This paper focuses on the relationship between the cognitive and affective aspects of listening to various music styles. The document describes two cross-sectional studies of the same sample of 275 subjects drawn from 5 age groups (9-10 years; 14-15 years; 18-24 years; 25-49 years; and 50+ years). The first study deals with the development of tolerance for musical styles across the life span, and the second with the rated eminence of pop music artists. Both of these encompass aspects of stylistic knowledge and preference, and the results are discussed in terms of this cognitive-affective distinction. (EH)
The development of musical preference across the life span

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Introduction

The promotion of sensitivity towards and appreciation of a wide range of artistic styles in children is an important educational goal in many countries. In the U.K., for example, the National Curriculum guidelines for music stipulate that 14 year olds should be able to 'identify ways in which personal response is influenced by the environment in which music takes place and by the use of musical elements and resources: relate music to its social, historical and cultural context...eg. identify conventions used in different times and places' (Department for Education, 1995 p.7). The importance of the specific social and cultural contexts of musical behaviour is also increasingly apparent in psychological research, and the social psychology of music and music education are gaining in recognition (see Hargreaves and North, 1997; Olsson, 1997).

Musical stylistic sensitivity is likely to be an integral part of taste and preference: and in this paper we focus on the relationship between the cognitive and affective aspects of listening. We describe two cross-sectional studies carried out on the same sample of 275 subjects drawn from 5 age groups, namely 9-10 years; 14-15 years; 18-24 years; 25-49 years; and 50+ years. The first study deals with the development of tolerance for musical styles across the life span, and the second with the rated eminence of pop music artists. Both of these encompass aspects of stylistic knowledge and preference, and the results are discussed in terms of this cognitive-affective distinction.

Study 1: Tolerance for musical styles

LeBlanc (1991) carried out a detailed review of the literature on lifespan influences on 'open-earedness', or listeners' tolerance of different musical styles, and proposed a developmental model of the course of these changes which takes the form of four hypotheses, as follows: '(a) younger children are more open-eared, (b) open-earedness declines as the child enters adolescence, (c) there is a partial rebound of open-earedness as the listener matures from adolescence to young adulthood, and (d) open-earedness declines as the listener matures to old age' (p.2). The model is illustrated in Figure 1. In a direct empirical test of this, LeBlanc, Sims, Siivola, and Obert (1993) obtained preference judgements from 2262 listeners aged between 6 and 91 years for 30-second recordings of 'art music', trad jazz, and rock. The general pattern of results conformed with LeBlanc's (1991) predictions for both overall responses, and responses assigned within each of the three generic styles employed.

LeBlanc et al's test of the model has the advantage of covering the whole lifespan within a single research design. However, there are two other important issues that might also be explored. First, LeBlanc et al followed Castell's (1982) and Hargreaves'
(1982) original use of the term by defining 'open-earedness' as 'listener tolerance' (p. 4), and operationalising this in terms of preference. It is quite likely that 'listener tolerance' incorporates other aspects as well as preference, such as stylistic knowledge: as tolerance and awareness of musical styles increases then so should knowledge of them, and this could be operationalised by determining the number of musical styles that people can name. In essence, we may usefully be able to distinguish between musical knowledge and preference as measures of stylistic tolerance: these two aspects of the phenomenon may not be related to maturation in the same way.

Second, an inevitable limitation of LeBlanc et al's (1993) study is its operationalisation of musical styles in terms of specific pieces. There is a practical limit on the number of pieces that can be played to subjects, and this may constrain the extent to which responses to these exemplars can be generalised to the styles that they are intended to represent. A similar point is that subjects in the study may have been responding to artefactual features of the pieces themselves, as well as to the style from which they were drawn. These arguments suggest that it may be also interesting to investigate stylistic tolerance through a complementary approach that does not involve presenting subjects with actual pieces of music, but which instead allows them to utilise their own stylistic labels.

Method and Results

In light of these issues, we tested LeBlanc's model by obtaining measures of tolerance for three generic musical styles, or idioms (classical, jazz, and rock & pop) from 275 subjects representing 5 age groups, namely 9-10 years (N = 82), 14-15 years (N = 42), 18-24 years (N = 81), 25-49 years (N = 46), and 50+ years (N = 24). Subjects were recruited from schools, a university, and further education colleges in Leicester, UK. Musical tolerance was operationalised in two ways, namely the ability to nominate as many types of these three generic musical styles as possible (musical knowledge) and ratings of liking for these types (musical preference). For each of the three generic styles, subjects were asked to 'list as many types as you can think of. After writing down each type, please rate how much you like music of that type on a scale from 0 (strongly dislike) to 10 (strongly like)'.

Discussion: the development of stylistic knowledge

Figure 2 shows the results for the measure of stylistic knowledge, indicating that the total number of styles nominated by subjects across all three generic musical styles was broadly consistent with LeBlanc’s model. Generally speaking, the curve for the total number of styles named tended to increase into early adulthood, and then declined for older subjects. This measure did not decrease between 9-10 years and 14-15 years as the subjects entered adolescence, and this is more difficult to reconcile with the model's prediction that tolerance for musical styles should decrease in this period. Despite this, our finding does still make intuitive sense: by virtue of their comparative youth, the youngest age group would have had comparatively little time in which to be exposed to a range of musical styles, and this would cause them to
nominate a smaller number of styles than other age groups. Young people have less experience of the musical culture than older people.

A similar explanation may well also apply to the number of styles that subjects were able to nominate within the three generic styles i.e. classical, jazz, and rock & pop. As with the total number of styles named, the number of rock & pop styles named increased into early adulthood before declining for older age groups: the lack of an 'adolescent dip' for rock & pop music could again be attributable to 9-10 year olds being less acculturated than the 14-15 year olds. The data for the number of classical and jazz styles named is harder to reconcile with LeBlanc's model. The number of classical styles named showed a general upward trend across the entire lifespan, and the number of jazz music styles nominated at first increased between 9-10 and 14-15 years, and then remained constant over the remaining age groups.

These findings for classical and jazz music question the extent to which the curve for the total number of styles named corresponds with LeBlanc's hypotheses. If the number of classical styles named increases with age, whilst the number of jazz styles named increases and then levels out, then the inverted-U relationship evident in Figure 2 between age and the total number of styles named must result primarily from the number of rock & pop styles named. Knowledge of rock & pop music may have been lower in our older age groups simply because they had not had the same intensity of exposure to this style as younger subjects (i.e. an age cohort effect): older subjects in future years may not be subject to such an effect, leading to a general increase in this measure across the lifespan. The number of jazz and classical styles named indicate that knowledge of musical styles may simply increase with age and acculturation: the longer you are in a culture, the more you learn about it.

**Discussion: the development of stylistic preference**

Figure 3 shows the results for the measure of stylistic preference, and four clear patterns are evident. First, total liking for the musical styles is constant across the lifespan until old age, where it increases (to a statistically significant degree). Second, liking for styles of rock & pop music decreases steadily across the lifespan. Third, liking for styles of classical music generally increases across the lifespan despite a (non-significant) decrease between 18-24 and 25-49 years: liking for jazz music styles increases at first and then generally levels off. Finally, liking for the three generic musical styles seems to cross over in middle age, representing a marked change in the age groups' preference for rock & pop, rather than classical and jazz music. These four curves are quite different to those for musical knowledge shown in Figure 2, indicating the importance of the distinction between preference- and knowledge-based aspects of tolerance. They also differ from the predictions of LeBlanc's model, and this deserves further comment.

Aside from the differing cultures in which the two studies were carried out, the most likely reason for the discrepancy is a methodological one. LeBlanc et al. (1993) presented subjects with specific musical excerpts and measured responses to these, whilst the present study adopted a more open-ended approach in which subjects
nominated their own musical styles and rated their liking for them. The difference between the results elicited by these two techniques suggests that the course of musical tolerance over the lifespan may be dependent on people's familiarity with the music in question. That is, maturational influences may be related to tolerance in one way when people respond to given musical stimuli (such as those employed in LeBlanc et al's study), and another way when people generate and respond to their own musical stimuli (as in the present study).

This idea may explain why we failed to find a dip in preference in both adolescence and old age. Perhaps these two age groups do like the music that they listen to as much as any other group, but not that music with which they have been presented by researchers. It might be more accurate to say that adolescents and the elderly do not simply like music less than other age groups: rather, they may like different types of music with different stylistic labels to those that other age groups might identify and like. Indeed, it is perhaps noteworthy that 50+ year olds overall preference for the nominated styles actually showed a statistically significant increase as compared to the other age groups, rather than the predicted decrease.

This idea that different age groups are aware of different musical styles is supported by an informal content analysis of the actual styles nominated by each age group. Although certain styles tended to be nominated by all five (e.g. 'rock 'n' roll', 'opera', 'blues'), there was also a pronounced tendency for different age groups to name certain styles to the exclusion of others. For example, when nominating styles of rock & pop, older subjects tended to nominate pre-1950s popular music styles such as 'music hall' or 'jive', and would often describe post-1960s rock & pop music with a single label. In contrast, younger subjects tended to nominate much newer styles such as 'jungle', or 'rap', and very few under-25s named pre-1950s styles. Similarly, when nominating styles of classical music, older subjects were more likely to name conventionally-recognised styles (e.g. 'baroque' or 'chamber music'), whereas subjects up to 25 years old would often nominate styles that were much more descriptive and unconventional in nature such as 'orchestral', or 'religious'.

**Study 2: Ratings of eminence in pop music**

The second study (North and Hargreaves, 1995) was carried out in the context of Farnsworth's (1950; 1969) research on musical eminence. Farnsworth measured the eminence of (mainly classical music) composers by asking students and musicologists to judge whose works deserved to be called to the attention of others and preserved as part of our musical heritage; by measuring space allocated to the composers in several encyclopaedias; and by compiling data on the frequency with which the composers' works were recorded, and played on the radio and by symphony orchestras. The consistent finding to emerge from these studies was that 'We agree on what we enjoy' (Farnsworth, 1950 p.10), since there were generally very high correlations between all these measures of composers' eminence. Our study investigated the degree of consensus on musical taste within a different musical style, namely pop.

Some recent studies also suggest that cultural preferences may show consistent trends across the life span: Holbrook and Schindler (1994), for example, suggest that they
tend to peak for events ... or for objects ... encountered during a critical period of development associated with late adolescence or early adulthood (p.57). Such an effect would reduce the degree of consensus on the eminence of pop musicians, with different age groups being most favourable towards those pop musicians who were well known whilst the subjects were themselves young. In other words, preferences may become largely 'crystallised' at a given point in our development, and the nature of these preferences is presumably constrained directly by the cultural context in which they are expressed.

Method and Results

We tested this idea by investigating the eminence of 200 pop music artists who had enjoyed a U.K. number 1 single between 1955 and 1994. The period 1955-1994 was divided into four decades, and the artists were selected so that an equal number had had their first U.K. number 1 single in each of the decades. Each of the 275 subjects described in Study 1 was asked to select up to 30 of these 200 artists 'who in your own personal opinion have performed music which most deserves to be called to the attention of others'.

Figure 4 shows the mean frequency with which artists from different decades were selected by subjects as eminent. These results support the idea that preferences become crystallised during adolescence and early adulthood. 9-10 year olds and 14-15 year olds showed a marked tendency to select artists who had had their first U.K. number 1 single between 1985 and 1994. 18-24 year olds showed this same tendency although they were also more likely than younger age groups to select artists who had their first U.K. number 1 single in earlier decades. 25-49 year olds tended to select artists from between 1975 and 1984, and 50+ year old subjects tended to select artists from the period 1955-1964. The tendency to select artists from other, less preferred, decades decreased in line with the distance of those other decades from that which subjects most preferred.

These results support the idea that musical preferences become fixed at a certain age, and that the nature of these preferences (i.e. the artists we like) reflect generally those artists who were culturally prevalent during this period in our development. It would be interesting to study the factors that determine the timing of this so-called 'critical period', as well as the music to which we are exposed during it. The idea of a critical period can also explain why in our first study, different age groups tended to nominate different types of musical style within each of the three idioms considered, since subjects generally nominated styles that were prevalent during their youth.

In conclusion, it seems clear that regular age-related changes exist in the development of musical stylistic knowledge, preference and eminence across the life span, although our data do not enable us to draw any conclusions about the existence of developmental stages as such. Nevertheless, there can be little doubt that future research in this area will need to make a clear operational distinction between the cognitive and affective aspects of stylistic tolerance, as well as to take account of the implications of the adoption of different research methodologies. More generally, it is
also readily apparent from our results that the study of musical development must take into account the social and cultural environment, as well as the specific educational contexts within which it occurs.

Acknowledgement

The authors are grateful to the staff of Overdale Junior School, Oadby Beauchamp School and Community College, and Charles Keene Community College for providing access to the participants in these studies.
References


(word count: 3082)
Summary of LeBlanc's (1991) Model of the Effects of Maturation on Musical Tolerance

Old Age

Adolescence

Musical Tolerance

Age
Mean Number of Musical Styles Named by 5 Different Age Groups

- Total Styles
- Rock & Pop Styles
- Jazz Styles
- Classical Styles
Mean Liking for Musical Styles Named by 5 Different Age Groups

- Total Liking
- Rock & Pop Liking
- Classical Liking
- Jazz Liking

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Chart showing mean liking across different age groups for various musical styles.
Mean Frequency With Which Pop Music Artists From Different Periods Are Selected As 'Eminent' By Five Different Age Groups

Period

- 1955-1964
- 1965-1974
- 1975-1984
- 1985-1994

Mean Frequency of Selection

- 9-10 year olds
- 14-15 year olds
- 18-24 year olds
- 25-49 year olds
- 50+ year olds
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<th>D. J. HARGREAVES + A. C. NORTH</th>
</tr>
</thead>
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<tr>
<td>Author(s):</td>
<td></td>
</tr>
<tr>
<td>Corporate Source:</td>
<td>UNIVERSITY OF LEICESTER, U.K.</td>
</tr>
<tr>
<td>Publication Date:</td>
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