation with sound sources but "at this level, the

elements are fairly unorganised, pulse is unsteady and variations of tone colour appear to have no structural or expressive significance" (Swanwick and Tillman, 1986, p.332).

This first phase also includes the Manipulative mode, most apparent in the work of 4- or 5-year-olds, in which the child acquires increasing control of techniques involved in handling instruments and "devices, such as glissando, scalar and intervallic patterns, trills and tremolos". But "compositions tend to be long and rambling and are frequently determined by the actual physical structure of instruments themselves" (ibid., p.332). (There is an emphasis on instruments in this account of the early modes, which will be discussed later).

After the first "fundamental transformation", the child moves from Materials to Expression. Swanwick and Tillman equate this with Bunting's Symbolic mode and note that Bunting would put its appearance later, "towards the end of schooling if at all" (ibid., p.320). This is a reading of Bunting, but I think Bunting probably meant, by Symbolic, much the same as Swanwick and Tillman themselves mean in their own Symbolic mode; and like Bunting, they locate its appearance in adolescence, saying that it is "distinguished from previous levels by the capacity to reflect upon the experience and to relate it to growing self-awareness" (ibid., p.333).

But it is noticeable that Bunting does not seem to stress the "personal expression" aspect of music for younger children. Swanwick and Tillman find that children's compositions show expressive quality much earlier on. It is interesting that they see it as appearing in songs before instrumental pieces, and comment that this may be because the voice has a more personal and "non-technical" nature, which might make early expression more likely (ibid., p.321).

At this level (Expression), children first encounter the Personal mode. Swanwick and Tillman illustrate the products of this with an example of a 4-year-old's response to the idea "the sun is shining". They comment:

After a steady beginning with some element of repetition, the widening intervals and increasing speed give us an almost first-hand experience of the excitement generated by the idea of 'shine'. The child herself shines; the process of imitation is clear (Swanwick and Tillman, 1986, p.321).

Still in this mode "there tends to be little structural control and the impression is frequently of spontaneous and unco-ordinated musical gestures emanating directly from the immediate feeling experience of the child without a great deal of reflection and shaping" (ibid., p.332). It seems that what Swanwick and Tillman are describing here is not music as symbol, for which, as we have seen, they suggest the capacity for conscious reflection is needed, but rather music as a symptom of feeling.

In the Vernacular mode, "patterns, both melodic and rhythmic appear, marked by repetitions. Pieces are often shorter than previously [and] expressiveness is now contained within established musical conventions, and in particular, the structure of phrases, which increasingly tend to fall into 2, 4 or 8-bar units". Swanwick and Tillman also note the emergence of metre and "little sequences of melody and rhythm". While the Vernacular mode begins to appear at the age of 6, it is much more clear at 7 or 8 (ibid., p.332). As we see from Swanwick's and Tillman's description, elements of music's structure are now beginning to be apparent.

Around the age of 10, children pass through the third fundamental transformation to Form, which is characterised by imaginative play. Now, "the deliberate repetition of patterns" apparent in the Vernacular mode makes way for imaginative deviation in the Speculative mode. Here there is "a willingness to explore the structural possibilities of music, and to contrast with and vary an established musical motif or melody" (ibid., p.333); and Swanwick and Tillman suggest that "It is on this ability to identify new relationships that any grasp of musical form is predicated" (ibid., p.324).

After the age of 11, speculation becomes integrated into a surer control of style, which permits more effective surprise, particularly

likely to occur at the end of a piece, or at the very beginning. As an illustration of this mode, Swanwick and Tillman present a song (no words given), by a boy age 11.9, which, they say, "shows both melodic development by..inversion and an ending emphasis by leap, which is in complete contrast to the general stepwise movement of the melody". I include it here, as Example 3.

Example 3 (from Swanwick and Tillman, 1986, p.327)



The transformation from the Speculative to the Idiomatic is seen as a further left-to-right swing on the spiral, similar to that from the Personal to the Vernacular, the recurring swing from "the more individual and personal to the schematized and social" (ibid., p.334). But there is apparently a difference, for the Speculative mode has now "initiated a new concern for musical form" (ibid., p.327). To illustrate this, Swanwick and Tillman provide an example of a long calypso for xylophone which is "borrowed" apparently unconsciously from a published song. They comment, "Conscious or unconscious copying is a frequent feature of the Idiomatic mode where the stylistic focus is more specific than in earlier Vernacular compositions" (ibid., p.329).

They do not discuss examples of such borrowings by children at an earlier level, though they note that in the Vernacular mode "the expressiveness tends to be borrowed, as when common rhythmic or melodic patterns are repeated" (ibid., p.323). Their Example 5, by a 7-year-old (ibid., p. 314), and Example 11, by a girl age 4:2 (ibid., p.318), would seem to be such borrowings from the vernacular. In their model, borrowing is linked to the swing to the right of the spiral, in the Vernacular and Idiomatic modes. As will be seen in

chapters 4 and 5, other research has identified much borrowing, both conscious and unconscious, in the song-making of younger children; it seems to be an important part of their learning how to make music.

The final phase, of Value, approached around the age of 15+, sees the transformation to "the first full flowering of aesthetic appreciation involving all the previous levels of response but adding to them a strong element of self awareness" of Metacognition, in the Symbolic mode; while in the final, Systematic, mode, the "strong sense of value leads to a commitment to systematic engagement" (Swanwick and Tillman, 1986, p.331).

The model of musical development offered by Swanwick and Tillman clearly reflects Swanwick's definition of music, considered in chapter 2, as "interesting sounds as expressive gestures embodied in coherent forms" (Swanwick, 1988, p.24). Musical materials (sounds), expression and form are seen as the main focus of the first three transformations respectively. "Form" is thus represented as characteristic of a comparatively advanced level of development, at around 10 years. But, though Swanwick and Tillman relate the sequence of development to ages, they stress that there is much "re-visiting" of each mode and that earlier levels get swept up into later ones, as is indicated by the spiral.

Similarly, although Swanwick and Tillman identify four "stages of Mastery, Imitation, Imaginative Play and Metacognition" which, they say, occur "in that order" (Swanwick and Tillman, 1986, p.309), the first three of these are also presented (see Figure II) as three corners of a triangle, all of which have been "visited" before a child enters school and will be revisited later. Their examples of Mastery, or control of materials, for example, include both "the baby who has just learned to drop things out of the pram" and "the sitar player technically exploiting the potential of a particular raga" (ibid., p.307).

Swanwick (1988) emphasises that "all three elements of play will be activated in arts education at all ages" and "we shall be looking for a strong interaction between them" (p.46). In view of this, it would seem that, though the model identifies useful ways of thinking about

musical activity, the value of the sequence itself is not so clear. Bunting, who, as we saw, identified similar modes of working and thinking in music, declined to relate them to ages other than to say they could apply to all ages, and that some were more prominent at one age than at another.

This raises the question, what is meant by "fundamental transformations" (Swanwick and Tillman, 1986, p.331)? Use of such a term suggests that there are different mental functions, reflecting Piaget's qualitative changes in cognition, though it must be noted that Swanwick and Tillman do not specifically state this. If there is so much interaction in spite of the transformations, in what way are they fundamental changes? This is an important consideration in my investigation, for, looked at purely as products, there is not an obvious qualitative difference between the song of an 11-year-old, quoted by Swanwick and Tillman (my Example 3) and my Example 1 by a 6-year-old singer.

As we have seen, Swanwick relates the musical aspects of materials, expression and form to elements in Piaget's theory of play, namely, mastery, accommodation and assimilation. Piaget does not describe assimilation and accommodation as sequential elements in cognitive development, but rather sees them as two complementary processes, present in every situation, being the ways in which humans form and revise their models of the world. They apply to all acts of knowing, the difference being one of stress rather than a developmental change. The processes occur at different levels of sophistication from child to adult. This description is paralleled by Swanwick's (1988) account of the integration of materials, expression and form in all musical activity.

Piaget does, of course, identify qualitative changes, saying that, at specifiable points in development, cognitive schemes become organised in fundamentally new ways which profoundly alter the way in which the child knows and understands the entire world of persons and objects, including, one supposes, music. Piaget's stages of intellectual development are not included in the model by Swanwick and Tillman; indeed, as already noted, they expressly reject the "Piaget of

tightly formulated stages of development". However, there are some points of similarity between the two models.

Piaget identified stages of cognitive development as follows:

1. sensory-motor (age 0 to 18 months): a period of motor activities and sensory impressions from which mental operations are later developed (cf. the level of Materials, the Sensory and Manipulative modes, in the model by Swanwick and Tillman);
2. pre-operative, symbolic or intuitive (age 18 months to 7 years): children develop symbol systems to represent the world and become gradually more able to recognise other people's perspectives (cf. the level of Expression, the Personal and Vernacular modes, in the model by Swanwick and Tillman);
3. concrete operational (age 7 to 11): children become capable of logical reasoning but need to manipulate concrete objects and states to do this (cf. the level of Form, the Speculative mode, in the model by Swanwick and Tillman);
4. Formal operational (age 11+): children can reason in purely verbal or logical, ie. abstract ways, and can reflect on their own activity of thinking (cf. the level of Value, the Symbolic and Systematic modes, in the model by Swanwick and Tillman).

The fundamental transformation which Piaget saw as occurring between ages 7 and 11 involved the development of operational thought. Though Swanwick and Tillman do not expressly associate this with their third level (Form), they have assigned similar ages (10 and 11); so it seems legitimate to associate the emergence of a grasp of form in their spiral with the development of operational thought. This suggestion is supported by Swanwick (1992), in, for example, his statement that "surprises occur as children deliberately explore structural possibilities, looking to contrast, overturn or vary musical ideas" (p.16).

As already noted, Bunting, Ross, Swanwick and Tillman all consider that the symbolic aspect of music waits upon maturity, for a well-developed stage of formal operational thought. But, just as I

suggested (at the end of chapter 2) that children might be able to use musical processes even though they cannot yet grasp them in any way other than within the act of music itself, so I suggest that, though full awareness of music's value as a symbol system is not developed in young children, yet they might be able, in some way, to enter into an experience of music as a symbol of our consciousness in time.

As was discussed in chapter 2, for music to function in such a way, the sounds and expressive gestures must be organised into coherent, symbolic forms. Thus music's structure is seen as fundamental to music's meaning, so fundamental that it would be reasonable to expect young children to be working with this aspect even while they are still exploring sounds and making expressive gestures.

Such descriptions of young children's activities as "musical doodling" (Ross, 1984), or "passive imitating" (Bunting, 1977), give the impression that they might be waiting, acquiring the "building blocks" of music from which they will later be able to make real music. There is always such a danger in a global developmental view which sees an end-state as the only "real" state and all earlier development as if "waiting-to-arrive". Donaldson et al draw attention to this and counsel that researchers should "look actively for things which young children can do", for "not infrequently, when they look, they find them" (Donaldson, Grieve and Pratt, 1983, p.6).

While accepting that very young children will need to explore and experiment, to learn to differentiate and recognise elements in their experience and to develop manipulative skills, the view of music explored in chapter 2 would lead one to ask if, in the symbolic stage of development, that is, from 2 to 7 years, children would also begin actively organising musical materials into meaningful forms. The research on infant song acquisition which will be reviewed in chapters 4 and 5, (and which was not referred to by Swanwick and Tillman) suggests that this is the case, for cognitive psychologists have begun to uncover the rules of rhythmic and melodic organisation which children learn in order to be able to sing songs. This makes

formal organisation central to musical development in the pre-school years.

The role of structure in music would appear to be so important that we should expect it to play a crucial role in the young child's development as a musical thinker. It is not so much that young children are collecting materials which, once they have discovered form, will then begin to be assembled into forms, but rather that, as the analogy with language suggests, the urge to make meaning in music (i.e. to experience satisfying musical wholes) drives the whole development.

Though the model developed by Swanwick and Tillman seems to suggest that structure is a feature of a comparatively late period of development (age 10-11+), the authors do refer to what they see as "glimmers" of structure (imaginative play) in the songs of 4-year-olds described by Moog, in which children incorporated elements of songs already known but reconstituted in new ways" (Swanwick and Tillman, 1986, p.310). They see this reconstitution as "a hint of the emergence of imaginative play, the forming of new structural relationships from scraps of tunes already absorbed during earlier stages" (ibid., p.310).

We have already noted, in chapter 2, Swanwick's association of structure with speculation, which depends upon a previously acquired vernacular and the ability to reflect upon and order musical ideas. It is this aspect of structure that is a comparatively mature development. The earlier, Vernacular, mode would appear to accommodate our need to organise music into patterns or *gestalten*, so in this sense, at least, musical form is likely to occur early on.

Swanwick and Tillman make an interesting observation, namely that the songs of their 4-year-olds were more "developed" than the children's instrumental inventions. The published musical examples are mostly instrumental pieces. Of the songs, only three are presented with words. Swanwick and Tillman analyse the children's pieces in terms of the broad sequence from 4 to 11 and they include in their published examples few by 5-, 6- or 7-year-olds, though (as their table shows)

these represent only a small proportion of their total sample (Swanwick and Tillman, 1986, p.335).

The apparent bias towards instrumental work might be significant. Infants meeting instruments for the first time at school need to experiment with them to discover their properties and to develop manipulative skills. So the instrumental compositions might show them to be still in the earliest stages of the sequence, namely, Mastery and Imitation, rather than Imaginative Play. This is what Swanwick and Tillman appear to have found. But the songs of infants, being less "technical", might show a greater degree of development. I find it significant in this respect, that the evidence Swanwick and Tillman cite for the early "visiting" of structural relationships is found in songs. It is this early manifestation of musical structure which is the subject of my own study.

As we have seen, Swanwick and Tillman incorporate Piaget's processes of assimilation and accommodation into their developmental model. But equally important in Piaget's account of cognitive activity is the principle of organisation, complementing that of adaptation (which includes assimilation and accommodation). This is the process in relation to which children are seen as active participants in the learning process, organising their understanding of their experiences into cognitive structures or schemes (see note on "scheme" at the end of this chapter). These schemes are constantly under review and change as children interact with their environment; but at each point, the scheme is an organised whole. Imbalance is created as new experiences challenge what children know to be so, but they strive constantly towards equilibrium, or wholeness of understanding.

Mention of these schemes recalls the ideas concerning the inner representation of music and the superordinate plans and commanding form which were discussed in chapter 2. Music, like all our experience, needs to be experienced in this holistic way if it is to be meaningful, and I suggest that there is the urge to make musical meaning, that is, musical wholeness, even for the infant school child. Swanwick (1988) warns, in a different context, that "we must avoid a reductionist attitude, imagining that we build up musical experience from rudimentary atoms" (p.24); this, too, suggests that

we take seriously the possibility that young children have a disposition to become engaged with the fundamental meaning of music, which is inherent in its holistic structure.

Swanwick and Tillman have not explicitly included reference to Piaget's second stage, the development of symbol systems, in their model. Since the arts are symbol systems, a detailed consideration of this stage might be fruitful. Swanwick and Tillman, Bunting and Ross, as we have seen, reserve the Symbolic mode for a mature level of development. But we might take a lead from Piaget and look for the emergence of music as symbol in early school years as well.

Piaget characterised the symbolic stage of years 2 to 7 as "intuitive", indicating that children are developing enactive knowledge of symbol systems at this age, not reflective, conscious understanding. It would seem useful to explore more fully this major distinction between the young child and the adult, the difference between enactive, implicit knowledge, being able to do and to know in doing, and reflective knowledge, being aware of what one knows and able to express it verbally. This would explain why Swanwick and Tillman put structure late, considering it in terms of being aware of structural analysis, able to manipulate structure consciously and to reflect upon the results.

It might also explain why Christine's songs (Examples 1 and 2) show her doing things which the sequence outlined by Swanwick and Tillman, and Serafine's test results considered in chapter 2, suggest should wait until greater maturity. As already noted, if we consider them purely in terms of musical analysis, Christine's songs do not appear to be significantly less mature than Example 3, by an 11-year-old from Swanwick and Tillman (1986). It seems that young children might actually produce similar products to those of a more mature musician, because this is how music as a symbol system works, if it works at all. As we have seen in chapter 2, there are aspects of composition which seem to be subconscious, or intuitive, even for mature composers.

An earlier study which drew attention to the effects of operational thought on children's composing activities was made by Glynne-Jones

(1974), but this focused upon children of 8+ and was mainly concerned with instrumental music.

A comprehensive examination of children's artistic development which complements that of Swanwick and Tillman, by taking account of the development of symbols in the early years and the implications of the change to operational thought, is that of Gardner (1973 and 1982a and b.).

Like others, Gardner considers that Piaget's approach is too heavily biased towards the development of intellectual ability to be particularly helpful as an account of artistic development. Piaget himself had little to say about art, literature, music or the realm of feeling. As we have seen, Swanwick recognised this, going for his starting point to the Piaget of Play, Dreams and Imitation rather than to the works on intellectual development per se. Gardner concentrates particularly on Piaget's second (symbolic) stage. Symbols, he says, are by their very nature, open, creative systems, and "through the use of symbols, the human mind, operating according to structural principles, can create, revise, transform and re-create wholly fresh products, systems and even worlds of meaning" (Gardner, 1982b, p.5). Thus a study of symbol systems "opens up the possibility of the endless diversity of meaningful worlds - in the arts, in the sciences - and indeed in every realm of human activity" (ibid., p.39).

This introduces an aspect in which Piaget did not seem to be much interested, and which is not easy to accommodate in a broad developmental overview which looks for similarities across populations, namely the differences between individuals and between the art works which they invent. Gardner comments that "Piaget insisted ...on the active exploratory nature of human intelligence; yet he offered a description of intellect that applies equivalently to all individuals and takes no account...of the heights of creative thought" (ibid., p.26).

In the Swanwick and Tillman model, the element of individual difference would seem to be particularly catered for by the Speculative mode. Swanwick (1988) confirms this, saying that "the

unique relationships brought about by musical speculation" are "the ultimately distinguishing feature of musical individuality, originality and quality" (Swanwick, 1988, p.24). Perhaps unmusical people stay at levels 1 and 2 (Materials/Expression)?

Gardner's account of artistic development stresses the differences among children, for "whereas all children come to explore the variety of symbolic forms made possible by a range of media, they do so in ways that are peculiarly their own" (Gardner, 1982b, p.122: cf. the Personal mode in the Swanwick and Tillman model). To understand children's artistic development, it is not enough to group them according to developmental level and ignore the differences; nor is it enough to identify or even celebrate the differences without reference to a theoretical framework. Gardner suggests that one step on the way to developing such a framework would be to consider "cognitive style", or "the particular way in which each child realises the universal properties of symbolisation at his level of development" (ibid., p.122).

We shall see, in chapter 4, how Gardner and his colleagues approach the study of infant melody acquisition. They do not, in fact, focus upon differences of cognitive style in relation to music. Much of Gardner's work refers more particularly to children's art, imaginative play, and story-making than to their musical compositions. Indeed, though he recognises that young children do make their own songs, this aspect receives fairly scant attention, for he focuses more on children's ability to reproduce the songs of their culture. But what he has to say about children's drawing and painting, and the implications of this for development in the arts as a whole, has been influential in my consideration of children's song-making.

One of Gardner's central themes is what he sees as the enigma of the many apparent links between the seemingly casual productions of young children and the masterworks of accomplished artists. Thus in his account of artistic development he seeks to explain what he sees as three mysteries, namely:

1. the nature of early childhood artistry
2. what happens to it
3. whether, and in what ways, the activity of young children as artists is related to practices of mature artistic creators (Gardner, 1982b, p.87).

In relation to early childhood artistry, Gardner (1973) identifies three systems which develop during infancy, namely, perceiving, making and feeling, but not analysing. (These three systems are what he sees as essential to art; the critic needs to be able to analyse.) Gardner sees the period from 18 months to 7 years (Piaget's symbolic stage) as a crucial revolution for artistry, for "now, in addition to knowing the world directly, [the child] can capture and communicate his knowledge of things and people through any number of symbolic forms, most notably linguistic ones" (Gardner, 1982b, p.87). By the age of 5 or 6, children can not only understand the various symbols, but often combine them "in the ways that adults find so striking" (ibid., p.88). At this stage, Gardner suggests, children "are very close to the well-springs of creativity and ... they share some similarities with gifted adult artists in both the processes and the products of artistry" (ibid., p.94).

Reference has already been made to the need to take account of (and to account for) the differences between children. In their study of 12 children working in various media, Gardner and his colleagues "were astonished by the tremendous individual differences among the ...participants. Indeed, so singularly individual were our subjects that generalisations sometimes eluded us" (ibid., p.117).

As an illustration of this difference, Gardner presents detailed study of two 3½-year-olds, Max and Molly. While certain similarities could be observed, which showed their paintings to be the work of very young artists, there were also pronounced differences. These could be seen in the features of the works themselves. For example, Max's were "rich in detail and remarkable for their dynamism" (ibid., p.122), while Molly's were "bold large-scale outlines" which "make for much simpler and 'quieter' drawings" (ibid., p.110).

Differences also occurred in the use which the children made of the same medium;

Coming in from outdoors, Max would often seize marker and paper to continue a chase that coming in had cut short [or] he would engineer on paper what was out of reach in play....As a consequence, Max's drawings were windows on an engaging play world; his works exploited the power of the graphic model to encode interaction, motion, sequence of events....Drawing needed no supplement, no linguistic elaboration to 'tell it how it was' (Gardner. 1982b, p.122).

Molly, on the other hand, produced simple outlines usually representing a single character or object. "Detail and action were contributed by language and gesture, which transformed the figure into the central character of a small drama" (ibid., p.124).

Despite difficulties in making generalisations, Gardner and his colleagues began to identify striking and recurrent patterns of differences among the children. Some, including Molly, were "verbalisers". Whatever the task, "their response was likely to be an extensive narrative...marked by only minimal action or visual-spatial operations" (ibid., p.117). Others, like Max, were "visualisers" who "would plunge directly into drawing or building, exploring the possibilities with startling effectiveness, offering linguistic comments only sparingly" (ibid., p.117). Other distinctions could be seen, for example between "self-starters" and "completers" (ibid., p.117) and between children who were "person-centred" or "object-centred" (ibid., p.118).

Gardner also comments upon the "popularity with several children of certain fixed ideas, themes or trademarks" (ibid., p.118) and speculates upon their significance. Such findings may, as has traditionally been thought, be "evidence of a persistent unresolved area of conflict in a child's life", or indicate an intellectual block, "an inability to generate new solutions or approaches" (ibid., p.119). But Gardner observes that such fixed themes "may serve different purposes for different children". While for one child, a repetitive theme may indicate restricted development, for another it

may be "a familiar territory in which variation, addition of new detail and novel combinations can be readily explored" (Gardner, 1982b, p.119). He therefore suggests that an important area for research is "the particular way in which each child realises the universal properties of symbolisation at his level of development" (ibid., p.122). This has been an important consideration in my own study of children's song-making.

In terms of general development, Gardner and his colleagues have also begun to identify changes which occur during the symbolic stage, which Gardner refers to as successive "waves of symbolisation" apparently common to all children (1982a, p.361). But he offers a word of warning to those who think to find an overarching development which applies equally to all artistic domains, for development in one domain is not necessarily reflected in the others. Rather is it the case that "each wave consists of the emergence of a specific psychological structure, which is most noticeable in one or two symbol systems" but which also has reverberations across a range of symbol systems (ibid., p.361).

The earliest of these waves occurs at about 18 months, when children "become able to organise their knowledge and roles into a systematic sequence" (ibid., p.361). The obvious examples are in language and pretend play, but they also occur in, for example, drawing and building. At about 3 years, children go through a second wave, a "mapping wave", when they become able to capture spatial relations in a medium like drawing or clay, creating representations of human figures and simple objects. Similar "mapping" of relations occurs in other media, for example children can alter their voices up or down properly when singing a tune (ibid., p.361).

A third wave of symbolisation sees the emergence of a more precise, "digital" form of mapping at about 4 years, at which point children can, for example, correctly reproduce rhythms and recreate pitch intervals; and at the age of 5 or 6, in a fourth wave, children become able to use culturally devised, secondary symbol systems like written language or other notations (ibid., pp.361-2). How this becomes evident in children's songs will be seen in chapters 4 and 5.

It seems that an in-depth study of the symbolic stage of development has rich potential for exploring artistic development, in ways which complement the global studies referred to earlier in this chapter. It is possible, from such a study, to begin to identify similarities, but differences can also be observed and need to be taken account of, particularly in the ways individual children relate to and use the various symbol systems.

The question arises, to what extent are young children in deliberate control of their artistic pursuits? (Gardner, 1982b, p.363) As Gardner observes, children "will produce drawings and paintings that in their use of colour, richness of expression and sense of composition bear at least a superficial kinship to works by Paul Klee, Joan Miró or Pablo Picasso" (ibid., p.87). Indeed, Gardner makes the intriguing suggestion that by the age of 7 or 8, children have absorbed the fundamentals of symbolic creation in art forms, and have, "in most respects, become participants in the arts" (1973, p.vi).

In what respects are they not yet participants? Gardner and his colleagues found that young children do not have the mature artist's sensitivity to aesthetic qualities such as "repleteness" and "expressiveness", even when these are tested through actions rather than verbal accounts (Gardner, 1982b, pp.97-8). Such tests echo Serafine's study (referred to in chapter 2), which found that children of 5 to 6 were "not aware" of the fundamental musical processes being tested. Nor (as already seen in relation to the work of Swanwick and Tillman, Ross, Bunting), are young children ready to analyse, describe or compare works of art; for these, they need to experience the next stage of intellectual development (Piaget's operational stage).

Nor, alas, do they retain and develop the freedom, originality and inventiveness which characterise their infant art, in a steady progress towards maturity. In intellectual development, provided children have adequate schooling and reasonable ability, the transformation from symbolic to operational thought sees a continued development of powers with increasing years. But Gardner finds, as many teachers would confirm, that development in the arts is not so

clearly uni-linear. He refers (as do many other writers, including Swanwick and Tillman, Bunting, Ross and Plaskow) to the way that the early freedom and "expressiveness" of children's art appears to disappear before a pre-occupation with the conventions of the vernacular.

Like the other researchers referred to above, Gardner sees this U-shaped curve as a necessary developmental tendency, rather than simply lamenting it or seeing it as an avoidable result of the detrimental effects of formal schooling. But he recognises that few children emerge from the trough of the U to continue to develop into fully-fledged creative artists; and he suggests that the development of formal operational thinking, while it makes possible a greater critical appreciation of art, may actually inhibit creative work. Mature creative artists keep something of the intuitive, spontaneous quality of children's artistic activity.

Like Ross, Gardner warns that if children's expressive needs outrun their executive competence, then their developing critical faculty will discourage them from trying to engage in creative activity. We see, then, that development in the arts, far from being a single linear progression, may resemble a U-curve, or a decline in creative powers with an increase in critical ability; it may be uneven, running ahead in one symbolic domain but not developing in others; or it may seem to resemble more a series of zig-zags than a linear development.

Despite Gardner's suggestion, there seems to be much to discourage the belief that children aged 7 or 8 are ready to be considered as artists, if, as for example Serafine and Gardner have found, they do not appear to recognise artistic qualities. Yet the rich art-work of the infant school years exists; and though we can say that there are important ways in which young artists differ from mature artists, it is difficult to believe that their work is more or less the result of chance, or just expressive gestures with no symbolic meaning. Children presumably develop symbol systems because the systems have a meaning for them, (as witness the different approaches based on different needs of Max and Molly). There has to be a sense in which,

if they are using symbols, or art works, they "know" the meanings of the symbols.

What kind of knowledge can this be? I have already suggested that an answer may be found in Piaget's description of the symbolic, pre-operational period as intuitive. Children aged 5 to 7 do not necessarily "know about" music and how it works in the sense of being able to analyse and describe it verbally. But they do, presumably, have intuitive, pre-operational knowledge and understanding.

To illustrate the difference between enactive and reflective knowledge, Piaget asked children to walk on all fours and to describe what they did (Piaget, 1977). The 4-year-olds said, for example, that they moved one hand, then the other, then one foot, then the other; and they continued to give this account even while they were performing the actions in a different order, thus indicating their lack of analytical awareness of how they actually walked on all fours. They could not describe what they were doing even while they were doing it, and their incorrect account did not lead them to try to modify their actions. Only gradually did they become aware of the discrepancy between what they did and what they thought they did.

Yet 4-year-olds can walk very successfully on all fours. This is a direct action, which they have become able to do, according to Piaget, by making "simple automatic sensory-motor regulations" (1977, p.6). But it may be that similar observations could also be made in relation to children's musical activity; though this presumably involves cognitive schemes as well as simple actions. Perhaps children do things in music which show they must have such schemes; but their conscious awareness of their cognitive processes is not developed, so that they do things without "knowing how", and even without "knowing that". As chapter 2 suggests, this may be the case even with mature composers at some stages of composing.

Gradually children become able to unpack an action, to see how it was done and to give an account of it. They see that objects retain their properties when their positions or shapes change, they become aware of transformations of objects or states, and able to reverse them. At first, this operational thought depends upon being able to see and

manipulate the objects or perform actions; but later, after 11 or so, thought becomes increasingly abstract.

In terms of operational grasp of music, Swarwick and Tillman, Bunting, Ross and Glynne-Jones are, of course, "right", in that conscious manipulation of musical ideas, understanding how effects are produced and how musical materials can relate to each other, seem to require intellectual development. But Gardner has drawn attention to the striking results of intuitive activity in children's painting and drawing. And intuitive understanding is what many would say the arts are about. Perhaps Christine's "Lah" song is the result of similar activity in music?

It is time to take a closer look at what we know of young children as song-makers. My own study considers the invented songs of children aged 5 to 7, an area in which there has been little published research. But a detailed picture has begun to emerge of what young singers do in their pre-school years, and this will be reviewed in chapters 4 and 5.

#### Note on the use of the term "scheme"

Piaget's French term, **scheme** has usually been translated into English as **schema**. Piaget's idea of **schema** is rich and complex, involving behavioural and mental aspects, and I cannot claim to have studied the concept in depth. Ginsburg and Oppen (1979) warned that "Piaget has lately been using the.. word 'schema' for another purpose". I have decided to adopt the word "scheme", in this study, used in the sense of "plans for the production of songs that display the knowledge the child has at a given stage of development concerning how a song should be constructed" (Dowling, 1984, p.148).

#### CHAPTER 4 - DESCRIPTIONS OF SONG ACQUISITION IN YOUNG CHILDREN

Research into the development of young children's singing has been considerable. The literature divides into two broad categories, earlier work being generally descriptive while recent writers seek to account for the process of song acquisition in terms of cognitive structural psychology - the stages and strategies involved in learning to produce the songs of one's culture. A detailed picture emerges of what happens in the "vocal doodling" which, as we have seen, Ross (1984) noted as characteristic of the music-making of children aged 3 to 8; and this picture shows how much, and how early, cognitive structural organisation becomes evident. I shall review the more generally descriptive accounts in this chapter and consider the research which focuses upon children's developing schemes governing song production in chapter 5.

The most extensive description of young children's musical experience has been provided by Moog (1976), based on his study of 500 children aged from 6 months to 5½ years. Moog focused on the behaviour of children in response to music being played to them, and he included descriptions of their singing.

Moog noted examples of vocal response to music, distinguishable from the more usual speech babbling, in his youngest subjects (6-months-old). Ostwald, too, found that by the second half of the first year, children were making "self-produced tunes" (1973, p.368). Other writers, for example, Dowling (1984), considered that not until their second year do children typically begin to sing spontaneously in a way clearly distinguishable from speech. Perhaps this difference is accounted for by the fact that Moog was documenting children's response to music, while Dowling referred to purely spontaneous behaviour.

Though Moog said that these earliest musical vocalisations did not show any clear pattern of development, such as was found in the children's speech patterns, he was able, from his observations, to describe their characteristics. For example, the songs were not in

any sort of diatonic system and were rhythmically amorphous. The melodic lines were mostly descending, but some moved upwards, usually by leap. A number of children had a vocal range of over an octave and "within this wide range of pitch" the children sang in micro-intervals (Moog, 1976, p.60).

Other observers refer to pitch glides of a 3rd or 5th (Ostwald, 1973) and "fine descending glissandi" (Werner, 1948). McKernon (1979) agrees that before the age of 18 months, notes "are sung entirely glissando, no pitch may be distinguished from any other" (p.45). But Moog's findings disagree, for he expressly states that there is not a "glissando on one tone" (1976, p.60, footnote); and he gives examples of the spontaneous songs of 8-month-old babies which appear to support his view (see Example 4).

Example 4. Spontaneous song by 8-month-old (Moog, 1976, p.61)

The image shows six staves of musical notation for a spontaneous song. Each staff begins with a treble clef and a key signature of one flat (B-flat). The lyrics are written below the notes:
   
Staff 1: Ha                    ha a a a                    ha ha
   
Staff 2: ha ha ha ha ha ha
   
Staff 3: ha ha ha ha ha ha ha
   
Staff 4: ha ha ha
   
Staff 5: ha ha ha ha ha ha
   
Staff 6: ha ha

Few children before the age of one show any signs of imitating what is sung or played to them (Moog, 1976, p.62), though research has found that children can learn to copy pitches accurately; for example, Kessen, Levine and Wendrich (1979) taught children of 6 months and less to copy melodic fragments on DFA in test conditions.

Considerable development in children's singing takes place between 12 months and 2 years. Ostwald (1973) and Dowling (1982) found a marked distinction during the second year between speech sounds used

increasingly for verbal communication and vocalisations that are clearly recognisable as songs. The songs do not usually include words, though parts of words may occur in a string of nonsense syllables or as the beginning of a song which then continues on a single syllable (Moog, 1976).

A major development occurs at about 18 months, notably the emergence of discrete pitches from the glissandi of the earlier songs. This has been noted by Moorhead and Pond (1941 and 1942), Révész (1953), Ostwald (1973), Bentley (1966), McKernon (1979), Gardner et al (1981) and Dowling (1982). Now the singers can "embark upon the twin tasks of melodic and rhythmic organisation" (McKernon, 1979, p.45; my emphasis). At first, "melodic patterns exist only in the sense of small note groupings, rather than in the developed, repeatable tonal patterns of adult tunes" (McKernon, 1979, p.47). This is the age at which children experience the first wave of symbolisation identified by Gardner (see chapter 3), becoming "able to organise their knowledge and roles into a systematic sequence" (Gardner, 1982a, p.361). There is general agreement that although discrete pitches are observed from the age of 18 months, melodies are still not necessarily diatonic and "most of them seem not to relate to any observable tonal centre" (Moorhead and Pond, 1942, p.14).

Observations seem to vary concerning the rhythm of children's earliest songs. Dowling noted that the songs of his subjects were rhythmically organised with a steady beat (1984, p.146). Moog also found that the children's songs were rhythmically very simple, notes of the same length predominating (1976, pp.75-76).

But a different observation is made by Moorhead and Pond (1941). They distinguish between songs and chants. The rhythm of chants is rigidly confined within a beat structure; but songs are characterised by "free and flexible rhythm", and the rhythmic organisation varies greatly, "from seemingly random groupings of notes to groupings which seem to have some underlying beat" (1942, p.41). McKernon agreed with Moorhead and Pond that the rhythm of children's first songs is free and flexible (McKernon, 1979, p.47). Examples 5a and 5b, collected by McKernon, illustrate this "free" rhythm, and contrast with the examples of spontaneous songs by children of 1 to 2 years, provided

by Moog (see Examples 6a and 6b), in which the rhythm is all notes of the same length.

Example 5: children's early songs, illustrating free rhythm

a) from McKernon (1979) p.48

Ha Ha Ha ha is to ha ha ha ha ha ha

b) from McKernon (1979) p.48

ah ai ai ai ah ah-h-h ah-h-h ah ah ah ah

ai-ai ah oh oh ah ah ah ah ah ah oh

Example 6: songs by children aged 1 to 2 years, illustrating "rhythmically very simple" songs (Moog, 1976, p.76)

a)

m m m m m m m

b)

La la la la la

la la la la la la la

As already noted, children's earliest songs bear no resemblance to known songs; but Moog and others note an increasing tendency for children, after 12 months, to sing songs which resemble something sung to them. Moog charts the progress of the children in his sample in terms of their ability to imitate standard songs. At first, they imitated words and something of the rhythm. By 18 months, ninety per cent of Moog's subjects "were singers", with half making some attempt to imitate pitch. All Moog's subjects learnt, between 2 to 3 years, to sing at least part of a song that had been sung to them.

But it seems that perhaps Moog's figures suggest greater success at imitating than was really the case, when we examine what he means by imitating. Moog describes a sequence in learning to sing songs, from imitating the words only (between 12 and 24 months), then adding rhythm "a little later", until finally the children "reach the stage of imitating pitch as well". But still, at 3 years, "the greatest difficulties continue to be presented by differences of pitch", so "in this case, the word 'imitate' simply means that the direction of the melody is followed", or that "only some groups of notes are sung correctly" (Moog, 1976, p.99).

The children's ability to imitate songs continued to develop between age 3 and 4, so that seventy-six per cent of Moog's 4-year-olds "sing more or less correctly" (ibid., p.118) and "a number of 4-year-olds had already got a repertoire of five to ten or more songs" (ibid., p.119).

This progress continued in the 5th year, but Moog notes that still a "third of these small singers reproduced the song correctly but made the intervals more or less too small" (ibid., pp.131-132).

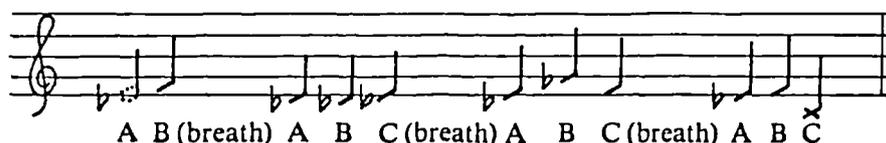
Displacement of a line of the tune also occurred often, with the child transposing the tune after one out-of-tune note, so that the key varied from line to line. Mistakes in the rhythm or the words were much less frequent than out-of-tune singing, and Moog concludes that the "overall line of development in singing, (which begins with the words, adds the rhythm, and lastly begins to take notice of differences of pitch) is still apparent in children who are just

about to go to school" (Moog, 1976, p.133: Moog's children started school at 6).

McKernon (1979) gives a detailed illustration of the first part of what she calls the "long process of approximation" in children's learning of standard tunes (p.49), in which we see a child gradually incorporating aspects of rhythmic organisation into her songs. McKernon compares versions of A B C by the same girl, at 19, 22, 23 and 28 months (see Examples 7a, b, c and d).

In the first version (Example 7a) only part of the words appear, those belonging to the first phrase of the song. The pitch range of Example 7a is restricted, the "contour undulations occur in small groups of two or three notes; the singer incorporates the words of the song into the tune repertoire she already has". So the tune does not exist at all as a recognisable entity, apart from its words. (As we shall see in chapter 5, it seems that young children filter standard songs through their own schemes of how a song goes.)

Example 7a (from McKernon, 1979, p.50). A B C at 19 months



The singer gradually incorporates rhythmic structures. By 22 months (Example 7b), there is evidence of some rhythmic regularity over the first two groups of notes.

Example 7b (from McKernon, 1979, p.50). A B C at 22 months



By 23 months (Example 7c), the child "has grasped something fundamental to the rhythm of the song - the sustained note at the end

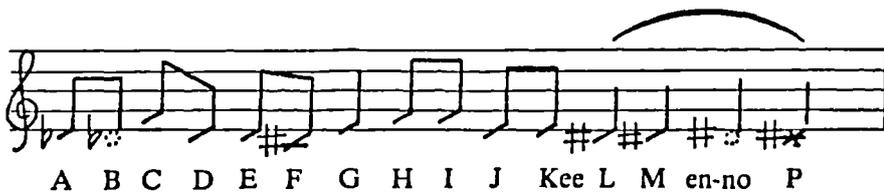
of each block and the fact that some notes (LMNO) are sung more rapidly" (McKernon, 1979, pp.50-51).

Example 7c (from McKernon, 1979, p.50). A B C at 23 months



By 28 months (Example 7d), the singer has mastered the words in the correct sequence and can produce the appropriate rhythm, matched to the words.

Example 7d (McKernon, 1979, p.50). A B C at 28 months



Gardner, Davidson and McKernon (1981) see the process outlined above as the child mastering the outline or "first draft" of a song by 3 years. With regard to the development of melody, Moog noted that young singers followed the direction of the melody, but did not match the intervals accurately. Other writers have also drawn attention to this. Shuter, for example, commented that "it is interesting that it was the general melodic shape rather than the longest or most prominent notes, that was learned first. This suggests that learning proceeds from an initial apprehension of a tune as a whole, with more definite perception of the parts taking place later" (Shuter, 1968, p.68). Gardner (1982a, p.361) relates this to his second wave of symbolisation, the mapping wave, which children experience at about 3 years, in which, in relation to music, they can alter their voices up or down properly when singing a tune, and can copy the overall contour of a song.

Dowling (1982) outlined a development sequence in "melody information processing" from babyhood to adulthood, contrasting the baby's

ability to distinguish gross features, such as contour and pitch level, with 5-year-olds' grasp of tonal scale and ability to distinguish key changes, which give them greater accuracy to produce intervals within melodies (and which corresponds to Gardner's digital mapping wave). Dowling considered that there is a hierarchy of melodic features (namely pitch contour, tonality, interval size), and that the sequence of human development follows that hierarchy closely (Dowling, 1982, p.415). But he later observed (Dowling 1988) that new evidence suggests that children's progress in this development may be more rapid than had previously been supposed; for recent research, e.g. by Trehub et al (1984) has found children sensitive to intervals, not just contours, earlier than was previously thought.

Gardner et al (1981) also describe how children progress "from first draft to mastery," in their report of a study in which a song was taught to a group of 4½-year-olds. The researchers found that "while the patterns of song acquisition varied to some extent across children, a number of regularities could be seen" with children passing through "four principal phases in the acquisition of a song" (ibid., p.309). These phases, as we would expect, reflect the waves of symbolisation already referred to, and confirm the order of acquisition noted by Moog and Dowling, being mastery, successively, of the topology of the song, of the rhythmic surface, of the contour of the song, and finally of key stability.

So far, then, we have seen how children gradually acquire the ability to reproduce the songs of their culture, beginning with rather featureless musical babbling, but showing an increasing tendency, after about 12 months, to sing songs which resemble something sung to them. They gradually incorporate aspects of rhythmic organisation into their songs, and discrete pitches begin to be discernible around 18 months. The sequence of acquisition of aspects of standard songs seems to be first the words, rhythm and phrase boundaries, followed by melodic contour and, eventually (around 5-6), more accurate reproduction of intervals as a sense of tonality develops. Children grasp the topology of the song, that is its wholeness, before they become able to reproduce its details.

It seems that singers of pre-school age are doing rather more than is suggested by terms such as "vocal doodling" or "personal expression". They are acquiring mastery, but mastery of aspects of musical organisation, not just the materials and expressive characteristics of music. Young children do not only imitate standard songs. As we have seen, their earliest vocalisations are not obvious imitations, before 12 months; but even after they begin to try to copy songs sung to them, children continue to produce "spontaneous" songs, i.e. songs which do not resemble those that they have been taught. Moog noticed a particular increase in these spontaneous songs between the ages of 2 and 3; their occurrence peaked between 3 and 4, and then seemed to decline. What is their significance? Are these the roots of composition, and how do they relate to the children's imitative songs?

An early study by Werner (1948), charting the "creative singing" of children 2 to 5, focused particularly on the early appearance of melodic elements. Werner summarised his findings in a table, which I reproduce as Figure IV.

Figure IV. Early Appearance of Melodic Elements in Creative Singing (from Werner, 1948, p.125)

Age in Years	Direction of Melodic Movement	Gestalt	Ending	Ambitus (total range between low and high)	Number of Different Tones in the Motif
2-3	Descending: $\searrow$ (rare form: monotone:—)	"Whole-Form" (The motif as a whole is repeated without repetition of parts: $\searrow$ or $\wedge \wedge$ )	On the lowest tone	Minor third	Two tones
3½	Ascending-Descending $\wedge$		On the same tone as beginning	Major third	Three tones
3½				Fourth, fifth	More than three tones
3½		Repetition of descending part: $\wedge \wedge$			
4			On a middle tone between low and high		
4½		Repetition of ascending part $\wedge$			
4½			On a tone toward which the low tone is leading upward		
4½	Double-Form: $\wedge \wedge$ x (tone x belongs to both parts)	Overlapping steps in ascending part: $\wedge$			

Werner found early development of "creative melodic patterns", beginning, as already noted, with the "diffuse descending glissando"; out of this developed a descending two-note pattern with the interval of a minor 3rd. New elements continued to appear in succession, as indicated in the table. Of particular interest is the primacy of the descending minor 3rd, of which much has been made (by, for instance, Kodály and Orff), and the ending upon the lowest note (of which more will be seen in later chapters). Illustrations of the kinds of songs described by Werner are given by Révész (1953), and included here as Examples 8 and 9.

Example 8, showing the falling minor 3rd motive which grows out of the pre-melodic glissando (Révész, 1953, p.173)



Example 9, showing the rising-falling tonal pattern after the age of 3½, using mainly intervals of a 3rd (Révész, 1953, p.172)



Révész echoed Werner's belief that the minor 3rd was the initial interval. A similar emphasis on the descending minor 3rd is found in Moorhead's and Pond's description of their imaginative project at the Pillsbury Foundation School (1941, 1942); they considered that "the minor 3rd is beyond all question the fundamental interval in children's chant" (1941, p.13). It is difficult to know exactly at what age their children did the things which Moorhead and Pond describe. In their first volume (1941) the children's ages are given as 1½ to 8 years, but in volume II (1942), they say that the children were 2- to 6-years-old; further reference to ages is not given in relation to particular activities, so it is not possible to chart

development more finely in terms of the stages between 18 months and 8 years.

As mentioned earlier, Moorhead and Pond distinguish between song and chant. Within the chant, there are two distinct kinds. The first type (of which they actually found only a few instances) is heightened speech; its rhythm is that of speech, but it differs from speech in that the most important syllable is strongly accented melodically (1941, p.12). The second type of chant has a strongly rhythmic character and the words are forced into the rhythmic pattern of the music (ibid., p.12). This type is usually performed in a group, and may be associated with physical movement. The basic chant is repeated over and over, almost always loudly and with a "somewhat barbaric" vocal quality (ibid., p.15).

The melody of the chant is characterised by a falling minor third after an accent, preceded by an ascending, unaccented 4th (see Example 10).

Example 10 (from Moorhead and Pond, 1941, p.19)

The image shows two staves of musical notation in treble clef. The first staff contains the melody for the lyrics "Ha ha ha ha can't scare me,". The melody consists of quarter notes with a rising interval of a fourth followed by a falling interval of a minor third. The second staff contains the melody for the lyrics "I know school too well.", also in quarter notes with a rising interval of a fourth followed by a falling interval of a minor third. The lyrics are written below the notes.

Bentley noted a rather similar chant, included here as Example 11.

Example 11 (Bentley, 1966, p.26)

The image shows a single staff of musical notation in treble clef, 4/4 time signature. The melody consists of quarter notes with a rising interval of a fourth followed by a falling interval of a minor third. The lyrics "Ride in Dad-dy's car." are written below the notes.

But Moorhead and Pond also found that, besides chants, children produced songs of their own invention, of which they do not provide examples. In contrast to chants, which are social, "song is

essentially produced by the child for himself" (Moorhead and Pond, 1942, p.13); "the singer sang to himself alone, quietly of everyday things, as though the melody, not the words, were more important" (1941, p.4). Moog (1976, p.95) also noted that his children sang to themselves, not to communicate to others; indeed, when the mother of one child sang an answer, the child "was extremely surprised and stopped singing".

It is the songs rather than the chants which, as already noted, are described by Moorhead and Pond as having a rhythm which is free and flexible, and melodies which are not diatonic and do not seem to relate to any observable tonal centre. They are distinguished from the chants in terms of melodic intervals, too; for, instead of emphasising the falling minor 3rd, they tend to progress by small steps, though large intervals are sometimes used to considerable dramatic purpose (1942, p.14). Unlike the chants, the songs are not repetitive in form; and even when children repeat the same words, they are likely to sing a different melody to them each time (*ibid.*, p.13). So there seem to be two separate, but parallel, kinds of songs, with the chants being characterised by the falling minor 3rd.

Other researchers do not appear to consider the descending minor 3rd to be particularly significant. For example, Gardner et al (1981) found that, after the emergence of discrete pitches around 18 months, the children used mainly major 2nds with major and minor 3rds, as well as occasional 4ths and 5ths. Moog explicitly denies the emphasis on descending 3rds (1976, p.60, footnote). His examples of spontaneous songs between years 1 and 2, already included as Examples 6a and b, bear out the contradiction, as they are different to those provided by Revesz (Examples 8 and 9). The apparent discrepancy might be explained by the fact that these other writers (Gardner et al and Moog) are apparently referring to the private songs of their children. If, as Moorhead and Pond suggest, the descending minor 3rd figure is a feature of social music-making, it is possible that the characteristic melody of the chant may be an orally transmitted formula (cf. children's playground songs, which will be considered in chapter 7). Even Werner found that major 3rds, as well as 4ths and 5ths, were also used by the age of 3½.

Concerning the degree of formal organisation in these early spontaneous tunes, Gardner et al (1981) found that they were unpredictable and unmemorable, and that it was difficult for a listener to repeat them (p.303). Here is another area of apparent discrepancy. For example, Dowling considers that there is early evidence of organisation. That a child can perceive musical structures as a whole even at 18 months was suggested to Dowling by the fact that his daughter at this age would run to the television when she heard the Sesame Street tune, but for no other music (Dowling, 1982, p.416).

Dowling found that children after 18 months "begin to generate recognisable, repeatable songs". By the age of 2 years, these songs often consist of brief phrases repeated over and over. Their rhythm is coherent and their contour is replicable, though the pitch wanders. The same contour is repeated at different pitch levels, usually with different intervals between the notes.

Dowling maintains that such spontaneous songs have a systematic form and display two essential features of adult singing; they use discrete pitch levels and they use repetition of rhythmic and melodic contours as a formal device. But they are unlike adult songs in that they lack a framework of stable pitches (a scale), and use a very limited set of contours in one song, usually just one or two (ibid., p.416).

By the age of 32 months, Dowling's daughter was producing more sophisticated songs, of which Example 12 is an illustration. Here Dowling finds that "three replicable phrases are built into a song structure that begins to be meaningful for the adult" (ibid., p.417).

This seems to conform to the description by Swanwick and Tillman of pieces which, they say, are characteristic of the Vernacular mode (at 6+), namely, "patterns, both melodic and rhythmic, begin to appear, marked by repetitions" (1986, p.332). Dowling's two daughters do seem to have been musically rather precocious; both were having piano lessons by the age of 3½, so perhaps this explains the discrepancy.

Example 12: Song by child of 32 months (Dowling, 1982, p.417)



Between spontaneous songs which bear no relation to known songs, and those which are a clear attempt to imitate, researchers have found a third form of song in children from the age of 2½, where the singers begin spontaneously but incorporate fragments of known songs. This apparent overlap or interference between imitation and invention is interesting, and has been the subject of much detailed consideration. Moog called this type of song "pot-pourri", where children make up new songs "by putting together pieces of songs they already know. Words, melodies and rhythms are mixed up, altered, taken apart and put together again in a different way, and then fitted in between stretches of original ideas" (Moog, 1976, p.115). This was the process which, as noted in chapter 3, Swanwick and Tillman considered to be "a hint of the emergence of imaginative play". (It is not confined to young children's song-making, see reference to centonation in chapter 6.)

Over half of Moog's 3- to 4-year-olds sang some sort of original song, either related to a song they knew already or bearing no resemblance at all to a learnt song. Over thirty per cent sang pot-pourri songs. His 4- to 6-year-olds were still making spontaneous songs in all Moog's categories, but did not produce as many as did the 3- to 4-year olds.

This review of the literature on song acquisition so far shows that there is considerable description of the occurrence and

characteristics of the singing activity of young children, which can be summarised as follows:

- early music babbling becomes increasingly distinct from speech babbling between 6 months and 18 months;
- characteristics of earliest songs are described as constant vowel sound on descending glissando or undulating pitch, with amorphous rhythm and micro-intervals (Moog disagrees with glissando);
- emergence of discrete pitches and rhythmic and melodic organisation around 18 months, though some lack of agreement over degree of organisation;
- first interval = descending minor 3rd, though not all in agreement (social chants and private songs may have different melodic characteristics);
- imitation of known songs begins in second year and proceeds from words to rhythm/phrases, to melody;
- acquisition of melody proceeds from melodic contour to increasingly accurate intervals as tonality develops;
- many children are able to imitate by 5 but still tend to sing out of tune;
- songs which do not imitate continue through the pre-school period while children are learning to sing standard songs;
- the two appear to "interfere" with each other, resulting in pot-pourri songs;
- in some songs ("narrative songs"), children seem more concerned with words and story than with musical organisation, though Moorhead and Pond suggest the opposite is the case in personal songs.

Simple description is not enough to explain the musical behaviour of children; researchers have also sought to account for the result of

their observations in terms of theories of child development obtaining in their time. Moog, for example, considered children's musical activity in relation to Piaget's concept of imaginative play (cf. Swanwick and Tillman, 1986), as an answer to the question which has also been a focus of the more recent research considered here, namely that of the relation between imitative and pot-pourri songs.

In considering the significance of the pot-pourri songs, Moog suggested that they did not occur simply because children were unable to produce target or model songs correctly and so must resort to invention to produce anything at all. The child "rearranges and finds new ways of expressing what he has already taken in" (Moog, 1976, p.115); and children might make up words and tunes "to songs which they sang almost entirely correct either before or after their improvisations" (ibid., p.131). The imaginative singing of these children gave the impression that words, rhythm and pitch were beginning to be independent entities within the song, and that the singers were developing the ability to separate each of these from the song as a whole and to handle them independently. This is evidenced in "the imaginative alterations these children make, when they make up new versions of songs they know" (ibid., p.135).

But Moog did not give examples of these "imaginative alterations". It would seem that this is the beginning of composition. He compared them with other aspects of children's imaginative play, seeing parallels between children's singing and their play activities outside music. Toys and other objects may be arranged and re-arranged in a great variety of ways, as the child explores what goes with what "and so...he finds out by using them the properties of the things which are given him" (ibid., p.120).

[It may be that the exploration in which the child is engaged, in this ordering of his environment, is not only cognitive. Such arranging and rearranging of musical events might also have affective significance and might be the beginning of the organisation of time in music which, after Langer, I take to be the meaning of music. The emotional aspect of a child's ordering of his world is movingly

conveyed in Coventry Patmore's poem, The Toys (Oxford Book of English Verse, 1961)]

Moog did not compare the pot-pourri with the standard songs. But he did say that "children who have learnt a few songs go on to sing original songs using the same forms" (Moog, 1976, p.120), and that the researchers experienced great difficulty in getting any sort of original song from children who still could not sing a learnt song (ibid., p.120). Moog seems to be suggesting that children's original songs result from their gradual acquisition of songs sung to them by others.

He also presented their acquisition of standard songs as a process of increasingly accurate imitation, seeming to minimise the effect of cognitive development on the development of the ability to sing (but not on musical experience) by saying that, although in the very earliest stages, it depends upon maturation, "from the age of 3 onwards, success in singing depends more and more upon the functioning of the vocal apparatus" (ibid., p.129).

But more recent research into the young child's acquisition of song emphasises that children's developing cognitive powers determine how they process melodies up to the age of 5 and even beyond; and has sought to identify the cognitive strategies children employ in learning to sing a song. This research is particularly significant in the light of the consideration of musical thinking, and of the forming of internal representations of music already presented in chapter 2 of this thesis, and will be examined in detail in chapter 5.

CHAPTER 5 - THE DEVELOPMENT OF COGNITIVE SCHEMES GOVERNING SONG  
PRODUCTION, AND SOME COMPARISONS BETWEEN VOCAL AND INSTRUMENTAL  
COMPOSITION

As was noted at the end of chapter 4, recent research emphasises the role of children's developing cognitive powers in their acquisition of song. In their investigations into this aspect, Dowling (1982 and 1984), Gardner, Davidson and McKernon (1981) and McKernon (1979) have looked at both spontaneous and imitative songs together, and considered possible relationships between them. In particular, they have focused on the significance which the invented songs may have as aids to learning how to reproduce standard songs. In this chapter, I shall first examine the aspects of this research which have relevance for my thesis. I shall then consider other studies which focus upon young children's compositions, and which suggest that there may be differences between their vocal and instrumental improvisations. Finally, a surprising study by Kelley and Sutton-Smith also draws attention to the possibility of differences between children (cf. Gardner).

Dowling (1984) analysed the songs produced by his two daughters from 12 to 42 months, considering all the songs from the same standpoint, being particularly concerned with children's acquisition of internal schemes governing song production. It has already been noted that Dowling considered that structural organisation was apparent from an early age. He reasoned that when 2-year-olds produce songs, they filter them through their own internal schemes (cf. Piaget); and he compared this with a similar process in children's language acquisition. Dowling found that even with children as young as 12 months, invented songs divided naturally into phrases, with characteristic melodic and rhythmic contours. He analysed the songs in terms of the phrase contours; taking "repetition of phrase contours as evidence for schematic control of phrases", he "looked for evidence of those phrases under the control of higher level" schemes in his search for "clues to the syntax of the child's early language" (1984, p.147).

At 1 to 2 years, the children "had quite a few songs simply repeating one contour" (Dowling, 1984, p.155). By 3 years, they were using two or three phrase contours and producing very few one-contour songs. So the analysis revealed a trend towards greater variety in songs between 1 and 3 years. There was dramatic increase of songs using two or three contours involving repetition plus a coda, i.e. a phrase occurring only once at the end of a song (ibid., p.157). Dowling comments elsewhere that this structure occurs in a number of nursery rhymes, such as "Mary had a little lamb" and "Here we go round the mulberry bush", both ABAC in shape (1988, p.117).

But this structure occurs more frequently in the songs invented by the 3-year-olds than in the nursery repertoire or in adult songs. Dowling sees this as an example of children "overproducing" in the same way that they over-use grammatical forms in language as they first acquire them. He concludes:

This is evidence of an inner-directed mechanism for song-form acquisition. The children achieve....schematic control over the songs they sing...not by simply copying the cultural models but rather by developing ...mental representation in response to their musical environment (1984, p.157).

Dowling's conclusion is in contrast to that of Bunting (1977, already quoted) that a 4-year-old singing a nursery rhyme is "passively imitating his parent or teacher, rather than actively discovering how to achieve the same effect for himself". It also conflicts with Swanwick's and Tillman's characterisation of the years from 0 to 3 as a period of "experimentation with sound sources" in which the improvisations have "no structural or expressive significance"; and it seems to suggest that aspects of music's structure feature in children's song-making rather earlier than the Swanwick and Tillman sequence would indicate.

Interestingly, a much earlier investigation by Brehmer (reported in Werner, 1948), in which subjects were asked to imitate piano melodies, also showed children filtering what they heard and sang through their own "more primitive form" (Werner, 1948, p.127).

Davidson, following Werner, has begun to analyse what children's melodic schemes might consist of (Davidson, 1984). He has described two basic characteristics of contour schemes, namely the size of framing interval and the way the boundaries are connected (ibid., p.32). The framing intervals of the first four levels of contour scheme are 3rd, 4th, 5th and 6th/7th, respectively; while the boundaries can be connected by leap or by step (ibid., p.32).

Davidson describes the contour scheme as a "child-centred unit of analysis" which "will necessarily be a simplified and generalised form of a fully developed melodic phrase" (ibid., p.32). He argues that the concept of contour schemes provides "a developmental theory of tonal knowledge" and offers "a vantage point for errors, which makes it possible to use them as windows on understanding and development, not as simply mistakes". Of particular relevance to the present study is Davidson's claim that, far from being undirected experiments with sounds, children's early songs may be seen to contain "whole sets of unsuspected structures that are antecedents of more mature forms of tonal knowledge" and which "emerge in an ordered sequence" (ibid., p.38).

To illustrate his method of analysis, Davidson compares children's versions of standard songs with their target songs. In the version of A B C sung by a child of 18 months, (see Example 13a), the singer uses just two phrases and five letters out of the total of twenty-six. In the target song (Example 13b), the first phrase goes up then down; but the child "is unable to reproduce that melodic contour". Her vocabulary is limited to a single contour scheme, that of an "unfilled 3rd, the first level of tonal knowledge" (ibid., p.34).

Davidson echoes Werner's belief that the descending 3rd "plays an important role in the future development of pitch knowledge". This (1984) study begins to uncover this role, for the minor 3rd's "top and bottom pitches become the boundaries that mark a high and low point in a contour" and "this small tonal space becomes the basic unit from which all subsequent units emerge" (ibid., p.34). But Davidson does not demonstrate the primacy of the chant pattern (smlsm) described by, e.g., Moorhead and Pond. It seems that the

child works within the compass of a 3rd for each phrase rather than sing all on the same two/three notes.

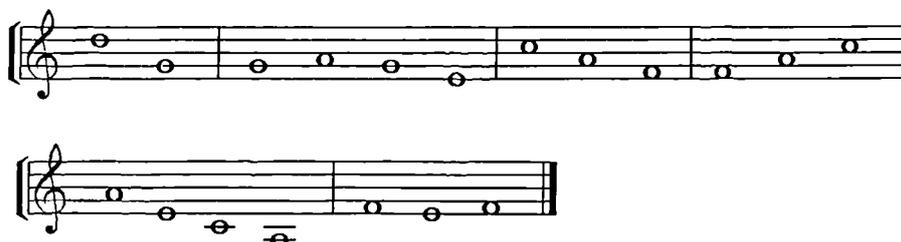
Example 13a: child of 18 months, from Davidson (1984) p.35



Example 13b: Target song, from Davidson (1984) p.35



We noted, in chapter 4, some disagreement among researchers concerning children's early melodic schemes, and the stages at which they occur. Michel (1973) found that, in the songs of children in their second year, "besides 'speaking songs' rotating round one note with little accentuation, six basic melodic sequences already occur", which he gave as



These may be rather more advanced than is suggested by Davidson, but we have no information from Michel about how these sequences were used. While further investigation into the nature of such schemes is needed, what is important is that the research considered here suggests that children, even at the earliest stages of making a song,

are concerned with organisation, constructing relationships between musical sounds. Their early musical utterances make sense as wholes, but in children's rather than adults' terms.

Perhaps it is not too fanciful to suggest, for example, that the falling minor 3rd can be seen as meeting the child's need for musical completeness in a way somehow parallel to the child's use of two-word sentences. When a child says "Mummy sock" or "Allgone milk", the words express a thought, a relationship which is presumably there before the words; the language forms gradually approach those of adult sentences, but the essence of the meaning is there to begin with. Are children's simplest contour schemes also holophrastic or telegraphic sentences in music, expressing a unity and a sense of satisfaction in ordering sounds?

McKernon (1979), like Dowling and Davidson, was concerned to identify "the rules of melodic and rhythmic organisation that children must learn in order to participate in the process that adults call singing a song" (McKernon, 1979, p.48). McKernon was particularly concerned with the relationships between spontaneous and imitative (standard) songs. She found an intimate relation between the two types of song, in that the accurate reproduction of standard tunes occurs at the same time as the development of identical structures in the child's spontaneous repertoire; and she speculated as to the significance of this.

In all the children, McKernon noticed a general trend for first attempts at standard tunes to be "almost identical to their spontaneous songs, both in melodic and rhythmic structure" (ibid., pp.49-50). To illustrate the similarity, she compared the first version (sung at 18 months) of "ABC" (already quoted as Example 9a) with a spontaneous song from the same child (already quoted as Example 5a). McKernon observed that the two songs are similar, in that both have restricted pitch range and an undulating contour using small groups of two or three notes.

But "by 29 months, standard and spontaneous tunes sound very different from one another". The difference results from the "incorporation of reliable rhythmic structures into attempts at

standard songs" (McKernon, 1979, p.51), while spontaneous songs continue to be less organised rhythmically. The divergence is also seen in the use of melodic contour. McKernon illustrates this divergence with two examples from a child of 26 months, Examples 14a and b.

Example 14a: spontaneous tune by 26-month-old (McKernon, 1979, p.52)



Example 14b: standard song by same singer as Example 14a (McKernon, 1979, p.53)

Ring round ros-y pock-ets full tos-ies

pockets full to-sies ash-es all fall down

The spontaneous tune (Example 14a), with large leaps and an ascending phrase, has considerably more variation in pitch than has the attempt at "Ring around the rosy" (Example 14b). Speculating on the reasons

for the difference between these two songs, McKernon suggests that it may be due, in part, to the child's developing understanding of what a tune should be like. Perhaps, she says, "children are beginning to perceive....some of the regularities (and therefore the restrictions) inherent in standard tunes...(which) they are reflecting...in restricted contours" (McKernon, 1979, pp.52-53).

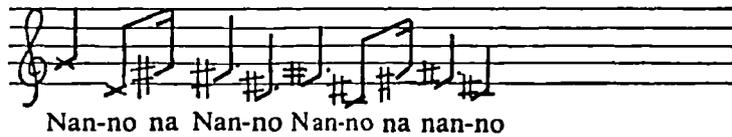
Or perhaps, she continues, they are concentrating on newly emerging ideas of tune contour and rhythm which restrict their freedom to invent. McKernon, like Dowling and Davidson, considers that "children are now developing a set of song related expectations or a kind of 'song frame' which structures their performance of standard tunes" (ibid., p.53). This song-frame seems to be related to Piaget's "scheme" and Sloboda's "inner representation". It also suggests that the young singers may be encountering the Vernacular mode of Swanwick's and Tillman's sequence earlier than expected.

Though there is this divergence between standard and spontaneous songs of children from 29 months, McKernon found that the two types of song continue to be "yoked" up until about 3 years. Even when children are becoming much more proficient at singing model songs, "it appears that those bits of the standard tune which most clearly approximate to the model appear at the same time as identical structures in the child's spontaneous repertoires" (ibid., p.54). McKernon illustrates this (see Examples 15a and b). The improvised chant, "Nanno" (Example 15b), is very similar to the melodic and rhythmic structure of "Ring around the rosy" (Example 15a).

Example 15a: Ring around the rosy (from McKernon, 1979, p.55)

The image shows two staves of musical notation in G major (one sharp). The first staff contains the melody for the first line of the song: "Ring round the ro-sy pock-ets full of pose". The notes are G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The second staff contains the melody for the second line: "ash-es ash-es every-body fall down!". The notes are G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The lyrics are written below the notes.

Example 15b: Nanno (from McKernon, 1979, p.55)



McKernon accounts for this relationship in terms of children's development, thus: "This ability to appropriately transfer units from one context to another is a critical one, and manifests itself at the same time in other domains" (ibid., pp.55-56). For example, in drawing, the child may learn the scheme for making a circle quite early, but only transfers it to other contexts, such as faces or suns, rather later. This, she argues, is how children acquire a musical vocabulary, for "in the transfer, the unit, though unchanged, acquires fresh meaning. Similarly, the 'Nana' fragment is free to become a phrase in a variety of particular tunes" (ibid., p.56). Moog made a related comment, when he observed that the imaginative alterations his children made suggested that words, rhythm and pitch had become separate entities and children could abstract them from the whole and handle them independently (1976, p.135).

McKernon's explanation is elaborated by Gardner et al (1981). For them, the significance of this ability to abstract musical units and place them appropriately is that "it can lead to the production of a number of standard tunes" (p.306); but presumably it is also the process by which children (or adults) would produce a new song of their own. The placing of musical elements at their most appropriate point in a work is crucial for progression and recession; so it is significant that this ability appears to develop at such an early age.

McKernon found that in children beyond the age of 3, the yoking of spontaneous and imitative songs became increasingly less noticeable. She interpreted this as denoting that "older children are capable of singing fairly accurate versions of standard songs without a

comparable organisation in their spontaneous tunes" (McKernon, 1979, p.57).

McKernon considers that organisation in standard tunes should eventually "shoot ahead of spontaneous ones". Indeed, she finds that, in children aged 3-plus, although "bits of their spontaneous tunes seem to be organised tonally....overall organisation is lacking and children are still not interested in repeating their songs or teaching them to others". She adds, "implicit here is the implication that the final stage of singing is the reproduction of tunes common to the culture" (ibid., p.57). There seems to be a suggestion in all this that children's spontaneous songs are "practice" for the real things, standard songs, rather than satisfying musical expressions in themselves.

This implication is made more explicit by Gardner et al (1981), who see the main goal of children's spontaneous singing as development of the ability to reproduce standard songs accurately. They conclude that "the major agenda for the second year of life is to go beyond the simple production of spontaneous melodies and to attend instead to the individuating properties of songs produced by others in the culture" (p.303). This suggests an early swing, at 18 months, from left to right, in terms of Swanwick's and Tillman's spiral.

Dowling, too, implied that copying songs is the only real task, when he defined pot-pourri songs as "all those children's versions of standard songs that failed to copy the adult models exactly" (1984, p.150). Moog observed a decline in the number of spontaneous and imaginative songs in his older children (1976, p.131). Shuter, too, reporting on a study by Shinn, commented that the child concerned had "outgrown" composition (1968, p.65). All of this suggests that the spontaneous songs have served their purpose when the child has learnt to reproduce standard songs correctly; and research into invented songs seems to end as the child reaches this point.

But Moog suggested that there may be more to the spontaneous songs than that, for, as already noted, he found that children continued to make pot-pourri versions of songs they could already sing perfectly well (1976, p.131). McKernon, too, reflecting that her own study

implies that "the final stage of singing is the reproduction of tunes common to the culture", continues:

This is not necessarily so. Certainly it is equally important to be able to evolve new pieces. Musical creativity, about which little has been mentioned here, has at least one of its roots in spontaneous experimentations such as the ones present in even the youngest children. The composer is one who transforms these individual expressions into culturally intelligible forms (McKernon, 1979, p.57).

The acquisition of these "culturally intelligible forms" of song by young children is what Dowling, Davidson, Gardner and McKernon dealt with. When they speak of "modelling the songs of the culture" they do not refer to a simple process of learning each new song by imitation, but to the acquisition of the rules of organisation governing the production of songs in western music, the cognitive schemes, or the understanding of "how music goes", with which the child receives, processes and produces songs.

Of course this shows itself in increasingly accurate reproductions of known songs. The songs sung to the children provide the data from which they abstract the rules governing song production, and these in turn enable them to reproduce the songs increasingly accurately. The repertoire of songs acquired in early childhood thus provides a vital tool for children's development as performers and for their understanding of how music works.

This understanding, and the ability to rearrange and transform musical ideas, exploring new relationships between them, are also basic to the process of composing. This suggests that while the most noticeable, and most researched, item on the young child's musical agenda is the reproduction of known songs, nevertheless, as McKernon hints, the roots of musical creativity are also apparent in the cognitive and musical processes of young children; though children may not be consciously striving to make original pieces, nor, as McKernon says, be interested, at the age of 3 or 4, in preserving their inventions (1979, p.57).

Gardner et al, McKernon, Davidson and Dowling have all found it valuable to analyse young children's spontaneous songs to see what light these cast on the children's acquisition of song and of musical understanding. But they do not consider children's "composition" as such. What young children do with musical material when they intend to make up a song of their own has so far been given scant attention in the research literature. Swanwick's and Tillman's (1986) study has already been examined in chapter 3; others are considered in the following pages.

Kalmar and Balasko (1987) investigated improvised melodies of 6-year-olds, in a study in which "children's melodic improvisations are viewed as manifestations of elementary creative activity" (p.77). The children were taught rhymes (words) and asked to make a melody for them; then to make a different melody. The research must be considered in the particular context of Hungarian music education, with its "systematic, goal-directed, and meticulously planned character", in which small children are offered a limited musical vocabulary, and taught to sing in tune.

The investigators, looking for evidence of a "musical mother tongue", asked whether the children's invented melodies reflected the characteristic features of the musical material taught in schools, and, if such a mother tongue did exist, how much the children could use it "in a divergent way", rather than just reproducing known tunes. They also investigated how far music from other sources influenced the inventions, and the effect of the quality and quantity of the children's musical experience upon their improvisations.

All the children were able to sing self-invented melodies to the rhymes, and when asked to sing a different one, changed the tune in some way. Kalmar and Balasko concluded that "the improvisations reflect the features of the musical material taught at the nursery school" but they also found "ample evidence...that the children attempted to use the acquired elements and rules creatively and to combine them with experience from other sources, rather than simply to copy the known songs" (Kalmar and Balasko, 1987, p.80). Kalmar's and Balasko's reference to the children's "creative transformations

of the learned material" suggests links between this study and those considered earlier.

A similar study by Kalmar (1991) was designed to test the effect of age difference and musical experience upon children's melodic improvisations. The method was the same, but involved children of 4, 5:6 and 6:3 in Hungary and a group of Australian children aged 5:5 to 6:8. Only ten per cent of the Australian children produced "tunes composed of distinct musical intervals", compared with all of the Hungarian children except the 4-year-olds. The Australian children also spoke, or chanted, when asked to sing a favourite (standard) song, yet most of them had regular singing lessons in school. This reinforced Kalmar's conclusion that the quality of musical experience (such as that provided in Hungarian nursery schools) was as influential as the quantity, and that the Australian children could not improvise melodies because they could not sing in tune at all (though she does allow the possibility that they lacked the Hungarian children's experience of singing solo to another person, and may have been inhibited by this).

I suggested in chapter 3 that the songs of young children might show aspects of development different from those of their instrumental pieces. It would be interesting to compare vocal and instrumental improvisations. But while young children's song acquisition has, as can be seen from the foregoing survey, received much attention, there has been less published research relating to instrumental work by children of pre-school or early school years. I have already noted that Swanwick and Tillman found children's early songs were "more developed" than their instrumental pieces, and that it was in the songs that they found evidence for the "early visiting" of structural relationships

Moorhead and Pond are the only other researchers to draw attention to differences between vocal and instrumental pieces. In using instruments, their children showed a preoccupation with the timbres (cf. Swanwick and Tillman) and with rhythm. Even when melody instruments were used, the activity was basically a rhythmic/movement one. As far as vocal activity went, however, Moorhead and Pond found that children's first songs "are experiments with melody" (Moorhead

and Pond, 1942, p.13). Melody was explored in the vocal chants, but more particularly in the individual songs. Moorhead and Pond refer to "a kind of vocal instrumentation" in which the child "experiments with the sounds he produces", and comment that "it does not seem necessary for the child to use words at all....the child's primary purpose here is to create vocal melody" (Moorhead and Pond, 1942, p.13).

Paynter (1970a) considered that infant school children's music

will generally be centred around timbre, particularly instruments representing people, animals and things. Rhythms will be free, and primarily associated with actions being described. There will probably be very little evidence of repeated rhythmic patterns (p.31).

Such music seems to belong in Swanwick's and Tillman's Mastery and Expression phases.

Two examinations of instrumental pieces which anticipated some of Swanwick's and Tillman's findings are by Flohr (1985) and Prevel (1973). Flohr sought to characterise and describe the behaviour of 2-, 3-, 4-, 5- and 8-year-old children "engaged in improvisatory tasks" on a xylophone using a two-octave pentatonic scale on F, with two mallets. The results of Flohr's research led him to chart ways in which the characteristics of children's improvisations change over time. In Stage 1, which he calls Motor Energy (between the ages of 2 and 4), the improvisations are "characterised by plodding and accentuated durations" (Flohr, 1985, p.81). The child "seemed to be interested in the sound itself. It was as if the child asked, 'If I hit this bar, what will it sound like?'" (ibid., p.80).

Flohr provided a piece by a 2-year-old (Stage 1), which I include here as Example 16.

Example 16: 2-year-old's improvisation on xylophone (from Flohr, 1985, p.81)



This seems to support Flohr's conclusion that the child in Stage 1 "seems to be motivated by the kinaesthetic, visual and aural satisfaction emanating from his or her actions" (ibid., p.82). Such a view is echoed by Prevel, who considered that the evolution of young children's music "owes more to their kinaesthetic development than to their auditory perception" (Prevel, 1973, p.15). When listening to tape recordings of their own compositions, Prevel's subjects "often repeated the actions which were originally involved, stressing the kinaesthetic character of their identification" (ibid., p.14). This link with movement may be an important aspect of the difference between children's instrumental and vocal music.

According to Flohr, Stage 2 (between the ages of 4 and 6) is characterised by experimentation, when the child explores his or her capacity for sound. Flohr's examples of Stage 2 pieces include a piece by a 4-year-old, which I include here as Example 17, and one by a 5-year-old, included as Example 18.

The 4-year-old's piece shows strong influence of the position of the xylophone bars and the movement of beaters along the instrument. (Swanwick and Tillman, 1986, provide similar examples in their *Mastery mode*, for instance, their example 12, on p.318.) In Example 18, though the layout of the bars is still influential, there are also signs of focusing upon groups of notes and introduction of

leaps, which show a willingness to explore new aspects of organisation besides the simple movement along the instrument. But the patterns of movement are, it seems, more influential than auditory patterns.

Example 17: 4-year-old's improvisation on xylophone, from Flohr (1985) p.83



Example 18: 5-year-old's improvisation on xylophone, from Flohr (1985) p.82



Stage 3, "formal properties", is "characterised by repetition, large formal structures and decentred perception" (ibid., p.84). Thus Flohr agrees with Swanwick and Tillman in finding children first responding

to the sound itself and only later showing a grasp of formal properties.

It does seem that instrumental pieces, which require children to externalise their actions, may be conceived differently, with a major focus on the instruments' properties as objects and the actions which children perform on them, compared with songs, which spring much more directly from children's consciousness and have close relation to their language expression. Such a difference could mean that children work in different modes according to the medium of expression, and seem to be at a different level of development in their songs than in their instrumental pieces (this was suggested by Swanwick and Tillman, 1986, p.321, but they did not pursue the idea). Flohr found that some children were able to make small changes in response to verbal stimuli, which led him to conclude that children of 4 to 5 "are able to form musical images in response to verbal stimuli" (1984, p.84). This seems to correspond to the Expressive mode as described by Swanwick and Tillman.

Flohr also refers to Beethoven moulding his motives into their final form, as evidenced in the sketch books (cf. Sloboda); and he says that the children's motives also evolved over time, occurring in various forms throughout their improvisations. Since these motives appear to be different for each child, there is also a reminder here that young children are not all working to some completely predictable pattern, but may be engaging with music in an individual way. This calls to mind Gardner's description of Max and Molly, referred to in chapter 2, and acts as a salutary caution against concentrating solely on what children's musical improvisations have in common.

Flohr's concern with whether young children can "form musical images in response to verbal stimuli" relates not only to the Expressive mode of Swanwick and Tillman (in which the music almost seems to be a symptom of feeling), but also to Leggatt (1979). Leggatt found that children of 8-9 could make original melodies evocative of stated moods; but both in terms of the age of the children and the focus of

the analysis, Leggatt's study lies outside the scope of the present thesis.

The work of Hörburger (1991) in Germany, seems to be more relevant to my enquiry. Hörburger's focus is the development of aesthetic experiences through improvising, in particular the way in which they become evident in the musical activity of young children using instruments. Of particular interest in terms of the present discussion is the sequence of "Rovianna" pieces by a girl aged 4:10, in which the child began spontaneously to sing and play simultaneously (see Example 19).

The word "Rovianna" seems to have no lexical meaning; the singer used it as the vocal material for her music play, recalling Moorhead's and Pond's description, noted earlier, of "a kind of vocal instrumentation". This is not the say-and-play song-making which became associated with Orff work in Britain, in which children might try to find a melody on a xylophone to pre-existing words (see chapter 7). Hörburger has provided a thought-provoking example of an integration of vocal and instrumental music play, which bears out his suggestion that the young singer has a sense of musical form with beginning, progression and close, and some internal organisation and variation, particularly in the different rhythms of the word "Rovianna".

I have suggested that young children may engage with music's structure rather earlier with their voices than with instruments, so it is interesting that, here, the aspects of musical thought in the instrumental music are associated with, and are perhaps influenced by, similar processes in the child's singing. (cf., for instance, the use of repeated middle Cs and their reflection in the repeated Ds, in the first two systems).



Before leaving the review of the literature on the young child's acquisition of song, it is necessary to take heed of Hargreaves' (1986) warning that the research is still rather tentative, based on fairly small samples, and might not represent the final picture. Such a reminder is reinforced by Kelley and Sutton-Smith (1987), who have found some surprisingly different results, admittedly also with a very small sample. Having already observed that children's work with instruments may be different from their vocal improvisations, I find it particularly interesting that Kelley and Sutton-Smith suggest that there may also be important developmental differences in individual children's ways of working (cf. Gardner).

Kelley and Sutton-Smith recorded and analysed songs by three girls over a period from birth to 24 months, and considered the musical development of each child in relation to her musical background. Kelley and Sutton-Smith found that child A (daughter of professional musicians) not only developed musically more rapidly than the other two children, but also proceeded according to a reversed pattern of development compared to that suggested unanimously by the other researchers referred to so far. Instead of first learning the words, then the rhythm, then the melodic contour of songs, she "began with the standard tune contour at 9 months, perceiving first the basic melodic structure of the song, its first phrase and its most salient features. This was expanded through practice to the overall expression of the melodic contour of the song. The rhythm was increasingly incorporated, with the words following later and performed with very clear, precise diction at 24 months" (1987, p.39).

Kelley and Sutton-Smith particularly noted child A's demonstration of self correction at age 2, "which implied her assimilation of harmonic and rhythmic structure" (ibid., p.39). So good was this assimilation that she was able to make appropriate variations, as seen in Example 20. Child A "participated in extensive manipulations of songs, making up and adding new words to old tunes"; but no examples of this are provided.

Example 20 (from Kelley and Sutton-Smith, 1987, p.40)



Child B's parents were "musically oriented" and shared music with her. Though her progress was slower, she, too, proceeded in "reverse" order, beginning with "the tune contour holding together the event, and adapting idiosyncratic kernels that functioned to end songs and maintain structure. Words followed rhythmic development" (ibid., p.46). Characteristic musical features of child B's songs were definite beginnings and cadences, and complex rhythms with, typically, a basic rhythmic motive suggested or maintained. Words did not appear to be as important to her as they were to child A, since, when unsure of words, she willingly substituted a syllable or words from other songs, or just skipped and continued. The overall production was the main event, as Kelley and Sutton-Smith also think it is in children's story production. Child B did sing in phrases, and her original songs had a story content (Kelley and Sutton-Smith, 1987, p.46).

Child C, with an impoverished musical environment, not only made slower progress than child A and child B, but such musical behaviour as was observed followed the sequence observed by other researchers referred to in this chapter, namely that of words first, more spoken than sung, then rhythm as structured by the words, and finally melody development proceeding from the kernel or first phrase to the general overall melodic contour.

Kelley and Sutton-Smith conclude that there is a strong relationship between environment and speed of development, which is not very surprising. More important is the fact that the character of the developmental stages varies for A and B when compared with C. They suggest that "just as there are different ways in which children first learn language, so there appear to be different ways in which children learn to be musical. The musical child...proceeded to music from a musical base; the relatively non-musical child...proceeded

from words and then incorporated rhythm" (Kelley and Sutton-Smith, 1987, p.51).

This surprising finding appears to be corroborated by Moog, who reported that while most of his 2-year-old singers attempted to reproduce the words, there were sixteen per cent who ignored the words altogether. Thus Moog drew attention, anticipating Kelley and Sutton-Smith, to the fact that there appear to be (at least) two different ways in which a baby may set about imitating a song. Like Kelley and Sutton-Smith, Moog seems to suggest that it was the more musical children who did not use words. The children who first imitated without singing the words learnt to sing more or less correctly between the ages of 3 and 4; whereas "about a fifth of the children who began by imitating the words still cannot manage pitch by the end of their 4th year" (Moog, 1976, p.119).

Kelley and Sutton-Smith further speculate, provocatively:

The stage of musical development between 1 and 2 years, when language usually develops, might be critical in determining which of these kinds of progress is adopted. Perhaps the acquisition of musical skill prior to the acquisition of language makes the owner an inherently musical thinker, whereas the acquisition of musical skill after the acquisition of language may interpose that latter competence between the learner and his or her music (1987, p.51).

This intriguing suggestion can only be tentative, pending further enquiry. However, it seems at least likely that the richer musical environment of child A and child B provided a large amount of material for abstraction and manipulation by the children.

Kelley and Sutton-Smith compare their results with those of McKernon (1979). They say that the children in McKernon's study "are of the musical status" of their own child C. McKernon (as we have seen) "described the development of musical progress as words followed by the elaboration of song structures by rhythmic and melodic expansion", whereas the two musical children in the study by Kelly and Sutton-Smith "began with the melodic contour as the main event,

which then held together rhythm and words as they were added" (Kelley and Sutton-Smith, 1987, p.52).

Kelley and Sutton-Smith do not refer to Dowling's work. It would appear that his stress on structural organisation, via contours, at an early age, which he expressly notes as different from McKernon's, is in accord with Kelley and Sutton-Smith. What seems to be particularly noteworthy in terms of the present thesis is not only that Moog and Kelley and Sutton-Smith apparently found different patterns of development in individual children, but that, whether it was the melodic contour or the words/rhythm, there was still something holding the song together, i.e. wholeness is important to children.

Kelley and Sutton-Smith note that their child A and child B had "pitch development" prior to 18 months. This was not apparent in child C, and they suggest that

it is also possible that the organisation for a given child may not necessarily be tonal, but may be around the words, the rhythm per se, body movements, or even a particular contextual setting of a song. It would be surprising if there were not such individual variations in musical development, because they are usually found in other forms of development where they have been similarly longitudinally examined (e.g. language development) (ibid., p.52).

This echoes Gardner's distinction, already noted, between child artists as visualisers, verbalisers, person-centred or object-centred. Kelley and Sutton-Smith offer another thought-provoking comment on children as performers. McKernon is confined, they say, to comments on children like their child C, "who are essentially non-performers in the present terms". Their other two children performed before parents and other audiences, and they suggest that "in fact, performance is a key to child development in music as it is in narrative" (ibid., p.52).

This study by Kelly and Sutton-Smith appears to raise an important issue, namely "the extent to which musical development must follow a

set path or can allow variations" (Kelley and Sutton-Smith, 1987, p.52). The other researchers reviewed in this chapter, and Swanwick and Tillman (considered in chapter 3), are concerned to identify the normative behaviour of young children in relation to music, to trace the stages in a common sequence of development. This does not necessarily take account of, nor account for, observed differences between musically successful people and those who are less successful in relation to music.

Dowling, for example, believes, concerning implicit knowledge of the ways melodies behave, that "the pattern of its development is quite regular" (1988, p.115); this despite the fact that his 1984 study showed the two singers actually proceeding rather differently (1984, p.155). Kelley and Sutton-Smith, along with Moog and Gardner, have drawn attention to differences. The possibility of differences between children, or even for the same child between different aspects of song-making, will present itself for consideration again, particularly in relation to the case studies.

The research outlined in this chapter underlines the significance of structural considerations in the music-making of very young children. Sloboda sees it as support for the "highly structured internal representation of music" and considers that "the structures and patterns that characterise music" are already implicit in the child's enactive repertoire by the age of 5 (1985, p.210). It is reasonable to suppose that young children are engaged with music's meaning in this way, if only because the early emergence of organised thought (or schemes) is apparent in other spheres. Reference has already been made to the analogy with language acquisition and to children's drawings.

Similarly, with regard to story, research has found that young children learn complex rules of narrative production before they can read or write, "just by listening to good stories" (Fox, 1983). Cowrie (1989) found that children 2- to 5-years-old tend to produce "frame" stories, which consist of a beginning and an end. In a similar way, as we have seen, children make "outline songs" (Gardner et al, 1981). But these are whole songs or stories for the children

at that stage; details are filled in and acquire significance within this expanding contour.

Egan (1988) argues that story is a fundamental tool in children's thinking. What makes it important to them is that it deals with what they know of "joy and fear, love and hate, power and powerlessness and the rhythms of expectation and satisfaction, of hope and disappointment" (p.28). Again, as in Langer, we find the idea of the arts as the morphology of feeling, with the feelings organised into rhythms of progression and recession at an early age.

I explore, in this study, whether young children can use songs to experience and create coherent musical forms which can embody their feeling lives. If they cannot experience any grasp of form before the age of 10 or so (Swanwick and Tillman, 1986), then the answer would seem to be no. But the evidence of the research into young children's acquisition of song reviewed here suggests that in singing, as in language use, young children develop cognitive schemes which enable them to invest their songs with meaning, and that such meaning involves musical form as well as sounds and expressive gestures.

We might expect the forms which children use to be simple; but there are many examples of very simple songs by adults which are nevertheless satisfying musical expression for their makers. We might profitably examine some of these, in order to gain a broad picture of what a song might be, against which to consider the vocal music-making of young children. This will be the subject of chapter 6.

## CHAPTER 6 - OF SONGS AND SINGERS

"So wide is the children's world of music as we have observed it that the commonly accepted concept of music in the western world is too small and exclusive to contain it".

(Moorhead and Pond, 1942, p.19)

### **A Universal Song?**

Song may well be universal among humans; certainly its roots go way back into antiquity. Songs have traditionally accompanied human life, while, in the narrative songs of the great epics, singers kept alive for themselves and their hearers their history, identity and community values. Much of the world's singing has been, and is, accompanied - from simple accompaniment on drum, bowed fiddle, flute or harp, perhaps, to elaborate settings with piano or instrumental groups of different kinds. Songs may be solo or choral, unison or polyphonic, and range in form from the simplest solo litany of a repeated phrase to complex through-composed or polyphonic structures. Songs use words; but the relation of the words to the music ranges from musical speech, in which the clear declamation of the text is paramount, to elaborate musical structures, in which the meaning of the words may be difficult to grasp.

In the modern urban society in which our schoolchildren live, they encounter song in many forms - from the nursery rhymes and children's songs taught to them in school and perhaps at home, to the songs of the adult community, learnt from exposure to the media as well as from live encounters. When we invite young children to make songs, we are inviting them to join in a song-making tradition that may be as old as humankind, to become participants in the musical processes of their species as well as of their culture.

But what kind of songs might 5- to 7-year-olds be able to make? There are significant ways in which young children do not function as adult

musicians, especially with regard to tonality and the melodic and harmonic organisation which depends upon this. Most of them have not yet gained any instrumental competence, so any accompaniments must be of the simplest kind. They do not yet have the benefit of experience or of training. They are not yet musically literate and are still only becoming literate in language. They have not yet developed analytical understanding and concepts to allow them to discuss the processes involved in making a song. So they are pre-literate and pre-tonal, or "pre-vernacular". Can they make satisfying, coherent songs?

The quotation from Moorhead and Pond, at the head of this chapter, suggests that a possible answer might be found if we consider children in the context of a wide tradition of song-makers, including reference to the music of cultures who organise according to principles other than western tonality. Some writers have made much of what they perceive as parallels between children's musical utterances and those of "primitive" peoples, suggesting that children's musical development retraces the development of music in humankind from earliest times to the present. The idea that children's musical utterances might provide a clue to a fundamental music common to all is intriguing and persistent in the literature.

In this respect much has been made of the descending minor 3rd which, as we have seen in chapters 4 and 5, some, but not all, researchers have observed in children's first songs. For example, Moorhead and Pond, stressing the importance of the descending minor 3rd, seemed to take the view that children had much in common with so-called primitive musicians, particularly in relation to the chant:

Chant is the most primitive musical art form, for such it is *sui generis*, to be found among children and indeed, among men in general. It is part of the living experience of primitive peoples everywhere....as a primitive pagan unsophisticated musical expression, arising from those things which the child feels instinctively to demand such expression (Moorhead and Pond, 1941, p.5, their emphasis).

Among the instances of such primitive chants, Moorhead and Pond list American-Indian dance music, Haitian voodoo chants, Tibetan Lamas' songs and "the litanies of the Christian church" (1941, p.5).

As already noted, Werner (1948) and Révész (1953) found in the early songs of infants a descending glissando becoming focused as a descending minor 3rd, which they took to be "the source of music" (Révész, 1953, p.173). Nettl (1956a) looked at more than just interval distribution in his search for musical universals. He noted that linguists were beginning to find relationships between children's language patterns and the distribution of phonemic patterns universally, and he examined the possibility of similar relationships in music, comparing "some of the developments in the performance of musical traits by small children with their distribution in non-western and folk music" (p.87). For a description of children's songs, Nettl drew heavily upon Werner's study.

Regarding form, Nettl considered Werner's observation that young children use simple repetition of a single short phrase and the beginnings of organisation into phrases with some repetition, an observation which, as we have seen, has found support in some of the other research reported in chapters 4 and 5 (cf., for instance, Dowling, 1984). Nettl found that the simple form of repeating a single musical phrase with variations is common throughout the world. A similar finding was reported by Sachs, who commented that much primitive music repeats a single figure indefinitely, following "the same principle of co-ordination that children use when they annoy their parents with endless re-iterations of a tiny scrap of melody" (1943, p.33). The use of at least one repeated phrase in a strophe made up of two, three or four phrases is also found in folk and primitive music throughout the world.

Chapter 4 (of this study) drew attention to differences in the rhythms observed in children's early songs, whether they used predominantly notes of equal length or were more varied and flexible. Nettl found that the series of notes of equal length followed by a longer note at the end of the phrase, described by Werner, is not common in primitive music; but what Nettl called final lengthening (after Herzog, 1939), i.e. the use of a contrastive last note in a

phrase or song, is prevalent throughout the world. As a general rule, long notes are more likely to occur near the end of a song than near its beginning, and the same is true of longer measures, i.e. longer spans between stress points. (Nettl, 1956a, p.66). This relates to progression and recession, which were seen, in chapter 2, to be basic aspects of music's structure, for short notes are progressive and long notes are recessive.

Regarding the melodic contours sung by small children, and the emphasis on the descending contour, Nettl found that the "descending contour seems to be the most widespread throughout the world". It appears in different forms, from the slight descent from one note to another in, for example, the two-note melodies of the Vedda, to the cascading descent of many songs of Plains Indians and Australians.

These cascade melodies, or "tumbling strains", were also noted and described by Sachs. They are characterised by a periodic return to the highest note, and Sachs points out that "even on the earliest level, a melody is never anarchic or arbitrary. It follows certain, almost unbreakable rules" and "we take for granted that (such a movement) be an organic, living whole, with breath and flow, with tension and relaxation" (Sachs, 1962, p.51). So even so-called "primitive" music may function as a symbol in the sense discussed in chapter 2, at least for adults, and perhaps for children too.

Concerning melodic intervals, Nettl found that minor 3rds and major 2nds seem to be the most common intervals. Sachs (1962), however, provided examples of primitive songs which show that the interval is not always a minor 3rd, and not always descending (see Examples 21 and 22).

Example 21: Eskimo girls' song (from Sachs, 1962, p.62)



Example 22: Fuegian medicine men's song (from Sachs, 1962, p.62)



Werner found that young children's songs used "fixed" scales of two, later three and four, notes. As we saw in chapters 4 and 5, there are differences of opinion concerning the exact nature of children's very early melodies. Children do not sing diatonic melodies for perhaps several years; but many of the examples provided in the literature, and my own experience, suggest that children sing compressed versions of the scales of western music - melodic contours with micro-intervals - rather than recognisable two- or three-note scales. Other cultures do use scales with fewer notes. Nettl observed that sets of four or five notes occur most frequently in music of adults; pieces using just two notes are widely distributed in the world, but in all but the very simplest styles, they are confined to special songs, usually those of children.

Werner described the cadence patterns used by children as ending on the lowest note or on a repeated note sequence. Nettl found a match with music of the adult world in cadences on the lowest note. Elsewhere (Nettl 1956b) he describes some of the cadence formulae in different tribes; eg. Peyote songs which end with four long, even notes on the tonic, a formula with both rhythmic and melodic significance. Plains Indians mark cadences with a descending 4th or minor 3rd followed by a number of repetitions on the final note of varying duration (ibid., p.75). In addition, formulae "restricted to the beginning and end of songs are common", and may identify the function of the song (ibid., p.75). The descending formulae, and the final lengthening already referred to, show that even in simple melodies, key features, in this case ending, are emphasised structurally, and the principle of final recession is evident. The descending final cadence is also found in the great majority of cases

in Gregorian chant. The descent to the last note is usually by step but descending 3rds occur too (Apel, 1958, pp.263-265).

From his study, Nettl was prepared to draw the, albeit tentative, conclusion that there is some correlation between the order of the appearance of musical traits in infants and the frequency of these traits in the musical cultures of the world, "strongest in form, scale and melodic contour but weaker for melodic intervals, cadences and range" (1956a, p.91).

Nettl did not, however, find it necessary to deduce from this that children's musical development exactly mirrors the musical evolution of mankind, unlike Sachs who was more convinced that this was so. Drawing, like Révész and Nettl, upon Werner's study, Sachs wrote:

"It is an exciting experience to learn that the earliest known stage of music reappears in the babble songs of small children in European countries....the individual summarises the evolution of mankind" (1943, p.43).

It is difficult to agree with Sach's assertion that "these children could not be supposed to have been influenced by a single trait of our own music. Thus we cannot but accept their babbling as an ontogenetic reiteration of man's earliest music" (ibid., p.44). Our children do not exist in an acoustic vacuum. This point is made in a more recent approach to the question, "Do babies sing a universal song?" by Gardner. The stages in the acquisition of standard melodies which have been examined in chapters 4 and 5 suggest that the early songs of children quite soon begin to reflect the predominating features of their culture. Thus Gardner concludes that "any impulses toward the development of a universal *Ur*-song are squelched at 3-4 as the culture exerts increasing influence" (Gardner, 1981, p.76).

There is not really much that can be reliably concluded from such speculation concerning an *Ur*-song used by young children. As Sachs reminds us: "However far back we trace mankind, we fail to see the springing up of music. Even the most primitive tribes are musically beyond the first attempts" (1943, p.20). Paynter, quoting the above observation by Sachs, argues that "in the quest for the real import

of music, the surface appearances...can help us only so far. We must look beyond them for the quintessential feature that is common to all music" (1992, p.15), which, as we have seen in chapter 2, Paynter suggests is progression and recession.

But in considering the materials which children use to put their songs together, it is relevant to consider parallels between early traditional music, especially in its simplest manifestations, and children's musical inventions. The point of this is not to discover some universal Ur-song, but to understand that, if very simple pieces of music are satisfying symbols for their makers, then young children, also using elementary resources, might be able to make satisfying musical forms.

There can be structure in the most primitive repetitions, perhaps simply reflecting the phrase structure of the words, but signalled musically. As an example, Sachs traces the apparent development of the musical cadence in early traditional chants, when "the original motif and its first repetition were tied together to form a complex unit by varying the final notes; the first time kept the listener in suspense, the second provided a satisfying end". Sachs saw this as "the genesis of half close and full close" (1943, p.34); it is also a very simple example of progression and recession.

Sachs provides illustrations (see Examples 23 and 24), commenting that "by uniting two phrases with cadential distinction ...primitive peoples at a very low level of civilisation had created the most fertile of musical schemes, the lied form" (ibid., p.35).

Example 23: a Fuegian song (from Sachs, 1943, p.35).



Example 24: song of a well-man (from Sachs, 1943, p.35)



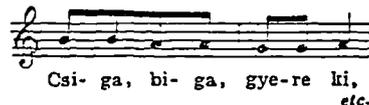
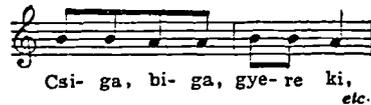
Sachs found such repetitive chant in, for example, the "solemn ancient songs" of Hawai, but says it is also in the "liturgical recitations on one unchanging pitch" of Gregorian psalms, prayers and lessons (1962, p.70). Gregorian chant does, of course, also include much in the way of free melodies, and these are far from being primitive recitations. But the point has been illustrated that adults may use very simple resources which might also be available to children.

### Children as Folk Musicians

In some cultures, children's songs seem to form a distinct group, with their own musical styles, unlike our nursery rhymes which are adult music, passed down from adults to children. Hungarian children's songs are of such a group. I shall refer to Hungary in some detail, as it provides an example of a musical culture in which children's and adults' songs have been meticulously documented and which moreover, has provided a model for child musical development based on singing, which has been influential in western Europe. Such reference offers a useful frame for consideration of children as song-makers and of the pedagogical issues related to the Kodály method.

The typical Hungarian childrens' songs (and the closely related "regos" songs of adults), as described by Kodály (1937/1960), are completely different in form and content from most Hungarian adult folk songs, and seem to be all either variations or larger and smaller fragments of one basic tune. The simplest have only two bars, and sometimes even these are formed by repeating a single bar. These two bars may be repeated for the length of the text. In longer songs, a second, third or even fourth pair of bars appears. The melodic material is mostly very simple, maybe just two notes of the hexachord. Example 25 shows two settings of the same words.

Example 25 (from Kodály, 1937/1960, p.69).



In the few tunes that do not conform to the hexachord system, there are traces of snatches of other tunes. Such familiar melodies generally play a distinctive role in the children's songs. Fragments of "grown-up" songs can occasionally be heard "in diminished paraphrases, as if the tune were breaking up into its component parts through the 2-beat lilt of the children's songs. Its outlines are still visible but the basic structure is distorted and broken" (Kodaly, 1937/1960, p.71).

Kodály anticipated the attention given by later researchers to such borrowings, in his comment that though collectors did not usually consider such things worth recording, "yet it is the best way of observing how musical material is worked and shaped in children's consciousness" (ibid., p.72). Kodály considered that the reason the adult tune "is bent, twisted and ground down when children take it over", is because, to children, "rhythm matters above everything else" (ibid., p.72). His comment that "in their first imitative attempts at singing, even young children can copy rhythm correctly, though they cannot manage to follow pitch variations" (ibid., p.72), anticipated the more recent research considered in chapters 4 and 5; though Kodály thought this was "because their voices cannot jump the larger units", whereas it is now thought to be more to do with cognitive processes than with vocal performance.

Kodály echoed the recapitulation theory of child development in his conclusion that "The endless repetition of pairs of bars, or of short motifs in general, is characteristic of the music of all primitive

peoples, and even of Gregorian psalm tones. In their songs, as in their whole development, children re-enact the primitive life of man. That is why they begin their musical life with the primitive form of repeating motifs" (Kodály, 1937/1960, p.75).

What is particularly striking about Hungary as a subject for consideration in my context, is that we also have a detailed account of the development of the adult folk music, which I outline here, as it amplifies, and adds to, the picture of ways of making a song.

Bartók (1931/1981), in his classification of Hungarian folk songs, attempted to trace primitive to less primitive features. With regard to the melodic structure, he identified

1. short tunes based on one- or two-bar motifs;
2. three- or four-line tunes in definite rounded-off form, but lacking any more definite structural architecture;
3. four-line tunes in rounded off form and characterised by a perceptible architectural plan, for example, AABA or ABBA (Bartók, 1931/1981, pp.8-9).

Concerning rhythm, the various stages of evolution which Bartók posits are

1. an early **tempo giusto** (strict) rhythm consisting chiefly of equal values, which was probably associated with rhythmical body movements, such as work or dance (cf. Moog's observation, noted in chapter 4, that children's early songs were rhythmically very simple, notes of the same length predominating; though other researchers, such as McKernon and Moorhead and Pond, found a more flexible rhythm, while Nettl considered that the series of notes of equal length was not common practice in primitive music);
2. **parlando-rubato** rhythm. As tunes gradually became independent of the body's movements, the rhythm became freer and adapted itself to the rhythm of the words; and performers were enabled to

emphasise and prolong single notes. This stage of evolution is illustrated by the old **parlando-rubato** tunes of the Hungarians, Slovaks, and Rumanians;

3. a new **tempo guisto**, or non-**rubato** rhythm, evolved out of the **parlando-rubato** method of performance. Bartók considered that the **tempo guisto** rhythm marking this third stage of evolution would be far more complex than that of the first stage (Bartók, 1931/81, p.9).

Thus Bartók distinguished between old style songs with **parlando rubato** tunes and the new, or **tempo guisto** style. Old style songs have four lines, with the most important subsidiary caesura at the end of the second line. New style tunes differ most obviously from the old style through their structure, which is rounded, architectural. There are four structural schemes (still using four lines), AABA, AA5BA, AA5A5A and ABBA.

The division into the free **parlando** style of song and the closed "dance-form" seems to have been general in primitive music, according to Szabolsci (1965), who suggests that **parlando-rubato** and **tempo guisto** existed alongside each other. I quote this passage in full, as a point of reference for later consideration of children's recitative-like songs:

the melodic shape came first, together with the instinctive urge to create well-balanced structures. For a long time afterwards, this urge was bound up with the capacity of speech-melody to express and communicate. Melody probably began to make headway, independent of speech, at the point where the purely musical urge to form decorative and symmetrical structures began to predominate (Szabolsci, 1965, p.16).

Kodály's description of the Hungarian Dirge also seems relevant. He defines the recitative of the Dirges as "the borders of music and speech" in which the melody "is only a variation in pitch...It has a rhythm which cannot be measured with bars, the sections between the pauses are unequal, the repetition of melodic phrases is irregular and cannot be divided into bars". Yet "the idea of some definite

melody hovers above the freely-flowing prose", and "the dirge most frequently consists of the irregular repetition of the tune-lines" (Kodály, 1937/1960, p.77). The example which Kodály gives is characterised by descending melodic phrases.

We noted earlier that children in Hungary have their own body of songs, with a simplified musical language compared with adult songs. As already seen, Nettl (1956a) observed that this is true of other cultures also; and Blacking (1967) drew attention to a similarly separate body of songs sung by children in Venda. The traditional "nursery rhymes" which British children learn are more likely to be adult songs, using adult musical language and taught to them by adults. But there is a body of children's material in Britain, namely their playground rhymes and game-songs (though some of these have adult origins). Consideration of them is particularly appropriate as an illustration of the way children borrow and adapt material; this might illuminate what we can expect them to do as "composers".

The Opies, who have documented these playground rhymes, songs and singing games very fully, found that their origins are, in many cases, obscure. Children do not usually make up new rhymes. The Opies comment on "the faithfulness with which one child after another sticks to the same formulae even of the most trivial nature" (1959, p.4). So how do new rhymes come into being? Like folk singers, children do not stick rigidly to the same formula each time; the Opies give many examples showing how the oral transmission results in variations and adaptations, over time and between different groups. The three versions of a rhyme quoted here show the effects of such adaptation as far as words are concerned:

a) 1818-23

Doctor doctor, how's your wife?  
Very bad upon my life  
Can she eat a bit of pie?  
Yes she can, as well as I (ibid., p.3)

b) 8-year-olds in Birmingham

Mr. Fatty Belly, how is your wife  
Very ill, very ill, up all night  
Can't eat a bit of fish  
Nor a bit of licorice  
O-U-T spells out and out you must go  
With a jolly good clout upon your earhole spout  
(Opies, 1959, p.1)

c) Spennymoor infants

Little fatty doctor, how's your wife?  
Very well thank you, she's alright  
Can she eat a twopenny pie?  
Yes sir, yes sir, and so can I (ibid., p.3)

(The Opies compare these with the variants of an adult rhyme to show similarity with oral transmission in adults).

So, though they may be economical with their invention, children are very ready to adapt material, to make it topical and to make it their own. Adaptation might come about as a rhyme passes from one community to another, or under the influence of another verse, or of a formula, such as "O-U-T spells out", which occurs in many counting out rhymes and has got attached to version b), but not to a) and c), of the rhyme quoted.

Deliberate parody of adult material (hymns, Christmas carols, nursery rhymes and popular songs) may also provide new rhymes. In relation to parodies of nursery rhymes, the Opies make the interesting observation that these represent children's desire to "loosen the apronstrings of their home life". Where, a short year or two before, they might be upset by adults making deliberate mistakes in the familiar jingles, now "they establish their independence by parodying the rhymes their parents taught them" (ibid., p.90). This reminds us that children are not simply "playing with rhymes" but that the rhymes and playsongs enable them to work out aspects of their feelings and experiences.

The Opies found that variations, "even apparently creative ones", occur more often by accident than design, through mishearing or misapprehension, (though this does not account for the parodies) and that "the nearest the normal child gets to creativeness is when he stumbles on a rhyme". They give an example of a verse which occurred in this way; the children chanted it for over an hour, yet a week later, when the researchers referred to it, "they didn't know what we were talking about" (Opies, 1959, p.12).

Children may say they have created something new ("Here's one you won't know because it's just made up"), and then perform a rhyme which was already in common use, just new to that child. Even when they do alter something, their idea of "new" reflects the economy of invention already noted, for they are in fact "prone to claim the authorship of a verse when they have done no more than alter a word in it", e.g. substituting a familiar name for one unknown to them (ibid., p.12). In this respect, children might be similar to some makers of primitive poetry. Such poetry is based on repetition, but the repetition is modified, since "no intellect can stand stagnation" (Sachs, 1943, p.33). The lines of text may be repeated exactly except for perhaps one word being changed.

Thus children might be seen as preservers, but also as adaptors, rather than as individual creators of songs and rhymes. The Opies' evidence is all in relation to adaptations of words, not music. Would this be relevant to music also? Perhaps yes, since in this respect children's activities can be compared with those of folk musicians generally. Nettl (1976) referred to "communal re-creation" to describe the changes which are constantly being made to the common core of folk songs. The changes may be due to failure of memory or to the tendency for a song to change as it passes from one group to another, but may also reflect a desire to make changes and improvements. Nettl considered that this "communal re-creation, the making of variants, is one of the greatest distinguishing features of folk music as contrasted with cultivated music" (Nettl, 1976, p.25). Such changes can apply to the words or the music.

Bartók drew similar conclusions about the creativity of individual members of the Hungarian peasant community.

Whether peasants are individually capable of inventing quite new tunes is open to doubt...the way in which the peasant's musical instinct asserts itself encourages no such view. Yet peasants, even individually, are not only capable of altering, but strongly inclined to alter all the musical elements of which they get hold. Alterations of this kind may be considered as the work of the peasant community as a whole. And how very strong the individual instinct for alteration and variation is can be seen by comparing the so-called individual variants of any one tune" (1931/1981, p.2).

Kodály, too, comments "every day, new songs are created"; but he adds that "these differ from those already existing only in smaller details" so that "one tune at first seems very much like another and there is in fact a strong resemblance between them" (1937/60, p.56). As we saw earlier, Kodály specially discussed children's songs in this respect. It seems that Hungarian children's songs, which are all variants of the same basic tune, not only suggest that Hungarian children's approach to their folk material is similar to that of the children represented in the Opies' collections, but that both sets of children, and possibly all children, can be seen as "folk musicians" like adults.

Evidence from other sources supports this. For example, Hopkin (1984) refers, in his account of Jamaican children's songs, to a similar process, in which "new songs are generated and older songs are fragmented and conjoined in new ways". This is a communal process, but "individual creativity - sometimes deliberate but often unconscious or accidental - continues to affect the songs" (p.15). So the characteristics of children, noted by the Opies - of economy of invention, of regarding something as new when they have made only a very small change, of "failing" to remember an invention which occurs spontaneously or by accident, and of being unable to distinguish between original and transmitted material - may not be simply due to immaturity.

As we saw in chapters 4 and 5, the use and transformation of borrowed material is crucial in the pre-school child's acquisition of song. School-age children's playground rhymes and songs are shared, social forms, and the adaptations are communal rather than deliberate inventions by individuals. Moorhead and Pond (1941) and Dowling (1984) distinguished between chant and song in the young child's output, chant being social and song being personal and private. Interestingly, the chant described by Moorhead and Pond does not seem to have been subject to much musical variation, though new words were constantly being invented in response to changing social situations.

Moorhead and Pond recorded the free spontaneous inventions of their children at play. Yet there comes a time, in school especially, when we begin to prompt children to make up songs. Studies such as those by the Opies, Hopkin, and Moorhead and Pond can illuminate what children might think that we are asking them to do when we invite them intentionally to "make up a song", to engage in an individual personal expression, deliberately meant as communication.

In the foregoing paragraphs, children have been compared to folk musicians; but even within the western classical tradition, complete originality has not always been more important than traditional aptness. One thinks, for example, of centonation in Gregorian chant, where melodic formulae ("centos" or mosaic melodies) recurred in different contexts in some of the oldest chants in the repertory, such as graduals (Apel, 1958). Some writers have felt the need to defend centos against the charge that, being derivative rather than original, they lacked "expressive value". Sachs, for example, argued that "the composer of cantillations, far from being a patcher, might better be compared to an ingenious gardener, who arranges his two dozen of motley flowers in ever new bunches" (1943, p.85).

Perhaps the pot-pourri songs of children (Moog, 1976) should be considered in a similar way. In a sense, it applies to all composers. The materials with which they work are common, their skill lies in covering their tracks, if this is required by their culture, and the focus should be, not upon the formulae or borrowed materials, but upon the way the formulae are used to make satisfactory musical forms. This may be relevant to a consideration of children, who, even

when they are making "original" pieces, may still be borrowing in a fairly crude and undigested way, not having fully assimilated.

### The Language of Songs

Music has been considered in relation to language at several points in this study already - in connection with symbol systems, deep structure, universal elements and similarities in patterns of acquisition. Further consideration is necessary in relation to songs, in which words and music are intimately combined.

I have chosen to focus upon the invented songs of young children, rather than their instrumental pieces, in the expectation that their vocal improvisations might reveal a different picture of their musical activity than would be given by their work with instruments. Infant school children have had five or more years of developing a musical vocabulary with their voices; and song is for most children the first and most natural medium of music-making.

Analysis of songs cannot deal only with purely musical matters. We have already noted, for example, some of the factors relating to social use of songs which might affect what children think "making a song" involves. Consideration of young children's songs must also take note of the effect of words - their content and import, the intention of the singer to communicate through words, and the possible effect upon the musical (and verbal) coherence of the need to achieve a satisfactory marriage between music and words.

The relation of words to music in song can vary, from musical speech to settings in which the words seem to be merely a vehicle for an elaborate musical structure. The most rudimentary chants have been "sung" rather than actually spoken, presumably because the performers felt something extra would be gained - perhaps a heightening of the words or a clearer declamation in a large space, for example in Gregorian chant. But, more usually, the words are incorporated into a recognisable "melody", and in the process, they take on a new character.

Combining words and music is not just a matter of uniting text and melody in an agreeable harmony, for the music and speech modes cannot be combined with equal attention to both without subordinating one to the other (Blacking, 1982, p.18).

Some societies (eg. Venda) do not distinguish between poetry and music; for them, "rhythmically recited verse is music and classed as song" (Blacking, 1982).

Language for song (and for poetry) is not the discursive language we normally use in speech. The language of *parlando-rubato* recitation may be near to that of normal speech; but even in narrative poetry, the poet uses conventions and patterns not used in normal discourse. In *tempo giusto* songs, the patterns of language are modified to adapt to musical patterns; this may mean a further modification, not just from the language of discourse but also from the language of normal written verse.

Booth described some of the features of words for songs (and for oral poetry) compared with words for written poetry and language in general. I summarise his observations here.

Considered as words, the verses of a song may not make much sense. Some of the lines may be repetitive refrain, common to more than one song. Other words may be conventional tags, for example to achieve a rhyme; and the syntax may be loose. But these features may enhance, rather than detract from the verses' suitability as words for song. Song words exist in sound and time; they "bear the burden of oral communication, under the special condition of being set to music" (Booth, 1981, p.7).

Song words are characterised by lower density of information, a greater degree of redundancy, than discursive language and written poetry. Such redundancy is achieved in various ways. One is simply to borrow a line from another well-known song, or a formula, for example, "It was in and about the Martinmas time" (ibid., p.10). Other devices besides borrowing result in redundancy; for example, internal repetition (as in "Polly put the kettle on" and in Blues lyrics). Some songs quote themselves from one verse to another, for

example in the cumulative repeat of the English traditional ballads, in choruses, or in a repeat of the opening verse at the end. Other contributors to redundancy include rhyme and metre, antithesis, both within lines and between succeeding lines and stanzas, and alliteration. "However the redundancy is built up, the song typically gives its audience a wealth of cues to help it catch a line" (Booth, 1981, p.13).

A song-text does not usually present complex, unfamiliar ideas. Booth suggested that "the experience of a new song must be the imagining anew of some simplification of life that is more or less in our possession already" (ibid., pp.13-14). This does not have to mean that what is said by the words is unimportant, or that songs are only about trivia. Tippett echoes Booth's "some simplification of life" in suggesting that what the composer responds to in a poem is "the situation behind the song" (Tippett, 1960, p.463). Blacking, too, referring to Irish traditional music, distinguishes between songs that "tell a story" and "songs with words that express emotion about a situation or story but are not meant to tell the story" (Blacking, 1982, p.20).

Tippett reminds us that the distinction between speech and song is not always clear. In words which echo those of Szabolsci and Kodaly, already quoted, he refers to "the moment when chanted recitation of poetry hovers perhaps on the borderline between the two arts" (Tippett, 1960, p.462), when we may find ourselves trying to respond to it as music, as poetry or as declaimed speech (paying more attention to the information content of words).

At the other end of the spectrum, musical characteristics dominate. There are examples of songs in which the verbal material can be said to disappear altogether. Texts in Baroque vocal music, for example, may be rendered unintelligible by the effects of musical elaboration; while in Venda music, "words were abandoned altogether as a song progressed, so as to allow for further musical development", i.e. for freer movement of parts in counterpoint (Blacking, 1982, pp.22-23). This seems similar to what happened in certain types of Gregorian chant, where the extended melismas have music which proceeds in purely musical terms. Similarly in Ambrosian chant, wordless

"jubilations" of up to 300 notes occur, which though they are "nominally attached to the syllable of a word...actually attain independent status as purely musical formations" (Apel, 1958). There were apparently similar processes in extra-liturgical popular song from the 4th to 6th century (Schlager, 1980).

Other examples of "textless songs" include the North American Indian and Australian cascade melodies referred to earlier. Some North American Indian singers also use non-lexical syllables in other songs, surrounding the meaningful text and interpolated into it. Nettl (1986, p.461) suggests that the absence of meaningful words may be connected with the relative lack of instrumental music, the songs therefore needing to fulfill both vocal and instrumental roles. This is interesting in terms of 6-year-olds without instrumental skills. We have already noted Moorhead's and Pond's description of songs without words as a "kind of vocal instrumentation"; and, as will be seen, the children I worked with sang many songs to "lah" or nonsense syllables, in which they explored musical patterns.

Frisbie pointed out that non-lexical "vocables" in, for example, Navajo ceremonial music, are not freely invented "nonsense" syllables, but are fixed and have specific functions. These include setting the mood and indicating structure, for example, introducing the song, linking chorus and verses together, and serving to "herald and emphasise the ending of a song" (Frisbie, 1980, p.376).

This brief and inevitably partial review is a reminder that the blend of words and music which we call "song" takes many forms, depending upon the function of the song and the intention of the singer. Our children are still learning the conventions of songs, including the way that the character of the words alters from discourse to song text; they are also coping with the opportunities for distraction possible when making a song, i.e. thinking verbally rather than musically.

In this respect, research into the lateralisation of the brain, to which Booth and Blacking refer, is, though controversial, relevant. Sloboda refers to the growing body of evidence which seems to support the belief that, for right-handed people, "the mechanisms controlling

language behaviour seem to be primarily concentrated in the left hemisphere" (of the brain), "and those controlling spatial orientation and other non-verbal skills seem to be concentrated in the right hemisphere" (Sloboda, 1985, p.261). This would suggest that music and words each "belong" to a different side of the brain.

Evaluation of theories of the brain is outside both the scope of this study and the competence of the present writer. But if it is the case that "speech and music may be produced with the help of two different, though relatable, systems, and that they cannot be unified on equal terms, (though) they can be combined in song" (Blacking, 1982), this suggests the possibility that young children, and indeed older composers, may encounter difficulties in uniting music and speech in a satisfactory synthesis.

Whatever the final story of the brain may prove to be, this chapter has indicated that when young children set out on the first conscious and deliberate attempts to "make a song" in response to another's invitation, they engage in an activity in which personal choice and expression are to be moderated through processes common to all human beings and through conventions particular to their own culture. The basic intention - to tell a story, to sing a response to a feeling situation, or to make a free musical structure upon a vocable - may have complex implications. As Blacking has said, a song results from the singer's "intention to mean" (1982, p.19). This chapter has explored some of the rich and varied aspects of song, which serve as an illuminating background against which to consider young children as song-makers.

The discussion of children's songs in chapters 4 and 5 focused mainly on the development of pre-school children, for this is the area most fully covered in the research literature. But the idea that young schoolchildren might invent their own music has been influencing music education for some time now. Chapter 7 will first examine the place of song-making in infant schools, with reference to selected pedagogical writing and curriculum materials. The second part of the chapter will consider ways of conducting research into infant schoolchildren's songs.

## CHAPTER 7 - APPROACHES TO TEACHING AND RESEARCH

As already seen from chapters 4 and 5, children may come to school at the age of 5 with considerable experience of making songs; both imitating the songs of their culture and improvising songs of their own. A survey of the materials available to help teachers develop music in the early school years suggests that music educators have taken less account of this pre-school development than they might; though the idea that children should improvise and compose music for themselves is now generally accepted and is, indeed, enshrined in the National Curriculum for Music (Department of Education and Science, 1992).

Curiously, vocal improvisation is singled out by two earlier writers who were actually expressing doubts about children's ability to make their own music; and it is mentioned in such a way as to suggest that "composing" is considered to be something other than improvising songs. For example, Shaw considered that "there is in music no form of creative work which does not require technique", which few children will possess, except "perhaps vocal improvisation"; but Shaw did not apparently consider vocal improvisation to be worth further consideration in this context (Shaw, 1952, p.14).

The other example is the Headmaster of the school described in Ministry of Education, 1949, who wished his children to work creatively in music as they did in art, dance and drama. He did not find a way to develop this, despite his observation that the one sign of success in musical composition was when children composed their own rhymes and tunes for drama work, first inventing the words, then singing them to a melody.

Neither Shaw nor the Birmingham Headmaster appear to have followed up the possible clue to releasing children's creative music-making contained in their own observations. The main music teaching in the Birmingham school, apart from songs and singing, consisted of a series of music reading exercises in rhythm and pitch. The Headmaster concluded that, as far as music was concerned, the "whole approach

was too intellectual" and could not foster imaginative creative work (Ministry of Education, 1949, p.30).

The need to provide a non-intellectual approach to music for young children was recognised by two of the most influential music educators of the 20th century, namely Orff and Kodály. Both were persuaded by the view (already referred to in chapter 6) that children's development follows the development of the human race; and so both thought that music education should start with primitive materials and processes. They considered that the first spontaneous utterances of the child were the two-note chants on s-m, the falling minor 3rd which they considered to be the most prevalent interval in children's songs and in the spontaneous vocal calls of young children. The rest of the notes of the pentatonic scale, and later, the full major and minor scale, are gradually made available to children by Orff and Kodály.

As seen in chapters 4 and 5, there has been much support for this idea that children's earliest musical utterances are based upon the falling minor 3rd (Révész, Werner, Moorhead and Pond, and Davidson). Kodály was also influenced by the fact that, as noted in chapter 6, there is a body of Hungarian children's songs using just two or three notes. The falling minor 3rd is not such a feature of British nursery rhymes as it is of those of some other European countries, though Murray, who adapted Orff-Schulwerk for use in Britain, was persuaded that it is the interval most frequently used in our children's spontaneous singing (Murray, 1968, p.291).

But, as noted in chapter 4, not all researchers agree on the prevalence of this interval, and Moog explicitly counters the idea (1976, p.60). The evidence considered in chapters 4 and 5 suggests that, anyway, by school age, children have absorbed the melodic forms of their culture, even if they are not yet singing accurately in tune. So there are different views possible about what is the infant school child's natural music, which make it difficult to be confident that we are selecting appropriately if we attempt to prescribe the musical vocabulary to be used in school.

Why is such a limiting of melodic material deemed necessary for young schoolchildren's musical improvisations? The answer lies in the pedagogical approach. Orff-Schulwerk is based on the view that the path to improvisation is through imitation. Such a view is supported by the research considered in chapters 4 and 5, which shows children abstracting materials from their musical environment and re-arranging them in their musical play. But Orff-Schulwerk, while acknowledging that there will be "spontaneous and unconscious" imitation (Murray, 1967, p.143) encourages the teacher to prescribe specific music to be imitated, with which children will then improvise. For example, Lane writes that the child "must have constant opportunities to imitate and invent, at first with only a few notes within a given structure" (1984, p.13).

Similarly, the Kodály Method teacher introduces each new item of musical vocabulary through imitation, and children are encouraged to use the prescribed material for improvising in, for example, question and answer exercises. Choksy (writing about the Kodály Method) describes improvisation as "immediate oral response in a structured situation"; while composition is seen as "the process of thinking through music and writing down one's musical thoughts" (Choksy, 1981, p.85). This refers to work in which the children are knowingly and deliberately manipulating material, not just organising and remembering it, but also writing it down. So although, in the Kodály Method, "improvisation and composition are encouraged from the earliest ages" (ibid., p.75), this appears to be done within prescribed limits and not to take account of the free improvisations in which children may use a much richer musical vocabulary than that which they can read or write.

Limiting pupil choice and providing new material as each item of vocabulary is mastered has a sound pedagogical basis. Davidson sees the Kodály Method in relation to his contour scheme analysis (already considered in chapter 5), and argues that the method "starts with contour scheme knowledge and knits it into stable scalar orders. It rehearses contour schemes such as sol-mi and la-sol-mi, as musical primitives, in order to provide children with some discursive knowledge (labels for intervals) with which the child can build

strong and independent references for pitch relations" (Davidson, 1984, p.39); i.e. in helping school children to become analytically aware of melodic relationships, Kodály retraces the natural development of melodic processing by the pre-schooler.

But because children's discursive knowledge follows on from their enactive knowledge, a school music curriculum based entirely upon such a structure may not take full account of the rich experience and the self-initiated learning of the young child's vocal play. Nor can it fully provide children with opportunities to make the music that they may hear in their heads and want to use; for young children's musical environment is not just limited to simple musical resources, and we cannot control what music they experience outside school.

Kodály seemed to seek such control of the whole of the child's musical environment, recommending that "the soul of the child should be nursed on the mother's milk of the ancient Magyar musical phenomenon....a child should not be allowed to learn any other language apart from his musical mother tongue until he has consciously mastered the latter....A child nurtured on mixed music will not feel musically at home anywhere" (quoted in Choksy, 1981, p.8).

Orff-Schulwerk seems to imply a similar attempt to control the child's musical environment. The restriction to pentatonic materials, for example, is because, using the pentatonic scale, "the child can most easily find individual possibilities for exploration, without being exposed to the danger of leaning upon the overstrong examples of other music" (Orff, quoted in Keetman, 1974, p.18).

But of course, children are exposed to a wide range of music in many styles; it is no longer possible, if it ever was, to control and restrict their musical environment. As we have seen in chapters 4 and 5, it is from this much more comprehensive musical diet that children abstract the musical vocabulary that they use in their undirected vocal play; and "leaning upon" the music of others appears to be a necessary process in acquiring a musical vernacular which children need before they can begin to be original.

Imaginative and sensitive teachers of both the Kodály method and Orff-Schulwerk would probably agree with Blackburn (1967) that "it is vital that at all stages ample opportunity for free and uninhibited experiments with rhythm and pitch and tone colour should be provided". Forrai, writing in relation to the Kodály Method, echoes Blackburn, thus:

In addition to the correct singing of songs learned from the teacher, free spontaneous singing is also very important (1974/88, p.48); [and] we should listen carefully to the stories sung by the children and their playful talk, [for] when a child makes up a song he may be using it as a vehicle for communicating his experiences and coming to terms with his feelings (ibid., p.40).

But the published material gives little guidance on how to handle completely free exploration, nor does it provide examples of what such exploration might produce.

Some British music educators have outlined work in improvisation and composition which reflects the influence of Orff's approach fairly strongly, eg. Hope-Brown (1973), Dankworth (1973), Pape (1970), Winters (1967), K. Evans (1971). The latter explains that he adopted a "selected vocal approach" in his Creative Singing, because it helps children "to acquire, in a much shortened time, the sort of conscious awareness of sounds and the ability to manipulate them that parents...have helped children to acquire with words" (ibid., p.23); but imitation of a simplified vocabulary is not an accurate model of language learning.

Other British writers, particularly Addison (1967) and Paynter (1970a and b), have encouraged a less prescriptive approach to composing by young children. Such writers considered that though young composers and improvisers would need help in selecting from all the available possibilities, they might be given opportunities to make their own choices and to work out the implications of their decisions.

Thus Paynter writes:

What is creative music? First of all it is a way of saying things which are personal to the individual. It also implies the freedom to explore chosen materials. As far as possible, this work should not be controlled by the teacher. His (sic) role is to set off trains of thought and help the pupil develop his own critical powers and perceptions (1970b, p.7).

An early account of musical discovery by young children, innovative in its day, opens with a reference to a spontaneous song by Ann, age 6. It is clear that free song-making is an important part of the children's musical experience, but there is no detailed analysis of this (Bailey, 1958).

Much of the material published in Britain in the last twenty years has, by presenting composition largely in terms of exploring sounds, encouraged use of instruments and found objects in the composing of soundscapes; the voice being included as one of the available sound sources, but with little exploration of the possibility that instrumental and vocal improvisation might take different forms. There has been an emphasis, in work relating to infant school children, on exploring, collecting and discriminating between sounds, making sound pictures and stories, adding appropriate sound effects to stories and poems.

Such an approach was outlined by Paynter, who explained the reason thus:

The most natural sounds to experiment with are vocal ones, but because they are part of us it is not very easy to be aware of what is happening....experimenting with sounds on musical instruments is in some ways more definite than what we do with our voices perhaps because in most cases to make an instrumental sound we have to do something we can see..(1970a, p.28). [So] in the infant school, creative experiment in music will in the main be a matter of developing interest in the variety of sounds available; of encouraging discrimination between sounds, both in pitch and timbre; and of beginning, in

various simple ways, to improvise music of mood or atmosphere for drama or to heighten the characters and events in a story (Paynter, 1970a, p.30).

A similar interpretation of composing as the exploration of sound is found in the National Curriculum for Music at Key Stage 1 (Department of Education and Science, 1992). Thus the End of Key Stage Statements for composing require that children should be able to "investigate, choose and combine sounds to produce simple compositions" (p.4). The Programme of Study lays down that children should "explore and use a range of sound sources, including their voices, bodies, sounds from the environment and instruments, tuned and untuned" and "create, select and organise sounds in response to different stimuli" (Department of Education and Science, 1992, p.4).

Though exploring "the sounds the voice can make" is included in the examples, there is no specific reference here to song-making by young children. Nor is there much guidance in this respect in the literature in general. Most of what has appeared has been influenced by Orff's approach, in limiting the vocabulary to be used; while the presence of instruments has encouraged a "say-and-play" approach, using an instrument to "find the tune".

The early, influential work on ways of helping young children to make their own music, by Addison (1967), reflected this, in the suggestion that songs might be invented vocally after children had worked with a xylophone. This was appropriate if children were to learn to use certain notes rather than others, as they would absorb the pitches from the instrument. Addison urged us never to forget that "a child's voice, used well, can be the strongest potential instrument...Not only can it sing and speak, but it can pretend to be all sorts of things." (1967, p.23). So here, too, there was an interest in the potential of the voice as sound source, which finds an echo in, for example, Bird and Bennett (1988).

Addison (1967) included examples of songs by children, and, indeed, a whole chapter on song-making; while Addison (1987) presents the voice as the child's most immediate means of musical expression. Addison introduces some activities which use a prescribed framework to develop

a sense of pitch; but he also encourages free vocal improvisation and song-making in which the children are not restricted only to "the notes they have learned" and in which "the aim is to develop musical imagination" (1987). Addison (1988) further explores the value of improvisation as "the enabling power of spontaneous and unremembered musical utterance to release musical feeling in participants in an active, physical way" (p.4). For children, improvisation is like play; "children's play is not for performing nor for repeating. It is for spontaneous use, and through play children practise human living in all its variety" (ibid., p.6).

The idea that young children might be encouraged freely to invent songs of their own in school has also been suggested by Tillman (1976), thus:

children might improvise a melody for the words freely (rather like traditional recitative...) This often works better with young children or children who have been improvising vocally since they were young. When the tune has been repeated a number of times, this improvising tends to codify into a melody quite naturally without any conscious effort having been made to create one (p.22, cf. Davies, 1986).

In contrast to Choksy, Tillman, like Addison, recommends that

one should not ask the children to actually write a melody down for a very long time, for this immediately shackles their imagination and their ideas disappear while they stumble over the first crotchet or quaver (1976, p.21).

Tillman was writing primarily for teachers of children age 7 and older, but there is clearly a reference here, as in Addison, to the possibility that the free vocal improvisations of pre-school children might be encouraged and continued through the primary school, developing as children become more able consciously to invent and shape melodies.

Two other writers who take particular notice of young children's vocal song-play in their educational approaches are D. Evans (1978) and Andress (1980). Evans gives an account of how he provided a rich

song-making environment based on what his young children (aged 2 to 5) were doing for themselves; this involved him in joining in with the children's play, parent and children making up new songs, making new words to existing songs and singing conversations.

One of the writers who comes closest to describing how such development might be encouraged outside the home (in children aged 3 to 5 in nursery school) is Andress. She recommends that, along with teaching children a repertoire of songs, we should also give more consideration to the "child's own world of music, which is rich in improvisation and does not require a pre-set response" (1980, pp.49-50). Her experience of 5-year-olds who can "improvise, organise, recall and re-organise sounds or musical ideas" (ibid., p.6) is in accord with that of the researchers considered in chapters 4 and 5 (although they do not refer to children recalling or repeating their spontaneous songs); and it is her starting point for an approach to a music curriculum for young children which combines taught songs, completely free song-play and improvisation within frameworks set by the teacher.

One reason why Kodály and Orff recommended beginning with limited melodic material was to enable children to learn to pitch notes accurately; and the results, in terms of children's ability to sing in tune, can be impressive. Working with the full diatonic range, as in British nursery rhymes (consider "Humpty Dumpty" or "Jack and Jill", for example) makes it very difficult for young children to reproduce melodies accurately. There are many simpler songs which we can teach first.

But this does not have to mean restricting children's whole song experience to such simple pieces. Andress suggests that we think in terms of the "primary function" and the "secondary function" of singing with children (Andress, 1980, p.54). Songs chosen for the primary function of allowing children to interact with the music, will be songs which they can sing accurately for themselves; the secondary function includes songs as an "instructional tool for learning letters and words, socializing skills and self concepts" (ibid., p.54).

Children "should not be pressured to reproduce these songs accurately but should simply be allowed to decide what of each song they wish to use" (Andress, 1980, p.54). Such songs will also serve the purpose of providing children with a comprehensive, not selected, musical language. As we have seen in chapters 4 and 5, children will, anyway, make their own selection and filter song material through their existing schemes, and will indeed "decide what of each song they wish to use". If we consider the analogy with language learning, we note that children's linguistic environment is not limited to that which we consider suitable for children. Children absorb the complexities of language through hearing more advanced language than they are capable of using; they thus receive the linguistic data from which to abstract the rules governing language organisation and use. It would seem likely that there is a similar process operating for music.

Andress suggests ways in which development of the children's own musical ideas may be encouraged. In particular, she appears to be the only writer concerning music teaching who specifically recommends encouraging very young children's narrative songs in a public, ie. class context. "Since these are such natural songs for children, the teacher will want to encourage their creation" (ibid., p.60). This might involve the teacher imitating the child (rather than the more generally-advised opposite), singing in the same through-composed style. Andress invited children to share their songs with the rest of the class. The resulting songs "included those recited in a speaking voice, through-composed melodies, rhyming tunes, variations of familiar tunes, and also accurate performances of familiar tunes" (ibid., p.70).

Andress does not, however, describe or analyse these songs in detail. What she does reveal of her experience echoes that of other researchers already discussed (chapters 4 and 5), for she finds that, through a programme of learning set songs coupled with improvising their own songs, children "will grow to understand the more sophisticated structure of music"; for example, "they will become

able to use such complex ideas of organisation, as planning melodic phrases ending with pitches that have a feeling of 'finished or unfinished'; they will realise that melodic phrases may be repeated in the same or slightly altered manner and that it is exciting to have same and different phrases within the melody." These, she continues "are but a few of the skills and understandings that children will acquire and apply to their own improvising and composing songs" (Andress, 1980, p.70). Andress was dealing with 3- to 5-year-olds, but it seems that there is much in her work which applies equally to infant school children who have not had such a rich musical environment in their nursery or pre-school years.

We see from this survey that there is much material suggesting ways of stimulating improvisation and composition in young children, though much of it refers more to instrumental work than to song-making; but there is, as yet, very little description or analysis of results in terms of the actual pieces children produce, and no detailed study of the improvised songs of children in their early school years, i.e. aged 5 to 7. As has been noted, in chapter 3, the study by Swanwick and Tillman (1986) considers songs along with instrumental pieces, and takes a general developmental view of composition by children of 3 to 11. The possibility that there may also be something to learn from a closer focus upon songs as distinct from instrumental pieces is the starting point for my own work. The rest of this chapter will consider appropriate research methods for conducting such a study.

## Research

Studies of musical development in children of school age have, until recently, tended to take the form of tests of perception, discrimination and conceptual awareness (see Shuter, 1968, chapter VII, and Hargreaves, 1986, chapters 4 and 5). Shuter seemed to take the view that observation and analysis of children's output, though necessary with very young children, were unsatisfactory tools for investigation, and that "knowledge of the development of musical ability is on rather surer foundations from 7-8, since the results

from the group application of objective tests become available" (1968, p.77).

Composition by young schoolchildren has only recently become a focus of attention. It would seem that different methods of investigation are appropriate for this. Swanwick and Tillman (1986) based their research upon the collection and analysis of children's pieces, seeking to identify broad trends in development from ages 3 to 11. In this discussion of research methods, I suggest that a detailed analysis of the songs of a few children within a narrow age range also has an important, complementary role to play; and consider ways of collecting, categorising and analysing the songs and presenting the results.

I have already noted, in chapter 2, that musical analysis is not without its drawbacks as a method of enquiry into development, especially that it does not allow us to see the processes at work in the children's minds while the songs are being produced. But, as Serafine concluded, analysis of the finished work may be all that we have to go on in the case of published composers; so analysis of children's songs would seem to be at least as valid in helping us to understand children as composers.

Concerning methods of collecting the songs, two possibilities present themselves. One is to tape everything, or at least as much as possible of the children's output, with a tape recorder constantly at hand (eg. a voice-activated recorder sewn into a child's overall). This method is particularly useful when working with young children who cannot repeat their songs nor invent to order; but while such an approach may collect a rich harvest of songs, it is clearly impracticable in a busy, crowded classroom. Of the researchers considered in chapters 4 and 5, Dowling came nearest to this, working with his own children.

Most of the researchers referred to earlier have adopted a second possibility, that of some kind of interview procedure, recording children's work in specially arranged sessions at regular intervals, usually meeting the children in small groups or individually. The Project Zero team, (Gardner, Davidson, and McKernon, 1981) for

example, met their children twice a month over five years. Swanwick and Tillman (1986) collected the material for their Pilot Study in interviews, and I assume the method was continued throughout the project, though this is not actually stated. Flohr (1985) met his subjects only once a year, over a period of four years for the youngest and one year for the oldest.

Setting up a recording session has the advantage that quality of sound recording can be controlled and that the researcher can observe the circumstances in which children work, and can talk with them about what is happening. If one does adopt an interview approach, or a regular recording session, then there is a choice between trying to create as natural an environment as possible and waiting for children to produce something, or structuring the session in some way, inviting them to perform certain tasks.

An example of a highly-structured interview seems to be that adopted by Flohr (1985). Each session of fifteen minutes (with children individually) had three improvisatory phases, which Flohr described as, respectively, free improvisation, guided improvisation and exploratory improvisation. In phase 2, guided improvisation, the children were asked to perform two tasks, a) Conversations ("Let's pretend we are talking with the instruments"), and b) "Let's pretend you are mad/sad/happy". In phase 3, exploratory improvisation, the children were asked to improvise a melody while the investigator played "a 24-measure bordun accompaniment" on F and C.

Tillman, who collected the compositions referred to by Swanwick and Tillman, structured the sessions by inviting children to perform certain tasks. In most cases, the task, or "opportunity" (Swanwick and Tillman, 1986, p.311) was presented in terms of the musical instrument offered; for example, make up a pattern using one or a pair of maracas; make some music on a metallaphone with the scale of C major on it; or sing a song that s/he had made up (ibid., pp.312-313). Tillman also asked the children to repeat each task, to see what elements of the composition survived. Later in the project, a new possibility was added, when "each child was asked to draw on the

other children and the researcher to make up a piece for a group of instruments" (ibid. p.313).

There are disadvantages in the structured interview approach to collecting material from young children. Being asked to perform prescribed tasks at set times may be inappropriate for them generally; if the aim is to initiate music play, which is what composition is for young children, then a situation as near as possible to their normal play sessions is needed. This was recognised by Swanwick and Tillman, and presumably prompted their introduction of opportunities for children to create and direct a piece involving others, and their inviting children to repeat pieces. But there was still quite a limitation of choice in the opportunities which the children were offered.

Older children regularly make their compositions in groups, and have opportunities to try out ideas, selecting and refining on the basis of what they hear and in discussion with each other. Younger children may make up their music on the spur of the moment and be completely uninterested in repeating it or in performing to another person. It is very difficult in a set period of time, even if working with only one child and offering a range of musical opportunities, to combine the interests of the researcher with the child's needs of that particular moment, or to catch the authentic, personal statement.

The ideal method of collecting songs from young children would seem to be a combination of that used by Dowling, of trying to record everything his daughters sang, together with continuous observation and note-making by the researcher. Though, as already noted, this is not practicable in school, there would seem to be a real contribution to be made by practising teachers who can find ways of collecting their children's play-songs in authentic settings and in a variety of situations. Bunting (1987 and 1988) and Loane (1984 and 1987), working with older children, have shown how illuminating teachers' case studies of pupil composers can be. Bailey (1958), as already mentioned, described an imaginative approach with primary school children but did not provide much detail of the actual music which children made.

My own research method has elements of the set interview, in that I visited the schools regularly once a week, collecting what was produced only during the times I was with the children; and I set the task in that I invited children to make songs. I attempted to create singing play sessions in which I introduced activities, teaching some new songs and singing games, and initiating vocal play through echo work and sung conversations. We played games (often with movement) to explore up/down, high/low, same/different and singing voice/speaking voice.

But I also took my lead from children as much as possible; they would teach me a song they had been learning with their teacher, or share their playground songs with me, or suggest an activity. I tried to make the invitations to make up a song a natural outcome of what we were doing. Sometimes I made up a song, or we made one all together, with individuals volunteering different lines. Sometimes I tried to repeat a child's song, or played back one that I had recorded. Occasionally, I offered some words, or sang a first line as a starter, for children to use if they wished.

Sometimes the children worked in pairs, playing clapping games, making conversations or inventing a song together; sometimes they all sat in their own spaces or moved quietly round the room, singing to themselves, and volunteers would come and sing to the microphone. Usually the words and tune of a song were produced simultaneously.

I usually recorded the whole of each session, considering that it was important to be able to trace any possible influences upon a child's output from me or from other children, as well as recording false starts, second versions, and the singers' comments, if any, during and after their songs. A few children remained bashful or inhibited throughout the time of the project, and I respected their silence while creating opportunities, for example, at beginnings and ends of sessions, for individuals to record songs without an audience. But for the most part, the children appeared to be very happy to share their songs, and many were very enthusiastic, greeting me as I arrived and singing almost before I had got into the school.

Not everyone recorded a song every week. Inevitably there were some very prolific song-makers, whom I sometimes had, reluctantly, to ration, and there were occasions when even the most willing inventors had nothing to sing, or wanted to sing a known song; and I accepted their silence or whatever was offered. The most songs recorded from one individual over two years were seventy-four, the smallest number was fifteen.

We talked about songs all together. I usually phrased my invitation simply in terms of "make a song of your own"; but we talked about made up and borrowed songs and whether we recognised any part of a song. I made a game out of this, asking children to guess whether I was borrowing or not, to see if they were aware of the difference.

Often, the words seemed to be the prime focus for the child singers and we had a lot of talk about things they were interested in, or that were occurring in their lives at the time. These conversations were sometimes reflected in the songs, ("singing our news" was part of this); they were also valuable in helping to create an atmosphere of sharing and caring necessary if children were to commit themselves in personal expression in song. There is a sense in which the more usual teacher-pupil relationship must be suspended; the child gives, the adult receives, values and tries to understand. Clearly this research method is far from the controlled collection of data appropriate in other situations.

Individual and small group sessions sometimes followed the class singing sessions in school A (groups were smaller anyway in school B). Children could opt out of these group sessions if they wished, though few ever did. These sessions were among the most rewarding; they allowed me to leave the tape running while individuals poured out their songs, without pressure to involve the rest of the class (resulting in Mary's "Autumn" and "Flower" songs, for example).

As some of the children became able to talk about what they were doing, the smaller groups also provided opportunities to discuss an individual's music-making and for me to become involved in a child's first attempts to compose and hold on to a song. Christine's "Little Polly" songs, for example, were produced in a small group session. I

also used these group times to play back earlier work to some of the children, for their reactions.

Much of the work referred to in the literature has been done with very small samples of children. Dowling's 1984 study, for example, was based on songs sung by his two daughters; and the Project Zero team (Gardner et al, 1981) collected songs from nine first-born children of members of Harvard University, over five years. Moog's sample was by far the largest, for he carried out "over 8,000 tests" with nearly 500 children as well as evaluating the observations of about 1,000 parents (1976, p.2). Swanwick and Tillman's study dealt with the compositions (not all of them songs) of forty-eight children in one school over four years.

The researchers collected large numbers of songs from their small samples. For example, the Project Zero team considered more than 500 songs by their nine children. Dowling's (1984) study was based on 579 songs, of which he sampled 121 to analyse. Swanwick and Tillman analysed 745 compositions altogether. In dealing with young children's musical development, there is obvious value in longitudinal studies. Many of the studies referred to had a longitudinal element, though Moog's study of children at different ages does not seem to have followed the same children through, but rather to have tested different cohorts for each age (1976, p.27).

My own study involved thirty-five children initially (reduced to thirty-two as three moved to other schools during the project time) in two schools over a period of up to five terms (though I also considered songs collected from other schools by myself and by other teachers). In school A, I worked with one class of sixteen children for five terms (from age 5-6 to 6-7). In school B, I worked with two smaller groups; B1 (nine children, age 6-7) for three terms, and B2 (nine children age 5-6 to 6-7) for five terms. The school B groups were selected by the Head Teacher as "confident singers".

Girls predominate in my sample. School A was a girls' school. In school B, an attempt was made to get equal numbers of boys and girls (twelve of each over the two year groups). But children were left free to opt out after a trial session and of the six who availed

themselves of the opportunity, five were boys. Of the three children who moved to other schools and were thus not counted in the final sample, two were boys. So the final sample consisted of sixteen girls from school A; six girls and three boys from school B, group 1; and seven girls and two boys in school B, group 2.

I met each group regularly, usually once a week, for between twenty and thirty minutes (the longer time usually in school A). All the children had regular class singing lessons with the school staff and had a fairly extensive repertoire of songs, though ability to sing in tune was very variable. Instruments (mostly non-tuned percussion) were sometimes used in these lessons to accompany songs; the children had had virtually no experience of composing with instruments or voices in school. By the end of the two years, a few children had begun to have instrumental lessons.

I collected over 1,000 invented songs during the period of this study (from thirty-two children). Clearly some selection was needed in presenting the results. I have presented my findings in the form of case studies, providing detailed analysis of the work of four of the children; followed by an interpretation of these results with reference to the songs of the remaining children. I have chosen to do this rather than to make a quantitative analysis of the whole sample looking for similarities between songs and between singers in order to identify broad aspects of development. Such general trends have already begun to be distinguished (especially by Swanwick and Tillman, 1986); and of course my study takes account of such findings.

But Dowling (1984) found that his two daughters differed in noticeable ways; and Kelley and Sutton-Smith (1987) found significant differences in the way their three children worked. Gardner, too (1982b), drew attention to differences between young children in their art play. It seems equally as important to study the differences between children, the particularities of individual musicians, if these are observable, as it is to find ways in which children and their music are the same. Through a case study approach,

we can build up a detailed understanding of a single individual, to complement more representative pictures.

The advantages of a case study approach have been outlined by, for example, Merriam (1988) who wrote that the end-product of a case study is "a rich 'thick' description of the phenomenon under study" (p.12), which "can illustrate the complexities of a situation - the fact that not one, but many factors contribute to it" (p.14). Stenhouse has also justified the case study as an investigation into educational practice in terms which apply equally to the arts, thus:

the acts and thoughts of individual human beings contain essential unpredictable elements owing to the human capacity for creative problem solving and the creation of meanings (1985, p.11).

Stenhouse noted that "some will see this unpredictability as the wilderness beyond the advanced frontier of a social science" (ibid., p.11). It is precisely this unpredictability which is important in the arts. In them, as in education in general, "it is the teacher's task to differentiate treatments" (ibid., p.12). But there are dangers in a case study approach, especially in the possibility of too much particularity and subjectivity. The researcher must know when this method is appropriate: "One selects a case study approach because one wishes to understand the particular in depth, not because one wants to know what is generally true of the many" (Merriam, 1988, p.173).

The researcher cannot be entirely objective, since s/he is "the principal instrument for data collection and analysis" (Merriam, 1988). It is necessary, of course, to be aware of biases, and to declare them. In presenting results, the researcher needs to ensure that descriptions and explanations are factually correct (Burgess, 1985). In the case of studies of children's work, the researcher can also present the material for readers to examine for themselves. It is not possible completely to eliminate the possibility of influence by the researcher, but one can try to present enough material and information to enable possible influences to be seen.

Bennett (1976) advised that judgements concerning children's creative writing would gain reliability if they were confirmed by a panel of judges (pp.117-118). I have not done this formally, but have discussed my findings and interpretation informally with the children's teachers and with colleagues and students.

Swanwick and Tillman (1986, p.306) emphasised the importance of having a theoretical base for research. I have outlined a theoretical standpoint in the preceding chapters, especially chapters 2 and 3; but I also wanted to leave room for discovery of theory from the experience of collecting and analysing the songs (cf. grounded theory, Glaser and Strauss, 1967).

As I indicated in chapter 1, my starting point for this study was, in particular, the desire to understand Christine's songs (Examples 1 and 2). In trying to interpret these pieces, it seemed important to learn from Christine herself; to consider all of her output in detail, and to try, also, to follow her way of working both over a period of time and, where possible, in the production (or repetition) of an individual song. This would become the material of the first case study; to which I would add studies of other, similar or contrasting, cases. My approach has been influenced by that of Rowland. He did not refer to music in his study of children in classrooms, but he emphasised that we must get at children's intentions, their interpretations and thinking: "In order to understand children's understanding, we must first gain access to it" (Rowland, 1984, p.2).

Glover (1990) has drawn attention to Rowland's work as a model for an approach to music education research. She argues that research must concern itself not just with analysis of products, but also with "what the children were doing, their music-making, the context of their work...; and the sources they were drawing upon for their increasing repertoire of musical ideas and ways of exploring and exploiting them". "It is a key point" she writes, "that the complexity of children's work is such that it can only be approached by taking the widest possible view" (Glover, 1990, p.260). The case study approach to analysis of children's music contributes to such a view. As well as analysing in terms of similarities and broad trends

across a population, an individual child "must be 'tracked' through a progression of work over a period of time", for music-making "is thinking aloud. Any one piece of work is part of a stream of thought" (Glover, 1990, p.260).

Armstrong's claim that "education theory finds its most appropriate expression within the practice of sustained description" (in Rowland, 1983, p.41) is also relevant here. Of course we need to move from description to theory. But I would argue, as Rowland does, that it is through such descriptions that "threads of theory emerge", and that the "attempt to tease out these threads is an essential part of the reflective process which is at the heart of an enquiry" (Rowland 1984, p.147). So the theory comes out of the data.

A case study approach to children's composition was adopted by Bunting (1987 and 1988) and by Loane (1984). Loane has argued that "children's musical achievement is to be sought primarily in the wholeness of their music as insight" and that "that wholeness is embodied in the particularity of musical choices, rather than in any universal recipe; the heart of children's musical achievement is unpredictable" (1984, p.150). I, too, am concerned with the wholeness of children's music. I wonder if there may be evidence of wholeness and of uniqueness not just in individual compositions but also in the way an individual child uses music over a period of time. So I have chosen to present a detailed picture of the work of a few children in the belief that this also has intriguing and valuable insights to offer.

The question arises, what might be the most appropriate approach to the analysis of the children's songs? In the studies already considered, methods of analysis vary from researcher to researcher, depending upon the focus of attention. For example, Moog categorised the songs into types (pot-pourri, imaginative etc.) noting general characteristics and frequency of occurrence at different ages. The songs were only part of his data; Moog explained that it was necessary to make a very broadly-focused study "to give sufficient reliability to the findings in a field of psychology where comparatively little work has been done" (1976, p.2). Swanwick and Tillman analysed the compositions in their sample in terms of the

modes of development described in chapter 3, seeking to generalise about broad trends.

In chapter 6, I considered young children in relation to folk musicians; so it was appropriate to see whether methods of analysis used by collectors of folk music might be relevant to my study of children's songs. In particular, I considered Bartók's system, a modification of Krohn's system, in which the researcher lists a) the final note of each phrase; b) the number of sections in the tune; c) the number of syllables in each line; d) the total range of the melody (1931/1981, p. xxxiv).

Bartók was concerned "to determine, by careful comparison, every one of the musical styles" and "to trace them to their origin". For this, he looked particularly for similarities, of which there are, apparently, a great many in Hungarian folk songs (ibid., p.8). This method works in a cohesive system where melodies all exhibit a fairly small number of patterns, but is unsuitable in relation to young children's songs, because the number of types is likely to become so large that it is meaningless. And while Bartók's classification system enabled him to detect similarities between songs, it did not show if any one song worked as a successful piece of music or not.

Davidson, as seen in chapter 5, has evolved an analytical approach, after Werner, based on the contour scheme, "a child-centred unit of analysis" which can describe the "specific tonal structures that pre-schoolers appear to use in their standard and invented songs" (1984, p. 32). But Davidson's analysis does not consider the wholeness of the song which a child might produce. He acknowledges that contour schemes are "extremely local units of melodic organisation" (1984, p.32).

A more holistic view appears to be that taken by Dowling (1984), who, as already noted in chapter 6, looked for evidence that children produce songs according to inner-directed higher level schemes.

Dowling adopted a form of contour analysis, based on what he called the Type Token Ratio, which sought to describe each phrase's melodic and rhythmic contour and to decide which phrases differed from which

others. He expected to find signs of increasing readiness, with age, to organise in terms of repetition of phrases.

Though neat and objective, this formula approach seems to need qualifying by description of individual cases; for Dowling found that very young children may produce "meandering songs with no repetition at all" and have a high TTR but display "little evidence of higher order structure". Furthermore, "the older children include variety in their songs (increasing TTR), but also display control over that variety through patterned repetition of contours (reducing TTR)" (Dowling, 1984, p.152).

Dowling's analysis was designed to examine overall structure, and he found evidence of it at a very early age. But, as was considered in chapter 2, identifying patterns of repetition and contrast does not necessarily tell the whole story, if we want to know if a child is creating a satisfying musical whole or not. This is not an easy matter to address; as Loane comments, "while words may point to the existence of musical wholeness, they cannot articulate that wholeness" (1987, p.43).

Loane takes the view that such wholeness may be apprehended by "reflection on the musical facts" which "can lead us into reflection on what the music symbolizes. At its deepest level, this symbolic object may be always the same thing (consciousness-time) and always beyond words" (ibid., p.165). While acknowledging that any interpretation beyond the musical facts is of necessity very provisional, Loane argues that reflecting on the emotional content of children's music is not totally irrelevant, and has provided illuminating, if speculative, examples of such reflection in relation to the music of secondary school children.

In my study I have not dealt with the particular emotional content which my young singers have explored in their songs. Such a study may offer further rich insights. But I agree with Loane that "It is in terms of the sounds themselves that communication ...will take place" (ibid., p.165). So I have focused upon how far children as young as 5 to 7 appear to have the means to make coherent forms in music which can embody their feeling lives. I have not employed a precise

formulaic or statistical approach. I have adopted a more general musical analysis in terms of the structural processes which the singers use, to see whether young children do make structures which have significance in terms of musical thinking as explored in chapter 2; and to see to what extent such structures, if they are present, can be said to embody music's wholeness.

So I analyse particularly in terms of the musical thought process identified by Serafine (1988) and Sloboda (1985), outlined in chapter 2. Thus I consider initial ideas; motivic chaining; patterning (repetition and contrast); phrasing; closure; transformation; abstraction; and hierarchic structure. I referred, in chapter 2, to the Golden Section, the point at which much classical western music climaxes; this was said to be intuitive rather than calculated, so the possibility that it might occur in the music even of young children will also be considered.

I shall particularly examine whether the young singers seem to be working in terms of overall goals, managing the timing of the progressive and recessive elements to produce satisfying musical wholes; and I shall look to see what evidence, if any, there may be of children's superordinate plans.

I shall interpret "song" in the broad sense indicated in chapter 6, seeking to accommodate aspects of musical organisation or wholeness which might be used by non-tonal, or pre-tonal musicians.

There are dangers in subjecting the children's pieces to any kind of structural analysis (and even in trying to capture them in transcription). One is that researchers, like children, will filter what is heard through their own understanding of how music goes and what is important. There is a temptation to interpret children's work in terms of what we think they are trying to do, and to focus upon those things which interest us. This seems inevitable, given the differences between young children's and adult's thought processes. The researcher can only attempt to remain constantly aware of possible misinterpretations and alternatives, and try to relate children's work to what is known about how children think.

Another danger is that of emphasising the means rather than the expressive function of the music. There is a level of response which should be experienced prior to the analytical probing, a response which bears in mind Lotte Lehmann's invitation to her audiences, "Let us live this song together" (Booth, 1981, p.15).

Gardner points to the possible significance of the song-making of young children:

The majority of children at this age can be considered true creators of an imaginative world....And their most important creation, one that exploits their capacity to use symbols, is their sense of self... (Gardner, 1982a, p.366).

A similar idea is imaginatively expressed in Bruce Chatwin's The Songlines (1987):

I have a vision of the Songlines stretching across the continents and ages; that wherever men have trodden they have left a trail of song; and that these trails must reach back, in time and space, to an isolated pocket in the African savannah, where the First Man shouted the opening stanza of the World Song, "I am!"

If the child singers are indeed making images of their feeling lives, then the authentic response is to meet with them on that level. While such a meeting is not the focus of analysis in this study, it has made the collecting of the songs a rewarding, sometimes very moving, experience for the researcher.

## CHAPTER 8 - CASE STUDY I: CHRISTINE

I included two of Christine's songs in chapter 1 (Examples 1 and 2) as illustration of the kind of considerations which prompted this study. Christine appeared to be able to work with complex musical structures when she was barely 6-years-old. Simply comparing Examples 1 and 2 with Example 3, we cannot conclude that Christine's song is noticeably less mature than the piece by Swanwick's and Tillman's 11-year-old. So, in addition to the analytical focus outlined at the end of chapter 7, this study must also address such questions as: Is Christine a musically precocious child? In relation to the Swanwick and Tillman spiral, has she already passed through the earlier modes of working? Where do Examples 1 and 2 stand in relation to her other songs; and how do they compare with the songs of other 6- and 7-year-olds?

Christine was a pupil in school A. I recorded fifty-six songs by her when she was between the age of 6:0 and 7:5 (not counting the different versions of "Little Polly" and "Cats"). Of these, twelve were to "lah" or nonsense syllables, nine used given words and thirty-five were to her own words. I have presented twenty-eight of her songs here, and have indicated where in the sequence the others occurred and what category they belonged to.

Reference was made in chapter 2 to the possible value of comparing a composer's sketches in order to understand the thought processes behind a musical work. We have several opportunities for such comparison in Christine's output, of which the first are Examples 26 and 27 (30-10-89 and 7-11-89). These were Christine's first songs for me, and appear to be two workings, separated by a week, of the same idea, strongly influenced by the standard song which I include as Example 28. It is interesting both to compare the two invented songs with the standard and to see what she retains in her second song. This presumably indicates what is important to her (Swanwick and Tillman, 1986, p.313), or what is her superordinate plan (Sloboda, 1985).

Example 26: Christine (6:0)

$\text{♩} = 112$

Once there was a tree in the woods, and a squir-rel went by an'

run up the tree. Then the squir-rel ran down to, back to his den, to

bu-ry some more nuts.

Example 27: Christine (6:0)

$\text{♩} = 112$

Once there was a tree in the woods, And when it was Au-tumn the

leaves turned brown, And, And the lit-tle ra-, squir-rel lived up the tree,

and he gath-ered his nuts up there.

Example 28: Once there was a house in the woods (standard song)

Once there was a house in the wood. At the win-dow an  
old man stood. A lit-tle rab-bit ran a-long,  
knocked at the door, Ping! Pong!

Example 26 borrows the opening of the standard song, Example 28, but modifies it, keeping the contour of the melody but with a narrower range. My notation suggests a more tuneful rendering than Christine actually produced. But even in its rudimentary state, this song shows some signs of musical thinking. There is a suggestion of sequence in phrase 2; there is a progressive rising opening and a recessive fall to the cadence; the end is also signalled rhythmically by the crotchet rest after "more".

The framework of four phrases with a sequence in phrase 2 is similar to that of the standard song; but the structure of Christine's song differs from that of the standard in having a third phrase which introduces something new (tension) and a falling cadence in phrase 4 (relaxation).

Comparing Example 26 with Example 27, we find that it is this structural framework which persists as the superordinate plan, while the surface details vary. Christine has abstracted a four-line framework from a known song, with a rudimentary feeling for sequential repetition, contrast, progression and recession. I had not asked her to repeat her song, nor did she say Example 27 was a repeat when she sang it, a week after Example 26.

In both of these songs, she is more fluent in phrases 1 and 2 (which she has "borrowed") than in 3 and 4; it is as if the initial idea can generate an answering phrase but she cannot keep up the momentum and hesitates (for words) after that. Christine was not trying unsuccessfully to reproduce the standard; she could sing that very well when she chose to. She seems to have been drawing unconsciously upon familiar material to produce new songs.

In terms of Davidson's contour scheme analysis (see chapter 5), she has a wide repertoire of contours, beyond his level 4, which she uses in her singing of standard songs; but, in these early invented songs, she seems to have regressed to an early level, singing restricted intervals. However, she is not singing just a two- or three-note melody of the kind identified by Moorhead and Pond and others as, e.g.



There is a strong impression here that Christine is filtering a fuller scale through her immature scheme. It is as if she is using a compressed version of a full diatonic scale. She sings micro-intervals, as if she needs a number of different notes but is having to make the differentiation within her restricted total range.

Interestingly, her second version uses wider (ascending) contours than Example 26; but even here, as she gets to the last phrase, she reverts to smaller intervals (predominantly descending). This creates a recessive tendency to end. It may be an "accidental" recession, resulting from lack of ability to sustain her invention; but this in itself may suggest how fundamental this tendency is. Perhaps it is getting going, moving on, which may be the real challenge for young composers, as well, of course, as timing the overall proportions of progressiveness and recessiveness. As we have seen in earlier chapters, many researchers have found that young children's early invented melodies have a falling tendency, particularly using a descending minor 3rd. Christine has gone beyond this here, especially in the rising openings to her phrases.

In these first two songs, Christine appears to be working in the Vernacular mode, using a formal framework abstracted from her experience of the songs of her culture; but she also seems to have a feeling for fundamental aspects of musical structure.

Christine also, in these first lessons, produced some narrative chants, with restricted melodic contours, which seem to be a continuation of the kind of thing which we would expect her to have been doing pre-school. One of these is shown as Example 29 (13-11-89).

Example 29: Christine (6:0)

♩ = 72

A long time a-go, there was a lit-tle brown hedge-hog, with

lots of bla' brown prick-les on his back, And he lived in a field and he

had a friend, and he went out shop-ping with her. Ev'-ry morn-ing, they

went for a lit-tle walk down the lane, And then they came back, and

watched tel-e vis-ion.

Here, the intervals are not as diatonic nor as accurate as the notation suggests. But, though this is a narrative chant, Christine is not simply reciting her words, the rhythm is not that of natural speech and each phrase except the last has some internal

organisation, a similar melodic contour, rising to begin with and falling back to C to close. We are reminded of Kodály's description of the Dirge, as "the borders of music and speech" (noted in chapter 6).

The final phrase again, as in Example 27, has a narrower range, which suggests recession, and a need to do something different at the end. There is an interim cadence ("went out shopping with her"), signalled by a falling interval followed by repeated notes, which, as we have seen, is a characteristic ending in much traditional music, though Christine also hints at a perfect cadence at "with her"; after this, "Every morning" sets off anew. The Golden Section is around this cadence point. [There are also suggestions of a doh-te-doh (perfect) cadence at "down the lane", at "they came back" and at "watched television"; even though still imprecise in her intonation, Christine is using a "tonic".]

Example 30 is a longer story song. Christine shows concern to get the words right, so much so that she stops (bar 21) to check her facts ("Do they eat them at winter?"), which rather inhibits the musical thinking. But she is also inventing musical ideas, and chaining them together.

Though the overall form is not satisfactory, her handling of the opening section, bars 1-6, is interesting. She can construct a phrase (1-2) and answer it with another (2-4); she rounds off this first section with a phrase which is new but which has similar melodic contour (E G# F# E) to the opening phrase (E G# A F# E). However, it omits the A, thus losing one of the notes which gave bar 1 the impetus appropriate to an opening (progressive) phrase; this produces a calmer, recessive version for the closing phrase.

So the opening section (1-6) is complete in itself. Christine does not manage to control the rest of this long piece so successfully, but she is constructing musical phrases and making some relationships between them. As in Example 33, the phrases have a tendency to fall, so that the overall form, as in the Hungarian Dirge and much other

early traditional music, is that of irregular repetition of a falling figure.

Example 30: Christine (6:1)

$\text{♩} = 96$

A squir-rel ran up a tree, a squir-rel ran down a tree, and

then it ran down. And then it ran up a - noth - er tree, And

then it ran down the oth - er tree. And then it went to gath - er its

nuts in the ground, And then it came back. When it was

*hesitates*

win - ter he got, gath - ered, (*spoken*) Do they eat them at winter?

(*Researcher: Mm.*) He eat - ed them at win - ter, when it was ve - ry

*hesitates*

snow - y. And then, when the, Sant - a Claus came, the (skir)squir-rel was

still a - wake, So he, the squir-rel got a lit - tle pre - sent

off Sant - a Claus.

Example 31 (20-11-89), is an even longer story song from the same session, in which we see Christine working with recognisable melodic fragments, some of them borrowed as in the pot-pourri songs described by Moog.

Example 31: Christine (6:1)

$\text{♩} = 108$

I love to see the Christ-mas tree, be - cause it's got lots of

pret - ty toys on, Some have got lit - tle San - ta Claus-es, some have got

$\text{♩} = 96$

choc'-lates on. My Christ-mas tree's got an ang-el on the top-

And it's got some ang-els that hang on the leaves, And it's got some

lit - tle bells, And it's got some baub-les in, so, I

like it when the Christ-mas tree comes down, S' so I can

put, all the Christ-mas dec-or-a-tions on. There is lots of Christ-mas

Example 31 (continued)

baub-les, And there is lots of lit-tle toys to hang on.

Some more cand-les, and some arc, Sant-a Claus, in some pla', glass,

*quicker*  
wh' and when you shake it, snow falls down, and that is the

end of this song!

The opening phrase has a rising, progressive impetus. The end of phrase 2 ("pretty toys on") echoes the end of phrase 1 ("Christmas tree") in a modified sequence. Phrase 3 repeats phrase 2 in another modified sequence. Phrase 4 begins as if it is to continue in another sequence, but Christine interrupts this with three repeated Dbs ("chocolates on"). So we have a rising opening phrase, repeated twice in descending sequence and ending on low repeated notes.

Christine then introduces a new idea ("My Christmas tree's"), with a modified descending sequence at "got an angel on the top". There is sequential repetition again, between "angels that hang on the leaves" and "and it's got some little bells"; these two phrases echo "Once there was a house in the wood" (cf. Example 28). Christine is here abstracting ideas from one musical situation and transferring them to another, a fundamental process in organising musical ideas into larger coherent wholes. She signals the "end" very clearly with "And that is the end of this song!" and a rising cadence, as if it is *te-doh* (cf. Example 29).

So far, then, we have seen Christine making a) four-line songs with rudimentary melodies and with a formal framework influenced by a standard song but modified to make it her own; and b) these through-composed story-songs with some elements of melodic organisation and with snatches of borrowed material here and there.

Then, the next week (27-11-89) she volunteered the song I have already presented in chapter 1 as Example 1 (p.21). This was her first song to "lah" and one in which, as the analysis in chapter 1 shows, she worked successfully with purely musical ideas over a long time-span. In her pieces up to now, Christine had used rising, progressive openings often followed by falling sequences, and her phrases had had a strong tendency to fall from an initial impetus. But in Example 1 she has a lovely aspiring progressive opening; the falling sequence-like pattern (8 to 11); then rising sequences, the first ones in the songs of hers which I had so far recorded, though each of these sequence phrases keeps a tendency to fall within itself.

Though Example 1 looks like a piece of mature musical thinking, its position at this point in Christine's work suggested that it belonged more to the intuitive, Expressive mode than to the reflective, Speculative mode. She could not recall or repeat it, nor talk about what she had done; and she could not produce songs like this to order. It seemed to be a completely spontaneous piece of expression.

The Christmas holidays then intervened. Christine's next song, in January was the one I have already included as Example 2 in chapter 1 (22-1-90, "I had a little kitten": p.22). This uses the vernacular four-line framework we saw in her first two songs (Examples 26 and 27), but it is a much more successful piece of musical thinking. Again, it seemed to be a spontaneous personal expression which she could not (and did not wish to) repeat or discuss.

In bars 1-4, the melody rises from tonic to dominant then falls, the overall contour being A# C# D B D E C#.

Bars 5-8 answer it, falling back to tonic with a melodic contour which is a retrograde repeat of phrase 1, E C# E D# B D C# A.

Bars 9-12 begin with a similar contour to phrase 1 (A C# D E) but

continues with something new, to climax on F#, the highest note in the piece at "I" before falling back to the dominant.

Bars 13-14 are a shortened last phrase, which repeats the outline of phrase 2 (EDC#A). The truncation of the phrase does not seem unsatisfactory; there may be an implied silent final two bars, and as far as the words go, there is not anything else to say.

The rise-fall (progression-recession) pattern of this song is very striking. It consists of two arches (1-8 and 9-14). Though, in the first, the rising and falling phrases each curl round on themselves, the overall pattern is the same for each, with the extra lift to F# in the second arch. Both the story and the music reflect the pattern of rest-tension-resolution. Phrase 3, in which "he died and I was very upset", is the one which introduces a new tension with the added upward move to F#, while the fourth phrase returns to the tonic with a recessive, falling cadence. If there are two implied silent bars at the end, the Golden Section is at "died".

This four-line form, in which some element of contrast or tension is introduced in line 3, was already apparent in a rudimentary form in Christine's first two songs; it is also noticeable in her next piece, Example 32 (22-1-90). Here, the four-line verse was given, because I taught her the words.

Example 32: Christine (6:3)

♩ = 112 (quickenings)

Did - dle did -dle dump - ling, my son, John, went to bed with his

trous - crs on. One shoe off and one shoe on,

did - dle did - dle dump - ling my son John.

Christine's use (in Example 32) of a melodic pattern A A(modified) B C, in which something new occurs in phrase 3 (around the Golden Section) is noteworthy, as is the fact the the first three phrases have a rising opening while the final phrase falls (recedes) to the end. That this pattern of a rising opening and falling close is significant to Christine is further suggested by her next three pieces, all "lah" songs. Example 33 (5-2-90) is a tiny fragment to nonsense syllables; but even here, the first phrase has a predominantly rising, aspiring character, and the second phrase recesses.

Example 33: Christine (6:3)

♩ = 116

Loo - by loo - by lah lah dump - ty dum.

Example 34, in the same session, does something rather similar, over a longer time scale now; again using the four phrase pattern of others of her songs.

Example 34: Christine (6:3)

♩ = 116

lah lah lah lah, loob - y loob - y loo, lah lah lah lah, dump-ty

lah lah lah lah lah lah lah lah lah lah, lah lah lah lah lah lah

lah lah lah.

Despite the "tuck" from F back to C in bar 1 (of Example 34), the first phrase is generally progressive, phrase 2 is neutral/recessive,



the magic one...the Fairy Godmother. She said her magic spell.  
Then the pumpkin suddenly turned into a coach.

The next week, Christine greeted me with the news that she had made a song at home and had written down the words. She was the first to do this; only one or two other children did it during my time with them. (A few brought printed poems to sing; again, Christine was the first one to do that.) This seems to mark a significant new stage, of consciously preparing a song and trying to recall and record it. First Christine read the words to the class; then, at my prompting, sang them (Example 37, 26-2-90).

Example 37: Christine (6:4)

Once I saw a round-a-bout, a round-a-bout, Once I saw a  
round-a-bout, and it was go-ing round and round.

In this, apparently her first attempt to organise and capture a song, she has adopted for the words the common formula which can be indicated by the letters ab bb ab c- (used in, for example, "London Bridge is falling down", "Here we go round the mulberry bush" and many other simple songs). This seems to be clearly in the Vernacular mode. I would have predicted an extra "a roundabout" as bar 4. On a subsequent occasion, (30-4-90), when Christine chose to sing this song again, she did have this more predictable version. I wondered if she originally thought it in February, but lost it in the writing down.

Christine's conscious attention was much taken up by reading the words. Yet there is a musical framework here, and, though she has borrowed the formula, her use of it is consistent with her work in other songs so far. The rise/fall pattern of some of her earlier

songs is less obvious; but there is still a rising opening and a falling end, together with, in line 3, an extra lift up onto F#.

The next week (26-2-90), Christine produced two versions of a Pancake song (Examples 38 and 39). I had sung a starter for this ("It's pancake day") on a falling 3rd, so, unusually for Christine, these two songs begin with a falling interval. She is not particularly fluent in either and seems to be groping for the words as well as the music. But (as in Examples 26 and 27) it is interesting to see what she retains in her second version.

Example 38: Christine (6:4)

$\text{♩} = 138$

It's pan - cake day, let's get all the pans out. We can make,

*hesitates*

we might make some a', at school to - day, I - hur - ray hur - ray, it's

pan - cake day to - day.

Example 39: Christine (6:4)

$\text{♩} = 144$

Pan - cake day, to, hur - ray, hur - ray, I hope we do some

bak - ing at school to - day. Hur - ray, hur - ray, it's pan - cake day!

Some words remain, viz. "(It's) Pancake day" and "Hurray, hurray, it's pancake day". These also keep their melodic outline each time. They form the beginning and end of each piece, thus providing a framework. She has the idea for words which might come in the middle, but no real musical form for these, for progressing between the two fixed points. Perhaps the fact that I gave a starter with a descending figure, unlike her usual starters, has not helped her?

But in the second version, she adds "Hurray, hurray" after the opening "It's pancake day". This now makes her last line a transformed repeat of her opening, the two phrases recurring in reverse order. The kind of transformation processes which are at work in music may also, apparently, occur in verbal patterns; this is a reminder of the close relation of language and music, both in the context of songs and in children's development.

Example 40, two weeks later (12-3-90) uses the rise/fall pattern of many of her earlier songs, together with the four-line verse form she had used before, and it is a good example of progression and recession.

Example 40: Christine (6:4)

♩ = 132

Lambs are leap- ing in the fields. Lambs are leap- ing in the sun.

All new am- i - nals are com- ing out at spring, and the  
*(sic)* *hesitates*

*senza misura*  
 beaut - i - ful flow- ers, com- ing out, too.

The first three phrases all begin the same, rising (s, d, r), then proceed in their own way. The first falls back to its starting point, which might perhaps be a recessive movement; but it creates expectation, a need that the music should set out again. This it does, and this second phrase falls just a small way; while the third reaches up to the high 8ve before falling, i.e. it has the widest span of all, rises to the highest note, and has the smallest note-values and quickest movement, thus is the most progressive (and contains the Golden Section).

The fourth phrase is more hesitant; it seems that Christine is searching for a contrasting final phrase, intuitively understanding that there needs to be a recession to the final cadence. The narrow range, vague intonation and low pitch of this last phrase contrast with the free-ranging, tonally secure melody of the first three phrases.

As we have seen, Dowling, McKernon and others found that children learn the melodic contour before the specific intervals, when learning to imitate songs and developing tonal awareness. Christine has generally got a good grasp of tonality now. Here she is inventing the contour for herself and working out the detail too. But she seems to have only a general idea of phrase<sup>4</sup>. Her superordinate plan seems to be three phrases with increasing progression and then recession in line 4. The four-line scheme with something to disturb or heighten in line 3 does now seem as if it is a significant form for her.

Some of her early, through-composed songs (see Examples 29 and 30) used a repeated melodic outline, mainly descending. Here, there is a similar tendency to repeat (now a rise/fall pattern), but Christine combines this melodic pattern with - or organises it within - the formal framework of four lines which has been a feature of others of her songs. We can, it appears, observe the emergence of vernacular forms out of her free, expressive story songs.

After the Easter holidays, Christine returned to her "Roundabout" song (cf. Example 37); this time (Example 41) she had the extra "a roundabout". This was the first of her songs to be 'revisited' in this way at a later date. The formula, being already familiar from



standard tunes. She "borrows" the first three lines only, and adds her own, new final line which works well, continuing the recession from the previous line and ending with a perfect cadence.

Christine's next three songs were to "lah". The first, Example 43(21-5-90), has the rising opening which we have seen to be characteristic of many of her songs; and the fall back within the phrase is also characteristic. The second phrase (bars 3-5) has more progressive elements (shorter note values rising to a new height). The third phrase (bars 6-8) does not successfully continue this, though she does continue the "busyness" and there is an attempt to lift the melody at bar 7-8 (the Golden Section is bar 7). Bar 9 seems like an interpolation, before a final recessive phrase, which cadences onto repeated low notes.

The rise-fall pattern is a very persistent feature of Christine's songs, both overall and within phrases. Here she seems to be exploring progression and recession and placing these elements in time, though not entirely successfully over the whole.

Example 43: Christine (6:6)

$\text{♩} = 112$

Lah lah lah lah loo loo loo. lah lah lah lah lah lah lah loo loo loo

lah. Lah lah, lah,

loo loo loo. lah (etc.)

Examples 44a and 45 (11-6-90) give us another opportunity, (cf. Examples 26/27; 38/39) to see Christine at work in two successive versions of a song.

Example 44a is characterised by the interval of a 3rd, and marks a departure for Christine, beginning with descending intervals; she balances these nicely by rising stepwise movement, creating a successful opening idea. She continues exploring this idea effectively to bar 5, then has two bars in augmented rhythm to cadence on C.

This could well be the end of this piece; she indicates "end" with the recessive longer notes and the fall to a repeated note. But then she continues with a quotation from the standard song, The Water of Life, at (x). It is interesting that this, too, is characterised by the interval of a 3rd. She then continues this new idea in sequence, ending on repeated low Bs. (Although Christine's reference to The Water of Life is very brief, I have included the song in full at Example 44b, for, as we shall see, other children also used parts of it.)

Example 44a: Christine (6:6)

$\text{♩} = 116$   
 lah lah lah (etc.)  
 5  
 lah lah lah  
 10  
 lah lah lah lah lah.

Example 44b: The Water of Life (standard song)

Example 44a is not successful as a whole; but Christine is playing with the ways musicians make relationships between musical events, exploring the possibilities of the 3rd. There is also a suggestion that at bar 6+ she wants to do something new, but lacks the control to work successfully on this large scale. Or it may be that at bar 4 she has arrived at a new tonal centre and feels this is significant and needs to work back to "the tonic". Who can say? It could be either, or both, or neither of these; but if musical form is arrived at intuitively, then these elements (of progression out and back, and of new ideas to make the piece go on) might be expected to be in her subconscious, somehow, and to appear in her songs.

Interpretation is helped by the fact that we have a second version of this song, which she sang when I asked her if she would like to "do it again" (See Example 45).

Example 45: Christine (6:6)

♩ = 120

(to Lah)

5

*quicker*

Example 45 suggests that Christine had a fairly clear idea of bars 1-4. The rhythm (of Example 44a, bars 1-4) is repeated, though the details of the melody are different. Bar 5 now uses the rhythm of bar 3, as if she is going to continue to develop her opening bars. But in bars 6-9, she hesitates and, instead of the quotation, seems to be trying something new which she cannot express satisfactorily. This second version strengthens the impression that she has a good opening idea, she can work with it to create a longer section, and that she senses that she needs something new - either a complete contrast (Example 44a) or perhaps a more complex development of her opening idea than she can manage yet.

This was in June 1990. Christine was not always successful in her songs. At this stage she also produced some rather incoherent narrative songs, and tried a "lah" song to my starter which she was unable to finish.

In Example 46 (25-6-90) she seemed to find her voice again. It begins like "Good King Wenceslas", but she continues with her own tune. She has four balanced phrases, transformation of material (the same

rhythmic phrases repeated to new melody) giving unity and variety, and a climax at 6-7, followed by a short recession to the cadence. The management of the overall progression and recession is effective.

Example 46: Christine (6:7)



(Christine shows a good sense of tonality in this piece; her final cadence appropriately inverts the cadence of the first two phrases, I-V, half close, becoming V-I full close. When she is tonally secure, she does not always use the falling cadence which characterised her non-tonal melodies.)

Example 47 (25-6-90) deals with one of her favourite topics, her kitten. This is another long narrative song, but the melody is much more fluent and well-formed than in her early chants, and her words are produced in more or less regular four-bar phrases (subdivided into two). We noted, in relation to Examples 44 and 45, that Christine seemed to be groping with the glimmerings of the idea that pieces might go on by adding new sections. This song gives a similar impression. It could end convincingly at bar 16, the three crotchets on "all the time". But then it sets out again at bar 16-17, with an aspiring progressive phrase; and gradually sinks to cadence with another three-crotchet pattern, this time descending. She is working here on a longer time-span than she can control, but there is evidence of ability to shape her musical phrases and to begin to put in structural markers (e.g. the two cadence points).

Example 47: Christine (6:7)

$\text{♩} = 69$

I have a lit - tle cat, and she is love - ly. When

I come home from school, she al - ways jumps up at me. I

cud - dle her ev' - ry day, and feed her all the time. Oh,

*quicker*

what a love - ly cat she is, all the time. I play with her out -

$\text{♩} = \text{♩} 20$

side, um, have run - ning ra - ces, she jumps on my knee, and

plays with me.

We saw (Example 42) Christine using given words ("Chick chick chatterman") and adapting the tune of "Twinkle twinkle"/"Baa baa black sheep" to fit them. She sang a similar version of "Chick chick" on 2-7-90. As we have seen, Moog (1976) considered that the ability to abstract a tune from a song and sing it to "lah" represented musical and cognitive maturity. Similarly, Gardner et al (1981) have suggested that taking ideas from one context and putting them into another is an important stage in cognitive development; while Serafine identified abstracting and transforming as important processes in musical cognition.

So selecting an appropriate known tune with which to sing new (given) words would seem to be an important element in learning to handle musical ideas. We have already seen Christine taking bits of known tunes and incorporating them into her own (Examples 31 and 44a). She also seemed to have abstracted the overall form from "Once there was a house in the wood" for Examples 26 and 27. Example 42 showed her using "Twinkle twinkle" but modifying the end to suit her own needs, surely a very mature thing to do.

Example 48 (2-7-90) is one of four songs all sung on the same day, in which she again borrowed the tune of "Twinkle twinkle", this time to use with words she had chosen from her book of poems by A.A. Milne. It provides further insights into how she worked with borrowed material. I have already noted that Christine was the first of my singers to write down the words for a song (see Example 37); for them, she borrowed a common formula. She was also the first to bring given words (printed poems) to work with. For these (as when I gave her words, see Example 42), she borrowed a known tune. These songs with printed words seem to represent an important point in her attempt to gain conscious control over her song-making. She is entering the Vernacular mode, but she is also continuing the musical thinking that we have seen her engaged in in her earlier songs. Example 48 is very long, but merits inclusion in full, because of the modifications she makes. Unlike "Chick chick", which as a four-line verse forced her to make modifications if she was using "Twinkle twinkle" as her subconscious model, the six-line verse form in Example 48 exactly fits "Twinkle twinkle". So Christine sings verse 1 as a straight adaptation (form = ABCCAB). The D# in bar 1 suggests that she is so secure tonally that she can add another note of the chord; and this rising pattern with a falling end is just what she has been using in so many of her songs.

Verse 2 introduces a new fourth line and modifies the rest (form = ABCXCY).

Verse 3 has a new four-line melody which works well in itself. Lines 1 and 2 could be seen as A modified, B modified; but line 3 is a completely new departure, rising to a climax and a pause on G#

Example 48: Christine (6:7)

♩ = 126

**A** **B**

(v.1) I met a man as I went walk-ing we got talk-ing

**C** **C**

man and I. Where are you go-ing to, man? I said, I

**A**

said to the man as he went by. Down to the vil-lage to

**B**

get some bread, Will you come with me? No, not I.

**A** **B**

(v.2) I met a horse as I went walk-ing, we got talk-ing,

**C** **X**

horse and I. Where are you go-ing to, horse, to-day? I

**C**

said to the horse as he went by. Down to the vil-lage to

**Y**

get some hay. Will you come with me? No, not I.

(Example 48 continued)

A modified B modified

(v.3) I met a wo-man as I went walk-ing, we got talk-ing,

J K

wo-man and I. Where are you go-ing to, wom-an so ear-ly? I

A

said to the wom-an as she went by. Down to the vil-lage to

B

get some bar-ley. Will you come with me? No, not I.

A B

(v.4) I met some rab-bits as I went walk-ing, we got talk-ing

C

rab-bits and I. Where are you go-ing, in your

X modified

brown fur coats? I said to the rab-bits as they went by.

(Example 48 continued)



Down to the vil-lage to get some oats. Will you come with us?



No, not I. (v.5) I met a pup-py as I went walk-ing,



we got talk-ing, pup-py and I. Where are you go-ing, this



nice fine day? I said to the pup-py as I went by.



Up in the hills to roll and play. I'll come with you,



pup - py, said I.

("early") before falling back to B in line 4. There are still two lines of words to accommodate at this point, so she now returns to the model tune. Verse 3 is thus: A (modified) B(modified) J K A B.

Verse 4 is A B C X(modified) C C.

Verse 5 is A B C C A B(modified) to give a triumphant descent from repeated Vs to repeated Is.

So Christine begins this long song straightforwardly with the borrowed tune; she introduces modification in verse 2 and much more modification in verse 3. Verse 4 is rather like verse 2 in the extent and nature of the modifications; while verse 5 is almost the same as verse 1; all of which means she has used an arch form overall.

Christine has already shown signs of being able to use and transform musical ideas appropriately, to make coherent pieces of music. So it is perhaps not insignificant that having chosen to take a model tune and repeat it five times for this song, she introduces some variety in this long piece. Nor, I suggest, is it an accident that the variations come where they do. Verse 3, in particular, feels like an attempt to provide a climax, a point of interest. In this thirty-phrase piece, the Golden Section would come around phrase 18, that is, in verse 3. Christine's "climax" is at phrase 15 ("early") which is a bit soon, but generally in the right area; this is quite remarkable over such a long time-span.

In the Autumn term of 1990, Christine became less keen to sing or record songs, and appeared to become less fluent too. She tried, in two sessions in October, to make songs out of printed poems (as she had done earlier); but she failed to do more than produce a rhythmic chant to the words. It seemed as if, as well as being more self-conscious generally than she was a year ago, Christine had reached the stage of the "simple change in creativity" documented by Cottle (1973) and Plaskow (1964), and noted by Swanwick and Tillman (1986) as a swing from spontaneous personal expressiveness to (self-conscious) sharing in the vernacular of others. This change had been suggested in the formula song and in her working on the poems to the borrowed tune of "Twinkle twinkle".

Many of Christine's earlier pieces showed an ability to invent fresh, attractive musical ideas and to work on them to make satisfactory musical wholes. But this did not appear to be under her conscious control; nor could she recall or talk about what she did. What we may be seeing in her songs in late 1990 and early 1991 is her beginning to bring into her conscious mind the understanding of how a song works which she has so far used intuitively.



changed, but still used conventional tags. Her new third verse is a surprise, introducing subdominant harmonies on "Martin's kitten" which is musically satisfying.

Example 50: Christine (7:1)

$\text{♩} = 112$

(v.1) Mar - tin has a kit - ten, kit - ten, kit - ten, Mar - tin has a  
kit - ten and his name's Fluff - y. (v.2) I have a kit - ten,  
kit - ten kit - ten. I have a kit - ten and her name's  
*slower*  
Soot - i - ca. (v.3) Mar - tin's kit - ten's called Fluff - y, be - cause he is  
Fluff - y. My kit - ten's called Soot - i - ca, be - cause her fur is as  
black as soot.

I asked Christine if she could repeat her song, whereupon she sang Example 51. The melody changed again and the tonality was uncertain, but the new idea at the beginning of verse 3 remained the same; her sense of timing seemed to tell her that she needed a change at this point. This time, she went further and introduced an effective rise

on "Sootica" before re-cessing in a short space of time to the cadence.

Example 51: Christine (7:1)

♩. = 112

Mar- tin has a kit - ten, kit - ten, kit - ten, Mar- tin has a

kit - ten and his name's Fluff - y. I have a kit - ten, kit - ten,

kit - ten, I have a kit - ten, and her name's Soot - i - ca.

Mar - tin's kit -ten's called Fluff - y, be - cause he is Fluff - y,

My kit -ten's called Soot - i - ca, be-cause her fur's as black as soot.

So Christine used common patterns, but she was not content merely to repeat formulae. As in earlier songs, she experimented with her borrowed material, modifying it and introducing the modifications at appropriate times. Though she said she could "remember" this song, it was the words, rhythm and phrase boundaries which were the same each time. The melodic details were much less secure; but her modification persists at the same point in her third and fourth versions, and its effect is even intensified in Example 51.



In the new term (January 1991) Christine produced some more formula (Vernacular) songs and several songs to "lah" which showed she still had the overall rise-fall pattern in her repertoire of song forms; while a very long narrative song in her earlier style, about a puppy (Example 52), and a tender little four-line, through-composed song about her kitten (Example 53) showed her still also working in the Personal mode.

Example 53: Christine (7:3)



My lit - tle bab - y kit - ten. Lit - tle kit - ten, I sleep on my  
 knee. My lit - tle kit - ten al - ways k' is hungry, and it  
 al - ways likes some - thing to eat.

Another new development occurred in February 1991, when Christine began to work on a new song to her own words, but now using a tune which did not make use of a known formula. She first produced the words, Example 54a (27-2-9, and then changed them to Example 54b.

Example 54: Christine (7:4)

- a) Little Polly had a dolly and she play, play, played with it.  
 She kept playing all the day until she...pulled its head off.
- b) Little Polly had a dolly and she play, play, played with it.  
 Its bed was by the fire and it..and the fire burned it to bits.

Christine's first version of a tune for these words showed her once again borrowing the familiar tune of "Twinkle twinkle" (Example 55).

Example 55: Christine (7:4)

Lit-tle Pol-ly had a dol-ly, and she play, play, played with it. Its  
*hesitates* *a tempo*  
 bed was by by the fire, And the fire burnt it to bits.

At this point, I judged it permissible to intervene. To see if she could, or wanted to, move away from Twinkle Twinkle, I said "How about starting this way?" and sang Example 56.

Example 56 (sung by C.V.D.)

Lit-tle Pol-ly had a dol-ly.

Christine adopted this as the starter for a new tune of her own (Example 57). It took some doing, she altered the words slightly for the new version and had great difficulty fixing the words for the last line. She seemed to know intuitively when the piece should end, but to be unable to arrange the details to fit the allotted time.

Example 57: Christine 7:4)

Lit-tle Pol-ly had a dol-ly, and she play, play, played with it. Its  
*hesitates*  
 bed was by the fire and it, the fire burnt, burnt it.

Eventually, to her evident satisfaction, she produced Example 58, discarding my opening; she could repeat this more or less the same and still recall it a week later.

Example 58: Christine (7:4)

Lit - tle Pol - ly had a dol - ly, And she played with it. Its  
bed was by the fire, and she burnt, burnt, burnt it.

That was on 27-2-91. On 20-3-91, Christine began working on another song in a similar way, repeating and refining it to make a piece with which she was satisfied and which she could repeat. I include all her versions of this song, as it is interesting to see what features were there from the beginning, as her superordinate plan.

Example 59: Christine (7:5)

♩ = 116 (a)  
Cats, cats, ly - ing on mats, cats, cats,, jump - ing all o - ver,  
5  
cats cats, run - ning all a - round, cats, cats, jump - ing up and down.  
hesitates 10  
Cats, cats, ru' - run - ning all a round, cats, cats,  
(b)  
jump - ing up and down. Cats are ev' - ry where.

Her first version (Example 59) has two ideas, bars 1-2 (a) repeated to various words and with a variation in bars 3-4, plus (b), a new figure at the cadence. In Example 60, she extends this, adding more words to more repetitions of (a) at two pitch levels. She has lost the variant of (a) in bars 3-4, but keeps the idea of change at the cadence, though this now uses a different melodic pattern (the structural feature of repetition and contrast seems more important than the melodic detail).

Example 60: Christine (7:5)

♩ = 104

Cats, cats, ly- ing on the mats. Cats, cats, run-ning all a- round.

5 *hesitates*

Cats, cats, (cats,) jump- ing up and down. Cats, cats, run- ning all a round.

10

Cats, cats, jump- ing up and down. Cats, cats, play- ing a - round.

15

Cats, cats, catch- ing lit- tle mice. Cats, cats, play- ing all the time.

*hesitates a tempo* 20

Cats, cats, (I wish,-) Cats, cats, ly - ing on the mats, drink- ing some nice milk.

In contrast to Example 60, Example 61 shortens the song; there is again a new cadence figure.

Example 61: Christine (7:5)

$\text{♩} = 108$

Cats, cats, ly-ing on mats. Dogs, dogs, catch-ing lit-tle frogs.

Cats and puppies play-ing all day. I like play-ing with them to-day.

Example 62 keeps the swings of (a) between the two pitch levels, but has no cadence; at this point, she paused and looked dissatisfied with her song.

Example 62: Christine (7:5)

$\text{♩} = 112$

Cats, cats, ly-ing on mats. Dogs, dogs, catch-ing lit-tle frogs. *hesitates*

I like play-ing with cats. I like play-ing with dogs. *a tempo*

Dogs, dogs, catch-ing lit-tle frogs. Cats, cats, ly-ing on mats.... *10*

Christine then went away and rehearsed by herself, coming back with Example 63, with which she was clearly delighted; she had "fixed" it. The features which were there from the beginning - a figure repeated at two different pitches and a change of some kind for the end - had persisted through all her sketches (as her superordinate form) and were now under her control. She could repeat her song more or less exactly, and expressed her satisfaction at this. This was Christine's

final song for me. She was now able to work on her initial ideas, trying out alternative ways of proceeding.

Example 63: Christine (7:5)

♩ = 108

Cats, cats, ly - ing on mats. Dogs, dogs, catch - ing lit - tle frogs.

5

They are my friends. I like play - ing with them.

10

And this is the end of my song!

From this study, we see that the two songs which I have presented as Examples 1 and 2 in chapter 1 were not isolated examples, but that Christine produced other examples of musical thinking, using many of the processes identified in chapter 2; and though not always successful in making coherent pieces, she seemed to have an implicit or subconscious grasp of musical form.

As we saw in chapter 4, most children seem to acquire standard songs in the order: words/rhythm/phrase boundaries, with melodic contour (wholeness), followed by melodic intervals. Christine could already sing standard songs in tune when I first met her. It seemed as if she was following the same sequence in her invented songs with words, but later, and occasionally appearing to regress in producing a chant with a rudimentary melody.

In terms of the processes of musical thinking identified in chapter 2, Christine can produce good initial ideas and add to these in coherent phrases; she uses repetition (immediate and delayed, more or less exact, and modified, for example in sequence); she can indicate closure, using a characteristic falling cadence with or without repeated low notes in her less tonal melodies, but also beginning to

use conventional tonal cadences. She is not just chaining events together; there are elements of progression and recession and sometimes, at least, she organises these to make a musical whole which does seem to have an overall goal.

If the descending minor 3rd is indeed a primary interval, as many researchers believe, we may say that Christine, though no longer confined to simple intervals, is still working on the fundamental character of the falling 3rd, which is progression and recession; the intake of breath and initial attack being progressive, but relaxing immediately onto the lower note. Many of her melodies have a predominantly falling character. But she has also developed the initial intake of breath and attack into rising, aspiring openings, both to individual phrases and to whole songs, and has a characteristic pattern of overall rise and fall in pitch. This is such a striking and persistent feature of many of Christine's songs over the whole period of my study that it does seem to point to the existence of a subconscious superordinate plan which provides her with a way of encapsulating time in music.

Abstraction is also a feature of Christine's work. We have seen her abstracting musical ideas from one part of a song and repeating them later on. We have also seen abstraction at work in the way she gets her ideas, taking familiar tunes to use with her own, or given, words, or incorporating bits of known tunes into her own melodies. Abstraction also provides her with an overall framework (the four-phrase pattern). The process of transformation is at work too, for she modifies the borrowed material to meet her own expressive and musical ends. Transformation may also be apparent in her treatment of musical ideas in a piece, as we saw in Example 1; and her organisation of musical materials seems to suggest a sense of hierarchic structuring.

But most of the songs presented here were not within Christine's conscious recall, nor could she talk about them in terms other than the verbal import in the case of the songs with words. The sense of music's wholeness in, for instance, Example 2, and the grasp of complex processes of musical thinking suggested by Example 1, appear to pre-date her capacity for operational thought in relation to

composing, for remembering and unpacking the musical events, and for conscious (verbal) pre-planning and control. The musical thinking seemed to be going on purely within the music.

When Christine first began to try to remember her songs, she showed characteristics associated with the move into the Vernacular mode. These include use of formulae (as in Examples 37, "Once I saw a roundabout" and 49 to 51, "Martin has a kitten"), and wholesale borrowing of familiar material (especially "Twinkle twinkle" in Example 48), along with some tongue-tied self-consciousness.

But "Little Polly" and "Cats, cats" suggest that the freshness and quality of personal expression of Examples 1 and 2 had not been lost. In terms of the sequence suggested by Swanwick and Tillman, Christine seemed to move between Mastery, Personal and Vernacular modes - or even to work in all three together. Her acquisition and use of the musical vernacular is, it seems, informed by the implicit understanding of musical wholeness and structural goals suggested by some of her earlier songs. Christine, at times, already appears to have the sense of what is appropriate which, as we have seen in chapter 2, Sloboda, Langer and Witkin, among others, have noted as being characteristic of mature composers (a superordinate, commanding or holding form).

## CHAPTER 9 - CASE STUDY II: MARY

In presenting this second case study, I am particularly concerned to see how Christine's work relates to that of another young composer. Does Mary, too, exhibit an intuitive grasp of musical form while still apparently working in the Personal and early Vernacular modes? Does she work in different modes at the same time? If she does have superordinate schemes, are these the same as Christine's? Are there differences of personal and cognitive style in the symbol use of the two young composers (cf. Gardner)?

Mary recorded sixty songs of her own invention (not counting second versions) between October 1989 and April 1991 (age 5:3 to 6:9). Most of these use words; in her first forty-five songs (covering a period of four terms) only six are to "lah" or nonsense syllables. Most of these "lah" songs are short and not very coherent, with the notable exception of Example 76. During my last few recording sessions, Mary sang more songs to "lah"; these were mostly versions of piano exercises which she was just beginning to learn at home.

Her first recorded pieces were not very well-articulated melodically, she recited them, using a low pitch. But she eventually found a much more fluent musical voice, producing attractive songs, some of which explored high pitch regions into which few other children ventured. Unusually for these children, Mary sometimes produced words which did not make sense, rather than (like Christine in, for instance, Example 30) interrupt her song to find the right words. Mary was also unusual in that she quite often used rhyme (see, for instance, Example 74).

For a long time, Mary showed no interest in remembering or repeating her pieces. When asked if she could repeat, on several occasions she said "No, I've just made it up" as if she had not realised that her spontaneous inventions could be recaptured. When she did eventually begin to try to repeat (e.g. Example 79), she at first proved unsuccessful. Her conscious attempt at a repeat had lost all the freshness and fluency of her intuitive expression.

There are, however, interesting examples of her reworking ideas into new songs, for example in her "Autumn" songs (Examples 80, 81 and 82), "Pinocchio" songs (Examples 85 to 94), and the remarkable pair of songs, Examples 98 and 99; and in my very last session with her, she began of her own accord to try to remember her "Teddy Bears" song to teach to a friend (Examples 101 to 103).

We have already seen Christine drawing upon familiar musical material ("Once there was a house in the wood") for her first two pieces. Mary seemed very dependent upon other's songs to produce her own, borrowing from other children's inventions as well as from standard pieces. But, as we shall see, she absorbed and transformed the pre-existent material, synthesising it into her own very personal, expressive music; and some of the songs presented here provide intriguing glimpses of this process in action.

I include twenty-nine of Mary's songs here (not counting the second attempts). From this detailed description of her work over eighteen months we can identify trends and characteristic features; it illustrates that she worked in ways which made musical sense, and, like Christine, used complex musical structures before she could consciously control or recall her compositions. I have excluded the short fragments to "lah" which she sang at my request or in which she was singing piano exercises, but these are referred to as appropriate.

We saw that Christine's first two songs (Examples 26 and 27) drew upon the standard song "Once there was a house in the wood" (Example 28). Mary seems to have been influenced by the same piece, for of her first nine songs, five begin "Once there was a -". (Example 28 was the song which these children sang to me on my first visit to their school; this seems to have been a significant influence on their idea of what I meant by "song").

Example 64 (30-10-89), like Christine's first song (Example 26), borrows the opening melodic contour of the standard song (Example 28) using smaller intervals, and continues in sequence for phrase 2. Then Mary departs from the model in phrase 3 (as Christine did); she seems to be hesitating over the words at this point, but finishes fluently.

Christine, in Example 26, extracted the essence of the form of Example 28 (four-line verse, sequence in line 2), to tell her own story. Mary has some elements of the form, but she has also paraphrased the story. Perhaps the process of abstracting and paraphrasing are similar in words and music.

Example 64: Mary (5:3)

$\text{♩} = 100$

Once there was a rab - bit in a wood, and once there was a house. He,

5

rab - bit, and the bun - ny, he ran to the tree an' knocked on the door, an' he

10

ran in - to the house and stayed.

In Example 65 (13-11-89), Mary draws upon words from The Three Billy Goats Gruff ("trip trap along the road"). She also borrows words from a song by Ria, which began

Once there was a dragon, he was very big.  
He had very big feet and he loved to eat deer.

Example 65: Mary (5:3)

$\text{♩} = 76$

Once there was a drag - on. It had ve - ry, ve - ry

big feet. It trip trap a - long the road. Bang, bang, bang!

There is not much melodic organisation here, though the opening begins with a rising interval and the end falls, a pattern which we have already noted as characteristic of Christine's songs. This piece, also like many of Christine's, has a four-line verse, suggesting that Mary, too, has abstracted an overall framework for a song from her repertoire of learnt songs.

So does Example 66, which Mary sang on the same day. Though she said this was her own piece, it is a version of a standard song ("There's a fairy on the top of the Christmas tree"), which several of the children had learnt from tapes at home. It seems that Mary does not yet distinguish between pre-existent and invented pieces. She seems to have a confused idea of what the words to the middle phrases are. It is interesting to see that she has shortened the standard song very considerably, filtering it through her own scheme of a four-line song, and paraphrasing the words.

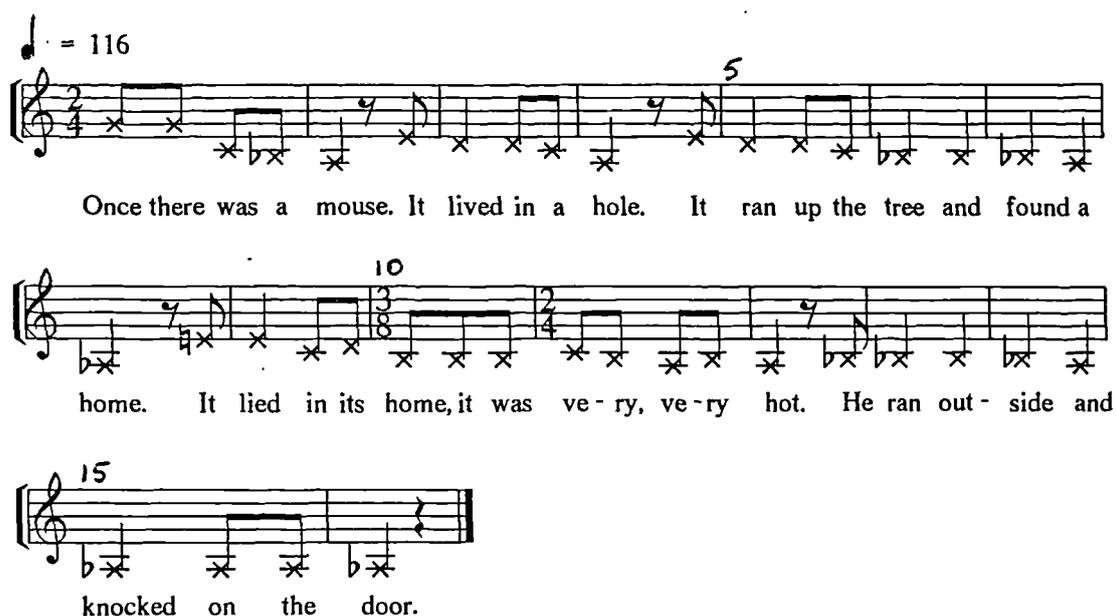
Example 66: Mary (5:3)

Example 66 consists of two staves of musical notation in a single system. The first staff begins with a treble clef, a key signature of one flat (B-flat), and a tempo marking of a quarter note equal to 120. The melody is written on a five-line staff with various note values and rests. Below the staff, the lyrics are: "Here on top of the Christ-mas tree, here in the as ack-er-ly (*sic*)". The second staff continues the melody, with a tempo marking of "hesitates" above the first few notes and "a tempo" above the latter part. The lyrics for the second staff are: "No- one says an ot- ton, as, on top of the Christ-mas tree. (*sic*)".

In the next two sessions (20-11-89 and 27-11-89) Mary sang three more songs (Examples 67, 68 and 69) which echo the opening words of Example 28; but the influence of the standard song is limited to the words now. Her earlier paraphrase of the words of Example 28 (at Example 64) suggested that the significant feature for her was the rabbit, or small creature, who needs a home. This is the focus of her attention in Examples 67, 68 and 69.

Example 67: Mary (5:3)

♩ = 116



Once there was a mouse. It lived in a hole. It ran up the tree and found a home. It lied in its home, it was ve-ry, ve-ry hot. He ran out-side and knocked on the door.

Although Example 67 (20-11-89) has only a rudimentary melody, it shows her exploring aspects of musical form. She uses a basic four-line pattern (as she did in Examples 65 and 66), but the song also falls into two subsections, with new material introduced at bar 9. These subsections each end with low melody notes (7-8 and 12-16), which we have seen as a characteristic ending in some of Christine's songs, and in early traditional music. This, and the fact that all the phrases tail off, as if tied to the lowest note, may only mean that Mary cannot get her phrases off the ground; but it also suggests that she is learning that phrases have punctuation, and that some punctuation points (in this case her two cadences) are more important than others, as well as exploring ways of effecting such punctuation.

The descending melodic contour within phrases, such as we see in Example 67 (and in Example 65), has already been noted as characteristic of some traditional melodies (cf. "tumbling strains" described by Sachs, 1962, and descriptions of children's earliest melodic contours by, e.g., Werner and Davidson). Mary, like Christine, can sing standard songs, with all the variety of pitch contours, fairly accurately, but shows signs of regressing to the more primitive descending contour in her early invented songs. As

noted in chapter 8, Christine's contours (especially her opening phrases) tended to rise before falling; in Example 66, Mary's phrases fall straight away, as if the beginning is itself the progressive element and all falls from there (as I have suggested, in chapter 8, is the case with the descending minor 3rd, progression and recession in its simplest form).

Examples 68 (20-11-89) and 69 (27-11-89) seem to be working similar rhythmic ideas, though separated by a week. There are two phrases with clear cadences (marked by a rest or longer note) followed by a third phrase with a new idea (♩♩♩) which continues straight on into phrase 4 (shortened in Example 68, the expected length in Example 69).

Example 68: Mary (5:3)

♩ = 116

Once there was a cat. It lived right in a hole. It

ran up the tree, and down the tree, and up the hole

Example 69: Mary (5:4)

♩ = 92

Once there was a rabbit. It went a-round and round. It

went up a tree and down a tree, and round and round and round.

So, like Christine, Mary seems to have abstracted the idea of a four-line verse from the songs she has heard, and to be using it as her formal framework. She introduces something new into line 3 (around the Golden Section), as we saw in some of Christine's songs. This is also the case in Example 70 (20-11-89). In this, Mary is beginning to use her singing voice more, and Example 70 has more melodic organisation, including a modified inversion of the first phrase in phrase 3; the last line is hesitant and falls to the cadence.

Example 70: Mary (5:3)

$\text{♩} = 144$

I love to see my Christ-mas tree, it's small and lit-tle and

nicc. I love to see, 'cos it love when it barn, I  
(sic)

(hesitates)  
love to see with my, with my Mam.

In these early songs we can see Mary borrowing ideas, both words and music, and organising them into her own songs, still in a fairly rudimentary way, but with evidence of musical thought processes. Beginnings are sometimes marked with rising (progressive) intervals; ends may be marked by falling recessive motion and repeated notes; phrase divisions are clear and the four-phrase framework is used in seven of the nine songs. There are some elements of progression and recession in addition to the rise-fall pattern of the beginnings and ends, for instance change of pace in phrase 3 of Examples 67 and 68, inversion in phrase 3 of Example 69.

But her songs so far had been short and not very fluent melodically. Though she was very willing to sing, she seemed fairly inarticulate

and inhibited in the actual music she produced, as if she had already begun to experience the restrictions of the musical vernacular. So I was surprised when on my next visit (29-1-90) Mary produced Example 71, an elaborate, through-composed story-song. At the end I asked her if she could remember any of it; but she declined to try, saying "I made it up, so I can't remember it". It seemed that this was a piece of spontaneous personal expression like similar examples among Christine's early songs.

Example 71: Mary (5:6)

$\text{♩} = 138$  (*very variable*)

1 I love my snow-man, but I love him now. I loved him when I

2 put my scarf on, when I put it on him. I put it on him,

3 right now, then I done noth-ing, n'then I done, 'n then I

4 looked at my snow-man, care-ful-ly. Then I gone in the house to

5 *slower* go up-stairs, and I got my scarf off, and my hat. and I

6 *Slower* loved it, so much. So I gone out and put his hat on.

7 *a tempo* Then I gone in-side. I have a' ap-ple for my tea, and

(Example 71 continued)

9 then I went out - side. I loved it, so much, for my spec - ial  
way. Then I got home, to my Mam - my. So I loved it, and  
*quicker*  
10 then I gone a - way, gone a - way, gone a - way, gone a - way.

Though the story seems to be her conscious focus in Example 71, Mary works musically too. She has a rising, progressive opening phrase ("I love my snowman") which is answered ("But I love him now"), then repeated in expanded form ("I loved him when I put my scarf on..."). There is sequence-like repetition ("I put it on him, right now" repeated for "then I done nothing, then I done").

The next phrase ("Then I looked") begins as if to continue the sequential progression, but this is interrupted. The next sequential phrase (at "I loved it so much for my special way" etc.) borrows a fragment of melody from Example 28. The words and rhythm of the phrase "I loved it", stave 6, are repeated at stave 8.

This long story-song is not successful as a whole. But the beginning and end are clear, and in between we can see some of the processes which, following Serafine and Sloboda, I take to be processes in musical thought.

Mary abstracts earlier material and repeats it later ("I loved it"), which is a way in which musicians create unity in variety and scan

across time past, present and future. It is intriguing that she can recall and repeat material in this way, even though she cannot retrieve her song once it is finished. The musical thinking is proceeding entirely within the song, but it is proceeding according to musical logic, as well as telling a story.

In Example 72 (19-2-90) Mary seemed to have returned to the theme of her opening songs, a small animal lost, finding its mummy.

Example 72: Mary (5:6)

There was a lit - tle kit - ten, She was lost one day. She  
 loved her head, and she loved her scarf, and she and she was  
 freez - ing and cold one day. And she wrig - gled up a tree, and  
 said to the birds, "Hel - lo". And she gone back down and  
 then she found her Mum - my.

The opening is reminiscent of "There was a princess", which the children had learnt (and which was borrowed by Helen, see Example 227). Like Example 67, this song is in two sections. It could end at bar 8 ("one day"), where she has a low note repeated for the cadence. But the story is not yet resolved and she has more musical working out to do. The fifth phrase ("And she wriggled up the tree") modifies



link in the words. Mary is now producing shapely phrases; and she is exploring musical ideas and how they are chained in succession. The ascent through a 7th in the penultimate phrase functions as the climax of this piece, though the A at the top has been anticipated in bar 5. This late climax with a short recession to the end may be significant in view of what she does along these lines in later songs (see, for instance, Examples 81 and 82).

We have seen Mary, like Christine, using a four-line verse for many of her early songs. She also produced the long narrative song (Example 71). Next, (Example 74, 12-3-90) she sang another long song to her own words. This suggests the Vernacular mode with its organisation into regular phrases and patterns of repetition. She used rhyme, even though it meant that the words did not make sense ("so and fate"). Though there is much repetition of musical material, Mary modifies the repetitions and makes a song with two "verses" (using similar but modified material) and a coda, as the following description shows.

Verse 1 = bars 1 to 16, verse 2 = bars 17 to 32, coda = bars 32 to 40. Bars 1 to 4 are repeated in sequence at 5 to 8; within each of these there is a subdivision which also involves sequential repetition, so the effect is of four phrases in rising, progressive sequence, each spanning the interval of a 3rd. This is balanced (9-16) by a falling 3rd figure, repeated, then repeated again and extended down to C and a repeated note cadence. The piece could have ended here quite satisfactorily. There is progression to bar 8; bar 9 begins the recession, rather too soon but this is arrested somewhat by the the repetition at 11-12, before the final descent to the cadence. The pattern of rise-fall echoes many of Christine's pieces.

But Mary continues after the cadence; her idea of a song is now much longer than the simple four-line verses which she used earlier.

Verse 2 rearranges the opening sixteen bars. Bars 17-20 invert 1-4, which is effective in avoiding the stagnating effect of repeating the low C at this point. Bars 21-24 repeat 5-8. Bars 25-28 modify 9-12, maintaining the pitch on the repeated Gbs and saving the recessive fall to the end of the phrase; while bars 28-32, having arrived at

the repeated Cs early, continue on them to the cadence point, but with a change of phrase length, now two bar phrases separated by a rest.

The coda takes the rhythm and words from 29-30 and expands them into two sequences, each of two bars, again using falling 3rds, before the final phrase falls to the cadence.

Example 74: Mary (5:7)

$\text{♩} = 104$

(v.1) The daf-fo-dils are grow-ing, down un-der the ground. One went up and the oth-er one was bound. One came up and then there were two. Then an-oth-er one and three and two. Two lit-tle flow-ers were grow-ing in a line. Then it was nod-ding, one at a time. And then it was grow-ing by a gate, and then it grewed, (sic) so and fate. (Coda) And then it grewed, one, two, three, and then there were n'on-ly noth-ing or three.

Example 74, then, is another song in which Mary shows fluency in inventing material, together with implicit knowledge of how musical ideas might be used - sequences, inversion, endings of sections indicated by repeated notes, use of 3rd in different contexts, and variety of phrase lengths. There is also strong evidence of an emerging sense of tonality, and patterns of rising and falling pitch which give some sense of goal-directed movement.

Example 75 (18-6-90), especially the opening bars, provides further evidence of Mary's ability to create fluent and memorable melodic phrases using wide contour schemes. She does not manage the overall progression successfully; her first three phrases have rising openings but they each fall at the end (cf. Example 67). The fourth phrase is a modified sequence of phrase 3, and continues the overall fall in pitch.

Example 75: Mary (5:7)

$\text{♩} = 104$

I like flow - ers grow - ing in the ground. It comes up

in spring, when it's come to me. And then I go out - side and

have a pic - nic. And when I go back home, I al - ways get

ma-, made up songs. When I come to school in earl - y

morn - ing, I play with games with Mam.

There seems to be a separate section beginning at bar 17 (Example 75). We have seen what could be an emergent two-part structure in several of her songs (see Examples 67, 72 and 73) and a sectional approach to Example 74. It seems to indicate a readiness to move beyond the short four-line verses of her earliest pieces, even though she cannot yet work successfully on this longer time-scale.

Mary had not so far produced any complete pieces to "lah". I thought that perhaps it meant that she needed to use "real" words of her own invention in order to compose. But in Example 76 (25-6-90), she sang a fluent melody to "lah", using high notes not often visited by the other children at that stage (she was still only 5:11). She performed her own mixture of claps and knee-slaps with me, in three time, while she sang in 6/8 time; she was not disturbed by the cross rhythm this produced. (We had begun the session with the children showing me some of their playground clapping games, in pairs, and I suggested that they might like to make songs to accompany these games. It may be that the movement activity released this spontaneous piece of music-making for Mary.)

Example 76: Mary (5:8)

♩. = 118

(to Lah)

Example 76 is a complex piece of music, in which Mary creates unity in apparent diversity, chaining together ideas and showing new aspects of them through their relation with each other. As it is her first fully articulated piece without words, in which we may assume

she is working with purely musical ideas, it is illuminating to include a detailed analysis, here.

Part I:

Bars 1 to 2:1 = (a)

Bars 2:2 to 4:1 = (b), begins like a sequence of (a), but extends into something new

Bars 4:2 to 8:1 = (c). This seems new, but is a modification of (a) in that it begins with an inversion of the first three notes of (a) - the outline not the actual notes - and has (a)'s falling 3rd in augmented note values at the end

Part II:

Bars 8:2 to 10:1 = (d), begins like a modified repeat of (a), but introduces a new idea (notes repeated then a rise) in bar 9

Bars 10:2 to 12:1 = (e), is new but has rhythm of (b)

Bars 12:2 to 16 = (f) which seems new, but may be seen as an inversion of (d), with the extra turn back at the cadence.

There is successful progression and recession in the rise and fall within each of the two parts; as with many of Mary's (and Christine's) songs, this is effected in terms of pitch. The piece has an early high peak (at 4) and lacks a later climax. But within the first section, the Golden Section is bar 4:2, ie. top F, which is a significant point. The Golden Section of the second part of the piece occurs at bar 12, where there is a rest on the strong beat. This is where a significant climax could have occurred for the whole piece, if, for example, she had leapt up to an even higher note than F instead of having the rest. It is perhaps significant that she does have a strong beat rest here, rhythmically marking the point in time where the overall climax might be.

In the same session (ie. 25-6-90) Mary sang several songs "about a garden" (I include two of them, Examples 77 and 78).

Example 77: Mary (5:8)

The musical score consists of five staves of music in treble clef, 6/8 time. The tempo is marked as quarter note = 76. The lyrics are: "We were in the gar-den, nice-ly, soft, when we saw a lamb. (The) And we saw a cat, too, but the cat was too scared. He went a-way to get some food, and then the dog came a- long. And then the mouse came run-ning a-long, and then the dog ate the mouse, and the cat!". Performance markings include "5" above the second staff, "10" above the third staff, "hesitates" above the third staff, and "a tempo" above the fourth staff. The score ends with a double bar line on the fifth staff.

We were in the gar - den, nice - ly, soft, when we saw a lamb. (The)

And we saw a cat, too, but the cat was too scared. He

went a - way to get some food, and then the dog came a -

long. And then the mouse came run - ning a - long, and

then the dog ate the mouse, and the cat!

Example 77 tells a story, but Mary seems to have right and left brain hemispheres working quite well together here, for the music is coherent as well as the words. She sings a series of pairs of phrases, one higher, one lower each time, which reach a climax in 12-14 with the rise through an octave to the highest note of the piece, D. After this, the melody immediately begins to fall again, this time to the end, which she signals with repeated notes, as she had done in some of her earlier songs (see Example 67). So there is some progression and recession, though the climax is rather late in the piece.

We have already seen an example of a late climax (Example 73); in view of the way she uses this also in her later songs (such as Examples 82 and 83), this may have significance as one of Mary's developing superordinate forms.

We have also seen a rudimentary two-part form in some of Mary's songs, for instance, Examples 67, 72, 73 and 75. In Example 77 she again has two sections (1-8 and 8-17), each of four short phrases, so the four-line verse form of her earliest songs is now being used as the basis for an expanded structure.

Mary uses this pattern, of two sets of four phrases, again in Example 78 (25-6-90), which is a successful piece of musical organisation.

Example 78: Mary (5:8)

♩ = 112

I saw a nice lit-tle gar-den, and there's flow-ers grown on

5

it. And I picked the flowers for mum-my, and she li-eeked (*sic*)

10

them. And I liked them, so much, that she

*quicker*

could-n't be-lieve her eyes. But she loved it, she

15

cud-dled me, and she kissed me like my side.

Bars 4-8 (of Example 78) echo the outline of 1-4; it is as if 4-8 are a second, more tonal version of 1-4.

Bars 8-10 introduce a new phrase rhythm, (two one-bar units with effective use of rests) for "I like them..so much". This change, which is a significant feature of the piece, occurs at the Golden Section (cf. Examples 68 and 69, in which there was a change of rhythmic movement in line 3). The new pattern seems to be a significant feature for her, as she repeats the rhythm to similar words ("But she loved it, she cuddled me") at bars 12-13, now with an inversion of the 3rd. This produces a rise which she continues into the next bar before falling to the cadence.

It is, I think, not too fanciful to see in this late rise and short recession confirmation that this is becoming an important structural feature for her, as it also occurred in Examples 73 and 77 and will appear even more strikingly in Examples 80 and 81.

There had been clear signs of development over this first year; in length, fluency, tonality, good ideas, phrase divisions, and the structural features such as repetition, sequence, modification, inversion, varying phrase lengths, marking cadences. Some of her songs showed satisfactory progression and recession, organisation of time over the whole piece. Mary shared some things in common with Christine (e.g. four-line verse, pattern of rising/falling pitch); but in some aspects she proceeded differently. For example a) she seemed to be exploring two-part pieces and b) there are examples of a late climax followed by a short recession, which suggest that this is a characteristic way for Mary to organise musical time.

When we next met, on 17-10-90, Mary produced Example 79a.

Progression and recession are effected in terms of rising and falling pitch. Each of the first three phrases opens with a rising figure. Phrases 1 and 3 have neutral endings, while phrase 2 (which is the most progressive, continuing the rise into its second part) marks the interim cadence by a wide descent. Phrase 3 seems rather tautologous after this, but the impetus is partly maintained by the increasing tempo.

In phrase 4, Mary effectively interrupts the rise/fall pattern, so that bars 13-14 descend through an 8ve (recessive); and the descent

is continued into bars 15-16, so that the ending, though it briefly rises, uses a low register not previously visited and is recessive. So Mary shows here an implicit grasp of the overall progression and recession of coherent musical form.

Example 79a: Mary (6:2)

♩ = 84 (quickenning)

There once was a cat, who lived in a den. He

5 saw his moth-er, and crawled down the stairs. He

10 crawled in-to his bed, and snug-gled up to,

15 Then he went to sleep, Moth-er and him, too.

Example 79b: Mary (6:2)

♩ = 84

There once was a cat. He was com-ing down the

stairs. He went in-to his bed. And when, I goed *hesitates* *(sic)*

up to there, my moth-er said, too.

I asked Mary if she could repeat her song. As usual, she was reluctant to do so, but this time she did try, producing Example 79b. It is interesting to see both how little she can reproduce of a song which sounded so confident and fluent, and what she does retain. The words and the initial interval of the opening remain intact. Some of the rest of the words are still remembered, the gist of the story is there; but the quality of the musical ideas and the confident sense of direction in the first version have been lost. This seems to suggest that the first, successful version was produced spontaneously, not as the result of conscious planning or analytical reflection. As I suggested was the case with Christine, Mary's musical thinking seems to be going on within the act of music itself.

The rise-fall pattern of the first three pairs of phrases in Example 79a is still apparent in the more basic phrases of example 79b; and the contrasting falling contour of the original phrase 7 is also retained and even repeated as she seems to grope for a satisfactory end. The progressive-recessive elements seem to be an important part of her idea of this song. It seems to be significant that she retains her final word "too", even though in this context it makes no sense. She seems to have an idea of her beginning and end, of the outer framework, which perhaps is more important to her than the details or actual meaning of the words (cf. song frame which children acquire before they grasp the details when learning to sing standard songs).

The next three songs, "about Autumn", form a remarkable sequence, all produced in the same session (31-10-90). Mary accompanied them with actions, indicating the falling leaves. In these three songs, each different in surface features, a superordinate form which we have seen emerging in several of Mary's songs already - namely, rising progression to a late climax followed by a short falling recession - finds rich expression.

Like other songs already considered, Example 80 is in two halves, bars 1-8 and 9-16. The second section has some echoes of the first, bars 3-4 being echoed in 11-12, 5-6 in 13-14. Mary effectively varies her cadences to give a rising, expectant end to the first half ("colours") and a fall to the final note.

Example 80: Mary (6:3)

$\text{♩} = 76$

Aut - umn leaves are go - ing down, fall from the tree.

All the leaves are fall - ing down, and com - ing diff' - rent

col - ours. Some are yel - low and some are blue, (um) some are green.

*senza misura*

*a tempo*

Some are yel - low and brown. All them diff' - rent

col - oured leaves, when they fall down.

I asked her if she could repeat her song, whereupon she sang Example 81. Unlike her attempt at a repeat of Example 79a, this is a successful song, though it is a reworking of some of the ideas of her first Autumn piece, not a repeat. The words are virtually new, though the "story" is still the same. This time, Mary does not stop to correct the "wrong" colours; she sings "one is purple and one is blue", whereas in Example 80 she had been distracted by singing "some are blue". The music now seems to have taken over (right brain hemisphere in control?) Though the words are changed, some of the tune is retained. As with Christine's two versions of songs (Examples 26 and 27), it is illuminating to see what she retains of the music, and to try to deduce from this what her superordinate form may be.

Example 81: Mary (6:3)

Leaves are fall - ing off the tree, turn - ing col - ours and blue.

When they coming down the tree, diff' - rent col - ours as well.

One is purple and one is blue and one is green, and one is brown and one is yellow, when they're fall - ing down the tree.

Bars 1-2 retain most of the original, but with a narrower range  
 Bars 3-4 retain the outline of the original  
 Bars 5-6 begin similar to Example 80 bars 5-6, but invert the last part. This seems to be important, because  
 Bars 7-8, which are new, continue the ascent begun in bar 6, thus expanding and reinforcing the expectant rise which we saw at the end of the first half of Example 80 (bar 8 - "colours").  
 Bars 9-13 are new, four one-bar units, more or less repeated, and continuing on to a quite remarkable climax, *molto ritenuto*, on repeated high E's, followed by a pause. It is as if the germ of an idea suggested by the original rising cadence (Example 80, bar 8) has crystallized and provided the impetus for this much more effective development in Example 81.  
 Bars 14-17 keep the more expansive rhythm, and fall to the cadence.

This second section of Example 81, then, is quite different from that of Example 80, and provides a much more striking climax. It is too late to be the Golden Section (which would be bar 10, where the

repeats begin). But it is nonetheless effective, a strong climax prepared over several bars which then recedes quickly to the end; the late climax being a feature which we have seen her using in, for instance, Examples 73, 77 and 78.

Later, Mary volunteered a third Autumn song (Example 82) without any prompting from me. Again she did actions, for the falling leaves and growing roots. There is a lovely freshness and spontaneity about these Autumn songs.

Example 82 has four pairs of balanced phrases, the first one of each pair rising, the second one with a falling tendency, (a phrase shape we have seen in many of Mary's and Christine's songs, cf. particularly Mary's Example 77). Each of the rising phrases, though starting out at roughly the same pitch, ends on a progressively higher note, and the answering fall stays in the higher part of the new register, so there is overall progression till the last rising phrase climaxes on high D, with a pause, before a short recession to the end.

Example 82: Mary (6:3)

Autumn fall - ing down the trees, leaves are fall - ing down.

Trees are grow - ing roots up high, round, round the ground.

Flow - ers pop - ping up from the ground, and on the floor.

When you see them, grow - ing bright, you pick them off the floor.

So, though repetitive, Example 82 is musically successful; Mary modifies the repetitions building up all the time to the climax, and then recedes briefly to the end. The late climax with a pause on the highest note and the repetitions leading up to it which emerged so strikingly in Example 81, are retained as the major structural feature of this new piece.

Example 83 (7-11-90) was also accompanied by actions, and again Mary seemed to be working on a pattern of rising-falling contours leading up to a high climax.

Example 83: Mary (6:3)

The musical score is written in 4/4 time with a tempo of quarter note = 126. It consists of seven staves of music. The lyrics are: "Flow-ers, flow - ers, grown up. They'll get some wat - er to make them grow. They grow, and grow, up in the sun - shine. When it shines a - bove the world, round, so round the world you find some flow - ers, bright - ly in the sun - shine, comes to see the world from here, round the sky." Performance markings include "quicker" above the 10th measure and "slower" above the 15th measure. Measure numbers 5, 10, 15, and 20 are indicated above the staff lines.

Flow-ers, flow - ers, grown up. They'll get some wat - er  
to make them grow. They grow, and grow, up  
in the sun - shine. When it shines a - bove the world,  
round, so round the world you find some flow - ers,  
bright - ly in the sun - shine, comes to see the world from here,  
round the sky.

Bars 1-4 (of Example 83), beginning with a rising sequence, are answered (4-7) by a falling phrase which also has a sequential element. Bars 7-11 cover a similar pitch range to 1-4, but the details are different. Bars 10-11 "up in the sunshine" elaborate upon the C# B of "grown up" from 3-4, but now bars 12-13 continue with new material, rising to the climax on high F.

So again, Mary seems to be working on a pattern of rising-falling contours working up to a high climax. This time, the recession is more prolonged. At bar 14, "round", she seems to be groping for words; she hesitates then "corrects" it into "so round the world" etc. But the musical sense is not impaired. Bars 14-17 ("So round the world you find some flowers, bright") continue the recessive fall as a modified sequence of bars 12-14. "Bright" turns out to be, not the end of this phrase but the beginning of the next phrase, "brightly in the sunshine".

There is a suggestion that her idea of the tune is in control here, the words are being made to fit into this (right hemisphere in charge). This song is a successful musical whole, in spite of hesitations and irregularities of bars; and the main climax ("above the world", bar 12-13) occurs at the Golden Section.

Examples 84 to 94 (all on 21-11-90) form an interesting sequence. We have already seen Christine and Mary borrowing unconsciously from familiar songs and transforming the borrowed material to produce their own pieces. Mary's "Pinocchio" songs provide further illustration of the way she borrowed material (words, ideas and music), played with them and synthesised them to make her own expressive form.

This also appears to be one of her earliest attempts to "fix" a song, to make one that she could remember and repeat. But this was in response to my prompting; it was not until later (July 1991) that she began to work on a composition of her own accord, to "fix" it and remember it. So her Pinocchio songs kept changing, as she could not recall them exactly. Each one seems to spring complete from her subconscious and to be unavailable for her conscious retrieval; and

her comments showed that she was not really concerned to produce exact repetitions at this stage.

The songs were produced during a session in which I had suggested we should make a class song about Pinocchio (their choice of topic). We had made several class songs already, in previous sessions, in which individual children volunteered separate lines which the rest of us copied until we had a complete song. So they were used to this way of working.

But today, children seemed more concerned to sing their own complete songs, though each began with the same opening phrase. This was introduced by Angela (Example 85a), using a subconscious echo of "Poor Fairy Doll" (which I have included as Example 84), a standard song which the children had sung at the beginning of the session. Angela's opening phrase was then extended by Rebecca (Example 85b) continuing the tune of "Poor Fairy Doll".

Example 84 (standard song)



Poor fair - y doll, you're lost and a - lone. We won - der where  
you can be. We want you to know we miss you so, on the  
top of the Christ - mas tree.

Example 85a: Angela (not on tape)



Pin - no - cchi - o

Example 85b: Rebecca (not on tape)



Pin - no - cchi - o was a naught-y boy...

Example 86 is Mary's first attempt to make a second line as continuation to Example 85b (which I sang with her each time).

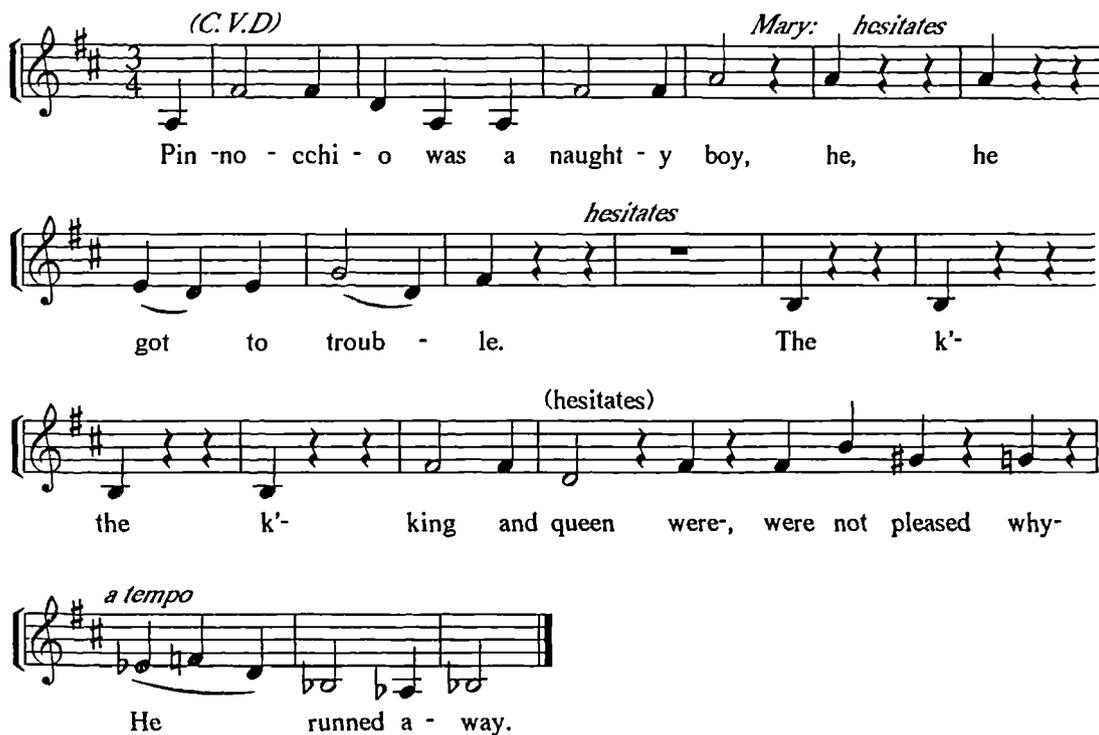
Example 86: Mary (6:4) not on tape



He al- ways got in- to both-er....

When I asked Mary if she could sing her song again, she responded, "Or shall I change it a little bit?" (not sharing my concern for a repeated song) and produced Example 87, completing the "given" opening with a new four-line verse. This is closely modelled on Example 84, "Poor Fairy Doll", until the last line. It is much more hesitant than Mary's songs usually are, presumably because of the nature of the task, and she could not repeat it.

Example 87: Mary (6:4)



*(C.V.D)* *Mary: hesitates*  
Pin-no - cchi - o was a naught - y boy, he, he

*hesitates*  
got to troub - le. The k'-

*(hesitates)*  
the k'- king and queen were, were not pleased why-

*a tempo*  
He runned a - way.

Other children wanted to sing and to suggest words, so we produced Example 88 together, first getting suggestions for three lines of spoken words to follow the opening line, then a complete tune, sung by Anne-Marie. Anne-Marie's tune is primitive, using a narrow melodic range, much repetition of the falling three-note figure and a repeated note cadence.

Example 88: (class words, Anne-Marie's tune)

Pin - no - cchi - o was a naught-y boy, he al-ways got in- to  
trou- le. He didn't do as his fath- er said, his  
nose grew long, grew long.

At this point, Mary had another try, producing Example 89, using the same words and strongly influenced by Anne-Marie's tune.

Example 89: Mary (6:4)

Pin - no - cchi - o was a naught - y boy. He al - ways got  
in - to trou- b - le. He didn't do what his fath - er  
said, and his nose grew long - er.

In Example 89, Mary, like Anne-Marie, makes much use of the descending 3rd, but has distinct changes at each of the two cadences, as if she has a more developed sense of structural markers.

Angela then sang Example 90, using the given opening and successfully completing it, using the tune of "Poor Fairy Doll" to her own words. She introduced new ideas into the words at "ran away and didn't come back for ever"; as we shall see, Mary picked up "for ever" and used it in her later song, Example 94.

Example 90: Angela

Pin - no - cchi - o was a naught - y boy, he did - n't do  
as his fath - er said. He ran a - way, and did - n't come  
back, and he did - n't come back for ev - er.

Mary had another go (Example 91). This time, she seemed to be exploring much more freely, varying the words (picking up "ran away" from Angela) and using the tune of "Poor Fairy Doll" more loosely. Her first two phrases use the last two phrases of the standard song, but she adds her own expectant rising 3rds at the cadence ("long time"). The rising 3rds are inverted and used in sequence for the next phrase, "then he found you easily". These modifications are particularly interesting as the resulting new figures recur later, in a different, but related, song (Example 94).

Example 91: Mary (6:4)

$\text{♩} = 69$

Pin - no - cchi - o, you ran in - to troub - le. You could - n't be  
 found for a long time. Then he found you eas - i -  
 ly, but he was - n't ver - y (C.V.D. But he wasn't furry?)  
 good, but he was - n't ver - y good. But he was - n't ver - y good.

There was a long hesitation after "very", and unfortunately I interrupted her, thinking she was finished, (and being very conscious of other children waiting their turn). I asked her if she would like to do it again, because I had spoilt it and she responded, "I can't remember it. Shall I just do a different...try and make it up?" This time she produced Example 92; her song was still not in her conscious grasp.

Example 92: Mary (6:4)

Pin - no - cchi - o al ways got in - to troub - le. He. he..

Then Alison sang her version (not included here), introducing another new idea into the words, namely the fairy who found Pinocchio. Several children then sang other songs at this point.

Later in the same session, Mary volunteered "another Pinocchio song" (Example 93). She borrowed ideas for words from Alison (she had already picked up words from Angela), and from the class words, but these were all now woven confidently into her own verse which exactly fits the "Poor Fairy Doll" tune and makes a coherent song.

Example 93: Mary (6:4)

Pin - no - cchi - o, you're ve - ry bad. Why did - n't you  
do what your fath - er said? A fair - y come and you  
broke your prom - ise. Oh! why did you run a - way?

Other children, as we have seen, also sang their own words to the tune of "Poor Fairy Doll". But, in Example 94 (21-11-90), Mary went further than that. Here we see her taking ideas from the previous songs but transforming them into her own very personal utterance. It is one of the longest of her songs, but she has the ability to scan back and forth over this long time span and to repeat material appropriately. She can repeat within a song, though she still cannot recall the whole song. [The repetitions are often approximate rather than exact, but since they make musical sense as repetitions it is tempting to think that she "means" them; though there is always some element of uncertainty about what such young singers mean.]

In Example 94, Mary seems to have moved a long way away from the tune of "Poor Fairy Doll" which had influenced her "Pinocchio" songs, though there are still echoes of it here. The process by which she takes familiar material, absorbs it into her general repertoire along with all her other ideas, and then draws upon this store of melody for her new songs is illustrated by the way in which, in Example 94, she uses ideas which had been introduced into one of her "Pinocchio"

songs (see Example 91; the figures are labelled in both pieces as (a), (b) and (c) respectively). Interestingly, Example 91 was the song in which she had been exploring new ideas, and I had interrupted her. It seems that, at some level, this exploration was purposeful and needed to be completed; and so the musical material resurfaced, and was completed here.

Example 94: Mary (6:4)

My friend had a dog. She died and she was ill. why  
 I loved her. I loved her so, I cried and  
 cried, and I cried near - ly for ev - er.  
 What did I see? Why did I see? Why did I (s') see her  
 die? Her name was called Bo - bo, she had the good, she  
 was a good girl. Oh! I loved her so, I  
 missed her so, and I, I cried for ev - er.

Handwritten annotations in the score include: *hesitates*, *(a)*, *(b)*, *B1*, *(c)*, *hesitates*, *a tempo*, *15*, *B2*, *20*, *A2*, *25*, *hesitates*, *30 a tempo*, *(slides up semitone)*, *B3*, *(c)*, *35*, *rall.*, *40*. The tempo marking is  $\text{♩} = 130$ .

The form of Example 94 is

**Verse 1:** A = 1-8.

B = 8-16.

**Interlude:** B2 = 17-23; a modified repeat of B to new words.

**Verse 2:** A2 = 23-32; repeats the essence of A, though with much  
modification.

B3 = 33-41; repeats B with modifications.

We have already seen Mary expanding upon the single four-line framework in her earlier songs. Many of them, for example, have two sections. Here, in Example 94, she exhibits a remarkable sureness in her ability to handle time in music over increasingly large spans. And if we disregard what appears to be a false start at 27-29, the Golden Section occurs at 24, i.e. the beginning of the "second verse" and the point at which she begins a new phase of the story.

During the Spring term, 1991, Mary continued to produce pieces of uninhibited personal expressiveness, such as Examples 95b (30-1-91), 96 (13-3-90), and 97a (13-3-90); these, like Christine's Example 52, are a reminder that these young singers are still, in many respects, at an early level of musical development.

Example 95b provides further illustration of the "pot-pourri", or centonation, approach to inventing a song, for in the second part Mary draws, still I think unconsciously, upon the nursery song "Five little speckled frogs" (included here as Example 95a); and the opening of this song may be an echo of "Somewhere over the rainbow", which was familiar to her.

Example 95a: "Five little speckled frogs" (standard)



Example 95b: Mary (6:6)

Musical score for 'Mary (6:6)'. The score is written on a single treble clef staff in 4/4 time, with a tempo marking of quarter note = 120. The key signature has one sharp (F#). The lyrics are: 'Flow - ers! flow - ers! Beaut - i - ful, beaut - i - ful flow - ers! They grow all o - ver the place, in - cept on the paths, and your (sic) gar - den. They do nor - mal - ly grow in your gar - den if you have some grass. Grass makes them grow ve - ry well. And - the mud grows m'more. But you have to wat - er them. They won't grow, if you don't wat - er them, they won't grow an - y more. But if you do wat - er them, they will turn in - to 'splay, but there'll be nice, nice, nice lit - tle flow - ers.' The score includes various musical notations such as slurs, accents, and a triplet of eighth notes. Performance directions include 'senza misura and quicker'.

♩ = 120

Flow - ers! flow - ers! Beaut - i - ful, beaut - i - ful flow - ers! They  
grow all o - ver the place, in - cept on the paths, and your  
*(sic)*  
gar - den. They do nor - mal - ly grow in your gar - den if you  
*senza misura and quicker*  
have some grass. Grass makes them grow ve - ry well. And -  
the mud grows m'more. But you have to wat - er them.  
They won't grow, if you don't wat - er them, they won't grow an - y  
more. But if you do wat - er them, they will  
turn in - to 'splay, but there'll be nice, nice, nice lit - tle flow - ers.

Example 96: Mary (6:7)



I went on the aer - o - plane. I loved it a lot. I goed on the  
(sic)



aer - o - plane and flied all the way to Dis - ney - land I liked it  
(sic)



there. I liked it there. I liked it there when I got there. It was



fun, it was fun, when I got there. But I jumped in the pool and



it was fun, an' I - jumped in the pool and it was fun, And I



jumped in the wat - er, and swimmied. And then, when I got out



it was freez - ing, freez - ing freez - ing cold. When I



got back out there, it was freez - ing and ve - ry, ve - ry



freez - ing it was!

Example 97a: Mary (6:7)

$\text{♩} = 160$  (variable)

(v.1) I went to Am-er-i-ca, I went to Am-er-i-ca,  
 I went to Am-er-i-ca, and played all day. (v.2) To Am-  
 er-i-ca, 'mer-i-ca, 'mer-i-ca. I went to Am-  
 er-i-ca and played all day. (v.3) I went to Am-er-i-ca,  
 'mer-i-ca, 'mer-i-ca, I went to Am-er-i-ca, and  
 played all day. I went in the swim-ming pool and jumped on the  
 float-er, I dived in the pool and I jumped, jump,  
 jumped. We had fun and did a vid-e-o cam'-ra.  
 and then, we all went home.

Many of the singers in Mary's class had used the formula, ab bb ab c-, which Christine had first introduced (cf. Examples 37 and 49). This was particularly useful when the singer wanted to remember and repeat the song, as Christine did. It is part of the swing from personal expressiveness to sharing in the common language of music (the Vernacular mode of Swanwick's and Tillman's spiral). Mary only once used this formula. When she did, in Example 97a, it was not, it seems, with any conscious idea of recalling the song; she used this pattern as she used other pre-existent material. (It might have come into her repertoire as an unconscious echo of "Peter plays with one hammer", which I include as Example 97b).

Example 97b: "Peter plays with one hammer" (standard)



In Example 97a, the melody of bars 23-31 echoes the middle of "Twinkle twinkle little star"; again, Mary is using the jigsaw approach of centonation to find her melodic material. The story line seems to be Mary's main focus of attention and to be what gives the song its meaning for her. Like so many of Mary's songs, this one falls into two sections, this time apparently unrelated except in so far as the second part continues the story. But, though the piece may be said to be repetitive and somewhat lacking in coherence, it is interesting to note that the point at which Mary apparently feels the need to introduce the new material after two (varied) repeats of the initial verse is at bars 24-5, and the Golden Section is at 26. Mary has shown an intuitive feeling for satisfying overall proportions in many of her pieces, which is now apparent even in such a long song as this (cf. Christine, Example 48).

Mary was absent for several weeks in this term, and on some of my visits did not want to make up a song. (As we saw in chapter 8, Christine went through a similar phase). But on other occasions, as Examples 95, 96 and 97 showed, she continued to express herself with the spontaneity of many of her earlier inventions, still apparently in the Personal, expressive mode. Though my visits to the school formally ended in April 1991, I was able to visit and record twice more, in July 1991. Mary was still not quite 7-years-old, but new developments seemed to be taking place.

She produced two more pieces in the personal, expressive vein (Examples 98b and 99), which seem to reveal new aspects of her intuitive musical understanding. We have seen her using a two-part structure in many of her songs, and a pattern of two verses plus coda in Example 74. Example 98b (9-7-91) falls into three parts. The first and third sections (marked A1 and A2) are the most clearly formed, and use similar material. There is a longer, more hesitant middle section (B), using new ideas.

Mary said Example 98b was "a different doggy song". The original in her mind was "How much is that doggy in the window?", of which she sang the opening line (see Example 98a); but there seems to be little influence of this on Example 98b, except the words "doggy" and "window".

Example 98a: "How much is that doggy in the window?" (standard)



How much is that dog - gy in the win - dow?

Example 99 (9-7-91) was presented as a new song. But detailed analysis of it shows that she is actually reworking the material of her "doggy song" (Example 98b) in a most interesting way, as can be seen from example 100, in which I have put the two songs alongside each other.

Example 98b: Mary (6:11)

$\text{♩} = 112$  (variable)  
(a)

**A1** I am a dog-gy, I am a dog-gy, sit-ting in the s'door-step,  
win-dow. Up in the sky, my rain-bow shines. Down be low, it's  
**B** Christ-mas. And up in the skies, the rain-drops fall down,  
to the rain-drops on the ground. Rain-drops, pud-dles,  
and sp', splash-es of wat-er are down the bot-tom.  
Up where the rain-bow high in the sky, I want to be like  
**A2** *a tempo* that. In the dog-gy, in the win-dow is  
fast a-sleep. Good dog-gy, good dog-gy it's  
good-night for you and me.



Example 100: comparison of Examples 98 and 99.

Ex. 99



**A** My rab-bit is fast a sleep on my

Ex. 98b



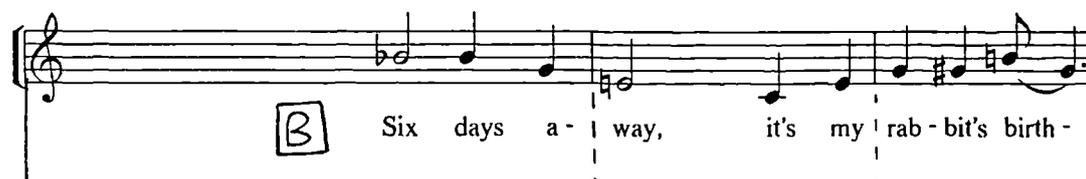
I am a dog-gy, I am a dog-gy, sit-ting in the s'door-step



pil-low. At night-time it goes out to play.



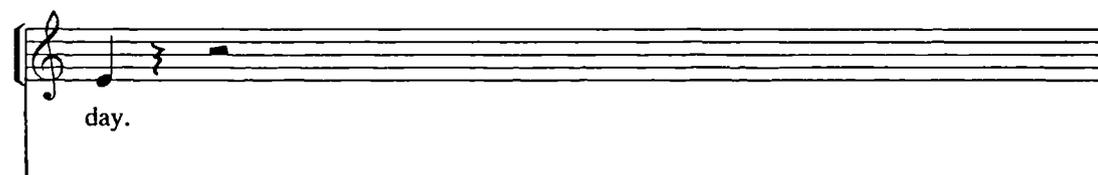
win-dow. Up in the sky my rain-bow shines, down be-low it's



**B** Six days a-way, it's my rab-bit's birth-



Christ-mas. And up in the sky, the rain-drops



day.



fall down, to the rain-drops on the ground. Rain-drops, pud-dles

(Example 100 continued)

Ex. 99.



six day a -

Ex. 98b.



And sp', splash - es of wat - ter are down the bot - tom.



ways, 'at's it. She's

Up where the rain bow's high in the sky, I want to be like that.



going to get a Mam - my, a Mam-my, a Mam-my, she's

In the dog - gy, in the win - dow is



going to get a Mam-my a - way, a - way. Six times a -

(Example 100 continued)

Ex. 99

way, on, or say, I'm going to get a

Ex. 98b.

lit - tle dog - gy.

dog - gy, good dog - gy, it's good - night for you and me.

From Example 100, we can see that Example 99, though apparently a new piece, to quite new words, has a very similar melodic framework to Example 98b. It is shorter, particularly in section B, where the first example had a recitative-like section. Example 99 has a longer third section, in which Mary even seems to be exploring the possibility of a longer episodic form by re-introducing "six days" on Bb (at the end of page 245, stave 7); but this is short-lived and the A material takes over to end. It is as if Mary was groping for what she wanted in the first song, but then the ideas become fixed into a more conventional, regular framework in Example 99.

If we examine what it is that she has kept for the second song, we find that this includes:

- the main motif (a), either as a 4th or a major or minor 3rd;
- the three-part structure with a new idea in section B;
- clear cadence points at the end of each section;
- recall of A1's material in A2.

The two pieces are in different keys, and each changes key several times; yet there are similarities of actual melody notes, which reinforce the impression that Example 99 is indeed a reworking of similar underlying ideas to Example 98b. The melodic similarities include:

- the (a) motif in the opening bars falls from G in both pieces, though one ("rabbit") falls a 4th in G major and the other ("doggy") falls a 3rd in Eb;
- the first phrase continues with a rise from F in both pieces;
- section B begins with an accented Bb in both pieces;
- later in section B, both versions meet on G#, and have a similar falling tendency (p.245, first and second system);
- the first strong accent of section A2 is on C/C# in both, suggesting perhaps that Mary "meant" them to be the same, but mis-pitched;
- in Example 99, A2 borrows its final cadence from Example 98b's cadence to A1 (i.e. "Goodnight for me and you" = "Goes out to play").

So Example 99 might be seen as a more successful, because more coherent, transformation of ideas first explored in Example 98b. There are complex processes at work here. If key aspects of musical thought include abstraction and transformation of musical ideas, Mary can be said to be engaging in musical thinking of a sophisticated kind. That it is musical thinking, not just thinking in words, is suggested strongly by the fact that there are such striking parallels between the musical features of two songs in which the words are quite distinct, except for the recurrence, right at the end of Example 99, of "doggy". But this musical thinking still seems to be intuitive; the conscious focus of her attention was, I believe, still the words, which she accompanied, as in many of her earlier songs, with actions.

On my final visit, Mary showed an interest, for the first time and without my prompting, in making a song which she could remember (Examples 101-103). She collaborated with a friend, so the need to agree a tune arose from her own experience, not from any external

prompting (cf. the "Pinocchio songs", Examples 85 to 93, where she did not really share my concern for a remembered song).

Comparison of her deliberately composed song with her more spontaneous ones is interesting; as with Christine at a similar point, we can see the free expression of the Personal mode apparently disappear as Mary seeks to gain control of the musical vernacular. Example 101 is what Mary first sang to me.

Example 101: Mary (6:11)

$\text{♩} = 116$

Ted - dy bears, ted - dy bears! Ted - dy bears jump and run.

5  
Ted - dy bears, ted - dy bears, jump on the boun - cy cast - le,

10 15  
run. And when the ted - dy bears run, we join in the song.

The opening six bars are well-formed with sequence at 5-6; but the continuation is more hesitant and fragmented. Mary seemed now to be ready to work in shorter, simpler units in order to remember and control her material, as her next attempts show (Examples 102a/b). But these were just a step along the way to the finished product, for eventually she sang Example 103, while jumping up and down. She could repeat this fairly accurately, for the first time producing a repeat of one of her own inventions.

Example 102a: Mary (6:11)

$\text{♩} = 96$

Ted - dy bears jump, ted - dy bears run, ted - dy bears run all o - ver.

Example 102b: Mary (6:11)

$\text{♩} = 76$  *quicker*



Ted-dy bears run, ted- dy bears jump, ted - dy bears jump all o - ver.

Example 103: Mary (6:11)

$\text{♩} = 152$



Ted - dy bears run, ted - dy bears jump, ted - dy bears run all o - ver.

ted - dy bears jump, ted - dy bears run, ted - dy bears jump,

jump all o - ver.

Significantly, Mary jumped up and down while she sang Examples 103. As in others of her pieces, for instance the "Autumn" songs (Examples 80, 81 and 82) and the most successful of her songs to "lah", (Example 76), the combination of actions and singing seemed to generate a creative impulse; but once generated, the pieces proceed according to musical logic; they are symbols of time, not just symptoms of feelings.

Before singing her last song, Mary asked if she could "go away and think of one". This pre-planning seemed to be a new, more aware aspect of her work, as if she has now realised that a song could be a fixed entity existing independently of the experience which gave it birth. But the result, accompanied by energetic dance movements (Example 104, 16-7-91) shows that, though becoming more concerned to work on her musical material, she has not, at least not yet, lost her ability to produce attractive songs which spring from her inner self

and express her feelings, using much more complex musical processes than she can yet bring under her conscious control.

Like Examples 98 and 99, this entertaining piece falls into three parts, with a loose "repeat" of the opening eight bars at 17-24 (which includes a modified inversion of 1-4 at 17-20). The sense of tonality is strong. The Golden Section occurs at bar 15 (around the climax phrase, or at least the one with the highest notes, and the cadence to section B); this is not totally convincing, but not insignificant. This being one of Mary's spontaneous pieces, she could not repeat it; she said that she could not and resisted any suggestion that she should try. Like many of her inventions, this song seemed to exist for her as a complete experience, not retrievable once the moment was past.

Example 104: Mary (6:11)

$\text{♩} = 160$

**A1** Dog-gies, dog-gies, dog-gies go all o-ver. Doggies go here,

**B** dog-gies go there, dog-ies are all o-ver. Wuff, wuff, wuff, wuff,

wuff, wuff, wuff, wuff, wuff, wuff, wuff, wuff, wuff, wuff.

Wuff, wuff, wuff wuff, wuff wuff, wuff wuff wuff wuff. Wuff, wuff,

**A2** wuff, wuff, wuff. Dog-gies, dog-gies, dog-gy jumps all

o-ver. Dog-gies, dog-gies, dog-gies are a-fraid.

So Mary, like Christine, seems to be engaging in complex musical thought processes, and, in many of her pieces, to exhibit a grasp of musical structure. As with Christine, there is a sense of personal involvement in the songs; these are authentic acts of musical expression, in which Mary explores aspects of her feeling life in satisfying musical forms. Her work shows certain characteristics which we have already noted in Christine's, namely rising openings; clear indication of closure, often with a falling cadence with or without repeated final notes; rise and fall within phrases or pairs of phrases; and a four-line framework, sometimes with a contrast or tension in line 3.

Like Christine, Mary borrows or abstracts ideas from pre-existent songs, and transforms and synthesizes the borrowed material to make new songs. Again like Christine, Mary appears to make complex musical forms subconsciously or intuitively, before she can recall, repeat, talk about or, it seems, pre-plan her pieces. She was just beginning to work on consciously controlling her musical ideas at the end of my time with her. Like Christine, too, Mary seemed to follow the sequence of song acquisition noted in chapter 4, and to achieve full melodic (tonal) mastery later in her invented pieces than in her singing of standard songs.

There are also significant differences in the way the two singers work. As already noted, *Mary used rhyme, which Christine rarely did; and she was prepared to sing words that did not make sense in order to keep the flow of the music, whereas Christine tended to stop if she was seeking for a word, or even to check factual accuracy. Mary's output consisted predominantly of songs with words; she did produce a few successful songs to "lah", but fewer than Christine.*

Mary's approach to form also has significant differences from Christine's. We saw how, as well as using the four-line framework, Christine had a characteristic growth - recession feature in the rising-falling outline of many of her pieces. Mary also has many rising openings and falling endings. But there are two other structural features which appear to have significance for her but not for Christine. One is the subdivision into two (and occasionally

three) sections, and the exploration of episodic form; the other is the late placing of the climax of a song, followed by a short recession to the end.

Mary was also unlike Christine in that she was a more extrovert performer and accompanied many of her songs with actions. Christine adopted a quieter, more intellectual, approach at times, finding printed words to use; she took the initiative in her class in this, and in beginning to try to remember her songs. Perhaps because she spent more of the period of my study trying to remember her songs, Christine made more use of the common formula, ab bb ab c, than Mary did.

While these two young singers seem to share some aspects of development, they also appear to have their own ways of working, to be constructing individual syllabuses for themselves. As was suggested in chapter 3 (especially in relation to the work of Gardner), these differences seem as significant for our understanding of children as composers as do the similarities and broad developmental trends. In chapter 10, I shall present shorter case studies of two more singers. Their songs share some characteristics with those of Christine and Mary. But they also provide additional support for the idea that individual cognitive style and personality can be recognised in the songs of young musicians; and they are still further examples of infant school children who seem to be engaging with music's structural wholeness even as they are emerging from the Personal/Mastery modes into the Vernacular.

CHAPTER TEN - CASE STUDIES III: KAY, AND IV: REBECCA

**CASE STUDY III: KAY**

Kay initially seemed less imaginative than Christine or Mary, in that she usually needed some sort of prompting before she produced a song. She frequently made use of my "starters" and used formulae such as the ab bb ab c pattern and "tiddly pom" tags. She produced only five songs using words of her own. But Kay, too, had her own explorations to make. In many of her pieces she showed a playfulness which seemed to suggest the Speculative mode of the sequence outlined by Swanwick and Tillman. In some of her songs without words, she produced complex musical forms; but she was still, apparently, working intuitively, unable to recall or talk about her songs. When she did try to make a piece which she could remember, like Christine and Mary she produced much simpler music than some of that which resulted from her music play.

I first met Kay on a preliminary visit (to school B, group 2) when she was just 6-years-old. She had a wide repertoire of standard songs with a good memory for words, though her intonation was not very accurate. I worked with her from October 1989 to July 1990 (age 6:4 to 7:1). During that time she recorded forty-eight songs, of which eight were to "lah", nineteen to "tiddly pom", sixteen used words of her own invention but began with my starter, and five used completely her own words. I shall present twenty-seven of her songs here, eight to "lah", six to "tiddly pom", and thirteen with words.

Kay's first piece, recorded on my preliminary visit (Example 105, 4-7-89) was a song to "lah", which she produced while clapping with a partner. It suggested a sense of musical form and seemed promising.

Example 105: Kay (6:1)



But when I began visiting regularly, in October 1989, Kay, now aged 6:4, seemed to have become more inhibited. Her "songs" were either speech-chants, or very short fragments with or without words, such as Example 106 (16-10-89). Yet her earlier "lah" song (Example 105) had suggested that she might have more idea of how music goes than she was able to express to order.

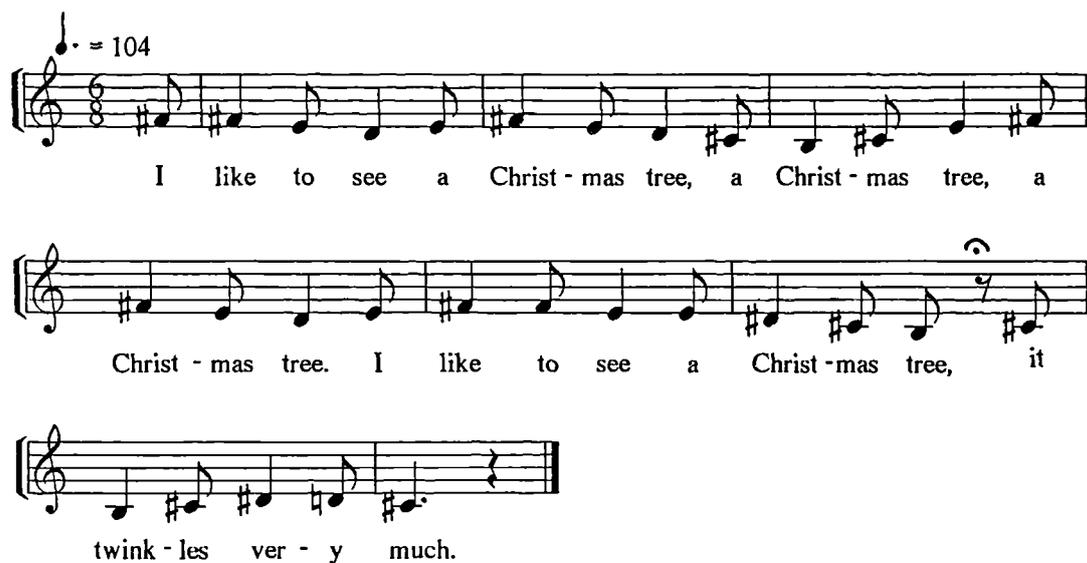
Example 106: Kay (6:4)



Once there was a lit - tle star, that shone on me.

At this point, like Christine at what seems to have been a similar stage of development, Kay "discovered" the formula, ab bb ab c. This was first used in Kay's class by Jamie. Kay and other children picked it up and made much use of it over the next few months. Example 107 (14-11-89) shows the formula's first appearance in Kay's songs, where it provides the word pattern and phrase boundaries. There is not much melodic structure, though there is a sort of repetition of the first phrase in the opening of the third phrase.

Example 107: Kay (6:5)



I like to see a Christ - mas tree, a Christ - mas tree, a  
Christ - mas tree. I like to see a Christ - mas tree, it  
twink - les ver - y much.

We saw how Christine adopted the formula when she was consciously trying to make a song which she could remember and repeat. Kay did not say she was trying to do this; but when she sang "another Christmas tree song" a week later, Example 108 (21-11-89), this was very similar to Example 107, still using the formula and beginning with a similar melody phrase. The formula provides a pattern of repetition and modification for the first three phrases, which she sang confidently. The final phrase calls for something different; this is where she hesitates in both Examples 107 and 108. It seems she has an understanding of the need for something new, but cannot provide it convincingly yet.

Example 108: Kay (6:5)

The musical notation for Example 108 consists of three lines of music in G major (one sharp) and 2/4 time. The first line starts with a tempo marking of quarter note = 88. The lyrics under the first line are "I like to see the Christ - mas tree, the Christ - mas tree, the". The second line has lyrics "Christ - mas tree. I like to see the Christ - mas tree," and includes performance markings: "5 tempo" above the fifth measure and "hesitates" above the final measure. The third line has lyrics "and it is bon - ny." and features a fermata over the final note.

Over the next four months (November to March), Kay produced seven more songs with words (as distinct from "lah" or "Tiddly pom" songs), and they all drew upon this formula. I shall consider these together here, and then look at what else she did in the same period, rather than present her songs in chronological order, so as to highlight certain patterns and features in her work.

In Example 109 (13-2-90), Kay made a song which she could remember and repeat fairly accurately (though the pitch intervals vary). So, like Christine, she is using the formula, i.e. material which she already "knows", in order to control and reproduce her inventions.

This time, the melody follows the pattern of the words, with sequence in phrase 2, and a modified repeat of phrase 1 as phrase 3.

Example 109: Kay (6:7)

$\text{♩} = 108$

Pan - cakes, pan - cakes, flop - pin' a - round, flop - pin' a - bout

flop - pin' a - bout. Pan - cake, pan - cake, flop pin' a - bout,

flop - ping a - bout for me.

But Kay is not content just to reproduce a formula. She also uses it as a basis for her own experimenting. Example 110 (13-2-90) begins as a repeat of Example 109 (the opening two bars have the same melodic contour, though the intervals are different).

Example 110: Kay (6:7)

$\text{♩} = 108$

Pan cakes, pan cakes, flop - pin' a - bout, flop - pin' a - bout for me,

flop - pin' a - bout, flop - pin' a - bout, flop - pin' a - bout for

ba - by and me.

In Example 110, Kay produces a truncated version of Example 109, putting the end of her first song as line 2 of this second version (bars 3-4); so we might expect her to end there. But no, she knows another way of using this formula, with sequential repetition of "flopping about" and a variant of bars 3-4 to end. The piece works successfully as a whole, with the Golden Section occurring at bar 5, where Kay begins the new sequential section. But she cannot work on all fronts at once, it seems, and so takes the ready-made framework of the formula to explore ways in which successful musical pieces are made.

Later in this session, she volunteered another "Pancakes" song, Example 111 (13-2-90). This has new words and a different tune, borrowed from "Twinkle twinkle"; so again she draws on ready made material, but she plays with it, making her own words and adapting the melody to fit. The repeat of "come for me" is effective, disturbing the predictable pattern of question and answer.

Example 111: Kay (6:7)

$\text{♩} = 138$   
 Pan - cakes, pan - cakes, come for me. Come for me.  
 I want you and you want me.

In Example 112 (13-2-90), she began as if to repeat Example 111, but then varied it. She was trying out different combinations of phrase patterns over a longer time-scale and introducing delayed repetition at "Come and see", stave 2; and there is a sense of fun (speculation) in her surprise ending "I've got some - cornflakes!"

Example 112: Kay (6:7)

= 138  
 Pan - cakes, pan - cakes, come and see. Come and see what I've got for  
 you. Come and see. Come and see. Come and see.  
 I've got some corn-flakes!

A week later, (20-2-90), Kay volunteered Example 113. This shows how thoroughly she has absorbed the formula as her framework; she can use it to generate "new" songs, i.e. songs which are new because they have new words (cf. Opies). Though the melodic details differ each time, there are elements which seem to be emerging, namely, sequential repetition in line 2, delayed repetition in line 3 and an appropriate modification in line 4 to cadence.

Example 113: Kay (6:7)

= 138  
 Pan - cakes, pan - cakes, drop - ping on the floor,  
 drop - ping on the floor, drop - ping on the floor.  
 Pan - cakes, pan - cakes, drop - ping on the floor,  
 drop - ping on the floor for me.

Example 114 (6-3-90) shows Kay again varying the established pattern, this time adding a coda (bars 9-12).

Example 114: Kay (6:8)

♩ = 138

Sun - shine, sun - shine, please come now, please come now,

please come now. Sun - shine, sun - shine, please come now, I

want you ve - ry much. Come now, please. Come now, please.

*slower*

Please, please, please, please.

As these examples show, Kay made much use of the vernacular cliché (cf. Gardner's reference to children using "fixed themes" in art). But the formula provided her with a framework within which she could work with her own ideas, exploring ways of thinking musically as well as re-arranging words. It gave her a whole form, which she could use in a variety of ways and contexts as her own; and it helped her sometimes to remember and repeat her songs.

Kay also seemed to be experimenting with musical form in songs to "lah" or to nonsense words. Example 115 (28-11-89) is a complete, though miniature piece of music, with the simple form:-  
 a (rising, progressive): a repeated: b (falling, recessive).  
 As in many of Christine's and Mary's pieces, progression and recession are effected in terms of melodic contour.

Example 115: Kay (6:5)



Example 116 (5-12-89) is a much longer piece in which Kay used her musical imagination more freely than she had so far done in the songs where she invented words and music at the same time. In the latter, as we have seen, she employed the formula; in Example 116, she was free to use her musical imagination and constructed a successful piece of music. A feature of this song is the repetition of phrases, and a high pitch register not usual in the songs in my sample (though Mary used a similar register sometimes).

Example 116: Kay (6:5)

The children in Kay's class enjoyed making songs to nonsense syllables, especially "Tiddly pom", which I had introduced in echo-games. Kay's first three songs in this category, Examples 117-119 (5-12-89) show her using conventional scraps of material; but again she is exploring how a piece of music goes, experimenting with, and organising, musical ideas, and constructing a musical form which is quite satisfactory even on this large time-scale.

Example 117: Kay (6:5)

♩. = 120

Bom, did - dle - y bom, did - dle - y, bom, bom, bom.

Bom, did - dle - y, bom, did - dle - y, bom, bom, bom.

Bom, did - dle - y, bom, did - dle - y, bom, bom, bom.

Bom, did - dle - y bom, did - dle - y, bom, bom, bom. Bum, bum,

bum, bum, bum, did - dle - y, bum, bum, bum, bum, bum.

Bum, did - dle - y, bum, bum, bum, bum, bum.

Bars 1-16 (of Example 117) form a satisfactory piece in themselves; the first phrase is repeated, then its rhythm is repeated in a descending scale, answered by a fourth phrase which begins as if to answer with an inversion of phrase 3 (ascending) but recedes (descends) to cadence at bar 16. Kay then continues, playing with material from bars 1-16 in interesting ways. Bars 17-18 introduce a new figure with leaps and a change of rhythmic pattern. Bars 19-22 are a modified repeat of 13-16, with the last three notes now a 3rd higher, while the final phrase echoes the words of bars 19-22 and inverts the melodic contour. The Golden Section occurs at the end of

the first section, which is then followed by the change of pattern at 17-18.

Example 118: Kay (6:5)

♩. = 136

Did-dle-y, did-dle-y, dill, dill, lil-ly. Did-dle-y, did-dle-y,

5  
dill, dill. Did-dle-y, dil-ly, doo, doo, doo, doo,

10  
doo. Did-dle-y, did-dle-y, day, day, did-dle-y, did-dle-y,

15  
doo, doo, doo, doo, doo, doo. Brrr!

Example 118 (5-12-89) opens with a new idea, bars 1-3; the rhythm of bars 1-2 is then repeated, rising, at 4-5, then falling at 6-7. This seems like an echo of the contour of bars 13-16 from Example 135, and leads into 8ve leaps at the cadence which in their turn echo Example 135, bars 17-18. The final part of Example 118 more or less repeats bars 4-9, but with a heightening of tension (in raised pitch) at the cadence, and a "shiver" for the final note.

Example 119 (5-12-89) takes the same ideas yet again, bars 1-6 being a repeat of Example 118, bars 4-9 (which were themselves an echo of Example 117, bars 13-18). It is significant that Kay can remember and repeat parts of her songs, even though the melodic details are still rather sketchy with inexact intervals. As in her formula songs, the vernacular clichés seem to aid memory.

Example 119 is too repetitive to be successful as a whole; it is as if repeating is one of the things Kay is working at, at this stage,

so it overrides other considerations. But she does more than just repeat, which suggests that the playing with musical materials is being done in the light of an emerging idea of how musical ideas develop and relate to each other.

Example 119: Kay (6:5)

♩ = 132 (X = clicks tongue)

Did -dle - y, did -dle - y, dee, dee, did -dle - y, did -dle - y, dee, dee

5  
dee, dee, dee. Did -dle - y, did -dle - y, dee, X, dee, X,

10  
*quicker*  
dee, X. Tid -dle - y, tid -dle - y, dee. X,

15  
Tid -dle - y, tid -dle - y, dee. X. Tid -dle - y, tid -dle - y,

dee, X. Tid -dle - y, tid -dle - y, dee, dee, dee.

In Example 119, Kay experiments with effects of timing, (and thus of progression and recession), shortening, lengthening, omitting beats. For example, she uses different lengths of phrase, 2, 3½, 4, then 2 bars. The repetition of the two-bar unit (11-12) at bars 13-14 interrupts what might have been a sequential repeat in 11-14 of bars 7-10 (and bar 13 is the Golden Section). She then loses the effect by repeating the two-bar phrase too many times. Kay also plays with sounds (tongue clicks) in this piece, and the repetition of phrases may be necessary while she explores this new feature. She perhaps

cannot control all aspects at once. There is a clearly signalled end with the additional "dee dee".

The Christmas holidays intervened, and Kay's next piece, Example 120, (16-1-90) was in a quite different mood from the "Tiddley pom" pieces of December. It consists of a series of descending melodic phrases, the third phrase augmenting the rhythm and expanding the range of the first two, and the final phrase augmenting further to make a three-bar phrase. The first three phrases all begin more or less on C/D. The final phrase begins lower and falls further, and this, together with the augmentation, creates recession to the final cadence.

Example 120: Kay (6:6)

♩ = 104

Lah lah lah lah lah, lah lah lah lah loo, lah lah lah lah lah

5

lah, bom bom. Bum bum bum bum bum bom.

So again, Kay is repeating and playing with her initial idea in different ways, exploring how composers develop ideas. The piece has a strong beginning and there is a sense of inevitability about the increasing augmentation combined with lowering in pitch to the end. The song is similar to some of Christine's and Mary's, in which each phrase has a descending contour.

The "Pancakes" songs, already considered, came next. Then, in March 1990, Kay sang three more "Tiddly pom" songs, Examples 121, 122 and 123. These all work from the same opening; she was still playing with clichés and particularly with repetition, but also exploring ways in which musicians make satisfactory forms. Example 121 (6-3-90) has a framework of A = (a+a): B = (b+b): A = (a+c). The repeat of each two-bar phrase gets tedious, though Kay does introduce new ideas and

varies the final phrase, clearly signalling "end" with the descent to the cadence.

Example 121: Kay (6:8)

Tid - dle - y, tid - dle - y, pom, pom, tid - dle - y, tid - dle - y,

pom, pom. Moo, moo, moo. moo, moo, moo.

Tid - dle - y, tid - dle - y, pom, pom, tit - dle - y, tid - dle - y, pom.

What might be the significance of the repetitions in this and others of her pieces? Repetition needs practice. Repeating a figure before going on to something else is very common in music, a device which she has now learnt. But she has overlearnt it, cf. similar phenomenon in language learning (e.g. "buyed" instead of "bought"). She is gaining control in being able to recall and reproduce her ideas. She is playing with repetitive scraps, doing different things with them. This suggests that the scraps themselves are not the most important thing; she is exploring musical thought processes and sometimes, as in the next two examples, making successful musical forms.

Example 122 (6-3-90) uses material from Example 121, but rearranges it and adds new ideas to produce the pattern

A = (a+a): X = (x+x): B = (b+b sequence, expanded and ending with y).

It might seem from this outline that the piece is just a string of unrelated ideas, each repeated once, which could presumably continue indefinitely. But there is a close relation between the fragments, and an overall progression and recession in the melodic outline of the piece, which is FA FA C'A C'A Db'Bb C'A F.

The highest pair of notes, Db'Bb, is at the Golden Section, after which there is a recession to the cadence, which is marked by the two claps. So, though she is using unremarkable cliché material, Kay is working in a musical way, and making a musical form.

Example 122: Kay (6:8)

Tid - dle - y, tid - dle - y, pom, pom, tid - dle - y, tid - dle - y,

pom, pom. Der, der, der, der, der. Der, der, der, der, der.

Moo, moo, moo. Moo, moo, moo, moo, moo. (claps)

Example 123: Kay (6:8)

Tid - dle - y, tid - dle - y, pom, pom. Tid - dle - y, tid - dle - y,

pom, pom. mm, mm, mm, mm, mm. Mm, mm, mm, mm,

mm. Der, der, der, der, der,

der, doo, doo, doo. (whispers) There!

Example 123 (6-3-90) repeats the first eight bars of Example 122, but adds a new second section (bars 9-16). This uses a slower rhythmic pace, for three rising pairs of notes (E#-C#, F#-E#', C#'-G#') before falling to the end. There is progression here, again discernible, as in Example 122, in the outline of the melody climaxing on the unusually high G#.

The Golden Section is at bar 9, i.e. where Kay begins the change of rhythm and the climb to the high G#. It might, perhaps, have occurred more effectively at the G# itself, the ensuing recession is very short; but she does, at least, have this progression and recession and a strong sense of completeness signalled by the whisper, "There", at the end (cf. examples in which Mary, similarly, had a late climax).

So, as in Examples 121 and 122, Kay is here using conventional tags and much repetition, but she is also exploring wholeness, progression and recession, build up of tension and relaxation in time, as well as playing with timbre.

Several formula songs, including Example 114, followed these "Tiddly pom" pieces; then the Easter holidays intervened. In the Summer term of 1990, Kay sang some more "Tiddly pom" songs; these were mostly short and predictable; but she continued to experiment effectively in other ways.

We have so far seen her producing a) songs with words, relying heavily upon the formula ab bb ab c, but experimenting; b) "Tiddly pom" pieces, in which she again played with formulae but used them in her own ways and, quite often, made successful musical forms; and c) three "lah" songs which also showed aspects of musical thinking.

After the Easter holidays she produced four songs with words in which a change seemed to have occurred. She abandoned the formula, and invented her own words to recitative-like melodies, singing with deliberateness and giving an impression of personal involvement. I include three of these, as Examples 124-126. It is interesting that this change to a more personal mood occurred after a holiday period, when Kay was not being influenced by school.

Example 124 (1-5-90) suggests the influence of pop music, another manifestation of the vernacular, especially in the inflections, such as "Irreats grass"; but the Vernacular and the Personal modes seem to combine in these pieces.

Example 124: Kay (6:10)

$\text{♩} = 108$

My guin - ea - pig does not bite, It runs a - round.

Ir - reats grass. When I let my bun-ny rab- bit out,

it goes 0 - ver to the guin - ea pig, and gives it a kiss!

Example 125: Kay (6:10)

$\text{♩} = 120$

When I was the bab - y, I had a rab - bit.

Now it's gone a - way. Kar - en took it. Sim - on let her.

*quicker*  
I don't know why. Then, this aft - er - noon, I'm

gon - na buy a guin - ea pig and a rab - bit.

The vernacular influence appears even stronger in Example 125 (1-5-90). It seems that whereas, in the formula songs, the words were mainly a vehicle for exploring form (formula), here the words and their style of delivery are the most important aspects. She uses different inflection, narrower pitch range with more repeated notes and a more reflective delivery, with irregular metre.

A week later, in Example 126 (8-5-90), Kay was still working in this deliberate, pop influenced, non-metrical recitative, now telling a long story.

Example 126: Kay (6:10)

$\text{♩} = 126$

A lit - tle tin - y bird was on the road, I could not stop the  
cars from run - ning it o - ver. I picked it up, and put it in me  
pock - et, it went to bed, with me. And the next day,  
I found a hutch for it. And a lit - tle cat was  
in it. I picked that up, and pur - rit in my bed. And  
*(sic)*  
put the cov - ers in.

Musically, Kay seemed almost to have regressed to the narrative song characteristic of Moog's 4-year-olds, in Examples 124-126, as if she

was feeling her way in the absence of the formulae she had used for her other songs with words. She used a rudimentary melodic chant with the rising opening and, in Examples 125 and 126, a falling close which we saw in similar pieces by Christine and Mary. Many of the phrases have a tendency, again like Christine's and Mary's early songs, to begin with a rising contour and to fall to the end.

I have not had opportunity to hear any songs made by Kay at the age of 4 or 5; but there may be a difference in quality between Examples 124-126 and the narrative songs she would produce at a younger age. Perhaps the deliberation with which she delivers these songs indicates an increased awareness of what she was doing and what the possibilities were. These pieces were the only examples of narrative chant which I heard Kay sing.

Kay also, at this time, sang some more songs with words to the formula ab bb ab c, and seemed to be established in the Vernacular mode. But then, in Examples 127-130, she volunteered four elaborate "lah" songs, all in one session (22-5-90). These suggest that she was engaging in musical thinking of a complex kind, on a different level to her vernacular pieces; they seemed to be spontaneous acts of music play (Personal mode) in which she continued the explorations apparent in her earlier songs.

These songs seem to represent a real pushing out of the boundaries for Kay, compared with her other pieces. They are much longer than anything else she (or anyone else in her group) recorded. They are not to a formula. They do not use words or conventional "tag" syllables, hence they seem to be examples of genuine musical thinking. They merit close examination; they also act as a warning against thinking that we can judge all that a child "knows" about inventing music by the songs which he or she might produce to order, in an interview perhaps, on a given day.

In Example 127, the first twenty bars are more tightly organised than bars 21-34, and suggest that Kay can create progression in a sophisticated way. The new idea (two-note fall) which is introduced at bar 11-12 and repeated at 13-14 is then repeated in diminished note values, which create a sense of increased movement. The  $\downarrow$ .

becomes  $\text{♩}$  , then  $\text{♩}$  as the time changes from 6/8 to 2/4. Increased intensity is also created through pitch; the quavers invert the C# B fall to a rising interval which continues in a leap to high F#, followed by a wide descending leap. Bars 21-34 are rather a non-sequitur; the piece might have been more successful if she had stopped at bar 24, the low C acting as a tonic. She slows down to this note, thus confirming the recession begun in bars 19-20.

Example 127: Kay (6:11)

$\text{♩} = 116$  (variable)

(to Lah)

Example 128 (22-5-90), the second of these four elaborate "lah" songs, is difficult to notate, as Kay inflects many of the notes and has a flexible approach to rhythm and metre. It is even longer than the first song (fifty bars of duple time), and Kay does not successfully manage the form over such a long time span. She seems to be stringing together unrelated phrases, exploring different sounds (tongue clicks, voice inflections, "moo" etc.), and enjoying a feeling of freedom to expand and experiment.

There appears to be some borrowing, from "Three blind mice" at bars 24-28, and "This old man" at bars 34-37; she is, probably unconsciously, using the pot-pourri, or centonation approach, working scraps of recognisable songs into her new piece.

Example 128: Kay (6:11)

(to Lah)

5

10

15 *accel.*

20 25

Moo, moo, moo.

30

Lah, lah, lah. (clicks tongue) Lah (etc.)

35

40 *slower*

lah - ull, lah - ull, lah, lah (etc.)

45

(clicks tongue)

Kay had not finished her explorations yet. Example 129 is even longer and again shows her engaging in complex musical thinking.

Example 129: Kay (6:11)

♩ = 138

(to Lah)

5

10

15

(clicks)

20

tongue)

25

30

35

40

45

*molto rall.*

*a tempo*

50

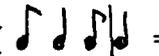
55

(continued)

(Example 129 continued)

The image shows three staves of musical notation. The first staff is numbered 60 and contains the lyrics "ss, ss, moo, moo, moo. ss, ss, moo, moo." with "ss" written above the notes. The second staff is numbered 65 and contains the lyrics "Lah lah lah lah lah lah. (whistles)" with "x" marks above the notes. The third staff contains the lyrics "(taps feet)" with "x" marks above the notes.

The final section of Example 129 is a mixture of whistles, clicks, moos and irregular rhythms, which are difficult to notate, but which are further evidence of the readiness to experiment and to surprise which we have seen in others of her songs. The dynamic contrast at the beginning was due to my shushing her, to avoid disturbing another class. This song merits detailed analysis.

There is a syncopated figure ( = x) which recurs frequently in the later part of the piece (i.e. at bars 33, 45, 48, 50, 52, 54, 56 and 64). Bars 1-36 contain much repetition of not very memorable phrases and some tautology round the note C'. But there is some sense of progression in the overall melodic contour, in that the cadence notes are progressively higher - F# (bars 3, 6 and 8), A# (bars 11 and 15), B at bar 19, C at bar 27); and the highest note, D, is reached in the last phrase of this section (bar 33).

Bars 37-47 seem unrelated, not just contrasting but not really necessary to what has gone before. There is a fleeting reminder of (x) at bar 45. The rallentando at bars 44-47 suggests the end of something.

Bars 48-55 seems to be a new beginning. The melody begins by recalling bar 33 and proceeds in a series of four two-bar phrases each using rhythm (x), so there is some reminder of the first thirty-six bars in this third section.

Bar 56 to the end has some sense of direction, again resulting from the pitch, in that the top note of each little phrase is higher each time; bars 56-57 = G, 60 = A, 62 = Bb, 63 = Bb and 64 = C (cf. similar progression over bars 1-36. Figure (x) is still in evidence. There is a whole battery of "new" sounds in the final bars (56+), which serve as a coda, loosely related to the piece by (x) which has contributed some sense of unity to this very long piece.

Kay is really working at the boundaries here, and it is not surprising that she is only partly successful. She is not very accurate in her tonality and the melodic details are rather sketchy, so that melodic organisation is not very strong. But, as already noted, there is some direction in the overall melodic outline up to bar 36, and bars 56-63 also have the overall rising contour which recalls the opening before the final cadence section. The main integrating feature of the piece is rhythm x.

What might be interpreted as the "middle section" (bars 37-47) is too abruptly contrasted to be successful, but it does suggest a recognition that a piece as long as this might need a contrasting middle section. And the rallentando at the end of this section adds emphasis to the feeling that the piece needs some emphasis here...which is round about the Golden Section.

The fourth and last of these elaborate "lah" songs on 22-5-90, Example 130, shows clear characteristics of the Personal, expressive mode, in which she takes delight in exploring the timbre and the extreme range of her voice. As we have seen, this playful willingness to experiment has been a feature of Kay's work at other times. The melody eventually climbs to high A to be followed by sudden recession, a glissando down a 12th and a loud "pop" with her hands on her cheeks.

But there is also evidence of structural organisation in Example 130. Kay uses (x) again from Example 148, and the gradual rising progression of key melody notes - F C Eb G# (marked \*), then a late climax on top A. Despite the lateness of the climax and the short recession, the piece can be said to succeed on its own terms, a gradual build up to the intensity of the high As with a short sudden

release of tension (cf. some of Mary's pieces with late climaxes). Kay has used this idea of each phrase having a higher top note before (for instance, in Examples 123 and 129).

Example 130: Kay (6:11)

Example 130: Kay (6:11) musical notation. The notation consists of four staves of music. The first staff is in 4/4 time with a tempo marking of quarter note = 138. It contains a melodic line with an asterisk above the second measure and the instruction "(to Lah)" below. The second staff is marked "senza misura" and has an asterisk above the first measure. The third staff has an asterisk above the first measure. The fourth staff ends with an "X" and the instruction "(pops cheeks)" below.

But Kay could not produce such songs as these to order. During May and June, she sang two "Tiddly pom" songs, and a song to my starter in which she again used the formula, ab bb ab c, which she had used at intervals all through the year.

Kay was now just 7-years-old. She had a good memory for words and rhythm and knew a wide range of standard songs; but she still tended to sing only approximately in tune even in standard songs. She seemed unable to reproduce her invented songs; perhaps she was simply not interested in doing so.

Kay's class moved on to Junior school in September 1990, so my regular contact with her ended after Example 130. However, I was able to record her again (aged 7:9) in March 1991. This was in two short sessions (fifteen minutes each), in which it was difficult to recreate the song-making mood which had characterised, for example, the session in which Kay spontaneously produced her "lah" songs

(Examples 127-130). The children enthusiastically recalled making "Tiddly pom" songs, and each sang a new one.

Kay's last song for me was Example 131 (1-3-91). She made several attempts at this, in response to my suggestion that she might try to make a song which she could remember. As with Christine and Mary, the task - the self-conscious attempt to recall her invention and to share it with others - resulted in a much simpler piece than some of those which she produced spontaneously. She used the elementary pattern of four repeats of a descending contour (probably influenced by The Water of Life, cf. Example 44b, which the children were learning); there is no attempt here to play with, or vary, the material.

Example 131: Kay (7:8)

♩ = 126 (variable)

I can hear the thun-der up in the sky. It is seen

come, up in the sky. And the rain pit-ter pat-ters,

down on the ground, why I go up in the sky.

My intervention, the suggestion that she should try to remember, seems to have been unhelpful, particularly because these two sessions were not part of a regular programme, and Kay and her classmates had done no musical composition in their new school. This illustrates the unsatisfactory nature of trying to conduct research into children's music-making in interviews which are not part of the children's normal classroom life. It also points to the problems which might be caused by a teacher who tries to intervene and to set tasks for which a child is not ready. We have seen much evidence that Christine, Mary

and Kay each have their own agenda for developing their musical invention and they may be incapable of responding to adult intervention of an inappropriate kind.

Like Christine and Mary, Kay seemed to be finding ways of exploring music's structural coherence even while she was experimenting with sounds and developing mastery over her materials, and before she could analyse or even recall her spontaneous inventions. Again like Christine and Mary, she had acquired the four-phrase form; she also made much use of the formula which, as we saw, Christine used on several occasions. With Christine, the formula seemed to provide a means whereby she could "fix" her songs to remember them. Kay seemed less interested in remembering her pieces, but experimented with the formula more, showing a characteristic playfulness even while working with conventional material.

Kay, unlike Christine and Mary, frequently used "tiddly pom" fragments to explore ways in which musical materials could be organised. She produced several such songs in which, as in some of Christine's and Mary's pieces, elements of progression and recession were evident in the overall melodic contour (rise and fall).

We saw Christine (Example 1) and Mary (Example 76) produce complex musical forms to "lah" which seemed to come straight from their subconscious as complete pieces of music. Kay, too, surprised me by producing equally complex and musically successful "lah" songs (for instance, Examples 116 and 129) in which she showed characteristics of the Speculative mode, though still apparently working at an intuitive, Personal level.

Kay seemed more likely than Mary or Christine to overlearn aspects of music's structure, for instance, the formula and the repetitive elements in some of her "tiddly pom" songs (such as Examples 119 and 123). As we have already noted, such overlearning is a feature of language acquisition.

So Christine, Mary and Kay, while sharing many features of song-making and musical development, show significant personal characteristics and have individual ways of working even at this

young age, which remind us that, in the arts, we are concerned not only with general trends of development but also with the uniqueness of each composer or artist. An example of a child who seemed to have very firmly fixed ideas of how she wanted to work, and of how a song should go, was Rebecca.

#### CASE STUDY IV: REBECCA

Over a period of seventeen months (from age 5:4 to 6:9), Rebecca (in school A) recorded forty-four invented songs, of which sixteen were to words and twenty-eight to "lah". The songs with words mostly occurred in the first six months, and some were in response to prompting; for example I offered the class a "starter", or the children all tried to make a song on a selected topic. Left to herself, Rebecca seemed to prefer to sing to "lah", in contrast to Mary who almost always used her own words. I have chosen to present twenty of Rebecca's pieces (twelve to "lah", eight with words), grouped according to common features rather than in strictly chronological order.

Rebecca's earliest songs with words were speech-songs, such as Example 132 (20-11-89).

Example 132: Rebecca (5:5)

Farrer (sic) Christmas went down the chimney top,  
And one day....he fell down.  
There was a fire down below,  
And Farrer Christmas fell in it.

The rhythm of the words is musical, not just that of speech, and the verse is subdivided into four phrases. The melody uses very narrow contour schemes. Rebecca could sing standard songs more or less in tune at this stage; but, as with Christine, Mary and Kay, her internal representation of a melody seemed to be less precise when she was inventing than when she was singing known songs.

Others of her early songs were more recognisably tonal, for instance, Example 133 (13-11-89), and Example 134 (18-2-90). These are unusual in the songs in my sample, in actually using the falling 3rd of which much has been made concerning the songs of rather younger children.

Example 133: Rebecca (5:4)

♩ = 130

This is a drag-on, and he blows smoke. There was a man with a  
pipe. And he liked to look for drag-ons, and he fired,  
put the drag-on's fire out.

Example 134: Rebecca (5:8)

♩ = 100

Poor Cind-er - el - la, lived in a cot-tage, she did all the house-work.

At first sight, these two pieces did not seem to be much different from the singing chants (cf. Example 132), except that they repeat a recognisable melodic figure over and over (which is not seen much in the songs of Christine, Mary or Kay). But in Example 133, Rebecca varies the falling 3rd at "with a pipe" and at the end, making clear middle and final cadences; and, in Example 134, she repeats her opening phrase twice but then adds a new note at the final cadence. These songs suggest that Rebecca has an intuitive idea that repeating is a way of proceeding in music, that repetition does not have to be exact, and that the alterations have structural significance relating



It shows an ability to generate musical ideas and to chain them together. She can think across the time-span, recalling the pattern from bar 5 in bars 7 and 9; and she finishes with a clear cadence.

Example 136: Rebecca (5:8)

There is a rising, progressive opening phrase (bars 1-2). The answer begins on the next high note, then falls, but only falls part way. The third phrase returns to the low pitch, but introduces new quaver movement - progressive - and a steady ascent which does not go as high as before but is now stretched over a longer time, until the climax of this phrase at 7:3 (Golden Section), before turning back, beginning the recessive movement, at the cadence. This cadence phrase (bars 6:4 to 8:3) is repeated in modified sequence at 8:4 to 10:3, continuing the descent (recession). There is a momentary increase of interest in the syncopation at the end, which has the effect of confirming the end, in the way we have noted in her earlier songs (i.e. something different at the cadence).

Example 137 (5-2-90) is again characterised by an element of repetition with alteration at the cadence; but this time the repeat is more subtle, occurring in the overall pitch contour, while the actual melody is different each time. The result is a melody which is weakened by tautology, but it seems to fit in with what she has been

doing in her other songs i.e. repeating with changes at significant points, especially the end. The piece works satisfactorily in terms of its rhythmic structure; and the quaver rest with resulting syncopation which gives a surprise kick at bar 3 occurs at the Golden Section.

Example 137: Rebecca (5:8)

$\text{♩} = 112$

Lah lah mm, mm, mm, lah lah lah lah (continues to Lah)

At the beginning of the third term, Rebecca volunteered Example 138 (30-4-90).

Example 138: Rebecca (5:10)

$\text{♩} = 112$

The rab-bit and the tor-toise were going to have a race. The

rab-bit was the lead. The rab-bit was so tired, it

fell a-sleep un-der a tree. So the tor-toise was the win-ner too.

Example 138 seemed to mark progress in Rebecca's songs with words, in having a more characteristic melodic idea, though she did not pitch the intervals very accurately. Reading between the lines of this mispitching, this seems to be another piece in which there is repetition of the opening melodic contour and, as in Examples 133-135, some change at the cadence points. The last phrase is a greater

contrast than she has used till now, and in reserving this contrast for the final bars, she is still apparently exploring ways of marking the end, defining the boundaries of her piece. The repeated phrase now has a more pronounced uplift (progressive), but still, as in Examples 133-135, falls each time, except at the final cadence; like Christine, Rebecca seems to be "practising" progression and recession within her phrases.

In her next song with words, Example 139 (14-5-90), Rebecca attempted a longer piece, producing a story song which is not well-formed musically. But even in this rudimentary chant, her treatment of form bears some relation to what we have seen her doing in her other pieces. She seems to recall, and more or less repeat, the outline of the opening phrase, "Thumbelina was a pretty girl and she knocked at the door", for "The mouse said 'Come in' to her". The final phrase ("she said" etc.) is different, the only phrase to rise a 5th to F.

Example 139: Rebecca (5:10)

♩ = 126

Thum-bel- in- a was a pret- ty girl, and she knocked at the door, and

some- one o- pened it, and it was a lit- tle mouse. The mouse said:

Come in, to her. And she tid- ied the house. She said: When you've

stayed here, I'll buy, you'll mar-ry the mole.

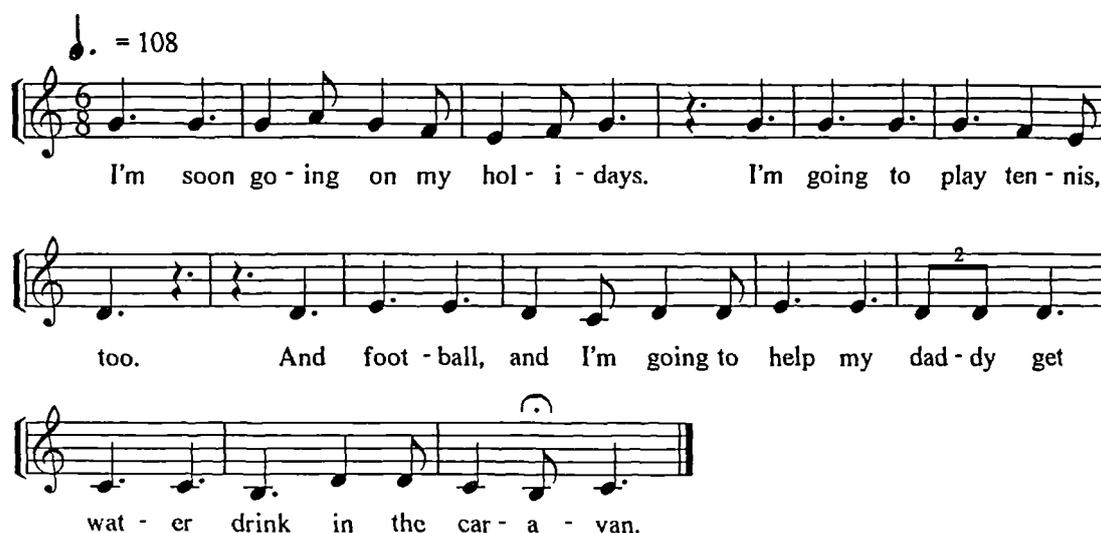
So here, too, we see the pattern of repetition with alteration at the end which seems to be Rebecca's fingerprint, or the particular internal representation of how music works in time with which she is

engaged. She may be limited in the number of ways she can show it, but she appears to have an implicit understanding that making music is not just chaining events together but that the ordering and relation of the events have significance in time. Again her phrases are characterised by a rising and falling contour.

Rebecca produced some other story-chants in this third term, together with Example 140 (11-6-90). This used my starter (the first three bars), and has elements of successful musical construction.

Example 140: Rebecca (5:11)

$\text{♩} = 108$



I'm soon go-ing on my hol-i-days. I'm going to play ten-nis,  
 too. And foot-ball, and I'm going to help my dad-dy get  
 wat-er drink in the car-a-van.

If we assume an implied silent final bar, Example 140 has two four-bar phrases answered by eight bars. Rebecca answers my opening phrase with a balancing phrase of her own, ending with a half close. Within the eight-bar phrase, a new two-bar unit is introduced (8:2 to 10:1) and repeated. The change of pace which results from this repetition of the shorter unit, occurs around the Golden Section (bar 10).

Rebecca also sang five more "lah" songs during the Summer term, 1990 (Examples 141-145). Some of these share similar phrase structure; some (especially examples 144-145) have similarities of melodic material too. But they are not sufficiently similar in either respect to make it really likely that, as I at first suspected, she was just making several unsuccessful attempts to sing some standard song which she knew and I did not. I have checked out this possibility of borrowed material, by playing her songs back to her later, to see if

she recognised them (she did not); and by asking other children and her parents to identify any familiar material. It seems that Rebecca had discovered simple song forms, and was using vernacular material absorbed from various sources, combining it in her own way. She was here showing an ability, reflected in almost all of her songs so far described, to organise events in time in terms of repetition and contrast, and to make the contrast at a significant point in the overall form.

Example 141: Rebecca (5:10)



Example 141 (7-5-90) is sung well in tune, with a melodic range of a 6th. She has already made songs with clearly defined middle cadences. This piece takes this further, for she now has tonal cadences, a half close at bar 4 and a full close at the end. The form is a b a b(modified), i.e. a simple song form. There is nothing surprising in it, and progression is limited. On the other hand, it works as a whole piece in a very simple way just with alternation and repetition. She can recall, and thus repeat, past musical events even after something else has intervened. The appearance of tonal cadences is not just "acquiring the vernacular" but acquiring also one of the means by which musicians organise time (i.e. signify "the end" - resolution - or "not the end" - expectation) in western traditional music.

Example 142b (21-5-90) is very similar in its opening line and its phrase structure to "Over in the meadow", a song which the class knew, though Rebecca has not made an exact copy, and she did not recognise the standard song as a source. She did say "I borrowed a tune from one of my tapes" and sang the end of Lord of the Dance (Example 142a) to show me. This is similar to her final phrase.

Example 142a: extract from Lord of the Dance(standard)



Example 142b: Rebecca (5:11)



So Rebecca has borrowed from known songs, but combined the familiar material into a four-phrase structure of her own. We are able to identify borrowed melodic sources more easily in these later songs because she sings more recognisably tonal melodies; but the structural framework, which is now well-established, was emerging in her earliest songs, even with very rudimentary melodies, the outline of the whole coming before the details. The form of Example 142b is a: a (modified in sequence): a in another variant now punctuated by a rest at bar 5 (which is the Golden Section): b (a new cadence phrase but still using the quaver pattern of earlier bars).

Example 143: Rebecca (5:11)



Example 143 (11-6-90) is the third of these "lah" songs in the Summer term, 1990, in which Rebecca seems to be working on simple song forms. There is the clear subdivision into four phrases which has become a characteristic feature of her songs, with use of sequence and of modified repetition. The rising, progressive opening gives way to a recessive second phrase which falls back to the opening note (C); there is another attempt to lift the piece at bars 9-11, but the progression/recession is not very successful overall.

Examples 144 (11-6-90) and 145 (18-6-90) seem as if they may have sprung from the same source, borrowed or imagined for herself. Each is in B (Example 145 slips into Bb); each begins with the same melodic idea; each has twenty-four bars and similar phrase divisions. But they do not use the same melodic material after the opening, except that both begin bar 9 with a repeat of bar 1, and both have a melodic range of a 5th. They seem to be two separate songs in Rebecca's mind. This interpretation is further supported by the fact that while Example 144 is in 6/8, Example 145 is in 2/4. It seems to be unusual for young children to transpose a piece in one metre into another metre. Moog found just one such example, which he thought worthy of comment because of its rarity (1976, p.117).

Example 144 seems to fit into the pattern of Rebecca's other songs so far considered, in that it has repetitions of the one basic idea but with modifications and with an attempt to provide a contrast towards the end. Rebecca shows ability to recall and scan across this long time span. There are three phrases which use similar material, (1-4, 5-8, 9-12); then a new idea occurs at bar 13. This could easily have been the final phrase, and the overall framework would then have reflected her earlier pieces, such as Examples 133-135. But this time, Rebecca adds eight more bars which act as a coda; she uses a modified inversion of phrase 4 at bars 17-20, and adds a final phrase (bars 21-24), which inverts the contour of her opening phrase (bars 1-4) to provide a falling, recessive close.

Example 144: Rebecca (5:11)

♩ = 92

5

(to lah)

10

15

(slides into A major)

20

Example 145 is, similarly, very repetitive, and for its first sixteen bars confines itself to an even narrower pitch range (of a 3rd). Again there is a "coda", 16-24, which, this time, rises higher and changes the rhythmic pattern. The "change at the cadence" which has characterised so many of her pieces has been translated here into a whole new section.

The rise to F in bar 19 increases the intensity, before the recession to the final cadence; it comes too late to redeem the piece from the tautology resulting mainly from the narrow range, so the song is not successful overall. There is however, some progression in the rhythmic pattern, in the continuous quavers which carry the momentum through bars 11-12; these recur as the pitch rises at bar 18 and the climax is intensified by the syncopation (bar 19). In these pieces, Rebecca is working over a longer time-scale than she can handle successfully; but she is structuring her pieces, even working with tension and resolution in music, not just spinning notes.

Example 145: Rebecca (5:11)

The Summer holidays then intervened. When I next saw Rebecca, I was surprised that, in Example 146, which was produced on 31-10-90 after a gap of four months, she was still working with similar melodic material to that of Examples 144 and 145 (range of 5th from doh to soh) and to a similar plan to that of Example 145.

Example 146: Rebecca (6:4)

There are two balanced phrases, (a) and (b) in bars 1-4; bars 5-6 begin like (a) but this time it continues upwards, progressing, to F#. The fourth phrase has some resemblance in its outline to (b); so we can detect the form aba(mod)b(mod) for these first eight bars. This would be a satisfactory piece in itself, with a significant

point in phrase 3, at bar 6 (the Golden Section of eight bars would be the bar before). But Rebecca adds two more bars, to complete the piece with three repeated tonics. The added two bars put the Golden Section now exactly at the F# in bar 6, the highest point of the melody and a significant point in time.

Example 146, then, follows a pattern well established in Rebecca's work, of indicating closure by change at the end of otherwise fairly repetitive pieces. She is here working to a similar plan to Example 145, but now in ten, not twenty-four, bars. Both pieces keep within doh to me for the first part and have a phrase which rises through doh to soh and acts as a climax before the melody falls again to the tonic. Each piece also has a coda. Yet the distribution of these elements is quite different in each piece, as is the position in time of the climactic rise to soh.

In these three pieces (Examples 144-146), we see Rebecca playing with the same elements of melody, with what appears to be a very persistent superordinate form; and appearing to become more successful in controlling the musical events in time. Perhaps it is not surprising that the most successful piece is the shortest.

Most of Rebecca's invented songs in terms four and five were "lah" songs; but in November, 1990, other children were making songs about Autumn, so Rebecca tried two "Autumn" songs of her own. One was a chant (not included here) very similar in character to her chants of a year before. The other, Example 147 (7-11-90), has a good opening phrase, but Rebecca cannot sustain the melodic quality of the opening. It is interesting, though, to see that she has invented this lively initial figure, because many of her songs to "Lah" continued rather stolidly using limited melodic material in the four-line pattern which was now well-established.

Example 147: Rebecca (6:4)

Aut - umn, aut - umn, I like aut - umn, I some-times make  
piles of leaves, and we all jump in them.

I wondered if her persistent use of the "fixed themes" (Gardner) represented a point of stagnation. If it were appropriate to try to jog her out of the rather predictable routine into which she seemed to have fallen in her "lah" songs, what would be a fitting way to do this? Having by now become aware of just how individual were the programmes with which Christine, Mary, Kay and others seemed to be working, I decided to offer suggestions which Rebecca could use if she was ready but which would not necessarily interfere with her self-determined programme.

Example 148 (14-11-90) resulted from one such suggestion, namely that she might try to make a "skipping lah song" (after some skipping echo clapping in 6/8). This makes effective and economical use of one idea (characterised by the rising 6th) in different ways. The redistribution of the 6th from weak-strong accents (bars 1 and 3) to strong-weak accents (bars 5 and 7) and the introduction of the one-bar units of bars 5-6 increase the rate of change, at the Golden Section.

Example 148: Rebecca (6:4)

(to Lah) (slides into Eb to the end)

Another intervention of mine preceded the singing of Example 149 (13-2-91), and Example 150 (13-2-90); in each case I sang a two bar starter. The song with words (Example 149) has an effective continuation of my opening phrase to bar 4, and a second phrase which repeats Rebecca's descending scalewise movement and closes on the tonic. After that, she cannot sustain the melodic invention, but repeats the descending figure twice more, in sequence; she seems to be concentrating on the words for the sense of it all, and using the primitive falling phrase noticeable in her (and other children's) early pieces. In contrast, when continuing my starter to "lah", in Example 150, Rebecca is much more confident and successful. Though this starter has moved her away from the plodding melodic patterns beginning on doh-ray-me which had characterised many of her songs, her superordinate idea of how a song should go is very consistent, and she fits the new melodic idea into this, successfully varying bars 3-4 at bars 7-8, running more quickly down the first three notes then singing the last three notes a 3rd lower than before, to cadence on the tonic.

Example 149: Rebecca (6:8)

$\text{♩} = 144$  (my starter) - - - - -

(Rebecca) We've built a snow-man, wiv a car-rot for his nose, and  
*(sic)*  
 choc'-late, bits of car-rot for his eyes; and a bent up stick for his  
*hesitates*  
 mouth; and we made some legs and arms. And, and that, oh,  
 (Speaks) Oh yes— and my broth-er knocked it o-ver.

Example 150: Rebecca (6:8)



Although some of Rebecca's pieces seemed to be the same song reworked, she was not, apparently, consciously repeating her pieces; when I asked her, upon occasion, if she could, she usually said "No" and declined to try. But by March, 1991, several of the other children in Rebecca's class were deliberately trying to make songs they could remember and teach to others. Rebecca noticed and commented upon this, so I asked her if she would like to do the same. She responded with Example 151 (6-3-91), to "lah".

Whether she was, consciously or unconsciously, aware of the need to keep this simple enough to remember, I cannot say; it seems likely that, as we saw with Christine, Mary and Kay, the nature of the task has affected her output, for she has used a narrow pitch range and kept her song short (inverting bar 2 at bar 4, giving the simple song form a:b:a:b inverted). Though she could not reproduce the details exactly, her attempt to repeat, Example 151b, is confirmation that her idea of a song is more in the structural framework than in the melodic patterns. It looks as if she is beginning now to be able to repeat - bring into conscious use - the song form she has been working with in many of her songs. There are similarities between Rebecca's tune and the standard song, "Light the candles" (Example 151c); but she was not aware of borrowing and she has filtered the borrowed material through her own pattern of repetition and contrast.

Example 151a: Rebecca (6:9)



Example 151b: Rebecca (6:9)



Example 151c: "Light the candles" (standard)



Like Christine, Mary and Kay, Rebecca seemed to produce successful musical structures intuitively, before she could pre-plan or remember them, and when she consciously began to try to control and recall her songs, she became more inhibited. It almost seems as if Rebecca really only had one song. She had absorbed her framework thoroughly from her musical environment at school and at home (including a collection of bought tapes). As her songs to my starters show, she does not simply reproduce known songs wholesale, but takes melodic ideas and incorporates them into (or filters them through) her own scheme, using simple, repetitive song forms. This seems to be more than the arrested development which, as noted in chapter 3, might be too simple an explanation for such apparently fixated behaviour.

Rebecca tended to use limited melodic material but to organise phrase structure and occasionally rhythm features effectively, and many of her pieces were successful on a simple level in terms of progression and recession. Was the persistence of her repetitive patterns an example of overlearning (cf. Kay, Examples 117-119)? Rebecca was still not 7 when she recorded her last song for me; and she was only 5:4 at the beginning, when she was already showing features of the superordinate form which she has so consistently used.

Rebecca, like Christine, Mary and Kay, gives us an intriguing picture of a young musician at work.

- she generates successful musical ideas ;
- she chains them together in clear musical phrases ;
- she uses repetition, repetition and alternation and repetition with modifications (e.g. sequence, inversion, varying details within same basic contour);
- she can recall and repeat ideas across the passage of time, even when other events have intervened (delayed repetition);
- she sometimes manages the elements of progression and recession satisfactorily;
- she seems to be working on her own inner representation of what makes a piece of music, which at its most basic seems to be repeating something and then introducing a change at or near the end;
- this, together with repetition and alternation, is leading her to acquire simple song forms such as aaab, abab and aaba etc. but there are other interesting things emerging as well;
- she has acquired a secure sense of tonality to use in her reproduction of taught songs and in her "lah" songs (in the latter she tends to stay within the range of a 5th );
- she does not always invent successful melodies when inventing songs with words (right and left hemispheres not working together?);
- there are clear signs of progression over the period of fifteen months, and a very strong impression that she is working to her own programme in a logical sequence.

CHAPTER 11: FURTHER EVIDENCE FROM THE SONGS OF THE REMAINING  
TWENTY-EIGHT CHILDREN

In chapters 8 to 10, I have presented four case studies which suggest that at least some children as young as 6 and 7 can produce songs which are successful models of time, in the sense considered in chapter 2.

In terms of the musical thought processes identified by Serafine, Sloboda and others, the children can produce good initial ideas, often with a rising, progressive character, and add to them in coherent phrases. They organise their material, for example in patterns of repetition and contrast; they indicate closure (completeness) with tonal cadences or with characteristic falling contours, with or without repeated final note. They abstract ideas from one context and transfer them to another, and may transform them in various ways. There is a strong impression that the four singers have some sense of structural hierarchy and that they are, at least sometimes, engaging in goal-directed musical thinking. They seem to form cognitive schemes (cf. superordinate plans) which govern how their songs go. These remain when surface details change, often persisting over a long time span.

While some of these schemes are common to the four children (especially the four-line framework), the children also seemed to be working to their own interpretations of how music goes. For instance, Christine used the rise-fall overall scheme. Mary also organised progression and recession in terms of melodic contour, but she made a late climax and a short fall to the end one of her characteristic patterns. Some of her pieces fell into two parts and, in her last pieces, she seemed to have begun to explore episodic form.

With Kay, the formulae assumed greater importance, but she varied them to make successful pieces of her own. She seemed to have overlearnt the formula and the idea of repetition. She also had rise-fall contour for progression and recession. Rebecca had a predilection for the four-phrase framework, as if she, too, had

overlearnt a pattern. She used it in "lah" songs, rarely with words, and particularly explored repetition with alteration at the cadence.

The differences suggest that the children were each working to schemes according to their developing cognitive understanding. When I offered inappropriate help (for instance, word starters for Kay and Rebecca) they were unable to use it effectively, presumably because they had not got the necessary internal representation. The same thing happened when I set tasks for which they were not ready, such as asking Mary and Kay to remember and reproduce their songs.

All four children could imitate standard songs fairly well in tune (Christine very well, including tunes in minor key); but they seemed to regress to an earlier level of development in some of their improvisations, even after they had invented successful melodies. Their early songs with words reflect the pattern of development outlined by Gardner et al, Dowling, Davidson, in which words, rhythm and phrase boundaries are acquired first, with the melodic contour rather than exact tonal intervals. They occasionally (mainly Rebecca) sang two-note melodies (using s-m or other intervals); but more usually their restricted pitch suggested a compressed version of a full diatonic scale, in which there was variation in micro-intervals within the total range.

The level of musical organisation in some of their pieces was high. But they also produced songs which were recitative-chants in which there was less musical structure and in which the words seemed to be the main import (cf. *parlando-rubato* style of peasant music). Some of these did have some melodic organisation though they lacked overall coherence. The singers seemed to move from one level of song acquisition and mode of working to another, as if their focus of attention shifted, not necessarily because they were trying but failing to work in a certain way.

Sometimes it did seem like failure. Christine, for example, appeared to become unable to sing words to a tune at all at the beginning of my second year with her. Perhaps this was because she was becoming aware of restrictions, censoring her earlier free improvisations but

not yet sufficiently in control of the musical vernacular to use it at will.

All four children showed evidence of the ability to abstract a melody from a known song and use it in a new context. Sometimes this was a complete tune, as with Christine (Example 48, "I met a man") and Mary (Example 93, "Pinocchio, you're very bad"). But more often, and perhaps more interestingly, they used just parts of known tunes, further instances of the processes of abstraction and transformation in music. Often they were unaware of the borrowing, sometimes even when I or another child commented upon it. It rarely seemed to have been pre-planned. Their cognitive understanding and ability to analyse in this respect was not well developed.

These were some of the most musical children, in that they could sing recognisably tonal melodies and had a good memory for new songs; and their invented songs suggest they had a variety of inner representations of how music works. There was a wide range of musical ability in my total sample, judged in terms of ability to sing standard songs in tune. There were some children who could not sing in tune even at age 7, and a few who were not very accurate in imitating two- or three-note melodic patterns on s-m, s-m-l etc. All of the children could repeat simple rhythm patterns (e.g. ♩ ♪ ♪ ♩ ) when I first met them. Most became able to recognise same-different in relation to pairs of notes, and up-down in melodies sung to them.

As well as a wide range of competence when measured in terms of the ability to sing in tune, there was considerable variation in the ability to invent a song. There were also, as in the case studies, differences in the types of song produced and in the strategies which children used. But some common patterns also emerged, and these are the subject of this chapter.

In order to provide a focus for discussion, I have identified ways of interpreting, based on analysis of the case study songs. For ease of reference, I discuss these in terms of categories of song, but inevitably, there is much overlap between them and a song may belong to more than one category. It is not possible, nor necessary, to make rigid demarcations, nor to see them as mutually exclusive. I stress

that the categories are offered as ways of interpreting children's songs rather than as actual classes into which each song may be expected to fit. Each piece is an individual statement and takes its meaning from its context in the singer's output and from what Blacking called the singer's "intention to mean".

The categories which I discuss here are:

1. recitative story songs, in which the words seem to be the main import, and which use a through-composed, unrestricted form and non-metrical rhythm;
2. more restricted forms which suggest awareness of, and an attempt to conform to, the regularities perceived in the songs of the culture, especially in terms of phrase structure and metrical organisation;
3. songs which seem to have evolved out of their own initial (musical) ideas, with some motivic development and progression and recession.

My procedure now will be to consider these categories, which became apparent in the case study songs, with illustrations selected from the songs of the remaining twenty-eight children.

### Category I

There are many instances in the sample as a whole of recitative-like chants which seem similar to what Moog described as narrative songs. The children referred to these as songs, but the initial idea and the main import seem to be the content of the words, "singing our news" or singing a story. The wholeness here seems to lie less in the music than in the narrative and in the total experience, reliving an event from time past or imagining or commenting upon an event.

The music may be a rudimentary, non-metrical melody; but though there may be little in the way of overall musical progression, these chants are songs, in that the music adds something which cannot be conveyed by words alone. It may, of course, be the case that the children use

sing-song rather than normal speech just because they are responding to my invitation to make a song. But, as we saw in chapter 4, such narrative songs are often produced spontaneously by young children in their song play; and Moorhead and Pond considered that such recitative arises "from those things which the child feels instinctively to demand such expression" (1941, p.5). Such songs are also common in the music of adults of different periods and places.

Moog found such pieces occurring frequently among the songs of his 3- and 4-year-olds, but less often in his 5-year-olds. This would suggest that, among 6- and 7-year-olds, only the least musically mature would be still making such songs. As was noted in chapter 5, Kalmar found that, in her Australian sample, the children who produced such chants for invented songs also sang standard songs at a similar level. This was the case with some, but not all, of my children. As was observed in relation to the case study children, the singers seem to be following the sequence of acquisition outlined in chapter 4, of words, rhythm and phrase boundaries before well-formed melodies. The children sing melodic contours, using a gradually widening range of pitches; accurate pitching of notes comes last.

Some children almost spoke their narratives. But the fact that, even at this level, they have some idea of the difference between spoken narrative and sung recitative is illustrated by examples of children singing, then, at my request, telling the same story. Helen, for instance, provided two versions of her song about a mouse (Examples 152a and b). She was one of the least musically articulate children in the sample; at 7, she could sing very simple standard songs in tune, but she seemed to have limited contour schemes and was very inhibited about singing songs which she herself invented. Example 152a was typical of her work with words. These two accounts by Helen show the use of restricted language for the "song" compared with the more discursive language used in the story (cf. Booth, 1981, already referred to in chapter 6).

Example 152a: Helen (6:6) (chants)

Once there was a little mouse  
And my dog got it  
And bought (sic) it over to the lawn.  
And Mummy thought it was a mouse.

Example 152b: Helen (6:6) (talks)

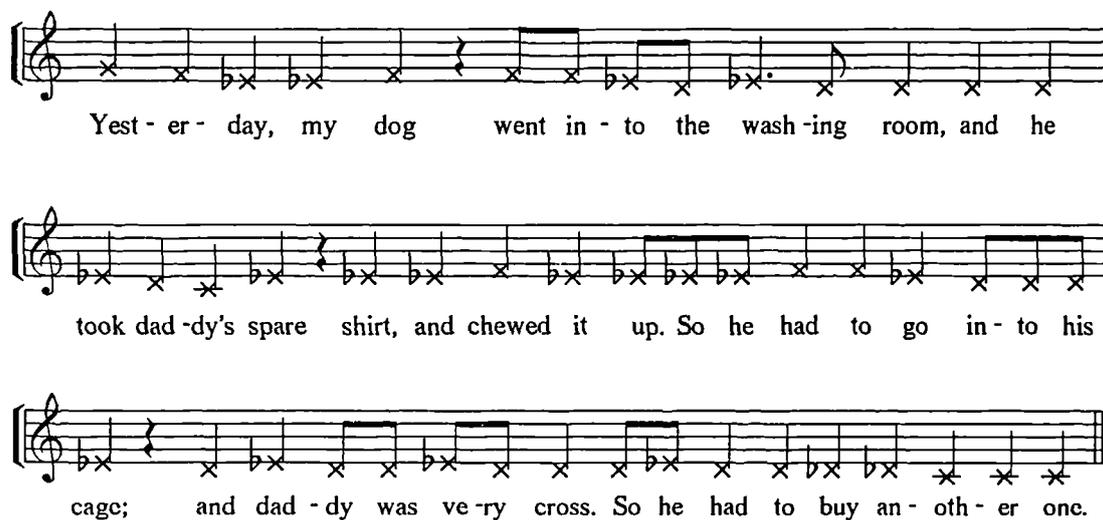
Once there was, um, a little mouse, and my dog got it, and she brought it on to the lawn; and then, um, I told Mummy that I thought it was a mouse. So - she is very frightened of mice. So, she - took my hand, and she did very - um - little footsteps. She saw it and she thinks, I think it's a frog, a dead frog. So she turned it out, turned it over and it was a frog, and so she got a spade, and put it into the hedge.

While the levels of melodic development in standard and invented songs sometimes matched, this was not always the case. Many of my singers produced rudimentary chants for their invented songs even though they could sing known songs more or less in tune. For instance, Melanie could sing very well in tune but most of her invented songs had restricted contours and showed little musical imagination or organisation. At age 6:10 she still produced mainly songs like Example 153.

It may be simply that development in invented songs lags behind that in standard songs. But children were also likely to regress to an earlier melodic level after they had invented successful songs. Perhaps young children find it difficult to invent words and music at the same time. If, as the research considered in chapter 6 suggests, words - at least the language of discourse - are the province of the left side of the brain, while music is controlled by the right, then a fine balance of co-ordination between the two might be required to produce words in songs. This may be less reliably under children's control when they invent than when they sing known songs. Such an interpretation is encouraged by the fact that Melanie produced more fluent songs with given words; and some children (though not Melanie)

were more successful with "lah" or "tiddly pom" songs than with songs in which they invented words.

Example 153: Melanie (6:10)



Yest-er-day, my dog went in-to the wash-ing room, and he  
took dad-dy's spare shirt, and chewed it up. So he had to go in-to his  
cage; and dad-dy was ve-ry cross. So he had to buy an-oth-er one.

Another difficulty may be that, even though I tried to produce an atmosphere in which children did not feel pressured to make a song (and Melanie was usually very ready to volunteer to sing), there was always the possibility that children volunteered because I had invited them to, rather than because they really had anything to sing. In such a situation, children might be constrained by the "audience" as well as by sheer lack of ideas. There also seemed to be constraints resulting from a developing awareness of what a song "should" be, as we have already noted in relation to the case study children. But Melanie, and others who produced similarly speech-like songs, seemed well satisfied with their pieces.

There were many free narrative songs which seemed to suggest that the children had things to express which could not wait for (and might not be suited by) more conventional song structures. The singing seemed to be rewarding for the children, and the songs seemed to be genuine acts of communication (cf. traditional chants; pre-school children did not necessarily sing their narrative songs to

Example 154: Zoe (6:8)

$\text{♩} = 120$

I love the sun. It's, it's ver - y gold - en now. It's just like a  
piece of gold. I love the sun. It's ver - y, ver - y bon - ny,  
*(v.2)*  
but it's ver - y hot in - deed. It 'll take you lots of min - utes to  
get there, e - ven more than a year, and when we get there  
*(v.3)*  
we'll be ver - y hap - py. If we go, we'll see the dust and the  
moon, and, on the sun, if we ev - er get to the sun. You'll  
nev - er, nev - er, nev - er go, or you'll nev - er look at the  
*(v.4)*  
sun. Ah-it looks like a love-ly bowl of fire. That's what it is  
true. The sun is ver - y bon - ny. I hope you are too.

communicate, as was noted by Moog and by Moorhead and Pond). The melodies of many of these songs used mature contour schemes, with some exploration of musical processes as can be seen, for instance, in Examples 154 and 155.

Zoe's song (Example 154) is long, but falls roughly into four verses, each with four phrases, though the lines are not metrical. There is much repetition, especially of the interval B to G#, and of the notes E F# G#. The repetitions seem to be an attempt to introduce melodic shape into the free *parlando* style. The focusing on certain notes suggests that the singer is experimenting with the idea of a home-note; despite the rather wayward pitching, this piece has a strong suggestion of E major. Zoe seems to adopt the principle of melodic compensation, characteristic of plainchant.

Many of these narrative chants use mainly descending melodic contours (compare the cascade melodies referred to in chapter 6). Zoe's melody here has a similar tendency in places, as if weighed down by melodic gravity exerted by the low B (Bb). But she also counteracts this falling tendency, and it is interesting in terms of progression and recession to feel the music gradually "rising above" the pull of the B, in verses two and three, only to return at the end, first with a descending 5th to C, on "fire", then a fall to B at "true", to prepare for the cadence.

As we saw with Christine and Mary, children sometimes use borrowed material in their narrative songs (cf. Moog's pot-pourri). With Thomas, a borrowed opening (from a Beatles' song) gave him a rising interval to play with, to balance the descending tendency prevalent in many of these chants. He used this in several songs over a period of three weeks (see Example 155).

Like Zoe, Thomas uses repetition, focusing on the rising interval which, in various forms, opens almost every phrase. The falling 7th ("looks, looks, looks when it rains") provides some coherence in the piece, recurring at the next cadence ("looks like, like, like") and, at the end of the piece, forming part of a sequential pattern which leads to the final cadence. In view of the difficulties which, it was suggested, children might experience in dealing with music and words



I have said that the main import of these songs seems to lie in the words, and it is appropriate here to digress to consider the topics about which children make songs.

I have already referred to "singing their news", factual accounts of day to day happenings. Children might also tell stories, producing imaginary accounts. In these, there were frequent references to small, helpless animals often threatened by danger, usually but not always rescued or outwitting their foes. These seemed to be related to characters from the world of children's literature. In such songs, children could be seen to be dealing with problems of helplessness, and attitudes to authority. They also sang of their love for a pet, or of the loss of a pet, or imagined what it would be like to have a pet of their own. Songs might also deal with the children's feelings in response to seasonal events (bonfire night, holidays, autumn etc.)

There were also, in a few cases, hints of things not being right in a child's world. For instance, Example 156, was one of several similar songs produced in a period of three weeks by Angela. I am wary of attempting to interpret such songs, lacking the necessary psychology background and being only superficially acquainted with Angela's home circumstances. But it seems significant that such songs should occur, as they did, during the breakdown of her parents' marriage. Angela exhibited signs of disturbance in aspects of her behaviour at this time, and she seemed to use these songs as a way of contemplating and sharing painful aspects of her life. When I tried, tentatively, to talk to her about the "story" of her song, she resisted angrily. The song was the symbol; perhaps the only way in which she could embody her experience at this point.

I have chosen to focus upon musical structures in this project; but further study involving the analysis and interpretation of the words of children's songs might also be rewarding, and would parallel analysis of children's creative writing and drama. Many of these story-songs seemed to be important acts of expression for the children. But they did not normally use the story form of tension - resolution, despite the findings of, for example, Fox (1983) that young children use such a form in their oral monologues.



(Example 156 continued)



fair! I want to go out, to - night. But you can't be - cause your



moth - er is - n't here, and I can't tell you off, al - right. Your



sis - ter's here. She's in bed. It is night - time, I am go - ing to look



aft - er you, an - y time of day. The win - dow's o - pen, you can



jump out of there, but I don't think you'll find your moth - er. It



is - n't ver - y true. Your fath - er is - n't ver - y, your



sis - ter went with you, but she is - n't ver - y good look - ing, she's



on - ly lit - tle.

So we find that, in category 1, the story song, the words are the main import and the conscious focus of attention. There is a high degree of information content in the words (cf. Booth, 1981). The piece ends when the story or observation is complete. The songs may be very rudimentary sing-songs. There are examples of unsuccessful, rather incoherent, story songs, where the singer has responded to the invitation to make a song but lacks ideas for both music and words. But there are many examples of long, through-composed pieces with elements of musical organisation, though generally lacking overall development. The musical structure is akin to that of the *parlando-rubato* style or chant, which uses repetition rather than development.

We are reminded of the descriptions of traditional chant, by Szabolsci and Kodály, noted in chapter 6. Szabolsci's mention of "the capacity of speech-melody to express and communicate", and Kodály's reference to "the idea of some definite melody (which) hovers above the freely flowing prose", a melody which "most frequently consists of the irregular repetition of the tune-lines", seem particularly relevant. These songs seem mostly to show the children working in the Personal, expressive mode.

## Category 2

Often a singer sets out to sing a story and produces a song which may usefully be considered in terms of my second category. These pieces seem to be constructed not only in terms of the story but also according to some idea of the restrictions involved in simple song forms, especially in phrase structure, such as four-line verses in AABA, or other such, forms. There may also be developing awareness of the restrictions on the words of songs, compared with words used in narrative and discourse. McKernon (1979) referred to "song frame" in connection with 3- and 4-year-old children learning to imitate standard songs (cf. also, Cowrie 1989, who found children of 3 and 4 making "frame" stories). The idea seems a useful one in considering the songs children of 5 to 7 invent for themselves. Unlike Gardner's 3- and 4-year-olds, my children are consciously setting out to make up a song of their own, becoming aware of the difference between

imitating and inventing. They seem to be in the Vernacular mode of the spiral indicated by Swanwick and Tillman, but they are also exploring form. However, the children's conscious focus is probably still the words and their content.

We saw in the case studies that one of the schemes that all four children used was the four-phrase pattern, restricting their songs within the vernacular framework. This was very common in the rest of the sample too. Most of the children used a four-phrase outline for some of their songs, even when, in some cases, they were working at the most elementary level of tunefulness. The four-line structure is not, of course, the only model for a song. Nor is it enough, in order to make a coherent piece of music, to organise material into a conventional pattern of phrases. But this pattern does occur in most nursery rhymes, and its prevalence suggests that children have abstracted it from their musical vernacular, as one representation of how a song goes. Within the overall framework, children did various things, and many made coherent pieces, with elements of progression and recession.

Examples 157 and 158 illustrate my categories 1 and 2, in two versions of Caroline's "Spring song". Example 157, which she sang first, is an unrestricted story-song. It begins with a free-ranging melody, rising, aspiring opening phrases, but as the musical "inspiration" loses its impetus, the melody uses more restricted contour schemes and the words take on a more discursive character.

Example 158 shows Caroline working within a four-line frame. The piece has a very striking contrasted final phrase, which is symptomatic of the excitement of the Spring and the feeling of "lovely", but which has structural significance too. The melody of this piece is still rather in the nature of a free recitative; but the outline of the first phrase is repeated (expanded) at "So Spring comes when everything is nice", giving an overall impression of an ABAC form, with the lovely climactic ascent from low B to high E'. [Caroline could not sing standard songs in tune, and her songs with words were usually sing-song narratives; as we shall see, the element of playfulness in the final line of Example 158 was also apparent in

others of her songs, and she seemed to be exploring quite complex musical patterns in some of her "lah" songs.]

Example 157: Caroline (6:1)

$\text{♩} = 104$

Spring makes daf - fo - dils grow. It's spring, spring, spring, love - li - est

spring. The win - ter's all gone, and we can wear tee - shirts and

$\text{♩} = 144$

play in pad - dl - ing pools. And I have a swim ming pool at

home. It would, it would be nice and warm. But we've got a

lit - tle bit of draught there, be - cause some boys threw a big

*slower*

rock through the win - dows.

Though Caroline's second "version" of her Spring song is more musically organised, there was nothing to suggest that she was consciously working towards such organisation, that she preferred one version to the other, or even that she thought of them as two versions of the same song; and like the case study children, Caroline switched from one way of working to another, and back again.

Example 158: Caroline (6:1)

$\text{♩} = 80$

Spring's grow - ing things! They grow new. They don't grow in  
win - ter be - cause it's too cold. So Spring comes when ev' - ry  
thing is nice. Spring, Spring, Spring is love - ly!

The four-line framework may be very loose, as in Example 159, again by Caroline. Here, the melody is only rudimentary and the phrase lengths and metre are irregular; but the division into phrases is clear, marked by pauses.

Example 159: Caroline (5:9)

$\text{♩} = 116$

Once there was a Christ-mas-tree in the house. No - one lived there,  
not ev - en Sant - a Claus. So he nev - er went there.

Other instances of four-line songs with rudimentary melody can be seen in Examples 160 and 161.

Example 160: Joanne (6:11)

$\text{♩} = 120$

Sant - y Claus comes down the chim-ney. Sant - a Claus has a lot of toys in his sack. He prob-ab - ly's, makes them go lit - tle, with his lit - tle pow-der.

Example 161:Chloe (6:2)

$\text{♩} = 120$

Once there was a lit - tle mush - room. Then came a lit - tle frog. Then it went to live in a mush-room, then it at' all it up.

These examples use four loosely-constructed phrases. But many children showed some grasp of musical organisation within the frame, for example with patterns of repetition and contrast. This might be apparent even with a very rudimentary melody, for instance in Example 162, where each of the four phrases, allowing for inaccurate pitching and adjustments for words, repeats the same melodic contour.

Example 162: Alison (5:7):

$\text{♩} = 126$

Here is a lit - tle rab - bit. He sat down in the woods. And

here came a fox and ate him. He cried: Moth - cr! Moth - cr!

As noted in chapter 6, simple repetition is used by adult musicians in much traditional music. But in order to create progression and recession, some element of contrast is needed. Very few of the songs in my sample simply repeat one contour. A common pattern consisted of several repetitions of one phrase with a contrasting phrase to end. We saw that this pattern of repetition with change at the cadence was a favourite form of Rebecca; and that Dowling had found it even in 3-year-olds. It occurs in many nursery rhymes, for instance, "Pop goes the weasel" and "Polly put the kettle on". It is interesting to note that Christine "regressed" to this very simple pattern when she was trying to make a song she could remember (Examples 59-63, "Cats"). Another example from my singers is Example 163, a song which calls to mind Sachs' observation (see chapter 6) that early traditional melodies may use just two notes but not necessarily the falling 3rd.

Example 163: Scott (6:7) not on tape

A mass - ive drag - on lives in a cave. This drag - on breathes fire and

has a sharp tail. Red roar - ing fire, red roar - ing fire

comes from his nost - rils.

Another piece with a similar pattern is Example 164

Example 164: Melanie (5:6).

$\text{♩} = 104$



I am a fire-work. I float in the sky. I can



see oth-er fire-works in the sky.

Such songs are very repetitive, but the alteration at the cadence suggests that the singers are not just adding repeats of the opening phrase *ad libitum*. They seem to know when the piece is to end, and signal the end clearly. In Example 165, Ruth has a more subtle interpretation of the pattern of repetition with contrasting cadence. The melodic contour B E F# G is repeated, but the shortening of the (verbal) phrase lengths in bars 3-4, and the gradual sharpening of the G increase the intensity, leading to expectation of change which is fulfilled in the contrast at the cadence. There is a feeling that, within the conventional frame, the singer is working in terms of goal-directed movement and recession.

Example 165: Ruth (5:8)

$\text{♩} = 144$  (quickening)



I love to see the Christ-mas tree, the Christ-mas tree, the



Christ-mas tree. I love to see the Christ-mas tree which



comes a-round each year.

In Example 166, there is a subtle interplay between the simple melodic pattern, AAAB, and the tension introduced in phrase 3 by the words. Within the framework of "My little pretty butterfly" at the beginning and the end, events move outwards ("flying high up in the sky") then decline, even decay ("lay your eggs and then you die"), which gives the final phrase a quite different colour from the first. The Golden Section of this song comes just before "then you die".

Example 166: Natalie (6:7) - not on tape

My lit - tle pret - ty but - ter - fly, fly - ing high up in the sky.

Lay your eggs and then you die, my pret - ty lit - tle but - ter - fly.

We have already noted (in chapter 10) songs by Rebecca in which, as well as having a contrast at the end, she used a contrasting phrase to mark the intermediate cadence (Examples 133, and 138). Other children made similar pieces, for instance, Zoe, Example 167, and Chloe, Example 168.

Example 167: Zoe (6:6)

$\text{♩} = 176$

We have built a snow - man. It is lots of fun. I like to build a

snow - man, it's lots of fun. I like to build sand cast - les, I

like to fill it with wat - er. I like to play in the snow.

Example 168: Chloe (7:4)

♩ = 152

When it's spring, I like to go to Flam-in-go Land. And

I'm go-ing on to the train, when it goes: Choo! Choo!

It is interesting to see that, in Example 167, six months after Example 154, Zoe used similar elements to those in her earlier song. As with Examples 157-158, by Caroline, the two pieces by Zoe illustrate the move between a free, improvisatory style and a more restricted frame. Each of Zoe's two songs (Examples 154 and 158) focuses on similar melodic features (the interval B G# and phrases marked by a rising and falling contour).

A mature example of a similar pattern (repetition with a contrast in the last line and a modification to the mid-cadence) is Example 169.

Example 169: Ria (6:4)

♩ = 116

Once there was a din-o-saur in the for-est. He

was ve-ry quiet, he on-ly went like this.

*rit.* *a tempo* (*whispers*)

All he did was went like this. He on-ly went: Pit-ter, pat-ter,

pit-ter, pat-ter, pit-ter, pat-ter, like that!

Swanwick and Tillman commented on their 10- and 11-year-olds putting surprises into the final line, as Ria does here (age 6:4). Ria was musically mature, in that she had a good sense of tonality and was quick to learn new songs; but she could not repeat this song at all, nor talk about what she had done, a point which will be discussed further in chapter 12.

The use of contrasting middle and final cadences, seen in Examples 167, 168 and 169, produces, in Example 170, a very simple ABAC form (cf. Sachs' reference to the origin of the *lied*, chapter 6).

Example 170: Ruth (6:0)

♩ = 80

Once I found a li - on, in a zoo. His  
name was Le - o, and I liked him.

A form of four-line frame which proved very popular with many of the children is the formula, ab bb ab c. Erin was one of the first to use it in an invented song, see Example 171.

Example 171: Erin (6:4)

♩ = 112

When's it going to be Christ - mas, Christ - mas, Christ - mas?  
When is it going to be Christ - mas? Where's the Christ - mas tree?

We have already seen this formula in the case studies (excluding Rebecca). Mary used it just once, as a starter for a story song (Example 97a, "I went to America"). For Christine, it seemed to be useful in helping her to produce her first songs which she could remember and repeat. Kay made much use of the formula. She seemed less concerned with repeating exactly; for her, it was a base for experimenting. Many other children seemed to find the formula equally useful. It may be that, in adopting the cliché so wholeheartedly, they were taking the line of least resistance, or lacked imagination. But we noticed how, in language development, children over-use grammatical forms ("I buy-ed", etc.) while they are assimilating them into their own schemes. The many examples of the formula seemed to be similar examples of over-learning; and though tedious, perhaps, for the adult, they served a useful function for the children. Reference has already been made to the fixed themes which Gardner identified in children's art work which, as was noted in chapter 3, he saw as providing a stable frame within which children could experiment and develop their ideas. The formula seems to be related to these.

Example 172: Alison (6:11)

♩ = 152

I've got a dog called Coll - ar, called Coll - ar, called

Coll - ar. I have got a dog called Coll - ar, and I

like her ver - y much.

We have already seen that Alison used a four-phrase pattern in her earliest songs, even though she seemed unable to produce much of a

tune (see, for instance, Example 162). The formula, when she discovered it, appeared to provide a framework in which she found the confidence to explore freer melodic patterns in songs with words, as can be seen in Example 172. What is common to all the formula songs is the phrase pattern, from the words; the pattern of repetition and contrast is usually but not always reflected in the melody. The formula is another version of repeating with change at the cadence, which as we have already noted, many children used, as a simple model of goal-directed motion.

The use which some of the children made of this formula recalls the Opies' observation that children, like folk singers, are normally very economical with their invention but also ready to vary the traditional rhymes in small ways. After Jamie had sung Example 173a, he said, "Now I'm going to do a different one", and sang Example 173b. Allowing for the inaccurate repeating of the melodic pitches, the only difference is in the words of the last line. (Like Christine, Jamie and others were able to repeat their formula songs fairly accurately, even though they might not be able to recall their other songs.)

Example 173a: Jamie (6:1) - not on tape



I like go-ing to Met-ro-land, to Met-ro-land, to Met-ro-land.



I like go-ing to Met-ro-land, to go on the cur-ly twain.  
(sic)

Example 173b: Jamie (6:1) - not on tape



I like go-ing to Met-ro-land, to Met-ro-land, to Met-ro-land.



I like go-ing to Met-ro-land, to go on the (um) pir-ate ship.

Similarly, a group of children made farewell songs for Jamie, when he moved to another school. Each child sang the same three lines, to the words:

Jamie's going to Leicester,  
Leicester, Leicester,  
Jamie's going to Leicester,

then invented new words for the fourth line, and said it was a new song.

Some children seemed to be trying to adopt the formula after hearing other children sing it, but to have failed to internalise the scheme. Lucy, for instance (Example 174), had not yet become aware of, or simply did not wish to use, the restrictions of the vernacular verse form - using elements of the vernacular, but working in the Personal mode.

Example 174: Lucy (5:11)

$\text{♩} = 120$

We're all go - ing on our hol - i - day, a hol - i - day.

We're all go - ing on a hol - i - day, a hol - i - day.

a hol - i - day. We're all go - ing on our hol - i - day, a

hol - i - day., a hol - i - day. We're all go - ing on a

hol - i - day to - day.

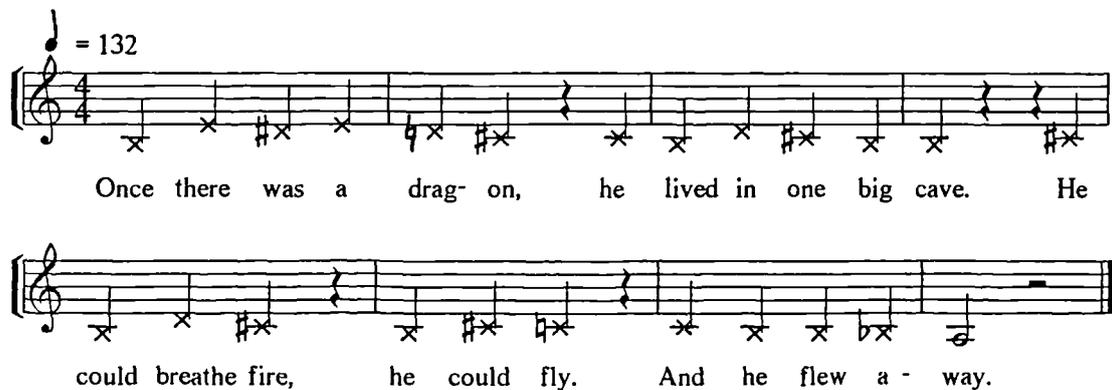
So far, in category 2, we have seen children using a four-line frame with repetition of one melodic contour; repetition with contrast in line 4 (AAAB) and with contrasting middle cadence (ABAC); and the four-line formula, ab bb ab c.

I have already noted that the placing of the contrast, such as changing for the final phrase of a piece (AAAB) suggests that the singer is beginning to have some feel for goal-directed movement. Four-line songs in which there is some contrast or disturbance in line 3, which were common in the case studies, also occur quite frequently in the songs of the other children. The third line is a significant place to introduce disturbance, as the Golden Section will normally occur here in a regular four-line piece. The disturbance might be made in various ways, as can be seen in Examples 175 to 179.

In Example 162, we saw Alison using an AAAA pattern in the melody. But the words of that song introduced tension into line 3 ("here came a fox and ate him") - as was also the case in Example 166. Example 162 was Alison's first song for me. Her second (Example 175) suggests that this pattern of disturbance in line 3 may be a significant feature for her (an impression which is strengthened by her third piece, Example 177). In Example 175, the disturbance results from the change of phrase rhythm, subdivision into one-bar units, a pattern we have already seen Mary using and which occurred in other children's songs. (See also, for instance, Example 176.)

Example 175: Alison (5:7)

$\text{♩} = 132$



Once there was a drag-on, he lived in one big cave. He  
could breathe fire, he could fly. And he flew a-way.

Example 176: Hazel (6:0)

$\text{♩} = 126$



Once there was a seal, that was al-ways boun-cing a  
ball. He prac-tised hard, he prac-tised slow, and  
then he went to the king-dom.

In Example 177, the third line introduces a new, ongoing movement which carries the piece along to the end. (A similar effect was noted in the third line of Examples 68 and 69, where a change of rhythm introduces increased movement in the third phrase.)

Example 177: Alison (6:1)

$\text{♩} = 120$

I went to a shop one day. I went to a shop one day. I  
bought some thing with my own pock-et mon-ey and then I went back home.

Example 178: Ria (6:0)

$\text{♩} = 112$

Once there was a lit - tle bun - ny who lived in his hole.  
But he nev - er came out be - cause he was fright - ened. A  
big wolf al - ways came ev' - ry night, to gob - ble  
up the lit - tle bun - ny.

Example 178 shows Ria dealing with the same theme as Alison's Example 162. This time the tension introduced with the words ("A big wolf") in line 3 is also reflected in the musical form AABC; the repeated Eb

and the crotchet rest increase the effect of disturbance. As in other examples already considered, the disturbance is in the rhythmic pattern. The crotchet rest may be a hesitation while she thinks of new words; but it still is significant that this is the place where the break occurs.

In Example 179, the third phrase is a loose inversion of the first, the modified repetition adding weight, emphasising the delight in Spring, but making purely musical meaning as well at this point.

Example 179: Lucy (5:8)

♩ = 100

Spring in the sum-mer-time, Spring in the sum-mer time, I like

rain-bows in the Spring. Spring is love-ly, I like Spring

best. The rain-bow comes out, and I like rain-bow too.

We saw in the case studies, for instance in Examples 26-27, what seemed to be two versions of the same song, in which the surface details changed but aspects of the underlying structure remained, which I have taken to be evidence that children have cognitive schemes governing their song invention. Examples 180 and 181 provide another, striking instance of two quite different songs apparently proceeding according to the same four-line plan. The pattern for both seems to be: repeat the opening phrase but end with a rising cadence; begin the third phrase on the highest note then change direction, descending in sequence and repeating words; repeat the same words to begin phrase 4, and finish with new words and descend to cadence. Thus there is an element of progression and recession in the overall melodic contour.

Example 180: Natalie (7:6)

$\text{♩} = 96$

A lit - tle cat, a lit - tle cat went down the street one day. A  
lit - tle cat, a lit - tle cat went down the street one day. *hesitates* Sh' she  
*(sic)* bought some car - rots, she bought some bread. She  
bought some car - rots, then she went to bed.

Example 181: Natalie (7:6)

$\text{♩} = 132$

Wash up the dish - es, wash up the dish - es, please, be - fore I shout!  
Wash up the dish - es, wash up the dish - es, be - fore I shout!  
I want a egg to wash to - day. I wan'-a egg to wash to - day.  
I wan'- a egg to wash to - day. Good - bye!

All of the songs from the general sample considered so far use words, and fall into one of two categories, either free recitative story-songs, or songs which are contained within a four-phrase vernacular framework. The melodic-tonal organisation within these is very varied, some restricted contour chants, others well developed melodies. The structural organisation which we have noted - for instance, introduction of tension or contrast in line 3 - does not always depend upon melodic development, it may be in terms of phrase length or rhythmic movement, or overall melodic contour.

Many of the "lah" songs also seem to indicate the influence of the vernacular, and use the framework of simple song forms, especially the four-phrase pattern. I include some examples of these here (Examples 182-184). As we saw, many of the children used an AAAB pattern in their songs with words; it is apparent also in their songs to "lah", as in Example 182.

Example 182: Hazel (6:3)

Example 182 consists of two staves of musical notation. The first staff is labeled "(to Lah)" and the second staff is labeled "Moo, moo, moo, moo, moo." The tempo is marked as quarter note = 108. The first staff is in 6/8 time and the second staff is in 6/8 time. The first staff has a key signature of one flat (Bb) and the second staff has a key signature of one sharp (F#).

We noted that many of the songs with words introduced disturbance into line 3 (around the Golden Section). A similar feeling of progression toward the Golden Section may be sensed in some of the "lah" songs. For instance, Anne-Marie, in Example 183, seems to feel the need to mark the opening of the third phrase with the stronger minims, interrupting the quasi-sequential pattern of the first two phrases. It is interesting that the first four bars trace the descending contour over an octave from B, and the closing four bars begin at the same B (now without the preliminary G#) and cover almost the same ground in a more straightforward manner, taking the overall

outline, simplifying as it recesses to the end. Anne-Marie has abstracted the main structural points from the melody for the repeat.

Example 183: Anne-Marie (6:1)

(to Lah)

Angela's song (Example 184), like some of the case study pieces, uses a steadily rising pitch level creating progression to bar 5, then changes direction (at the Golden Section) to recess to the end. Other children also used this "arch" pattern in a similar way.

Example 184: Angela (6:9)

Lah lee lah loo, lah lah lah. Lah loo lah lah lah lah.

Lah loo lah loo, lah lah lah. Lah lah lah lah lah lah.

In many of the four-line "lah" songs, as in many of the four-line songs with words, there is an impression of the children working, as they seem to be in Examples 183 and 184, with elements of musical progression and recession.

It might be assumed that children would use the four-line pattern first in their songs with words, but the reverse was sometimes the case. Jenny, for instance, appeared to work out a musical form in a "lah" song which then became her way of organising a song with words.

Many of Jenny's pieces with words were recitative story songs, like Example 185; but her songs to "lah" tended to be more conventionally organised, using the four-phrase pattern, and repetition, as in Example 186.

Example 185: Jenny (5:4)



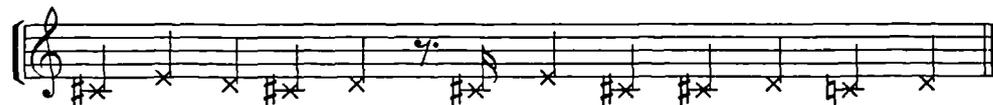
Once there was a lit - tle girl. Her mum bought her a horse.



And she was so hap - py that she thought she had to cry. She was



real - ly hap - py, and she paid her mum for it, 'cos she was a



real - ly hap - py girl. Her mum had thirt - een child - ren.

Example 186: Jenny (5:10)



(to Lah)



Jenny's first version of "Fireworks" had a good opening line but then became a recitative without musical shape, and tailed off at the end (Example 187). Later in the same session, she sang a "lah" song,

(Example 188) which began with a similar idea to Example 187, and used the four-phrase pattern typical of her other "lah" songs.

Example 187: Jenny (6:4)

$\text{♩} = 132$

Fire - works are brill - i - ant, fire works are good. I love my  
 fire - works. They go red and blue. They go Bang! They  
 go ev' - ry col - our that I want them to. I wish it  
 would be soon. So it shall be to - night that  
 I will be with my fire - works.

Example 188: Jenny (6:4)

$\text{♩} = 126$

(to Lah)  
 I will be with my fire - works.

Then, a week later, she produced another "Fireworks" song (Example 189a), which suggested the influence of the form worked out in her

"lah" song of the week before; and she tried to repeat it (Example 189b).

Example 189a: Jenny (6:4)

$\text{♩} = 132$

Fire - works are brill - i - ant, fire - works are good. I  
 wish I could be one, just like they are.

Example 189b

$\text{♩} = 116$

Fire - works are brill - i - ant, fire - works are good. I  
 wish I could be one. They ex - plode!

This was the first song which Jenny had attempted to repeat. It seems she has abstracted the four-phrase pattern from known songs, "worked it out" in musical terms in the "lah" songs, and then, presumably subconsciously, used it as her superordinate form in the new context of a song with words. The words are made more concise, to accommodate to the restrictions of the regular four-line pattern. The melody changes for Example 189b, but keeps the pattern of AAAB, as if this is her superordinate form. (It is interesting that she is still experimenting, playfully, with the final line).

These "fireworks" pieces illustrate the importance of allowing children to work in different ways, finding their own solutions, and,

indeed, their own problems, playing with music in whatever form they find helpful. Conventional teacher-led activities in song-making might, for example, typically begin by writing some words, then finding a tune. Jenny seemed to need to switch from playing with words to playing with tunes and then, at her own time, the two strands seemed to merge (albeit temporarily, for she continued making free recitatives after this).

Though the four-phrase frame is common in the songs in my sample, it is by no means the only one which children use. There are many instances where children seem to have abstracted the idea of a restricted frame from their musical environment, but interpret this in their own way. Examples of three-line songs are common, see Examples 190 and 191 (and, later, Examples 195-198).

Example 190: Jessica (6:10)

♩ = 200

The wind blows peop - le o - ver. It's so strong, it some - times  
blows some trees; and the branch - es come off.

Example 191: Helen (6:2)

♩ = 138

Once there was a fire - work, and it had lots of col - ours.  
The col - ours were red, and white, and green.

Example 192 shows Hazel using a six-line frame, in which she follows the pattern of repetition with change at the cadence which we have noted children using in four-line songs (the repetitions are modified)

Example 192: Hazel (6:0)

Once there was a cir - cus. Then there was a horse - y.

Then there were some clowns. Then there were some seals.

Then there were some more hor - ses, then the tig - ers and the li - ons.

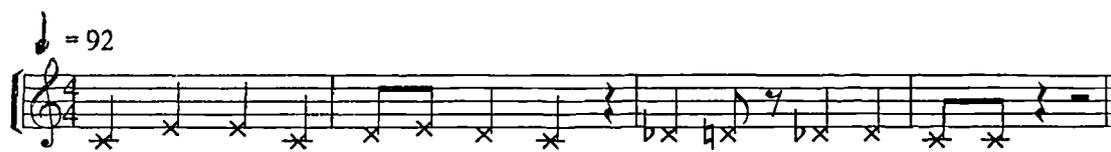
Three-, two-, or even one-phrase songs may occur anywhere in a child's output; but sometimes children seemed to be focusing on one of these patterns over a period, as their main idea of how a song goes. For instance, Aileen, who was usually very inhibited in the sessions where I met her, seemed to have as her model a frame which consisted simply of two short phrases of equal length. She used this pattern in most of her "lah" songs, and in her songs with words (see, for instance, Examples 193 and 194).

Example 193: Aileen (5:4)

(to Lah)

Example 194: Aileen (5:6)

♩ = 92



Once there was a lit - tle ham - ster. he lived with his mum - my.

If Aileen's model was a two-phrase piece, Anne-Marie's was, for some time, a piece using three phrases, as can be seen in Examples 195-198. (It is interesting to compare Example 196 with Anne-Marie's first four-line frame song, Example 183. In both songs, she has two similar phrases, with an element of sequence, then interrupts the pattern with longer note values at phrase 3; these may appear to be rather trivial details, but there are many such instances of children apparently working an aspect of musical organisation into two or more songs.)

Example 195: Anne-Marie (6:0)

♩ = 132 (variable)



(to Lah)

Example 196: Anne-Marie (6:1)

♩ = 104



(to Lah)

Even when Anne-Marie sang what seemed to be a version of "Twinkle, twinkle", she filtered that, too, through her three-phrase scheme, (Example 197); and she seemed to be working to the same three-phrase pattern in her early songs with words, as Example 198 shows.

Example 197: Anne-Marie (6:0)

♩ = 152

(to Lah)

Example 198: Anne-Marie (5:8)

♩ = 178

There was a drag - on, and he lived in, he lived in a  
wood. And he went and he walked ev' - ry day.

One group of children (School B, Group I) made very little use of "lah" songs, and with the exception of Kay, were not very successful at them when they did try. But this group seized on the conventional tags offered by "tiddly pom" songs and made many such pieces, more than the other two groups, though I had introduced similar ideas in echo songs to all three groups. Many (but not all) of the "tiddly pom" songs seem to belong in category 2, the most commonly used frame being the four-phrase pattern, as in Examples 199 and 200.

Example 199: Erin (6:10)

$\text{♩} = 132$

Tid - dle - y pom pom, tid - dle - y pom pom, tid - dle - y pom pom pom

pom. Tid - dle - y pom pom, tid - dle - y pom pom, tid - dle - y pom pom pom pom.

Example 200: Natalie (7:1)

$\text{♩} = 144$

Doo doo doo doo tid - dle - y tid - dle y doo doo. Bom bom bom bom

did - dle - y did - dle - y dom bom. Did - dle - y did - dle - y did - dle - y,

did - dle - y did - dle - y did - dle - y. Pom pom pom pom,

tid - dle - y tid - dle - y till till.

Zoe, in a piece which seems securely in E major, with a half close at 6-7 and a full close to end, uses a three-phrase frame, in Example 201.

Example 201: Zoe (6:8)

♩ = 120

Tid - dle - y pom pom pom, tid - dle - y pom pom pom, pom

tid - dle - y tid - dle - y pom pom pom, tid - dle - y pom, pom

tid - dle - y tid - dle - y pom pom pom.

Jessica, in Example 202, avoids the predictable phrase pattern in a piece which has an overall scheme which balances upward movement in the first part with descending motion and a repeated final note; while Zoe has the four-line frame but a mixed metre in Example 203.

Example 202: Jessica (6:11)

Mm mm mm mm Mm mm mm pom pom pom.

Did - dle - y did - dle - y pom pom, did - dle - y did - dle - y

pom pom. Did - dle - y, did - dle - y pom.



Many of the songs have some aspects of musical organisation, for instance, patterns of repetition and contrast; and some have a sense of progression and recession, goal-directed movement, in, for example, the repetition of a contour with contrast at the final phrase, or the introduction of contrast or disturbance in line 3.

The four-line pattern with a contrast in line 3 is a very common feature of the children's musical vernacular, and, in the "tiddly pom" songs, the contraction of "tiddly tiddly pom pom" to "tiddly pom" in the third line, with the resulting disturbance of the phrase rhythm, seems almost inevitable. But the fact that the children have gone beyond the most elementary pattern of repetition and can use their models in a variety of contexts seems to be evidence that they have abstracted a principle of how music goes, in which repetition is offset by contrast, and the contrast is introduced at a significant place in the overall structure.

The four-line frame, though ubiquitous in the songs of my sample, is not, of course, the only pattern for a song. As mentioned earlier, it seems that the young singers over-use the frame while they are exploring and mastering its possibilities as a model for how a song goes. They also use other "restricted frames", as we have seen. Since children do not encounter three-phrase songs in their musical vernacular, the examples of these which we have noted (such as Examples 195-197) might be seen as evidence that children are working according to their own cognitive schemes, in this case perceiving the restrictions but not imitating the more usual four-phrase outline nor the patterns of repetition and contrast.

In the four-line frame songs, repetition tends to operate on whole phrases, the children working in sections at a time. But music is not just a matter of pouring ideas into sections of a mould. The flow of music is dependent upon the way in which ideas form, relate to each other, break up, recombine, and appear in a new light as a result of the abstractions and transformations operating upon them.

We saw that the case study children produced examples of less restricted songs, some of which, like Christine's "lah" song (Example 1), and Mary's "Autumn" songs (Examples 80-82), were quite

remarkable examples of musical structure. *Many* of the other children in my sample seemed, as well as acquiring the frames of simple song forms, to be exploring ways in which musical ideas develop and relate to each other.

I suggest that we might usefully consider some of these songs in terms of a third category, because, compared with the story songs in category 1, they seem to have more musical import; and compared with the frame songs in category 2, they seem to have evolved out of their own initial, musical ideas - setting up an idea and seeing where it goes.

There is, however, much overlap between the three categories and individual songs might show characteristics appropriate to more than one. For instance, Mary's "Autumn" song (Example 82) uses a four-line frame, but the music seems to flow, organically, from her opening line. As I suggested earlier, I am using the categories as ways of thinking about what the children's *underlying representations of song* may be, rather than as mutually exclusive boxes into which to try to fit the songs.

### Category 3

In terms of category 3, it could be said that, in many cases, the formula and "tiddly pom songs", hackneyed though they are, give experience of an important aspect of musical structure, i.e. a very simple form of motivic development. In songs using the formula ab bb ab c, the second phrase takes just a part, i.e. (b), of the first idea (ab) and repeats it, making a new combination; it is then recombined with (a) in a delayed repeat of the opening line, before a final, different phrase which sets the whole thing in a new light.

In the "tiddly pom" songs, as already noted, many of the children contracted their opening "tiddly tiddly pom pom" to "tiddly pom, tiddly pom" in line 3 (or elsewhere). Here again, they are abstracting something from the first idea, and developing it, by repeating it. The process may be largely rhythmic, and, to adult ears, totally predictable; but the children do also work melodically,

and use inversion and sequence (though not modulation, which really must wait upon the development of tonality)

We have already seen some examples of children playing with conventional tags in "tiddly pom" songs, (for instance, Examples 199-203, and the striking instances by Kay which were included in chapter 10). Examples 205 and 206 show another singer experimenting - speculating? - with the vernacular material. I suggest that such play might be seen as the beginning of the process of motivic development. This seems to be characteristic of many of the songs which I would consider in terms of category 3.

In Example 205, Jamie uses the pattern of four-lines, with a break in the rhythm and a change of direction in line 3, which we have seen elsewhere. The piece is also organised melodically into rising, progressive phrases in the first half and falling, recessive phrases for the second part.

Example 205: Jamie (6:10)

♩ = 126

Did - dle - y did - dle - y pom pom, did - dle - y did - dle - y pom, pom.

5

did - dle - y pom, did - dle - y pom, did - dle - y did - dle - y pom pom.

Example 206 begins like Example 205, with two bars repeated, then a change of direction, inversion and contraction of the opening figure. But then there is a surprise at bars 7-8, the phrase rises and stops. There is another inverted contraction of the opening (bar 9) repeated at bar 10, which has the effect of counteracting the surprise lift, before the final recession to the cadence.

Example 206: Jamie (6:10)

♩ = 110 (variable)

Tid - dle - y tid - dle - y pom pom. Tid - dle - y tid - dle - y pom pom.

*Slower* *a tempo*

tid - dle - y pom, tid - dle - y pom, tid - dle - y tid - dle - y pom.

10

tid - dle - y tid - dly tid - dle - y tid - dly, tid - dle - y tid - dly pom.

Many of the most interesting pieces in category 3 are "lah" songs. The starting point for this study was Christine's "lah" song (Example 1), which seemed to represent a remarkable piece of musical thinking, based on two related motifs. Other children besides Christine produced "lah" songs which fall into my third category. These seem not to be constrained by the restrictions of the vernacular, and, unlike the free recitative story songs of my first category, have more successful musical organisation and development; the children are engaged in making patterns in sound.

Some of these pieces are very simple. Example 207, though *miniature*, is an interesting piece, being based on simple transformations of the idea in bars 1-2. The interval of a 3rd is widened in the second phrase to a 4th. This interval is retained in bar 5, but inverted, the figure is contracted and repeated, changing the rhythmic flow and leading to the final bar which repeats the first, the piece ending where it began as if to emphasize the inter-relationships. The overall pitch contour (ACDA) makes this song a very simple example of the rise-fall pattern of progression and recession which we saw Mary, Christine and others using.

Example 207: Ben (6:10)

Example 207: Ben (6:10) musical notation. The first staff is in 4/4 time with a tempo marking of quarter note = 152. It contains a melodic line with lyrics "Lah (etc)". The second staff is a five-measure exercise starting with a "5" above the staff, with lyrics "pom pom pom pom lah lah lah lah lah."

Example 208 begins with an aspiring 6th (perhaps unconsciously borrowed from the standard song, Example 28). The melodic organisation is tight. There is much repetition round a few notes, but also an overall progression and recession in ascending and descending pitch, though with a tendency to sag in the middle.

After the sequential repeat of the rising 6th figure, the interval of a 4th is introduced, first rising and balanced by a descending 3rd in bar 3, then falling in bar 4. The rest of the piece explores different ways of using these intervals. Bars 6-7 are neutral, forming an interim cadence; bars 8-9 are a modified repeat of 4-5; at bar 10, Danielle seems to be about to repeat the middle cadence at a lower pitch, but now the falling, recessive, tendency is stronger, so the piece ends with the series of four falling intervals.

Example 208: Danielle (5:8)

Example 208: Danielle (5:8) musical notation. The first staff is in 4/4 time with a tempo marking of quarter note = 96. It contains a melodic line with lyrics "(to Lah)". The second staff is a five-measure exercise starting with a "5" above the staff. The third staff is a ten-measure exercise starting with a "10" above the staff.

Example 209: Danielle (5:8)

(to Lah)

Example 209 followed 208 on the same morning; there is a similar playing with a musical idea (a falling 3rd) and some other points of similarity between the two songs. Both pieces reach their highest note early and there is a gradual fall to the cadence. The falling 3rd figure (in Example 209) is repeated immediately and extended, and then, after a contrasted middle phrase, repeated, modified, as the basis of the third phrase.

Caroline (Examples 210 and 211) also seemed to be exploring the way a piece of music might evolve from its opening idea. Example 210 begins with a series of rising sequences; the fourth (bars 5-7) reaches the highest note and is modified to fall back almost to the starting note. Caroline then seems to sense the need for change, introducing a new idea at 7-10; but this is short-lived and the falling crotchets return, appropriately, for the cadence bars.

Example 211, which Caroline sang on the same day as Example 210, begins with a similar scheme. There are opening, rising sequences using (x); the fourth reaches the highest note but now turns out not to be a fourth repeat but a new idea, characterised by crotchets falling by step to a minim (y). There is a transformation of (x) at 8-13, in which bars 12-13 also echo the  $\text{♩} \text{♩} \text{♩}$  end of (y). The rest of the piece consists of transformations of (y), and eventually falls to the end.

Example 210 : Caroline (6:3)

♩ = 126

(to Lah)

*quicker*

*rall.*

10

15

Example 211: Caroline (6:3)

♩ = 120

(to Lah)

*accel.*

♩ = 144

15

20

25

We have seen earlier instances where two pieces which are quite different on the surface seem to be exploring similar underlying structure. Examples 212 and 213 also seem to be two workings, by

Caroline, at an interval of a month, of a shared starting idea (reminiscent of "Away in a manger", though she sang these songs in June). In Example 212, there is a rising progression through the first two phrases to bar 3:1, then a change of direction and a low, recessive final phrase. The piece seems to subside almost before it has got going, so is not satisfactory as a whole, but there is a relation of the first two phrases, and outline of an arch in overall pitch contour.

Example 212: Caroline (6:5)

Example 212 musical notation:   
 Staff 1:  $\text{♩} = 112$ , 3/4 time, rising progression.   
 Staff 2:  $\text{♩} = 144$ , 3/4 time, *accel.*, descending progression.   
 Staff 3:  $\text{♩} = 144$ , 5/4 time, (to Lah).

Example 213: Caroline (6:5)

Example 213 musical notation:   
 Staff 1:  $\text{♩} = 108$ , 3/4 time, rising progression.   
 Staff 2:  $\text{♩} = 192$ , 3/4 time, *accel.*, descending progression.   
 Staff 3:  $\text{♩} = 192$ , 5/4 time, (to Lah).   
 Lyrics: lah lah, tid - dle - y (under Staff 2); pom. Lah lah (etc.) (under Staff 3).

In the second of these two pieces, Example 213, Caroline again explores ways of making musical relationships. Her opening idea ranges freely and confidently. The second phrase is a modification of the first, with much smaller intervals and narrower overall range. The third phrase, "tiddly pom", seems like an interpolation, but this too is related to the opening phrase, for it uses the rising 6th of

the opening. The final phrase takes the high DCBb again, from phrase one, in longer note values, and continues the falling figure down to the cadence. In this piece, Caroline has adopted the vernacular four-phrase frame, but introduced a surprise in line 3.

I have found it very difficult to capture such pieces of free musical play, because children do not produce them to order for an audience. The act of trying to respond to a request to make a song seems to inhibit such musical spontaneity, so the singers respond with story-songs or what seem like attempts to conform to what they think a song "should be". But there were rewarding occasions when normally inhibited children got caught up in the mood of a moment, perhaps while moving or performing a clapping game with a partner (cf. Mary and Kay), and provided intriguing glimpses of their musical imaginations. Such were Examples 214 and 215.

In Example 214, after the initial four bars, Hazel seems to get caught up in sequential exploration of the idea (a) introduced at bars 5-8. In terms of musical shape, it is interesting to note that the first and last phrases do not use (a). The intervening phrases all begin with the four-quaver figure; but, at bar 18, the ascending quavers are replaced by a descending interval, repeated, the change of direction signalling the beginning of the recession (just after the Golden Section). The element of recessiveness is continued in the final phrase, where repeated notes restrict the melodic movement and the liveliness of the quaver figure is lost. The introduction of  on the penultimate beat seems to confirm that such details are part of the overall pattern of progression and recession.

Example 214: Hazel (6:11)

= 132  
 lah lah lah, loo loo loo, lah lah loo. Lah loo loo loo loo lah  
 loo loo loo. Lah loo loo loo loo lah loo lah lah. Loo lah loo loo  
 loo loo, loo loo loo. Lah lah loo loo loo loo loo loo  
 loo. Loo loo loo loo loo loo loo loo.

The suggestion that the progressive-recessive elements in Example 214 are not accidental, but do indeed have meaning for Hazel at some pre-conscious level, is reinforced by Example 215, which she produced a few weeks later. This has similar characteristics, in terms of overall structure, to Example 214. Figure (x), which falls by step after the initial kick from the two quavers, gradually gives way, in bar 4:4-6, to (y), characterised by its rising opening bar. Figure (y) and an answering phrase related to (x) are repeated four times before the rising figure disappears (after the Golden Section at bar 18); and a new idea, characterised by repeated notes and a falling 2nd, introduced at bar 21, signals the beginning of the recession. The unexpected final bar is of a piece with the general playfulness of this song.

Example 215: Hazel (7:0)

The musical score consists of seven staves of music in 4/4 time, with a tempo of quarter note = 104. The key signature has one flat (Bb). The lyrics are written below the notes. Handwritten annotations include circled letters (x) and (y), and numbers 5, 10, 15, 20, and 25 indicating measure numbers or specific notes.

$d = 104$  (x)  
 Lah lah loo loo lah, lah lah loo loo lah, lah lah loo loo loo loo  
 (y)  
 lah. Lah lah loo loo loo lah loo loo loo, lah lah lah, loo loo loo  
 10  
 loo. Lah lah loo loo loo loo loo loo yah, lah lah loo loo loo loo  
 15  
 loo loo loo. Loo loo loo loo loo loo yah, lah lah lah loo loo  
 loo loo loo. Lah loo  
 20  
 loo loo loo. Lah yah lah loo, loo loo loo loo, lah loo loo loo loo.  
 25  
 Lah lah lah loo loo lah lah loo loo, lah lah lah loo, lah lah.

Hazel's song has elements of structural progression and recession, even though it might be seen at another level as belonging to the Personal mode of the spiral outlined by Swanwick and Tillman. Anne-Marie also got caught up in the playfulness, and spontaneously produced a series of songs which were quite unlike her normal

"commissioned" pieces (we have already seen some of the latter at Examples 195-198).

Example 216: Anne-Marie (6:6)

$\text{♩} = 192$  (variable)

(to Lah)

5

10

15

*poco rall.* 20 *a tempo*

loo loo loo, lah loo loo loo lah. Lah (etc.)

25

30

*hesitates accel.*

35 *a tempo*

40

For instance, in Example 216, she explored transformations of musical ideas, though her song lacked an overall sense of direction. In Example 217 she is working within the four-line frame, but there is a sense of progression and recession, which, as is the case in so many of the songs in my sample, is created in terms of rise and fall of overall pitch contour.

Example 217: Anne-Marie (6:6)

(to Lah)

We saw earlier that Aileen's songs (Examples 193-194) used a very simple two-phrase plan, in which the second phrase repeated the rhythm of the first. Even at age 6:7 she was still mostly producing brief, inhibited pieces such as Example 218a. However, the one instance of Aileen's uninhibited song-play which I was able to record (Example 218b) suggested that she, too, had more idea of "how music goes" than she was normally able to communicate to me.

Example 218a: Aileen (6:7)

(to Lah)

After she had sung Example 218a, I asked her if she could make a longer song, whereupon she produced Example 218b. Her model led her to continue the repetition. But she apparently also felt, intuitively, that a song does not just go on repeating; and so she changed direction in phrase 4 (bar 13-16). The piece could have ended there. If it had, it would have followed the pattern AAAB, which we have seen other children using. But Aileen added a coda, in which

bars 17-20 repeated the first contour but with a narrower pitch range and the final phrase continued the recessive tendency this introduced, falling to the end. The Golden Section occurs at bar 15, in the phrase which signals the change of direction.

Example 218b: Aileen (6:7)

As noted earlier, some of these category 3 songs do fall within a four-phrase frame, but play with a musical idea in a way which makes for organic growth. Example 219a is another illustration. Carla's word songs of the same period were story chants with restricted melodic contours and little musical organisation. (The opening line of Example 219 may be an unconscious echo of "There was a man who had a horselum", included here as Example 219b.)

Example 219a: Carla (5:10)

(to Lah)

Example 219b: "There was a man" (standard)

The rising crotchet pattern of bar 1 leads to three repeated notes (x) which acquire a "tail" (y) in the second half of bar 2; (xy) is then repeated in sequence, before the three repeated notes become an emphatic cadence point at bar 4. Bars 5-6 introduce a new melody, but this borrows the rhythm of (y) followed by the three-note rhythm of (x). This rhythm, to which the tail of (y) has become attached as an anacrusis, is repeated twice more, the anacrusis first rising, then inverted to fall to the final three repeated notes.

It is much more cumbersome to write about than to hear, but there is a tight-knit structure to this piece, resulting from Carla's play with the musical tags and the way in which one tiny fragment can separate from its original context and become attached elsewhere (abstraction and transformation at work on this very small scale).

Carla seemed rather "unmusical" in her songs with words, but her "lah" songs continued to show her exploring musical processes in this way. In Example 220, she has an opening bar with a falling 3rd and a rise, balanced by a rise through a 3rd and a fall in bar 2; bars 3-4 can be seen as a much modified repeat of this outline (fall 3rd and rise 3rd, now without the additional "tucks"). Bar 5 takes the repeated Ebs of bar 3; now they become the first half of what could be heard as a modified repeat of bars 1-2, (now minus the falling 3rd, but bar 6 is an "expanded" version of bar 2).

The repeated Ebs of bars 3 and 5 seem, in bar 7, to give rise to a new, repeated note figure which is emphasised by its repetition in bar 8, as if this has been the goal of the piece (and the Golden Section is bar 7, where it begins). The end repeats the opening five notes, but modifies the falling 3rd to a 4th (Eb-Bb) so that the end of the final rise (C) is now contained within that interval. Whereas, in bars 1-2, the rise took the melody back to where the phrase began and continued on upwards, this time the impetus is spent and the piece ends.

Example 220: Carla (5:11)

The musical notation consists of three staves. The first staff is in 4/4 time, starting with a tempo marking of quarter note = 168. It contains 8 measures of music, with an 'accel.' marking above the 7th measure. The second staff is also in 4/4 time, starting with a tempo marking of quarter note = 192, and contains 8 measures. The third staff is in 4/4 time and contains 4 measures. The notation includes various notes, rests, and accidentals, with some notes marked with 'x'.

Such details, small as they are, seem significant in terms of progressiveness and recessiveness, and many such small details in the songs in my sample give the impression that these are fundamental to the ebb and flow (or vice versa) of musical ideas.

Example 221: Zoe (6:7)

♩ = 144 (variable)

(to Lah)

5

10

rit.

15 a tempo rit.

20 a tempo rit.

25 a tempo

30 (slides back into E major)

As already noted, Carla, in Example 220, seemed to have borrowed her idea for the opening from "There was a man who had a horselum", but to have continued her own playing with the idea after that. Zoe, too, in Example 221, borrowed her main idea (bars 4-5), from Offenbach's Can-Can (which she had heard at home), transforming it in various ways. We have seen other examples of borrowing, particularly in the

case studies. It is, one imagines, the way in which children get their musical ideas, not just scraps of melody and rhythm but the whole idea of how music in their culture is organised - repetition, contrast, sequence, inversion, motivic development and progression and recession, music's flow in time. I shall return to this in chapter 12.

## CHAPTER 12: CONCLUDING DISCUSSION

My starting point for this study was Christine's "lah" song, Example 1, in which the 6-year-old singer seemed to be engaging in a complex act of musical thinking. Detailed study of Christine's work, in chapter 8, suggested that Example 1, though more musically successful than many of her other pieces, was not an isolated instance, and that Christine was working with music's structure, as well as with its expressive materials, constructing musical forms according to her own schemes. Nor was Christine the only 6-year-old to be engaged thus. Mary, Kay, Rebecca, and most of the children whose work was presented in chapter 11, also made songs which can be seen as evidence of musical thought processes such as were discussed in chapter 2.

The research presented in chapters 4 and 5 offers evidence that, from their experience of many songs, young children form schemes through which they filter their attempts to reproduce the songs of their culture. They do not simply imitate, like parrots, but are actively engaged in making meaning of music, which meaning, I have suggested in chapter 2, lies in music's structure, the interrelations of musical events, through which music functions as a symbol of our experience of time.

My thesis is that children also work with musical form in their early attempts to invent songs. This was seen to be the case in the pre-school singers considered by Dowling, McKernon, Davidson and Gardner. But the research considered in chapters 4 and 5 found that invented songs declined as children got to school age. The evidence I have presented suggests that children in their early years at school, if encouraged in appropriate ways, will continue to work with their own schemes governing song-production when, unlike pre-school children, they are beginning to recognise the difference between singing a standard song and inventing a piece of their own, and are able and willing to respond to the invitation to make a song, sharing it with someone else.

In chapter 11, I considered the songs of the non-case-study children in terms of three categories, or approaches to interpretation,

suggested by the case studies. As we saw, many songs fell into the category of recitative story song. Many of these were unstructured musically, it seemed the singers were using the words to give meaning to their expression. The more musically organised of these story chants tended to use repetition and "cascade" melodies, or the principle of melodic compensation, organising in patterns of rising and falling pitch, and seemed to parallel such chants in the more primitive music of the adult world (cf. Bartók's description of *parlando-rubato* song). It is interesting to reflect that adults do not usually sing such songs to children in our culture.

My singers were also developing, and using, schemes for song-production based upon restrictions in terms of number and organisation of phrases perceived in, and abstracted from, the songs of their culture, producing pieces which seemed to relate to the frame songs of pre-schoolers described by McKernon (1979) (and which may be compared with Bartók's closed architectural forms). The frame was usually, but not always, a four-phrase outline; within this, children could be seen to use various patterns of repetition and contrast, and in many cases, to make satisfying musical forms, with some element of progression and recession. The songs may be small, but complete, expressions of some aspect of the children's feeling lives.

Where children use such song-frames, it seems unlikely that they are consciously focusing upon the forms used. In songs with words, it is probable that the conscious focus of attention for the singer is the content of the story; when asked to talk about their songs, the children usually re-told the story. But sometimes the singers may insert a few nonsense words or an incoherent phrase in order not to interrupt the musical flow when words fail them. We are reminded that children's song-making may be a rich and complex activity, and that it may be difficult to identify what gives it meaning. The overriding impression is that the songs do have meaning, and that, in many cases, the singers are engaged in acts of musical thinking. This is particularly striking in the songs in my third category.

In discussing the songs as examples of musical thought, I shall refer back to the processes considered in chapter 2 (Serafine and Sloboda) in some detail, here.

In order to invent a song at all, the singer needs to have an initial idea. At its simplest this is just "an opening phrase", though a more sophisticated view of the initial idea, which was discussed in chapter 2, sees it as the embryo form of the whole piece, the superordinate, commanding or holding form. Referring to "idiomatic construction", Serafine (1988, p.75) drew attention to the fact that musical units gain coherence from conforming to the organisational rules of some idiom; for example, western tonality. In the songs of my children, where tonality is not very reliable and the musical vernacular is still being acquired, there may be an idiomatic melodic motive, but equally there may be a rhythm with a rudimentary melodic contour.

Once a song has begun, the singer must continue to develop or invent ideas, a process described by Serafine as "motivic chaining", in which the resulting combination is not just a string of add-on ideas but must have coherence. Very occasionally, my singers stopped after the opening phrase; it sometimes felt as if they meant to continue, but usually seemed as if one phrase was all they intended (cf. Bartók's identification of primitive folk songs with one- or two-bar motifs). In the recitative story-songs, the children might produce a good opening idea then "talk" the rest, or perhaps introduce another good idea for a later bit. But all of them could string musical ideas together; and, more importantly, they organised their ideas in various ways.

One form of organisation is phrasing. Having seen in chapters 4 and 5 that pre-school children organise in phrases, it comes as no surprise to find 5- to 7-year-olds doing so. We also saw that in acquiring standard songs, most children first mastered the words, rhythm and phrase boundaries before learning to sing the melody. There seems to be a similar sequence in invented songs. The rhythm and phrase

boundaries are contained in the words, at least in songs which have words.

For organisation into phrases is also a feature of most of the songs to "lah", which suggest that such organisation does not just reflect word patterns. The length of phrase may still be determined by the need to take breath; but musical effects, such as appropriately varied phrase lengths and marking of ends of phrases by longer notes and rests, suggest that organisation into phrases is a part of the children's musical thinking.

Many of the songs, especially the story-songs, use irregular metre and phrase lengths; but where regular metrical organisation is apparent, the phrase lengths are usually the 1, 2 or 4 bars of the children's vernacular (Example 222 is a rare exception), and the songs are usually in two or four time.

Example 222: Jenny (5:11)

(to Lah)

Only occasionally did the children volunteer songs to their own words in 3/4 or 6/8 time. But most of the "tiddly pom" songs were in 6/8, and some of the children worked happily in 6/8 time when prompted, for example, with given words or a starter; compound time is, after all, very familiar to them from many nursery rhymes. Very occasionally there was a mixed metre, such as we have seen in Examples 203 and 204.

Serafine considered the process of patterning (repetition and alternation) after phrasing; but I shall include that in a later

discussion, in relation to transformation and abstraction, after first discussing closure.

As noted in chapter 2, Serafine found that 5- and 6-year-olds could not recognise tonal closure. But we saw the case study children using closure, either tonal cadences or, in many of their less tonal pieces, a descending final contour, with or without repeated final note, which, as we saw in chapter 6, is also characteristic of much primitive, non-tonal music. The rest of the children also made frequent use of the falling contour to end; again, this was most noticeable in their less tonal pieces. It seems that the children can experience closure sufficiently well to use appropriate means to indicate it; it is not just that they are using conventional patterns, but that they use them at appropriate points.

Sometimes the close was signalled incontrovertibly in words as well. We saw this in Example 31, where Christine ended "And that is the end of this song!" In some cases, the songs just tail off, the singers talking the last few words, as if they feel that something different is needed to complete their pieces but lack the technique. In many cases, this tailing off itself becomes more stylised, so that the songs end with a falling phrase. In songs which were more recognisably tonal, the characteristic fall endings were often replaced with rising cadences (for example, te-doh). But until then, the children tended to use the primitive pre-tonal pattern which is shared with many singers in the adult world, using it while they acquire the culturally specific endings.

The impression that the young singers "know what they are doing" in terms of endings and have a sense of an overall completeness, is strengthened by the fact that while the majority of songs have falling ends, which create a sense of recession, a similar proportion have rising, progressive openings. (In the more tonal pieces, this pattern may be reversed.) We noted in chapter 6 that primitive songs may use formulae to mark beginnings and ends. It seems that children adopt similar conventions, containing their musical expression in

pieces which, even at a very elementary level, show an intuitive grasp of broad structural parameters.

Swanwick and Tillman noted surprise endings as characteristic of speculation in 10- and 11-year-olds. I have presented songs, representative of many in my sample, which repeat a melodic contour then change it for the final phrase, as if this is their goal and is marked in this special way. As Dowling (1988, p.157) found that his 3-year-olds did this, too, it seems that feeling for ways of marking the end of a song may develop early.

Another way of organising musical materials, as has already been noted, is through patterns of repetition and alternation. This has been illustrated in many of the songs already presented. Immediate repetition is perhaps the most easily managed, and many of my singers did this, often but not always repeating words as well; they also used immediate repetition in songs without words. Usually the repetition seems intended to be exact, allowing for the fact that it might be a contour rather than exact pitches.

Much of what is perhaps an attempt at varied repetition may be obscured by inaccurate pitching. There are some examples of transformations which seem to have structural significance, one of which is sequence; this occurs particularly, but not only, in the songs of the older children, see, for instance, Examples 223 and 224.

Example 223: Lianne (7:3)

♩ = 144

I like the wind, it blows on me. I like the wind, it

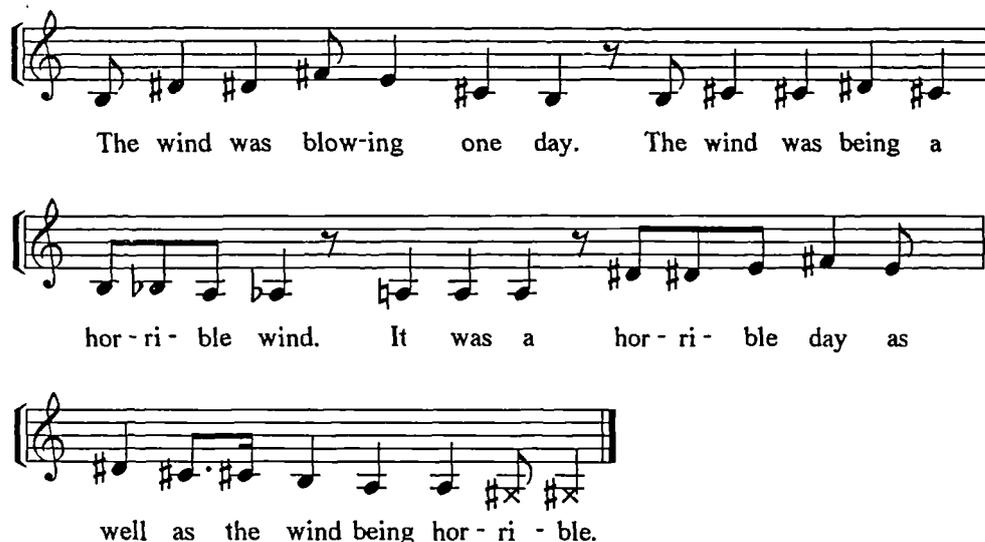
*slower*

blows on me. It blows the trees, and it blows at the leaves,

*a tempo*

off the tree.

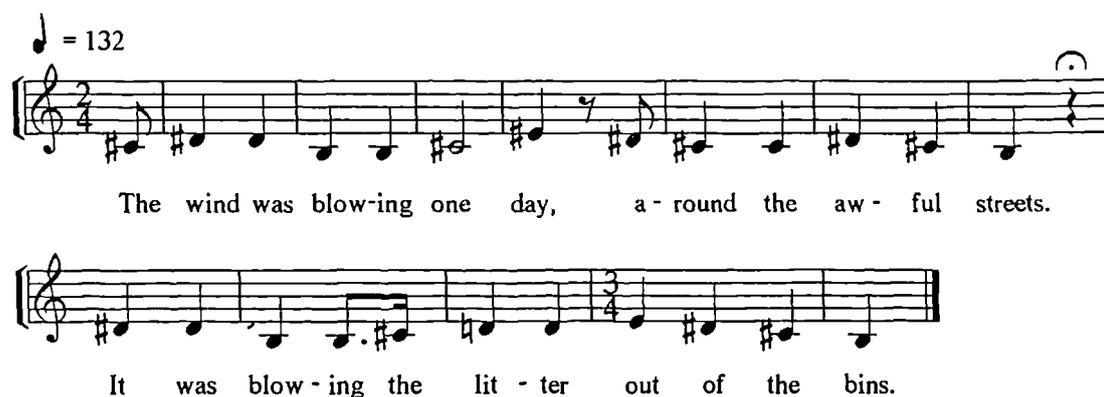
Example 224a: Joanne (7:2):



The wind was blowing one day. The wind was being a  
hor-ri-ble wind. It was a hor-ri-ble day as  
well as the wind being hor-ri-ble.

These two singers represent the top end of my age range, and are perhaps becoming more able to control their ideas. But when Joanne tried to repeat her piece, she sang Example 224b, in which she has lost not only the sequence but the life and direction of the melody as well, suggesting that control is still not very secure.

Example 224b: Joanne (7:2)



♩ = 132

The wind was blowing one day, a-round the aw-ful streets.  
It was blowing the lit-ter out of the bins.

Many instances of sequence result from the formula; see, for instance, Example 225.

Example 225: Natalie (7:4)

$\text{♩} = 130$

I want to climb the mount-ains, to climb the

mount-ains to climb the mount-ains. I want to climb the

mount-ains, with my dad-dy to-day. If I

can't talk to my dad-dy, if I ca', talk to my dad-dy,

talk to my dad-dy, um, if I can't talk to my dad-dy,

but I dare-n't look down.

Sequence also occurs occasionally in "lah" songs; see, for instance, the opening of Example 226. [The principle of melodic compensation, noted in relation to the story chants, is at work in Example 226, providing tight-knit organisation in a four-line song; a descending sequence, followed by a rising contour to the mid-cadence, is answered by a (modified) rising sequence, and a fall to the final cadence.]

Example 226: Lindsay (6:4)



musical forms; and as we saw in chapters 4 and 5, abstracting, or borrowing, material seems to be equally important in acquiring a musical language in the first place. I have already referred to children borrowing musical ideas and structural processes in the formula and "tiddly pom" songs. Other examples of borrowing may profitably be considered here.

Children might abstract a complete tune from its words and sing it to "lah". For instance, Chloe, Example 227a, borrowed from "Morning has broken". The other children recognised it before I did, they apparently interpreted Chloe's restricted contour schemes more readily than I could.

Example 227a: Chloe (6:8)

$\text{♩} = 76$

(to Lah)

Example 227b: Morning has broken (standard)

This did not seem very inventive, but may have served a useful purpose. It seems that children who lack a musical vocabulary reproduce songs wholesale, perhaps simply to meet the invitation to make a song. Helen, so inhibited in her songs with words (as seen in Example 152), found a voice by borrowing. In Example 228, we see her reproducing "There was a princess long ago" to "lah", giving it a short introduction.

Example 228: Helen (6:4)

(to Lah)

Singers who borrow whole tunes to sing to "lah", in this way, are also, presumably, learning to handle the music separately from the words and to experience music's wholeness, though they may be able only to work with the complete melody, not to abstract or transform smaller parts of it.

A complete tune might also be abstracted from a known song and used for other words. This happened frequently when I gave words for children to set; the tune most frequently borrowed for this was "Twinkle twinkle". This involves a more sophisticated use of abstraction and transformation; to sing new words to a pre-existent tune (of their own choosing), children must recognise the underlying phrase structure and metre of a song and match it with another one. It is interesting that they usually used pre-existent words for this and rarely borrowed known tunes to set their own words. The exceptions were usually the more successful song-makers.

Some children made modifications to their borrowed tunes, suggesting that it is the global pattern which is the fundamental thing, the details can vary; it also suggests that they, like the folk singers

considered in chapter 6, and the children considered by the Opies, have a predisposition to alter, to make something their own, even while being economical with invention of new material. A particularly striking instance of this is Example 229; it was presented as Angela's own song, but seems to be an elaborate variation of "Baa baa black sheep" to "lah".

Example 229: Angela (6:9)



The children do not always borrow whole tunes; as we have seen, they may also take bits of a known tune (or of several) and incorporate them into their own pieces (cf. the pre-schoolers' pot-pourri songs observed by Moog and analysed by McKernon and other researchers examined in chapters 4 and 5; and the process of centonation, as noted in chapter 6).

With one of my singers, this pot-pourri approach was very marked. Ria was by far the most prolific of the singers in my sample; she produced seventy-four songs, and would have sung many more had I been able to give her more time. She was musically very mature, compared with the other children, having a good sense of tonality and a wide repertoire of songs, many of them learnt from her family and at church. Her early songs for me were four-line frame songs, samples of which, at Example 169 and 178 show her to be working successfully with music's structure.

Ria also explored way beyond the restricted frame, in songs which were very long and discursive, and in which she incorporated material freely borrowed from one or more pre-existing songs. (Only occasionally did children use material from more than one source in the same song.) These seem to be story songs, like others which were considered earlier, in which the words give the overall meaning, but they are also organised metrically and in terms of repetition and contrast, though they vary in their success in terms of overall progression and recession.

Example 230 shows one such piece. I did not always recognise borrowed sources, nor could Ria always enlighten me, but the phrases marked with brackets also occurred in various combinations in others of her songs, and she could identify some of them as borrowed. The process of centonation, whereby she used the same fragments, rearranging them each time to make new songs, is much more obvious and well-developed in Ria's songs than anywhere else in my sample. (Examples of borrowing appeared to be largely undetected by the 5- to 7-year-old song makers until I began to draw attention to them; when I asked children if they recognised the tune which a child had sung, Rebecca said "Yes, there was one note that I recognised".)

Swanwick and Tillman commented on borrowing by older children (1986, p.329); but it seems that borrowing (abstracting) musical ideas and reconstituting (transforming) them (also noted by Swanwick and Tillman as the early glimmerings of structural relationships in 4-year-olds), are important processes in young children's song-making as the means whereby infants acquire musical language. It is "acquiring the vernacular", but there is more to it than just picking up scraps of rhythm and melody. What seems important about borrowing of fragments is that they are used appropriately, presumably because of subconscious thought processes which remember and recognise them as good for use within the new context (cf. McKernon, Gardner et al).

Example 230: Ria (6:7)

$\text{♩} = 69$  (variable)



(All) Sail - ing down the riv - er on a lil - y pad.  
(my starter)



(Ria) Float - ing on the wat - er, when the fish came by. The fish climbed

$\text{♩} = 80$



und - er her and then he let her float on its back. And

$\text{♩} = \text{♩}$



then Thumb - el - in - a was hap - py. She looked all ov - er at the



rab - bit, then she, float - ing on the wat - er, float - ing ev' - ry - where,



float - ing with the fish right und - er the leaf. And then she saw the



rab - bits, jump - ing ev' - ry - where, on the ground. She

*accel.*



looked and looked and looked and looked and ev' - ry - where, ev' - ry - where she

$\text{♩} = 104$

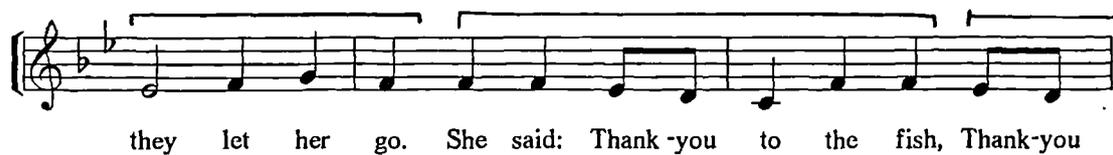


looked a - gain. And she thought it was beaut - i - ful, so

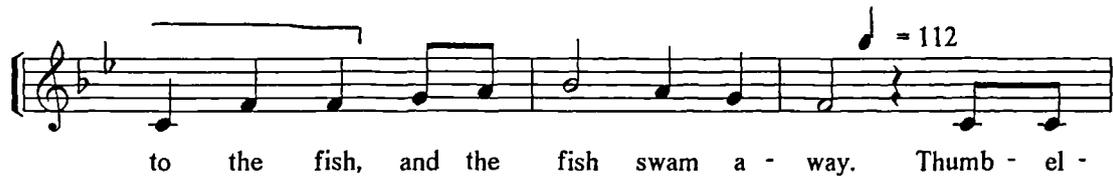
(Example 230 continued)



beaut-i - ful, she thought. And then the fish let her go, and



they let her go. She said: Thank-you to the fish, Thank-you



to the fish, and the fish swam a - way. Thumb - el -



in - a saw a may - bug com - ing. It took her in his



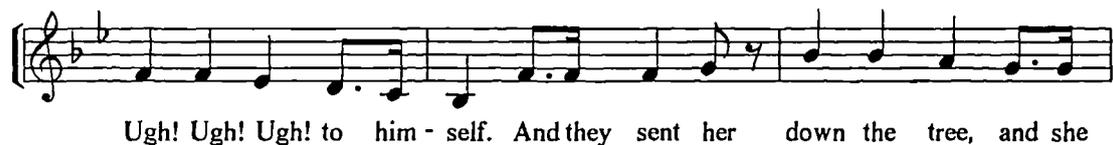
teeth. And then the may - bug went and said: Don't you



like this girl? And they said: Ugh! Ugh! She has - n't got an - y tent-ac -



les. She has - n't got four legs, and then the fath - er said:



Ugh! Ugh! Ugh! to him - self. And they sent her down the tree, and she



walked a - round, look - ing for some-one to look aft - er her. She

(Example 230 continued)

found a lit-tle mouse, and he looked aft-er her, and

♩ = 116

read her stor-ies, and sang her songs. She was go-ing to get mar-ried

*hesitates*

to the mole. Then one day, she mar-ried a, the

*a tempo*

prince of the flowers, when the spar-row had tak-en her a-way.

We have seen that, as well as borrowing whole or parts of melodies, children appear to abstract the frame of a song, making a new melody and new words, showing they have a sense of an overall form, even though surface details change. This is apparent in children's "sketches" of the same song, such as Examples 26 and 27, and in songs which seem to have a common underlying structure, such as Examples 180 and 181 and the remarkable pair of songs by Mary, Examples 98 and 99.

In some cases, we can observe the development of increasing independence at work with an identifiable song as the starting point. In Mary's "Pinocchio" songs, for instance, we saw that she borrowed the complete tune of a standard song ("Poor Fairy Doll"), and made new words. Then she became more independent of the standard melody, making her own song but incorporating elements of the standard song and bits that had emerged along the way (from her own and other

children's inventions) within a frame; though in this case, she also expanded the frame (Examples 91-94).

While most of the children in my sample produced some "lah" songs in which they borrowed complete tunes, and songs in which they appeared to have abstracted the four-line frame, not all of them engaged in the other forms of borrowing outlined here (new words to borrowed tunes, pot-pourri, borrowing and transforming in some way, or borrowing small motifs rather than whole sections). It is interesting to compare Werner's account (already noted in chapter 4) of the structuring of children's earliest songs (age 2), in which the repetition was first "the motif as a whole", then parts of the motif became available for repetition on their own. Some children still seem to need to work with whole sections at 6 and 7, though the sections are themselves generally longer than those identified by Werner.

The ability to abstract and transform musical ideas, especially the transformation of fragments of borrowed material, may be an important difference between successful and unsuccessful song-makers (even, perhaps, between musical and unmusical children). Kalmar (1991) already referred to in chapter 5, also found that it was only the more "musical" children in her sample who borrowed from known songs. Moog found that about 30% of his 3- to 4-year-olds sang pot-pourri songs, and that percentage decreased among the older children. Have some children lost this tendency by the age of 5 or 6? Is it that they do not borrow when they are beginning to move into the Vernacular mode? Not if Christine, Mary, Ria and others are any indication; and one might think that borrowing from pre-existing songs is itself a characteristic of the Vernacular mode. We have seen that Kelley and Sutton-Smith and Gardner, as well as Kalmar, have pointed to differences between individual children and between successful and unsuccessful composers. This may be one of the differences.

Another way in which successful composers differ from unsuccessful ones is in the greater variety of representations of how a song goes which the former seem to have. While certain schemes seem more in

evidence than others, the children used a variety; and an individual child might work with several over a period of weeks or months.

I outline below the schemes used in my sample; they may be seen as further refinement of the categories, or ways of thinking about children's songs, which I discussed in chapter 11. I offer this list as a very preliminary, tentative, attempt to identify what schemes children of 5 to 7 may use when they deliberately set out to make songs of their own. The main conclusion which I suggest can be drawn from the songs in this study is that the children are indeed engaged, not only in exploring materials and in personal expression, but also in making coherent forms. It is interesting to note the close parallels between them and the stages of evolution of folk song which Bartók and others have identified (cf. chapter 6).

The schemes used by the children in my sample are:

1. narrative chant, recitative or **parlando rubato** style, in which the import is in the story/words, though elements of melodic organisation may be discernible in, for instance, repetition of descending melodic contours (compare cascade melodies, chapter 6)
2. frame songs, which seem to be attempts to work towards the restrictions sensed in the songs of the culture, organised in two, three or four phrases, with phrase ends often marked by rests or longer notes, or falling contours (compare Bartók's three- or four-line tunes in rounded-off form but lacking any more definite architectural structure)
3. frame songs organised into phrases with elements of repetition and contrast. At its simplest, the pattern may be just repetition, but there are also various patterns of contrast, ABAB etc. (cf. Bartók's rounded off form characterised by definite architectural structure)
4. songs which suggest recognition, at some intuitive level, that sectional repetition and contrast do not, by themselves, provide progression and recession, and which use very simple ways of making a four-line piece which is goal-directed in some way (for instance,

three repetitions of one contour and a contrast in the fourth, or four lines with a disturbance in line 3); but still within the restricted frame.

5. songs in which progression and recession are effected in terms of rising and falling pitch contour. This may be in a four-line verse, but need not be. The rise-opening and fall-ending may be a fruitful model for progression and recession, as we saw in the case studies (especially Christine). I have already suggested that the falling 3rd, which some observers consider might be the universal *Ur*-song, is itself a model of progression and recession. The intake of breath and initial attack are progressive, followed by the recessive fall. The ability to rise above the pull of melodic gravity, to generate a rising opening, offers new possibilities for structural developments.

6. pieces characterised by motivic development, playing with musical fragments and seeing where they go. Such development may be contained within a frame or may be combined with an overall rising and falling pitch contour.

I have referred to schemes here (after Piaget), rather than to superordinate plans (Sloboda), as the plans I have outlined above may be common to many pieces, whereas Sloboda suggests that a composer has a new superordinate plan for each piece; as do Langer (commanding form) and Witkin (holding form), also referred to in chapter 2. The idea of schemes which may be common to many pieces does not contradict, nor make unnecessary, organic development of a musical form for each individual statement. As with classical "forms", we can find many pieces working to the same general principle, but only unimaginative composers treat this simply as a mould in which to set their ideas. The same applies to young children making songs. My sixth scheme seems to offer most scope for individual structuring, but successful pieces in other forms also need to have a sense of direction growing out of, and appropriate to, the ideas themselves.

The case study children used all of these schemes. Christine, Mary and Kay seemed to have a greater variety of plans than did the less successful composers, and to be more tuneful than some. But ability

to invent successful songs did not necessarily correspond with ability to sing standard songs in tune. Even in their early, least melodic, songs the case study children seemed to be working to formal plans; while Matilda, who could sing beautifully in tune very early, seemed to have only the most rudimentary scheme for an invented song, even at 7:0.

Some of the least musically articulate children (eg. Anne-Marie and Aileen), seemed to have some grasp of musical form, or schemes which governed their output; and, like the case study children, they seemed to have their own agenda for song-making, adopting strategies which allowed them to work in accordance with their schemes. Other children, who could not sing the songs of their culture in tune, nevertheless produced songs such as Examples 208, 211 and 219b, which seem to be quite complex pieces of musical development.

I have referred above to differences between musical and unmusical children. If we were asked to make a profile of the characteristics of the less successful song-makers, we might say that they:

- make recitative sing-song chants using restricted contour schemes;
- make frame songs with restricted contour schemes, using two, three or four phrases and little structural organisation
- may borrow whole tunes and sing them to lah, but do not transform the borrowed material or abstract small units from the whole, nor make new words to the borrowed tunes;
- may borrow the formula and conventional tiddly pom patterns and over-use them;
- do not make free "lah" songs using motivic development (may do restricted or discursive "lah" songs);
- do not organise progression/recession in terms of rising/falling pitch contour or, usually, in any other way.

But it must be emphasised that such profiles need to be approached with great care, for it is interesting to reflect that had I based my assessment of Christine on, for instance, Example 26 ("Once there was a tree in the woods"), Example 49 (the formula kitten song) and her

abortive attempts to make a song out of poems at the beginning of the Autumn term, 1990, (which I could actually have done if I had been collecting songs at set times, say, once a term), I would have had a very different view of her musical development than that which actually emerged from the full case study.

There were times when Christine, and many others, seemed to be experiencing the inhibitedness which many observers have noted in relation to the move into the Vernacular mode - children censoring their free inventions as they become more aware of the norms of their culture. The many examples of frame songs suggest that the singers are becoming able to use the forms of their vernacular in their invented songs and we might perhaps expect them to be leaving their free, expressive song play behind. But, curiously, this might seem to suggest that the least successful, most restricted, children were actually at a more mature stage of development than were the children who produced Example 52 (Christine's "On Christmas Eve") and Example 95 (Mary's "I went on an aeroplane").

It may be the case, of course, that Helen (see Examples 152 and 191) and other apparently unsuccessful children had made successful songs but not when I was able to hear them, and that they were, during my time with them, simply experiencing all the inhibitions of the move into the Vernacular mode. But it is also possible that some children do not engage in the kind of inventive, spontaneous song play which was documented in chapters 4 and 5 (and of which such striking examples have been shown in this study), either from natural inclination or from a lack of musical experiences which would prompt it (cf. Kelley's and Sutton-Smith's third subject, and Kalmar's Australian children, referred to in chapter 5).

It may be that some of my less successful children have come into the school environment, where free, spontaneous song making is not normally prompted, and where there is an emphasis on "getting it right", in music as in other things, and have encountered the demands of the Vernacular mode without experiencing inventive song play. So, in response to my invitation to make a song, they can only produce something inhibited by the restrictions they now perceive. Some of my

"unmusical" children made no progress over the period of the project; Kalmar noted the same with the Australian children in her sample, compared with the Hungarian ones. I have already noted that success or otherwise in inventing songs did not necessarily correspond to development of a sense of pitch.

In considering the results of my study in relation to models of musical development considered in chapter 3, it seems that the categories of song which I have identified relate closely to the early modes in the model of development suggested by Swanwick and Tillman, thus:

Sensory/Manipulative/Personal modes = recitative story songs  
Vernacular mode = restricted frame songs  
Speculative mode = motivic development

It might seem that my more successful children are further along the spiral, and the others will progress in due course. After all, according to the spiral, children of 6 and 7 years would be expected to be still only just moving from Personal into Vernacular. But Bunting, from whom Swanwick and Tillman derived some of their modes, declined to assign ages, saying that all modes might be present at any time, though some might be more important than others at certain ages. Swanwick and Tillman, too, have said that children and adults work in more than one mode at a time and revisit earlier modes at later periods (examples of which have been provided in my case studies).

I have already suggested that, in terms of song making, some of my children seem to have missed out on the early modes and to be attempting to work in the Vernacular without much previous experience. It is also the case that much of the material in my sample which suggests a higher level of musical understanding, with children speculating in music (which Swanwick and Tillman take as evidence of a grasp of form), occurred while the singers were acquiring a reliable musical vernacular and, in some cases, before they could sing standard songs reliably in tune.

This is illustrated particularly in the case of Caroline. Many of Caroline's songs were story songs, with only very rudimentary musical characteristics (see Example 157, especially the later part). She did sing some, but only a few, more organised songs with words, one of which we have already seen (Example 158). This used a restricted frame, and suggested a move into the Vernacular mode, but the last line had a hint of playfulness, an expressiveness symptomatic of her feelings about Spring. Caroline could not sing standard songs in tune at all, nor could she imitate when I asked her to copy a note or melodic fragment. She usually showed little awareness of the musical vernacular, and, by conventional standards, she appeared to be unmusical. Yet it was she who sang Examples 210-213 (see chapter 11).

In her other songs of the same period and later, she seemed to be firmly in the Manipulative/Personal modes (see Examples 231 and 232).

Example 231: Caroline (6:8)

♩ = 116 (very free)

Ah ah ah hah ah ah lah lah lah lah lah

lah lah lah lah lah hah.

The element of playfulness apparent in Example 23 was strong in her later "lah" songs, in which she seemed to be still engaged in the very free vocal play of pre-school children. In Example 23, she picked up the idea of repeating after she had heard other children make formula songs and we had talked about repetition, but she did not use the vernacular pattern. Still, though now aged 7:1, she seemed to be working at the level of playful expression and story song.

Example 232: Caroline (7:1)

You know what Cand - y, Cand - y, Cand - y did, this morn - ing, this  
 morn - ing? She nipped, jumped up at Cath' - rine, and  
 on - to the ta - ble, and, got s' one of her sli - ces of  
 toast. And I said to her: Naught - y, naught - y, naught - y  
 lit - tle girl And I smacked her nose. And mum - my told her, me to  
 put her in the freez - er room, freez - er, freez - er, freez - er room!  
 and Scott was a ver - y good boy.

So, for Caroline, the speculative "lah" songs in Examples 210-213 seemed to pre-date the Vernacular. This also applied to other children; or, at least, we can say that the songs which suggested speculation were produced in the same period as those which more obviously used the Expressive and Vernacular modes.

This corresponds with the conclusion by Swanwick and Tillman that children may work in more than one mode at a time; but, as we saw in chapter 3, their sequence presents Materials, Expression and Form as three fundamental transformations in that order, and, although they speak of much re-visiting of these different aspects throughout development, there is still an impression from the spiral, and from Swanwick's application of it to the school curriculum (1992), of a linear progression. But the songs of my sample suggest that understanding how and why children move from one mode to another, discovering what is the child's "intention to mean" (Blacking), may be as important as (perhaps more important than) looking for linear progression.

Swanwick and Tillman say that "any" grasp of musical form must wait until the age of 10 or 11, and the Speculative mode. While this may apply to analytical, reflective understanding, I have suggested - and presented evidence from the children's work which I believe supports my thesis - that younger children may have an implicit understanding of music's structural relationships and a sense of form.

As we saw in chapters 4 and 5, there is much evidence to suggest that children work with musical form at pre-school level and into infant school. They have a predisposition to organise musical materials into forms. Swanwick refers to this as the need to make *gestalten*, to establish the norms against which speculative surprises can be made meaningful. But these wholes are themselves meaningful pieces of musical mentation. A reference to Langer is particularly relevant here, for, as already noted in chapter 2, she wrote that "Everything that fulfils the promised future in ways foreseen or unforeseen articulates the symbol of feeling" (Langer, 1953, p.129, my emphasis).

My singers did not show much capacity for analysis. They seem to have been working at a pre-operational level, making musical structures and experiencing things in and through the act of music itself, which they were not able to describe verbally and which they could not produce or control to order, nor recall and repeat. But many of their pieces seem to be quite advanced for the children's ages, compared,

for example, with the illustrations in Swanwick and Tillman (1986), and much more complex than anything which the children produced when they did begin to try to pre-plan and remember their songs, songs which were much more obviously in the Vernacular mode.

It seems that learning to compose, and developing analytical understanding of how music works, may be a matter of learning to recognise things which are already in the pre-conscious imagination, at least with some children. The wonderful flights of infant musical fancy - such as Christine's "Lah" song and Mary's "Autumn" songs - suggest that, at some level, the children have an understanding of complex musical structures, for if they can use them they must somehow know them. Gardner's assertion (considered in chapter 3) that children have all they need to partake in the arts (as makers and perceivers but not as critics) by the age of 8, seems particularly relevant here.

Children's understanding is not, it seems, the same as adult understanding. This has been demonstrated by Serafine, in relation to children and music, and by Gardner and others in relation to children and art (see chapters 2 and 3). But in chapter 2, I examined in some detail the possibility that even for adults, there remains an area of musical creativity which is beyond the composer's conscious control (compare Sessions' account of the composing process, and Sloboda's diagram, Figure I). The inspiration, or initial idea, which contains the seeds of the whole piece cannot, it seems, be produced to order nor fully explained. It seems to spring from the composer's subconscious, though the mature composer can recognise ideas and their possibilities when they come into his or her mind, and has a repertoire of techniques and procedures with which to treat them, which the young child lacks.

As this study has shown, young children can make complete pieces which function as symbols of time; which have satisfying structures and sense of form, and express the children's feeling lives. It seems that, for them, the whole process - initial inspiration and working out of a musical whole - is carried out in a purely enactive way. They can do it but are unable to recall it, analyse it or do it to

order. Form, or forming, the making of structural relationships, I have argued in chapter 2, is fundamental to music, and indeed to all art; so we would expect it to appear early in a child's development. My study suggests that the songs of young children are not just symptomatic of children's feelings; they show children to be closely in touch with a fundamental aspect of music, its wholeness and its progress in time. Gardner, as we saw in chapter 2, considered that the young artist may be very close to the well-springs of creativity. This seems to be true of my more successful song-makers, too.

The case studies show that the pattern of work is different in different children. There appear to be differences of "cognitive style" (Gardner), which also seem to reflect the children's personalities. For example, Christine had an intellectual, rather inward-looking approach, compared with Mary's extrovert style associated with movement. Kay was quiet, but her songs revealed a playful element which was quite different from Rebecca's rather stolid style.

Children may work in several modes at the same period, or they may appear to change modes according to song genre; they may also, it seems, encounter the modes in a different order, or omit one. Many observers have commented upon the loss of spontaneity and originality in children's creative work when the children move into the more self-conscious Vernacular mode of working. Gardner (who drew attention to this U-shaped developmental curve), and other writers referred to in chapter 3, have warned that children's creative impulses may be silenced for good if their technical skills do not develop enough for them to be able to satisfy their developing critical powers as they progress through primary and into secondary school.

But the evidence of my sample suggests that not all the children make the early, imaginative structures illustrated by my Example 1, even allowing for the possibility that they would be more likely to do this privately than when I was recording. Musical imagination varies between individuals, it seems, even at 6 and 7. One of the surprising findings is that some children who seemed unmusical by

other criteria (especially the ability to sing standard songs in tune) could create their own successful pieces (illustrating the difference between the left and the right sides of the Swanwick and Tillman spiral).

In the following pages, I outline what seem to be the main implications for pedagogy and research of the results of my study.

### **Implications for pedagogy**

1. Young children, like adults, need to make musical patterns and whole forms as symbols of their feeling lives and of time, and need adults to give this authority.
2. The search for music's meaning, which lies in its structural properties, begins very early and continues to develop alongside the exploration and manipulation of musical sounds and expressive qualities.
3. The "fundamental transformation" (Swanwick and Tillman) appears, from my study, to be less to do with changes from "materials" through "expression" to "form" than from enactive, intuitive behaviour to reflective, analytical understanding in relation to all three aspects.
4. Musical imagination is already developing at a pre-verbal, pre-operational stage, and needs to be encouraged and given scope.
5. Children working with instruments may appear to be less advanced than they really are, because their musical vocabulary has been acquired vocally and they have not yet developed an instrumental vocabulary and manipulative skills; so they need opportunities to engage in song-making as well as instrumental exploration. (The links between song and language, and between instrumental work and visual

and kinaesthetic experience, may prove fruitful aspects of further study).

6. We have seen children unconsciously borrowing from standard songs. Such borrowing seems to be fundamental to their early development as composers. But it is less likely to occur spontaneously in early instrumental improvisations because the children will have difficulty finding the notes. Again, the suggestion is that free song-play should be encouraged to continue into the early school years.

7. Because children work according to their own inner representations of how music goes, individual children will have their own patterns of work, and we need to observe and try to understand what they are doing. They may change from one mode to another, and the change may appear to be arbitrary; but as, for example, Jenny's "Fireworks" pieces showed, they may need to try out their ideas in different ways as their schemes develop and change. They may also appear to regress as they encounter a new task.

7. Approaches to composition in British schools have rather tended to assume that younger children will work mostly in groups, with individual work being more appropriate as children progress through secondary school. Group work clearly has many advantages. But, though it is difficult to organise individual work in a busy classroom, it is at least important to bear in mind that, as the songs presented here suggest, much individual learning may be taking place which might not readily show itself in group work with instruments.

8. Where children's understanding is implicit and pre-verbal, it is not easy for teachers to intervene, as children cannot respond to inappropriate suggestions or to verbal instructions. The teacher needs to follow the child, and may most effectively teach through modelling a range of possibilities and observing how the child uses them. Intervening without careful observation and understanding of the child's "intention to mean" might be useless, or even harmful.

A long-standing debate has centred on the question of how much teacher intervention there should be and what form it should take. In

chapter 7, we noted a difference between the Kodály/Orff approach, which seeks to control and structure the child's early musical vocabulary, with particular emphasis upon the minor 3rd and the pentatonic scale, and the approach more common in Britain, which is to allow children to use the full vocabulary they absorb from their musical environment.

Some of my children did not need a "learner" vocabulary; they could sing in tune and create new songs successfully. With regard to others, I wondered whether it would have been better to train them to sing a limited vocabulary in tune and to encourage them to improvise with this. I chose not to do this, because it would have conflicted with the more usual approach in British schools and in the schools in which I worked. Since the evidence from pre-school children was that much understanding of how music goes can be acquired without formal training, I decided to investigate how far this self-initiated development might go in children in their first years in the infant school.

There is not, in the published literature, a comparable study which examines the improvisations produced by children trained in the Kodály method (though Kalmar, 1991, has some useful observations). I imagine that such a controlled, structured approach would produce more successful pieces of the kind which I have called "frame" songs (vernacular). This might have been better than nothing for the few children in my sample who could not, apparently, produce any song of their own, nor sing standard songs in tune. More positively, it might have provided a foundation from which children could move more confidently into their own explorations.

The results have suggested that it was appropriate, and indeed, valuable, to refrain from such intervention in this study. But I was disappointed at the level of intonation which some of these children had, compared with, for example, the children studied in the research discussed in chapters 4 and 5 and my own experience of other young singers. A possible explanation for it was that, though there was much singing in the two schools, what I heard was done with whole classes, or larger groups, directed from the piano, all singing

together. There was less emphasis upon vocal play or voice tuning, with children singing unaccompanied and being encouraged to listen carefully to a vocal model.

(A project currently being undertaken at Roehampton Institute, under the direction of Desmond Seargent, is investigating the state of children's ability to sing in tune. It will be interesting to read the results of such a study with a large sample.)

What has been interesting, in terms of this particular discussion, has been the evidence from my study that children will take whatever music they are taught; the process of music acquisition does not necessarily depend upon children being provided with a restricted vocabulary. The process is akin to that of language acquisition, where we do not restrict vocabulary or syntax, and the children make their own schemes which are constantly being adjusted. The processes of melody acquisition which have been studied in pre-school children learning to sing standard songs seem to continue in the early school years and to be the means whereby children develop their compositional language. Perhaps, as well as (even rather than) restricting children's musical language, we need to look again at the language teaching models, so that children who do not develop musically like Mary, Christine and others, are given musical language enrichment courses.

For what I found, when I contacted the parents of my more successful singers, was that the children had one-to-one singing and solo work at home (compare the comments of Kelley and Sutton-Smith upon their successful singers and children as performers, in chapter 5). Children acquire a mother-tongue through individual interaction with other language users; such interaction may be crucial for optimum development of a musical language, more significant than presenting a simplified vocabulary.

### **Some implications for research**

Some implications for music pedagogy have been outlined above. Implications for further research centre on the fact that global studies of development need to be supplemented by close, detailed study of individuals, so that we learn, not only how children develop across the board, but how and why individuals differ from the overall pattern, and how some children come to be more successful musically than others.

My starting point was the consideration that existing models of children's musical development might not fully account for songs such as my Examples 1 and 2 in a 6-year-old singer. In particular, the question arose, was Christine musically precocious, having progressed through the modes more quickly than average? She seemed, at the age of 6, to have a grasp of musical structure of a quite complex kind, which Swanwick and Tillman suggest would more usually be found in a 10- or 11-year-old; though Christine's use of motivic development seemed more advanced than even the 11-year-old's piece in Swanwick's and Tillman's illustration. The simple explanation, that Christine had followed the sequence but in a much shorter time than usual, was found to be insufficient when we saw that she, and other children, appeared to produce such pieces in a pre-Vernacular mode, making musical structures long before they had a verbal grasp of music's structure.

My sample, like those of most of the researchers considered in these chapters (with the exception of Moog), is small, and, though I worked with the children for up to two years, the study lacks the truly longitudinal element which would, perhaps, answer questions such as those outlined below.

1. Do all children work in all of the modes equally and in the same way?

2. My case studies show that children have individual agenda; what other agenda might there be, and can we fully account for, or predict, their occurrence?

3. How do children's vocal improvisations relate to their work with instrumental pieces? Are successful children equally successful in the different media?

4. Are the organic structurings which I have discussed as my category 3 confined to a few children, and do these children go on to develop into imaginative composers as they become more able to recall, recognise and manipulate musical ideas?

5. Are the beginnings of musical imagination to be found in these early pieces; or are they really of no more significance than "vocal doodling" (Ross), the use of musical structure simply dependent upon chance?

6. How might such imagination be encouraged, and is it too late by the time children start school? We can, perhaps, help children to acquire a musical vernacular, but can we cultivate musical imagination where it seems to be lacking?

7. What does such a study reveal about musical and unmusical children? What about the children who sing well in tune but appear to be "non-composers"; and those who, even at the age of 7, cannot adequately reproduce the songs of their culture, yet can produce satisfying musical wholes of their own making?

The advent of the National Curriculum for music has intensified the need to find ways of planning for, and assessing, children's musical development. The National Curriculum, and the discussion surrounding it, has focused attention yet again upon what people see as the relationship between doing and knowing in the arts, "the relative emphasis given to practical work on the one hand and knowledge and

appreciation of music on the other" (National Curriculum Council, 1992, p.B1), as if these, though related, are yet separable aspects of musical activity.

If they are considered separately, it becomes necessary to stress, as the National Curriculum does, that the two are "intertwined", and to try to explain how we handle this in practice. But curious ideas might result from this approach. For example, the Non-Statutory Guidelines seek to explain the difference between "simple structures" and "musical structures", thus:

The difference between 'simple structure' and 'musical structure' is the level of musical knowledge. For instance, a simple structure would be ABA where the first section is repeated after the second. This becomes a musical structure when it reflects how the structure has been used by composers (National Curriculum Council, 1992, p.C8).

The authors of this surprising paragraph explain it further:

ABA is called ternary form and composers generally make the first A sound unfinished so that it leads into B. When A is repeated the end is changed to make it sound finished (National Curriculum Council, 1992, p.C8).

That is a "musical structure"; the implication is that musical development involves not so much the ability to generate musical ideas and to develop them in satisfying musical forms, as the ability to name, describe and consciously adopt procedures used in other people's music. (The National Curriculum seems to be based upon a different use of "structure" to that which I have attempted to maintain in this thesis; for "structure" is said to refer to "the forms or shapes into which musical ideas can be placed", rather than to the organic growth of each new piece in ways appropriate to its individual ideas.)

Despite regular assertions that the essence of musical understanding is to be experienced within music itself, we have a model of musical

development in which the emphasis is still likely to be placed upon children's verbal knowledge. But the whole point of musical thinking is that it uses a non-verbal symbol system (chapter 2); and the musical understanding developed in and through the act of musical mentation does not have to wait until children have the ability to recognise or describe what has happened, nor even, at its simplest, does it need the ability to recall or reproduce the music which is produced.

Mature musicians can abstract themselves from the process and objectify, recall and contemplate what is created or experienced, and this is a source of satisfaction and a means whereby experiences can be deepened or refined. Our understanding of how to recognise and assess what individual children do in music is still not complete, but my study suggests that the fundamental meaning of music, the making of patterns in sound which are symbols of our experience of time as we would wish it to be, may be grasped by young children, as well as by untutored adults.

Much of this study has looked at composing through the eyes of teachers and educationalists. Since, regrettably, not all such people are themselves composers, it is fitting to end with two final quotations from mature musicians who write of their own experiences of composing music.

..the poetry of music is always with me. It signifies that largest part of our emotive life - the part that sings. Purposeful singing is what concerns most composers most of their lives. Purposeful singing to me signifies that a composer has come into possession of musical materials of related orders of experience; given these, the composer's problem then is to shape them coherently so that they are intelligible in themselves, and hence communicable to an audience....This never-ending flow of music forces us to use our imaginations, for music is in a continual state of becoming (Copland, 1952, p.2).

This "never-ending flow of music" begins, as we have seen, in early childhood. Many of the children in my study have already "come into possession of musical materials of related orders of experience", that fund of musical ideas which composers have described as springing unbidden from their subconscious minds; and the children, too, are exploring, even if intuitively rather than consciously, how to "shape them coherently".

The complex structures, of which Example 1 is an illustration, and the intuitive expression of musical wholeness found in many of the songs, suggest that, when the children become more self-consciously aware of the need to shape their musical ideas, they will be guided by the musical understanding which they have already shown that they possess at some level of their imagination.

I believe that music is in the subconscious waiting for us to discover it.....Composing is the conscious act of revealing it (Rubbra, quoted in Schafer, 1963, p.72).

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