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Music education in the twenty-first century: a psychological perspective

David J. Hargreaves, Nigel A. Marshall and Adrian C. North

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Starting from Hargreaves' (1986a) review of the relationship between developmental psychology and music education, we characterise the mid-1980s as a point at which the different main strands of music psychology – cognitive, developmental, and social – began to unfold. We move to the present day and beyond, suggesting that a major change has been the incorporation of a social perspective: it may now make more sense to talk about the developmental social psychology of music and music education. Four levels of social influence are distinguished – the individual, *the* interpersonal, *the* institutional, *and the* cultural *– and we suggest that the concept of* identity *may enable explanations of social influence at the individual level. We review some research on musical style sensitivity as an exemplar of this general approach, and conclude by applying the social–cultural perspective to current developments in music education. This gives rise to two new conceptual models: of the opportunities that are offered by music education in the twenty-first century, and the outcomes that might be derived from it.*

Music education is changing very rapidly in the UK, as in many other countries, as a result of rapid social and technological change. What should be taught and learnt at school? What is taught and learnt out of school? How much attention should be paid to instrumental tuition? How much of music is self-taught rather than learnt from others? What are the modern-day roles of conservatoires, universities, and community organisations in music learning? What constitutes being a musician in the digital era? All of these are questions to which the answers are changing very rapidly.

If this is true of music education itself, it is hardly surprising that music education research is also changing rapidly. One obvious feature is that it has become increasingly interdisciplinary, drawing on theory and methods from various other specialisms – and so the publication of this special issue is very timely. This paper looks at theory and practice in music education from the point of view of psychology, and takes as its starting point a paper that one of us wrote well over a decade ago on 'developmental psychology and music education' (Hargreaves, 1986a). This paper argued that developmental psychology had a great deal to contribute to music education, and came soon after the publication of *The Developmental Psychology of Music* (Hargreaves, 1986b), which represented a first attempt to set out what the main features of this field of study might be.

The present paper is in four main parts. We start in the mid-1980s, characterising the state of play when the original article was written as a point at which the different main strands of music psychology – cognitive, developmental, and social – began to unfold.

We then move on to the present day and beyond, briefly sketching the main areas of the explosion of research that has been conducted in the meantime. We suggest that the main direction of change has been in the incorporation and integration of a social perspective on music and music psychology in general, and on musical development and education in particular, such that it may now make more sense to talk about the developmental social psychology of music and music education. This works at four identifiable levels of social influence – the *individual*, the *interpersonal*, the *institutional*, and the *cultural*; and we further suggest that the concept of *identity* may enable psychologists to begin to explain these aspects of social influence at the individual level.

In the third section, we use the development of style appraisal and preference as an exemplar, or case study, of this general approach, drawing on several related studies by one of us. In the fourth and final main section, we apply this general theoretical perspective to current issues in music education in the UK and beyond: the social–cultural perspective provides a valuable context for investigations of musical learning, development, and education on the international level, and highlights the importance of the difference between formal music learning in schools and informal music learning outside them. This gives rise to two new theoretical models: the first summarises the opportunities that are offered by music education, broadly defined, in the twenty-first century, and the second summarises the outcomes we hope to derive from it.

1. Developmental psychology and music education in the 1980s

Hargreaves' (1986a) article was written in response to an open letter by John Sloboda, then editor of *Psychology of Music*, which bemoaned the gulf that existed between theory and practice in music education. There is still a disjunction between the agendas of the researcher and the practitioner, although we believe that the diversification of contemporary musical experience on the one hand, and the growing interdisciplinarity of theory and research in music education on the other, mean that there is now far more interchange than hitherto. Music psychologists are now much more likely to conduct their work in the classroom or studio than 'in the laboratory', and many musicians and music teachers see their jobs as encompassing aspects of sound engineering, computing, and Internet expertise. Any 'gulf' that still exists is more likely to result from individual responsibilities and time pressures than from any fundamental conceptual divide.

Hargreaves' contribution to that debate in 1986 was to try to describe what role developmental psychology might be able to play in music education, based on the fairly obvious idea that theoretical insights on children's musical development ought to have a great deal to say about how children should be taught that subject. It seemed at that time that whilst researchers in areas such as maths and science education tried to ground their work in sound theoretical principles, this was by no means clear in the arts. This resonated with the feeling of many in music education research, encapsulated in Swanwick's (1977) view that 'to read through articles in the music education journals and to scan the books that advocate classroom practice is to enter a world that has apparently never assimilated the thinking of people who have influenced...educational thought and practice' (p. 65).

Until the 1980s, music psychology was dominated by psychometric and acoustical studies, many of which had little to do with real-life musical experience. Interest centred on the measurement of people's ability to perceive pitch, rhythm, melody, and harmony, for example, with relatively little emphasis on the response to complex, real-life music outside 'laboratory' conditions. It was around the mid-1980s that the field began to open out and the main branches of music psychology – cognitive, developmental, and social – started to emerge. Some of these developments are outlined in the next section, and our main focus in this paper is on the developmental approach, because of its direct educational applications.

2. The developmental social psychology of music and music education

Diversification of music psychology and musical behaviour

Since the mid-1980s there has been an explosion of research and theoretical development within music psychology, as well as a growing interest in and cross-fertilisation with other disciplines. Many new books have been published and several new journals launched in the intervening years; a growing number of music departments in British universities are demonstrating a serious interest in the discipline; and the music conservatoires of the UK are at last beginning to take an interest in research and educational issues. Some major new areas of research include emotional expression and communication in music (e.g. Juslin & Sloboda, 2001); the psychology of musical performance, at both the individual and the group level (e.g. Parncutt & McPherson, 2002); creativity, composition, and improvisation (e.g. Sundin, McPherson & Folkestad, 1998); individual differences, personality, and temperament (e.g. Kemp, 1996); instrumental learning and practice (Hallam, 1998); the effects of music on non-musical aspects of development and behaviour (e.g. Rauscher, Shaw & Ky, 1995; North, in preparation); musicality in infant development and communication (e.g. Deliège & Sloboda, 1996); and social and sociological aspects of musical behaviour and experience (e.g. Hargreaves & North, 1997; DeNora, 2000).

At the same time, there have been significant and rapid changes in the nature of musical composition and reproduction, and the nature of musical participation and experience itself. In the nineteenth century, 'the only music you could hear was live music, whether in a public concert hall or domestic parlour' (Cook, 1998: 23). The composer generated the 'core product', which was passed down to the performer, who then interpreted that product for the benefit of the listener, who was essentially a passive consumer at the end of the chain. Technological developments have turned this situation on its head, to the extent that being a 'musician' in 2003 involves far more than it did only 20 or 30 years ago: it might now be considered to include some arranging or improvising skills, for example, or a working knowledge of MIDI, and music hardware and software. The dividing lines between the composer, the arranger, the performer, the studio engineer, and even the listener are becoming much less clear-cut.

Recorded music is now widely available at relatively low cost via the Walkman, the music video, the Internet, and other media, and its production and recording have been revolutionised by MIDI, digital recording, sound processing, and sequencing. This has had two important effects: the first is that the distinction between 'serious' and 'popular' music

has become much less meaningful than in the past. Because people have the choice to listen to more or less any kind of music, at any time, and in many different situations, it has become 'demystified' as well as globalised: it would be impossible to establish any kind of consensus as to which pieces from which styles or genres might be seen as 'serious' or 'popular', as was hitherto the case.

The second effect of recent advances is that people now actively *use* music in everyday listening contexts. They cannot control their exposure to it in shops, restaurants, and other environments: but they actively control its use in the home, the car, and other everyday situations in order to create certain mood states, or to moderate their levels of arousal (see e.g. North & Hargreaves, 2000). This is one important reason for the increasing interest in the 'power of music', and for its applications in areas as diverse as medical settings (e.g. anxiety, pain reduction, rehabilitation after injury), broadcasting and commerce (e.g. advertising, consumer behaviour, leisure environments), the workplace (e.g. time perception, work efficiency), as well as in education. Music can exert a powerful influence on behaviour in all of these areas, but the process works both ways. People's behaviour is influenced by music, but they simultaneously exercise their own power in the ways in which they use it, whether as creators or as listeners.

The social perspective in music psychology

Hargreaves & North (1997, 1999a) set out the ways in which the social perspective has influenced music psychology as a whole, in part as a reaction against earlier research within the cognitive psychology of music, which had primarily employed an experimental paradigm. Listeners in these studies typically made musical discriminations and judgements under standardised conditions within 'laboratory' (i.e. controlled) conditions, and these tasks often involved decontextualised and elementary musical stimuli such as tone sequences, chords, or rhythms. These studies had the advantage of affording a great deal of experimental control, but correspondingly lacked any ecological or real-life validity. The experimental paradigm is clearly inadequate for the investigation of real-life experiences to music, which has social and emotional as well as cognitive components. Research in this area has now become more contextualised: the emphasis on microscopic studies of memory, attention, and representation has gradually given way to work on topics such as creativity in composition and improvisation, expressiveness in performance, and the emotional effects of music.

Over the last decade or so our own investigations of responses to music have moved out of the laboratory and into real-life situations including restaurants and cafeterias, bars, banks, shops, stores and other retail outlets, exercise and relaxation groups, gymnasiums, and work environments such as factories. We have shown that music in these everyday environments can influence many aspects of behaviour, including product choice and spending behaviour; time perception and waiting time; mood, emotional state, and arousal level; and attitudes towards and liking for different environments (see review by North & Hargreaves, 1997).

These studies combine the advantages of using real-life music listening situations and retaining a good deal of experimental control. Another approach is to collect information about the music listening experiences of people in everyday, real-life contexts in ways that

are as naturalistic as possible. Sloboda, O'Neill & Ivaldi (2001) used the 'experience sampling method' of Czikszentmihalyi & Lefevre (1989) to carry out a naturalistic investigation of the everyday listening experiences of 8 adult listeners over a one-week period: these participants were 'bleeped' at random, regular intervals by an electronic pager. The most striking finding from this study was that music was heard during 44 per cent of all the occasions on which the participants were bleeped. Although it was a secondary accompaniment rather the primary focus on many of these occasions, this nevertheless shows that music has a ubiquitous presence in everyday life.

North & Hargreaves (submitted) carried out a study with similar aims, but were able to collect a much larger and more representative data set from 346 people who owned a mobile phone by sending them one text message per day over 14 days. On receiving the message, participants completed a questionnaire about any music they could hear. Their responses revealed a high incidence of exposure to music; that the greatest number of musical episodes occurred while participants were on their own; that pop music was heard most frequently; that liking for the music varied depending on who the participant was with, where they were, and whether they had chosen to be able to hear music.

These studies clearly reveal the *power* as well as the ubiquity of music, and the increasing range of its functions in everyday life. Music has cognitive, emotional, and social functions for all of us: and the social functions of music are manifested in three main ways in everyday life, namely in the management of *self-identity*, *interpersonal relationships*, and *mood* (Hargreaves & North, 1999a).

It might be useful at this point to stand back and attempt to develop a more precise definition of the different dimensions of 'the social perspective', since this term covers a wide range of issues and phenomena. All musical behaviour is 'social' in the sense that musical meanings are socially and culturally constructed from the physical sounds that constitute them, and so it is helpful to distinguish between four levels of social influence in music psychology. The first of these is the *individual* level. The main dimensions of the study of individual differences are well established in psychology, including gender, age, and personality. To take just three prominent examples in turn: there is a great deal of research on topics such as the gender stereotyping of musical instruments in school (O'Neill, 1997) and the 'gendering' of musical activity (Dibben, 2002); on age differences in many aspects of musical behaviour (see next section); and on the ways in which different personality types might be more or less suited for different musical fields (Kemp, 1996). Social influence is indirectly rather than directly conveyed at this first level.

The other three levels represent clear manifestations of social influence at varying levels of directness. The *interpersonal* level includes behaviour such as peer collaboration in children's composition and creativity (e.g. MacDonald, Miell & Mitchell, 2002), or small-group effects in musical preference and taste (e.g. Crozier, 1997). The *institutional* level works at the next level of generality, and includes the ways in which institutions such as schools, the home, and community music organisations (e.g. bands, choirs, orchestras) influence musical behaviour. Finally, the *cultural* level includes the media, commercial influences, and national and regional traditions and cultures. The clearest example of this, and a central concern of music education, is the massive power of youth and pop culture, centring on pop music, on teenage lifestyle and behaviour. Listening to pop music is such

a central part of teenagers' lives that it becomes a 'badge of identity' for many of them (see e.g. Tarrant, North & Hargreaves, 2000).

The social perspective in musical development and education

The widespread adoption of a social agenda is very clear and explicit in developmental psychology and education. The socio-cultural perspective has become the prevailing orthodoxy, and this shift is epitomised by the move away from a general reliance on Piagetian theory to a Vygotskian perspective. In essence, this involves the recognition that children do not grow up as isolated 'mini-scientists' to the extent that Piaget suggested; their thinking is no longer seen as developing through a common developmental sequence regardless of the specific cultural events, situations, and groups that they experience. Vygotsky's theory places more reliance on the incorporation of these social and cultural networks into the development of thought itself, so that the interactions between teacher and learner gain far more prominence than in Piagetian theory.

Most developmental psychologists now argue that the acquisition of knowledge can *only* be explained in terms of its physical and social context: that we must think in terms of *situated cognition*. Two influential ideas are Rogoff's (1990) proposal that 'guided participation' is a more useful description of learning than one based on intellectual changes in children themselves, and Lave & Wenger's (1991) concept of 'legitimate peripheral participation', which refers to the process by which learners participate in communities of practitioners, or of thinkers. Both of these clearly apply to musical learning and education, since the social and cultural practices embedded in artistic and musical communities are particularly complex and elaborate. The social perspective is now integral to many research studies in music education: researchers are much more likely to ground their studies in particular locations and cultural contexts (see e.g. Bailey & Davidson's (2002) study of the adaptive characteristics of singing for members of a choir formed by homeless men).

At the interpersonal level, there is growing evidence of the relationship between social interaction and learning in music and the arts. Baker-Sennett, Matusov & Rogoff (1992) explored the socio-cultural processes involved in children's collaborative creation of a play, and Morgan (1998) investigated the nature of small-group collaboration in children's musical composition. Morgan found that the type of communication that occurs in small groups (verbal, behavioural, or musical) has a clear effect upon the quality of the products, which are in turn influenced by the composition of the group, particularly with respect to gender. MacDonald, Miell & Mitchell (2002) pursued this line of enquiry, finding that the compositions of girls who worked with their friends were rated as being of higher quality than those produced by girls of the same age who did not work with a friend.

One of the main tasks of the developmental psychology of music, and one with very obvious implications for music education, lies in working out a theory or model of musical development, since school curricula and pedagogies presumably ought to be based on a view of the capabilities of pupils at different age levels. The theoretical background to this endeavour was set out by Hargreaves & Zimmerman (1992), and their review was systematically updated and extended by Swanwick & Runfola (2002). These reviews of the theoretical models, and of the evidence that supports them, show that broad descriptions

of age-related changes in artistic and musical development (e.g. those of Hargreaves and Galton (Hargreaves, 1996) and Swanwick & Tillman (1986) respectively) are generally accepted as providing a rough and ready guide to the 'big picture' or 'map' of these areas. There is no need to repeat the details here, but we might make two brief points: that these models are both essentially 'cognitive–developmental' in their common basis in Piagetian-style developmental discontinuities in thinking; and that they are 'rough and ready' in the sense that there is huge scope for individual variation within each developmental phase.

The obvious next step, given the socio-cultural perspective, would be somehow to try to build social–cultural contexts into such descriptive developmental models. Swanwick & Tillman's (1986) spiral model does go some way towards this in its inclusion of 'personal' and 'social' poles which are built into each of the phases within the spiral, but it is difficult to build specific social contexts into what are supposed to be *general* models of development. Lamont (1999) went further towards this aim by incorporating key aspects of Bronfenbrenner's 'ecological' model into her developmental model of musical representation in children, suggesting that musical development can be seen as 'a constant and ongoing process of mediation between the social and cultural domain – which embodies the values of a particular culture and leads to particular kinds of activities – and the personal and individual domain, within which individuals' representations are formed' (p. 5).

In spite of these efforts, any attempts to build the social dimension into what are essentially Piagetian-type stage models are ultimately likely to fail because stage theories in themselves are asocial: they represent general models of the ways in which individual children's thinking develops, and this generality precludes any consideration of specific social circumstances and cultural contexts. This is the reason why Piaget's stage theory is rejected by many advocates of the socio-cultural approach. Although it is useful to know children's approximate capabilities at different age levels, and although it is certainly true that older children, broadly speaking, can do more and can perform at a higher level than younger ones, any explanation of development based on individual capabilities can only ever tell part of the story.

A more promising approach by which the social–cultural environment might be built into the explanation of individual behaviour and development might be found instead in the growth of interest in social-psychological theories of self and identity, and the concept of *musical identities* has recently been elaborated by MacDonald, Hargreaves & Miell (2002). Hargreaves, MacDonald & Miell (2002) propose that these exist in two main forms, namely *identities in music* (IIM) and *music in identities* (MII). IIM are defined within the cultural domain of musical life itself: we see ourselves *generically* as 'performers' or 'musicians', or *specifically* as 'flautists' or 'jazz fans' to varying degrees. MII refers to the ways in which we use music as a means of developing other aspects of our personal identities, such as our gender identity, our national identity, or our youth identity.

The attraction of this formulation is not only that it represents a way in which the social perspective is built into the explanation of individual development, but that it can also start to explain how individuals' views of themselves can actually determine their motivation and subsequent performance in music. Studying the ways in which children perceive themselves as musicians, fans, composers, or performers, and the influence of

those perceptions on developmental change, seems a very fruitful way forward for research and understanding in music psychology and education.

3. Musical style: a case study of developmental social psychological research in music education

We suggested earlier that one effect of the globalisation of music is that different styles and genres, and their association with varying levels of 'seriousness', have been 'democratised'; we also suggested that listening to pop music is such a central part of teenagers' lives that it becomes a 'badge of identity' for many of them. In pop music, style labels themselves change very rapidly: the range of current pop styles that a typical 13-year-old might identify is likely to change dramatically over the course of a year or two. Although teenagers themselves pursue these trends, the influence of the media and the pop music industry is considerable: and this provides a prime example of how the social and cultural environment plays a major role in individuals' musical development and identity.

Two of us have published research on age changes in different aspects of listeners' responses to musical styles in an attempt to unravel some of these influences (Hargreaves & North, 1999b), and our co-author's doctoral research took this further by carrying out seven studies with children aged 3 to 16 years which investigated the effects of different variations in the test setting on children's *stylistic sensitivity* (Marshall, 2001). This has been operationally defined as the ability to recognise when two stimuli are or are not derived from the same artwork, or produced by the same artist: investigators have also distinguished between stylistic *discrimination*, *knowledge*, *liking*, *tolerance*, and *competence* (see Hargreaves & North, 1999b for a discussion). We shall outline five of these studies here, since they exemplify the effects of the different levels of social influence identified earlier: full details of all seven studies will be made available in subsequent publications.

Marshall used the same methodology employed in most previous studies in this area, which originates from a pioneering study by Gardner (1973) and involves playing pairs or triads of excerpts from the 'same' or 'different' styles to listeners, and asking them to identify which are which. One of Marshall's studies looked at the effects of motivation on stylistic sensitivity by changing the test instructions so as to introduce an element of competition, and by offering a reward. Participants in the competitive condition believed they were in competition with another comparable group, and those in the reward condition were offered the opportunity of listening to music of their choice. Marshall found that participants in both of these experimental conditions showed higher levels of sensitivity towards and attention to the musical excerpts than those in control conditions: this is an example of social influence operating at the *individual* level.

Marshall's second and third studies looked at the effects of a social influence operating at the *interpersonal* level. In the second, comparable style sensitivity tests were administered by either a male or a female, and by an older or younger presenter: both of these factors, and gender in particular, influenced pupils' style sensitivity scores. In the third study a 'musical matching' game, which involved selecting matching cassette tapes from a box, was specially developed to explore whether style sensitivity could be detected in preschoolers working individually and in groups of four. The results not only showed a success rate of 83 per cent

on this task within the collaborative groups, but also revealed that those children working in groups, who were given the opportunity to discuss, evaluate, and accept responsibility for the outcome, performed at a higher level than those working alone.

A fourth study pursued Martindale, Moore & West's (1988) suggestion that listener tolerance should increase when music is appropriate to the listening environment, incorporating aspects of both *interpersonal* and *institutional* social influences by investigating the effects of lesson context within the school timetable. In one condition, the style sensitivity test was administered in a lesson with the regular class teacher, whilst the second administration took place within a music lesson. Style sensitivity scores were no higher in the music lesson context: this may have been because any such contextual effects were swamped by more general effects of the school environment as a whole.

In a fifth study, Marshall investigated the effects of *cultural* variation by comparing the stylistic sensitivity of pupils from different cultural backgrounds. Two groups of pupils aged between 7 and 16 years from mid-western and north-eastern regions of the USA were compared with one group from the UK. These three groups differed with respect to their school music education, particularly with respect to the resources and status devoted to music: their local teenage musical cultures also varied considerably. The results suggested that the two groups with similar local teenage cultures (UK and north-eastern USA) displayed similar levels of style sensitivity for pop music excerpts, as did the two groups with similar music education programmes (mid-western and north-eastern USA) for classical excerpts.

These studies clearly show that explanations of children's developing sensitivity to musical styles must necessarily take into account the social and cultural context in which stylistic perception and evaluation occur. It may be more fruitful to do this by focusing on the ways in which specific styles and genres are built into individual and collective musical identities, rather than by trying to formulate more sophisticated developmental models of stylistic perception.

4. Music education in the new millennium: the view from psychology

International variations: three 'big issues'

International comparisons enable us to assess the 'big picture' of the main current issues in music education, and we undertook a large-scale comparative review of 15 different countries from around the world (Hargreaves & North, 2001). We asked eminent music educators in each country to contribute a chapter structured around three main themes: 'aims and objectives', 'contents and methods', and 'student issues', and also specified some topics within each of the three headings. Although our authors adopted a variety of approaches, it was nevertheless possible to identify several themes of common concern, of which three 'big issues' are of particular interest to us here.

First are 'curriculum issues', the most central of which is the distinction between 'general' and 'specialist' music education. These form distinctive educational pathways in many countries, and a common concern is the way in which each should be provided in and out of school, and the balance that should be struck between them. In many countries 'specialist' music education refers to that in Western classical music, which was seen to be

too dominant by some of our expert reviewers. This issue was also frequently mentioned in the context of striking a balance between Western classical music, the all-pervading influence of Anglo-American pop, and local traditional musics, which are being swamped in some countries.

The second 'big issue' is that of aims and objectives: what are arts and music education for? Is music an end in itself, such that music education presumably ought to promote musical and artistic skills, or does it have broader personal and cultural aims? There were clear East–West differences here. Arts educators in countries such as Korea, Japan, and China, who have a foundation in Confucian philosophy, place much greater emphasis on the moral and spiritual role of the arts than their Western counterparts: their primary aim is to develop the character of pupils, and to lay the foundations for a 'virtuous and joyful life'.

Closely related to this is the extent to which music education should be pupil- or teacher-centred. The Indian guru-shishya system, for example, is very heavily teacher-centred: it adopts an apprenticeship model in which the pupil (literally) sits at the feet of the teacher and learns the philosophy, traditions, and techniques of the music over months and years. This contrasts sharply with the highly pupil-centred 'creativity' movements which exist in the UK, for example, in which pupils' self-expression and originality are seen as far more important in the early stages of learning than technique or tradition.

The third 'big issue' to emerge from our review was the balance between musical learning in and out of school. In countries in South America and Africa, for example, music is something that is such a natural part of everyday life that the idea of going to school to learn it seems faintly ridiculous: informal music learning takes place from early infancy, and is embedded in everyday work and play. The relationship between informal and formal music-making is a complex one, as we shall see: it involves not only the locations and institutions within which learning occurs, but also the relationships between teachers and learners, as well as the ways in which learners view their own role in the process.

In England, this issue is at the heart of the 'problem of school music', which is particularly acute in the secondary school. Over the last decade or so, official evidence such as examination entry statistics and school inspection reports, as well as independent research studies (e.g. Harland *et al.*, 2000; Ryan, Boulton, O'Neill & Sloboda, 2000), have suggested that a good deal of lower secondary school music is unsuccessful, unimaginatively taught, and out of touch with pupils' interests. There are some signs that the extent of the problem may be declining, however: recent research by Lamont, Hargreaves, Marshall & Tarrant (in press), carried out on behalf of the Qualifications and Curriculum Authority (see following section), shows some clear signs of change.

One obvious factor is the importance of pop music in the lives of teenagers *outside* school. Many studies have shown that pop music plays a central role in the lifestyle of most teenagers, and indeed constitutes a 'badge of identity' for many of them (see e.g. Tarrant, North & Hargreaves, 2000; North, Hargreaves & O'Neill, 2000), such that the distinction between 'music at school' and 'music at home' is much more pronounced for secondary than for primary school pupils. The *authenticity* of secondary school music, and its relation to music outside school, is at the heart of the problem. Many secondary school music teachers are the products of the Western classical tradition, which is based largely in

the conservatoire, and this model still dominates a good deal of secondary school music, although here too there are signs of recent change (Lamont *et al.*, in press).

Alongside the distinction between 'home' and 'school' music, an idea achieving increasing prominence is that of the 'third environment', which refers to social contexts in which musical learning takes place in the absence of parents or teachers (e.g. Heath, 2001). This could refer to off-site locations such as playgrounds, garages, youth clubs, or the street, i.e. those places which are neither at school nor at home: but the third environment could also be one's bedroom, or even a school classroom, *given the absence of any formal activity or adult supervision.* Green's (2001) study of 14 young pop musicians shows how most learn their skills in such informal contexts, exchanging skills and knowledge with each other by watching, imitating, and talking about music.

Musical activities in the third environment are *self-directed*, and thereby engender high levels of motivation and commitment. John Lennon and Paul McCartney's ground-breaking compositional work took place in just such an environment, and had very little to do with school music education! But this engenders a paradox: as soon as schools, teachers, and other adults attempt to become involved in these activities, then they cease to be part of the 'third environment'. This is rather like arguing that any music that is played or taught in school will automatically become unpopular by association. This is an oversimplification, of course, but nevertheless it highlights the delicacy and importance of the relationship between music in and out of school. The challenge for music teachers is to create scaffolding structures which are sufficiently integrated with the third environment to provide knowledge, skills, and even resources to support it, yet to remain sufficiently distant from it.

To summarise, we might say that the *contexts* of music-making are critical in determining its authenticity for learners, and that these contexts continue to change as technology and globalisation advance. Music education needs to take these changes on board, which will necessitate rethinking many of the distinctions that have been at the heart of the system for many years. These include the distinction between 'specialist' and 'general' or 'curriculum' music at school; that between formal and informal music-making in and out of school; that between institutional and community music-making; and even that between the teacher and the learner. As diversification continues, these dividing lines are blurring and breaking down, and new models and concepts are needed. To make a start on this, we conclude with a description of two conceptual models which attempt to map out the post-millennium terrain of music education in its broadest sense.

Models of opportunities and outcomes in music education

One of us (DJH) has been pursuing some of these ideas as part of the work of the Music Development Task Group of the Qualifications and Curriculum Authority (QCA), the body responsible for music education policy in schools in England. The broader social and cultural context of music-making is an important part of official thinking, as the following quotation from the National Curriculum makes clear:

> Music is a powerful, unique form of communication that can change the way pupils feel, think and act. It brings together intellect and feeling and enables personal
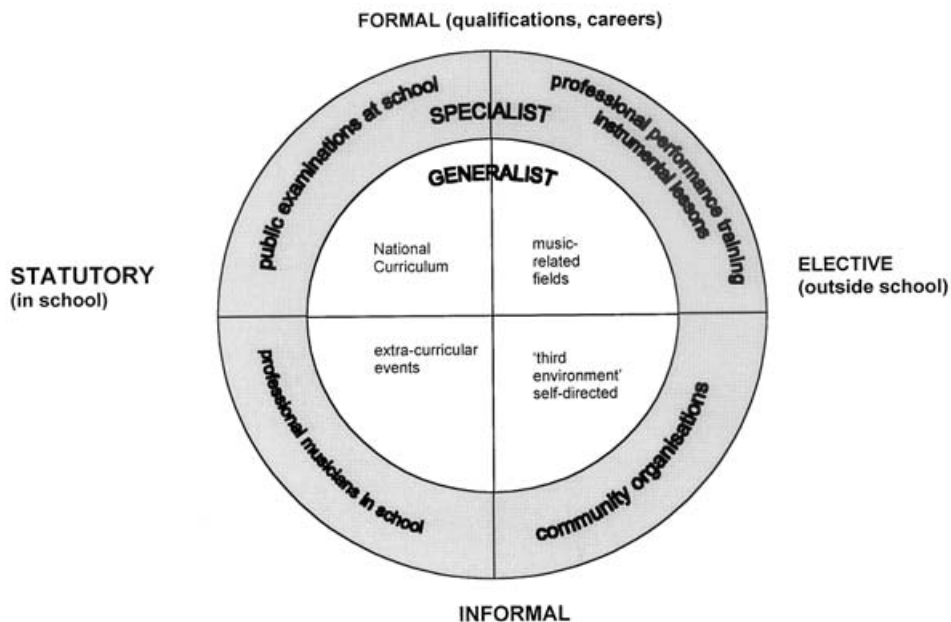
FORMAL (qualifications, careers)

SPECIALIST

GENERALIST

public examinations at school

professional performance training instrumental lessons

STATUTORY
(in school)

National Curriculum

music-related fields

ELECTIVE
(outside school)

extra-curricular events

'third environment' self-directed

professional musicians in school

community organisations

INFORMAL

Fig. 1   A 'globe' model of opportunities in music education

> expression, reflection and emotional development. As an integral part of culture, past and present, it helps pupils to understand themselves and relate to others, forging important links between the home, school and the wider world. The teaching of music develops pupils' ability to listen and appreciate a wide variety of music and to make judgements about musical quality. It encourages active involvement in different forms of amateur music making, both individual and communal, developing a sense of group identity and togetherness. It also increases self-discipline and creativity, aesthetic sensitivity and fulfilment. (QCA, 2002)

In order to pursue these ideals, and to delineate the potential scope and aims of music education in and out of school, two models were developed. Figure 1 shows a 'globe' model of the *opportunities* available to pupils across the broad spectrum of music education, listing the main areas of formal provision and informal participation. Its origins lie in music education in England, so that further elaborations and/or modifications may be necessary for wider international application. Figure 2 takes us back to the more general psychological focus of this article by conceptualising the potential *outcomes* of music and arts education for individual pupils, and some of the interrelationships between them.

The 'globe' model is based on three main bipolar dimensions. The vertical dimension of the globe distinguishes between formal and informal opportunities, with the 'northern hemisphere' representing institutional provision leading to qualification and careers, and the 'southern hemisphere' representing informal opportunities. This interacts with the horizontal dimension, which distinguishes between statutory and elective provision, so

that the 'western hemisphere' refers to the given in-school provision in all its forms, and the 'eastern hemisphere' to all opportunities which are self-selected by pupils, and which are available outside school. The third dimension, 'specialist–generalist', derives from a model of teaching methods in music education (Hargreaves, 1996). The outer band shows 'specialist' activities in each of the original four quadrants, and the inner circle shows corresponding 'generalist' opportunities. This dimension is important because 'formal–informal' cannot be equated with 'specialist–generalist'; an increasing number of school pupils now achieve very high levels of specialist performance in 'informal' activities (e.g. in folk or rock music).

One notable aspect of this model is its implication that the 'southern' and 'northern' hemispheres should receive equal status and attention: music education in England has traditionally focused on the latter, and the 'north-eastern' quadrant in particular. This quadrant refers to the traditional specialist route, which is likely to involve instrumental grade examinations, ensembles and orchestras provided by local education and music agencies, leading on to the conservatoire, and to careers in professional music. The 'generalist' sector of this quadrant refers to those who achieve qualifications and go on to careers in music-related fields such as sound recording, or music-related ICT.

The model's 'south-eastern' quadrant incorporates the 'third environment', which we described earlier, and its 'specialist' sector refers to those community organisations in which these skills can be developed to 'specialist' levels, though without formal qualifications, such as in local choirs, or in the brass bands of northern England.

The model's 'north-western' quadrant indicates the different kinds of provision that take place in schools in England: they need little further explanation. The National Curriculum has determined provision up to the age of 16 since it was introduced in 1988, and the main public examinations to which the specialist sector of this quadrant is devoted are the Advanced levels of the General Certificate of Secondary Education, which are usually taken at age 17 and 18. Different forms and levels of such examinations exist in other countries, of course. The 'south-western' quadrant refers to those forms of informal music education provision that are available in schools. This is represented by extra-curricular activities such as school concerts and plays at the 'generalist' level, and by 'specialist' activities such as composer-in-residence schemes, or other contact with professional musicians.

Figure 2 shows a conceptual model of the potential outcomes of music education: it arises in part from our international review of the appropriate purposes of music and arts education (see above), and also draws on our psychological analysis of the functions of music (Hargreaves & North, 1999a). The model is based on a broad division between three main types of outcome, namely *musical–artistic*, *personal*, and *social–cultural*. All of these are 'personal' in the sense that they describe the effects of music learning on the individual: but the three-way typology affords more detail, and also enables us to specify outcomes representing interactions or overlaps between the three main types.

Musical–artistic skills such as performance, aural, literacy, sight reading, composition, and improvisation are the staple diet of specialist conservatoire training, and need little further comment. This leads on to more general 'personal' outcomes of music education that do not concern specific skills as such but which nevertheless have a strong artistic component, such as creativity, aesthetic appreciation, and emotional expressiveness.
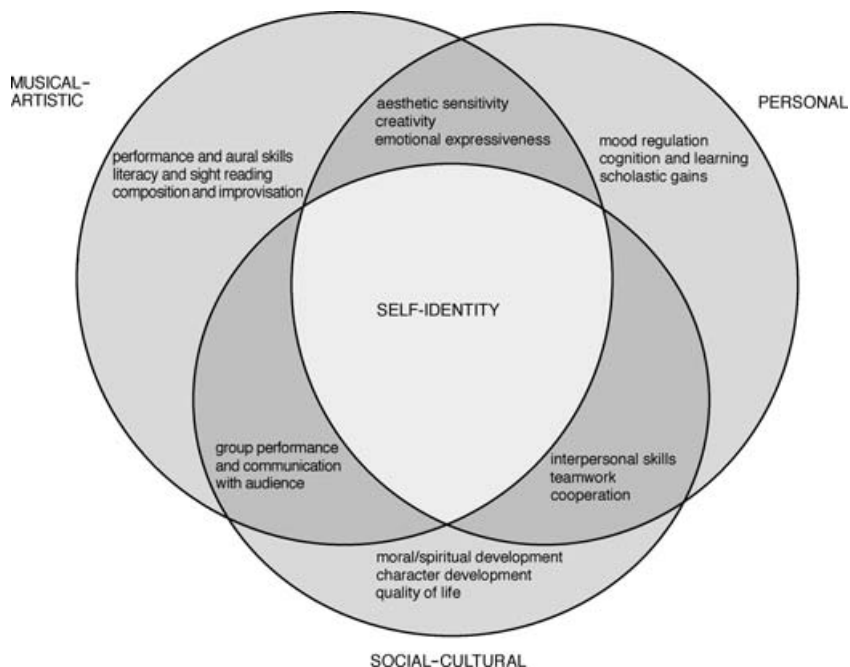
MUSICAL–
ARTISTIC

PERSONAL

aesthetic sensitivity
creativity
emotional expressiveness

mood regulation
cognition and learning
scholastic gains

performance and aural skills
literacy and sight reading
composition and improvisation

SELF-IDENTITY

group performance
and communication
with audience

interpersonal skills
teamwork
cooperation

moral/spiritual development
character development
quality of life

SOCIAL–CULTURAL

Fig. 2   The potential outcomes of music education

The more general *personal* outcomes of music education are of two main types in the model. The first type relates to cognition, learning, and scholastic gains: a considerable literature on the putative 'transfer effects' of music has developed over the last few years, stimulated in part by Rauscher *et al*.'s (1995) research on the effects of listening to music on spatial–temporal reasoning, which was subsequently dubbed the 'Mozart effect' and gained massive media attention. The second type relates to emotional development: we referred earlier to research that is beginning to show how people consciously use music to regulate their moods and emotional states.

The third broad group of *social–cultural* outcomes is particularly prized in Eastern countries. These outcomes involve the development of moral character, spiritual values, and 'quality of life' in the deepest sense: music and the arts are seen to transmit these cultural ideals and values from one generation to the next. They overlap with those *personal* outcomes based on social skills and cultural development. Most musical activity is carried out with and for other people – it is fundamentally social – and so can play an important part in promoting interpersonal skills, teamwork, and co-operation. They also overlap with more specifically *musical–artistic* outcomes, since a vital part of musical expressiveness is being able to communicate with one's audience, as well as with one's co-performers within a group. The centre of the model brings us back to the notion of identity: at its core is the belief that the ultimate outcome of music education is the development of individual self-identity.

5. Conclusion

Placing self-identity at the centre of the model of the outcomes of music education brings us full circle, and suggests that the central concerns of music psychology and music education may now have more in common than at any time in the past. The incorporation of the social–cultural perspective in music and music psychology is matched by the acknowledgement of the broader social and cultural context in music education, such that a developmental social psychology of music and music education has some firm conceptual foundations. This encouraging conclusion comes 17 years after Hargreaves' (1986a) article was published: whilst it may still be too soon to say that the relationship between music psychology and music education has come of age, there are undoubted signs of a blossoming teenage romance!

References

BAILEY, B. A. & DAVIDSON, J. W. (2002) 'Adaptive characteristics of group singing: perceptions from members of a choir for homeless men'. *Musicae Scientiae*, **6**, 221–56.

BAKER-SENNETT, J., MATUSOV, E. & ROGOFF, B. (1992) 'Sociocultural processes of creative planning in children's playcrafting'. In P. Light & G. Butterworth (Eds), *Context and Cognition: Ways of Learning and Knowing*. Hillsdale, NJ: Lawrence Erlbaum.

COOK, N. (1998) *Music: A Very Short Introduction*. Oxford: Oxford University Press.

CROZIER, W. R. (1997) 'Music and social influence'. In D. J. Hargreaves and A. C. North (Eds), *The Social Psychology of Music*. Oxford: Oxford University Press.

CZIKSZENTMIHALYI, M. & LEFEVRE, J. (1989) 'Optimal experience in work and leisure'. *Journal of Personality and Social Psychology*, **56**, 815–22.

DELIÈGE, I. & SLOBODA, J. A. (1996) *Musical Beginnings: The Origins and Development of Musical Competence*. Oxford: Oxford University Press.

DENORA, T. (2000) *Music in Everyday Life*. Cambridge: Cambridge University Press.

DIBBEN, N. (2002) 'Gender identity and music'. In R. A. R. MacDonald, D. J. Hargreaves & D. E. Miell (Eds), *Musical Identities*. Oxford: Oxford University Press, pp. 117–33.

GARDNER, H. (1973) 'Children's sensitivity to musical styles'. *Merrill-Palmer Quarterly*, **19**, 67–77.

GREEN, L. (2001) *How Popular Musicians Learn: A Way Ahead for Music Education*. Aldershot: Ashgate.

HALLAM, S. (1998) *Instrumental Teaching: A Practical Guide to Better Teaching and Learning*. Oxford: Heinemann.

HARGREAVES, D. J. (1986a) 'Developmental psychology and music education'. *Psychology of Music*, **14**, 83–96.

HARGREAVES, D. J. (1986b) *The Developmental Psychology of Music*. Cambridge: Cambridge University Press.

HARGREAVES, D. J. (1996) 'The development of artistic and musical competence'. In I. Deliège and J. A. Sloboda (Eds), *Musical Beginnings: The Origins and Development of Musical Competence*, pp. 145–70. Oxford: Oxford University Press.

HARGREAVES, D. J., MACDONALD, R. A. R. & MIELL, D. E. (2002) 'What are musical identities, and why are they important?' In R. A. R. MacDonald, D. J. Hargreaves & D. E. Miell (Eds), *Musical Identities*, pp. 1–20. Oxford: Oxford University Press.

HARGREAVES, D. J. & NORTH, A. C. (Eds) (1997) *The Social Psychology of Music*. Oxford: Oxford University Press.

HARGREAVES, D. J. & NORTH, A. C. (1999a) 'The functions of music in everyday life: redefining the social in music psychology'. *Psychology of Music*, **27**, 71–83.

HARGREAVES, D. J. & NORTH, A. C. (1999b) 'Developing concepts of musical style'. *Musicae Scientiae*, **2**, 193–213.

HARGREAVES, D. J. & NORTH, A. C. (Eds) (2001) *Musical Development and Learning: The International Perspective.* London/New York: Continuum.

HARGREAVES, D. J. & ZIMMERMAN, M. (1992) 'Developmental theories of music learning'. In R. Colwell (Ed.), *Handbook for Research in Music Teaching and Learning*. New York: Schirmer/Macmillan.

HARLAND, J., KINDER, K., LORD, P., STOTT, A., SCHAGEN, I., HAYNES, J., CUSWORTH, L., WHITE, R. & PAOLA, R. (2000) *Arts Education in Secondary Schools: Effects and Effectiveness.* Slough: NFER.

HEATH, S. B. (2001) 'Three's not a crowd: plans, roles and focus in the arts'. *Educational Researcher*, **30**, 10–17.

JUSLIN, P. N. & SLOBODA, J. A. (Eds) (2001) *Music and Emotion: Theory and Research.* Oxford: Oxford University Press.

KEMP, A. E. (1996) *The Musical Temperament: Psychology and Personality of Musicians.* Oxford: Oxford University Press.

LAMONT, A. (1999) 'A contextual account of developing representations of music'. Paper presented at the International Conference on Research in Music Education, Exeter University, April 1999.

LAMONT, A. M., HARGREAVES, D. J., MARSHALL, N. & TARRANT, M. (in press) 'Young people's music in and out of school'. *British Journal of Music Education.*

LAVE, J. & WENGER, E. (1991) *Situated Learning: Legitimate Peripheral Participation.* Cambridge: Cambridge University Press.

MACDONALD, R. A. R., HARGREAVES, D. J. & MIELL, D. E. (Eds) (2002) *Musical Identities.* Oxford: Oxford University Press.

MACDONALD, R. A. R., MIELL, D. & MITCHELL, L. (2002) 'An investigation of children's musical collaborations: the effect of friendship and age'. *Psychology of Music*, **30**, 148–63.

MARSHALL, N. A. (2001) *Developing Concepts of Musical Style.* Unpublished PhD thesis, University of Durham.

MARTINDALE, C., MOORE, K. & WEST, A. (1988) 'Relationship of preference judgements to typicality, novelty, and mere exposure'. *Empirical Studies of the Arts*, **6**, 79–96.

MORGAN, L. (1998) 'Children's collaborative composition: communication through music'. Unpublished PhD thesis, University of Leicester.

NORTH, A. C. (in preparation) *Music for the Masses.*

NORTH, A. C. & HARGREAVES, D. J. (1997) 'The musical milieu: studies of listening in everyday life'. *The Psychologist*, **10**, 309–12.

NORTH, A. C. & HARGREAVES, D. J. (2000) 'Musical preferences during and after relaxing and exercising'. *American Journal of Psychology*, **113**, 43–67.

NORTH, A. C. & HARGREAVES, D. J. (submitted) *The Uses of Music in Everyday Life.*

NORTH, A. C., HARGREAVES, D. J. & O'NEILL, S. (2000) 'The importance of music to adolescents'. *British Journal of Educational Psychology*, **70**, 255–72.

O'NEILL, S. A. (1997) 'Gender and music'. In D. J. Hargreaves and A. C. North (Eds), *The Social Psychology of Music.* Oxford: Oxford University Press.

PARNCUTT, R. & McPHERSON, G. E. (Eds) (2002) *The Science and Psychology of Music Performance.* Oxford: Oxford University Press.

QUALIFICATIONS AND CURRICULUM AUTHORITY (QCA) (2002) 'Developing new models for music education'. Paper presented to the National Music Education Forum, 17 June 2002.

RAUSCHER, F. H., SHAW, G. L. & KY, K. (1995) 'Listening to music enhances spatial-temporal reasoning: towards a neuropsychological basis'. *Neuroscience Letters*, **185**, 44–7.

ROGOFF, B. (1990) *Apprenticeship in Thinking: Cognitive Development in Social Context.* New York: Oxford University Press.

RYAN, K., BOULTON, M., O'NEILL, S. A. & SLOBODA, J. A. (2000) 'Perceived support and children's participation in music'. In C. Woods, G. Luck, R. Brochard, F. Seddon & J. A. Sloboda (Eds), *Proceedings of the 6th International Conference on Music Perception and Cognition.* Keele, UK: Keele University Department of Psychology.

SLOBODA, J. A., O'NEILL, S. A. & IVALDI, A. (2001) 'Functions of music in everyday life: an exploratory study using the Experience Sampling Method'. *Musicae Scientiae*, **5**, 9–32.

SUNDIN, B., McPHERSON, G. E. & FOLKESTAD, G. (Eds) (1998) *Children Composing.* Malmö: Malmö Academy of Music.

SWANWICK, K. (1977) 'Belief and action in music education'. In M. Burnett (Ed.), *Music Education Review*, vol. 1. London: Chappell.

SWANWICK, K. & RUNFOLA, M. (2002) 'Developmental characteristics of learners'. In R. Colwell & C. P. Richardson (Eds), *The new Handbook of Research on Music Teaching and Learning.* New York: Oxford University Press.

SWANWICK, K. & TILLMAN, J. (1986) 'The sequence of musical development'. *British Journal of Music Education*, **3**, 305–39.

TARRANT, M., NORTH, A. C. & HARGREAVES, D. J. (2000) 'English and American adolescents' reasons for listening to music'. *Psychology of Music*, **28**, 166–73.