

enabling its social powers to develop and sustain a sense of shared action and intention, and argues that music stands in a complementary relationship with language as part of the 'human communicative toolkit' (Cross 2009: 192).

The ethnomusicologist Bruno Nettl has made the following suggestions for things that all musical utterances have in common:

There is a more or less clearly marked beginning and ending. There is some redundancy, some repetition, balanced by some variety, articulated through rhythmic, melodic, textural means...The musical utterance consists of smaller units which are fairly well marked, and ↵ for which one may substitute others from a given cultural repertory in order to produce new utterances. (Nettl 1983: 39)

He goes on to enumerate various other ubiquitous or very common features of music. Some apparently universal features of music—such as prosodic chunking, octave generalization and transposability, the tendency for stepwise movements between discrete scale steps, the use of unequal intervals within a scale, descending contours at the end of a phrase—seem to stem from cognitive processing and memorization capacities shared with language (Harwood 1976). Other common features—such as music's association with dance, speech, and religious behaviour, the musical specialist, the valuing of innovation and the exceptional (Nettl 1983: 40–41)—stem from music's social role. The very heterogeneity of musical phenomena and mutability of music-making practices can be seen as domain-specific effects and manifestations of broader human cognitive abilities to create culture (Sperber and Hirschfield 1999), what Cross has termed 'the human capacity for culture'. One of the things that makes artefacts like language and music 'cultural' is that they are 'transmissible by non-genetic means' (Cross 2008: 148). Harwood's observation that 'the process of understanding and engaging in musical behaviour may be more universal than the content of musical knowledge or action' (1976: 523) points to commonalities of function and process in music-learning and music-making.

As many have observed, in several dimensions music and language are 'poles of a continuum rather than existing as categorically discrete phenomena' (Cross 2003: 109). As already mentioned, production and perception of both music and language depend on shared human capacities. Cognitive and neurological studies tell us that although there is considerable overlap in brain processing, there are some specific areas of the brain that appear to be dedicated to musical perception and production (Peretz and Zatorre 2005).

Fitch has proposed a list of 'design features' for music in relation to language that sees them as similar in complexity, generativity, the fact that they are culturally transmitted and that both are transposable in pitch (i.e. a melody or speech intonation pattern is recognizably the same when transposed to a higher or lower pitch). He proposes that music differs from language in having discrete pitches (as opposed to the continuously variable pitch of speech) and isochrony (a regular periodic pulse that provides a point of reference for other temporal features) (Fitch 2006: 178–9). To these may be added music's fostering of simultaneous action in performance, rather than asynchronous interaction as in language (Cross 2007: 654).

Song, the most commonly encountered form of music, integrates music and language, but there are no objective criteria for distinguishing 'song' from 'chant' or 'intoned speech' (Nettl 1983: 39) other than an increasing tendency for quantization of pitch and/or duration as we move along the continuum towards 'song'. ↵ Poetry and other verbal genres that are not sung typically share three further distinguishing 'design features' that Fitch attributes to music rather than language: they typically occur in specific performance contexts, they may consist of a repertoire of discrete repeatable pieces, and they tend to be what Fitch terms 'a-referentially expressive' (equating to Cross's 'floating intentionality' already mentioned) (Fitch 2006: 179–80). The language of song, like the language of poetry, is frequently oblique,