Singing Styles and Human Cultures: How Are They Related?

Songs of the African Pygmies tend to be repetitious, to have short phrases, and to be sung in counterpoint. Similar song styles are found among some groups that are geographically isolated from the Pygmies, such as the Northern California Indians, the Yukaghir of Siberia, and the Ainu of Japan. These similar song styles may not have arisen by chance. Instead, according to Alan Lomax of Columbia University, they reflect the similar social structures of widely separated peoples.

Drawing on a statistical analysis of 4000 songs from more than 400 cultural groups, Lomax concludes that there is a distinct correlation between patterns of singing styles and social structures. He has extended his analyses to include styles of dance and conversational speech, which, along with song, he believes to be public communications directed at groups rather than at individuals. Thus, a primary function of these communication styles is to heighten feelings of group identity. "The profile of a society can be roughly projected from a profile of its music, dance, and speaking styles," he says.

These conclusions are controversial. Although applauded by some anthropologists, Lomax's work has been met with skepticism by others who question his methodology. Some of the differences of opinion between Lomax's supporters and his critics may also reflect a difference of perspective between anthropologists who study particular ethnographic cases and those who generalize from many cases. The critics, among whom are many ethnomusicologists, are often interested in what is called "microanalysis." That is, they tend to study particular cultures in detail and to avoid cross-cultural comparisons. The supporters more often seek a broader view of societies and cultures.

Lomax made his name as a collector of folk songs. During the 1930's, he and his father, John Lomax, compiled American folk songs and detailed the social backgrounds from which the songs arose. For example, they were interested in black secular music and took tape recorders into the prisons of the South. There they discovered and supported Leadbelly.

From his studies of American folk music, Lomax became interested in the music of other societies. He spent a few years in Italy and Spain, where he observed that singing styles, rather than texts or melodies, seem to be characteristic of different geographic regions. Consequently, he began to look for relations between song styles and cultures.

During the summer of 1961, Lomax and his associate Victor Grauer, who is a musicologist, developed a system for rating song styles. They listened to a sample of songs from cultural regions around the world and chose 36 features for describing the songs. The criteria for selecting these features were that they be easy to recognize and define and that they allow researchers to distinguish between songs from different cultures. These features include tempo, enunciation (which varies from precise to slurred), and the extent to which a song's text is repeated.

A System of Classification

Lomax and Grauer named their system for analyzing song styles "cantometrics"—a word they define as "song style as a measure of culture." Lomax says that people without prior musical training can be taught to rate songs according to this system. The training period takes about a week and consists of listening to tapes that provide examples of the features of the rating system. Lomax reports that people trained in this way agree more than 80 percent of the time on their ratings of unfamiliar songs.

By making use of their cantometrics system, Lomax and his associates coded songs from cultures around the world. In general, each song was coded by only one person. Lomax points out that most of the songs analyzed were collected by researchers who were familiar with the societies in question, so the songs are probably representative samples. At first, the coders rated as many as 50 songs from various societies. However, the coders become bored after rating about ten songs from a given society (a task that requires 2 hours) because the predominant patterns of a society's songs are so redundant. Lomax reports, however, that no significant additional information was obtained from these larger samples.

By using factor analysis, implemented on a computer, Lomax and his associates correlated their ratings of songs with the major cultural features of societies. They found that the 36 cantometric measures could be grouped into nine factors, which Lomax calls the basic elements of song. For example, the factor they refer to as "differentiation" includes the cantometric measures "precision of enunciation," "size of interval," and "degree of repetition on text." Differentiation, they find, is correlated with social complexity. As societies become more complex, singing styles become more differentiated. Another factor is "energy level," which includes cantometric measures of loudness, forcefulness, and voice register. Higher energy levels are correlated with greater degrees of government centralization. (In addition to differentiation and energy level, the other factors are ornamentation, orchestral organization, choral organization, noise-tension level, irregular-to-regular rhythm and tempo, melody, and phrase length.)

Lomax and his associates report that song styles can be used to map the world into regions corresponding to the major cultural traditions (Fig. 1). For example, the "Circum-Pacific" group of song regions includes North American aboriginal groups but also includes song styles of Stone Age tribes from the whole Pacific perimeter. This cluster may indicate that there was at one time a diffusion of cultural traditions among groups dwelling on Pacific islands and on continents bordering on the Pacific. He concludes that the song-style map provides a coherent view of world culture and that song styles are strongly tied to cultural traditions.

Styles of dance and speech are also expressive forms, and Lomax reports that they are related to cultures just as singing styles are. It is more difficult to study dance and speech, however. Lomax finds that identifying the appropriate features of dance for intercultural comparisons takes much more time and effort than identifying features of song. Moreover, both dance and speech are less well recorded than song. In order to study dance, for example, expensive filmmaking apparatus must be brought into the field. Obtaining samples of speaking styles also presents a problem because few linguists have recorded people speaking in conversations. Lomax and his associates drew on songs recorded by others for much of their sample when they analyzed singing styles. They are finding that they must record most of their speech samples themselves.

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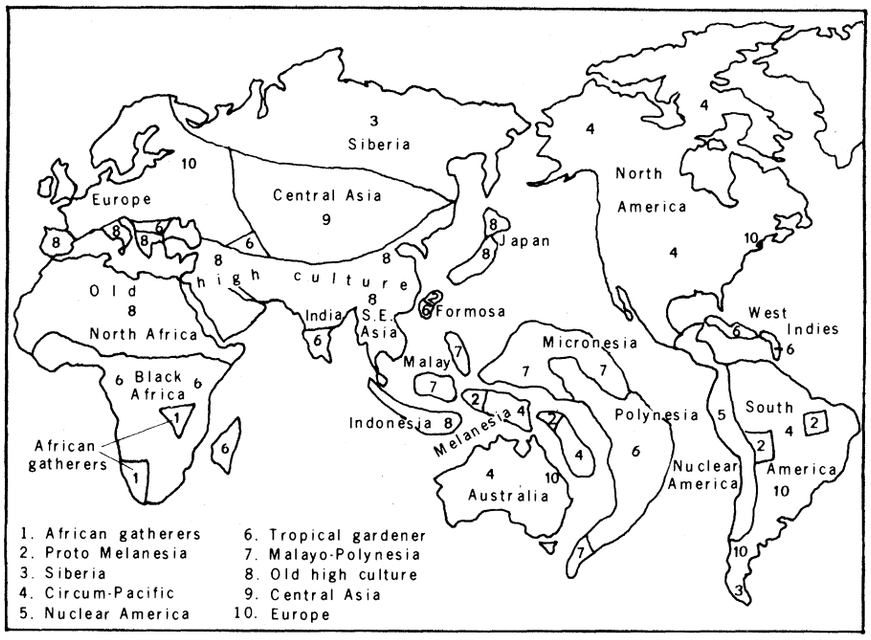

Fig. 1. A map of song styles and cultures. [Source: *Cantometrics* by Alan Lomax, distributed by the University of California, Extension Media Center, 1976]

Despite these difficulties, Lomax has made some progress in analyzing styles of dance and conversational speech. He reports evidence that features of dance—such as whether the limbs move in one, two, or three dimensions, whether the feet shuffle, and whether the palm is displayed—seem related to cultural aspects of societies. Features of speech, such as repetitions and speech length, also seem correlated with cultural features. For example, Lomax finds that repetitions and short speech lengths are most common in the simplest societies.

Critics of Lomax have advanced two types of objections to his work. They object to his source of data on the world's cultures and social systems, and they object to his methodology.

Lomax relies heavily on George P. Murdock's *Ethnographic Atlas* for his data on the world's cultures and social systems. This atlas, however, is not uniformly accepted by cultural anthropologists. According to Victor Turner, a cultural anthropologist at the University of Virginia, the atlas has been criticized on two grounds. First, Murdock's data were drawn from a number of sources, not all of which were professional anthropologists—for example, missionaries, explorers, and casual travelers. Second, Murdock published his atlas over a decade ago, and, since that time, anthropologists have reevaluated their outlook on foreign cultures. Murdock assumed that features such as rituals and judicial processes are comparable among cultures and imposed a classification scheme on the cultures. According to Turner, many anthropologists are not so accepting of these cross-cultural comparisons. They now look at how people describe their own societies rather than describe the societies themselves and compare them to other unrelated societies.

Debate About Methodology

Criticisms of Lomax's methods have mainly been voiced by ethnomusicologists. Alan Merriam, an ethnomusicologist at Indiana University, says that many researchers are not convinced that a society's music can be analyzed on the basis of only about ten songs. Merriam and other ethnomusicologists also worry about what Merriam calls "the time problem." He explains that Lomax's sample of songs was collected over a period of 70 years, yet Lomax treats the songs as though they were contemporaneous and as though no change had occurred over time. Moreover, Merriam says that when a society has two singing styles, Lomax chooses to ignore one. Lomax did this, for example, with the Pygmies, according to Merriam.

Another objection often raised to Lomax's work is his treatment of correlations, which "he uses to make inferential history," Merriam says. Finally, many ethnomusicologists question the validity of Lomax's song classification system. Merriam points out that the fact that Lomax gets over 80 percent agreement on song ratings is not necessarily significant. "It's possible that the system isn't telling us much," he says. "It's easy to train people to give simple answers." George List, who recently retired from Indiana University, explains that "The decisions are made by the untrained listener. The methodology seems a bit informal."

The ethnomusicologists' worries about Lomax's sample size and about the time problem illustrate a difference in perspective between them and Lomax. Jeff Titon, an ethnomusicologist at Tufts University, explains that most researchers in his field are microanalysts. Lomax, however, is comparing songs on a much larger scale. Looking for large-scale differences amounts to ignoring small-scale differences and thus "smoothing" the data. Dell Hymes, an anthropologist at the University of Pennsylvania explains, "In taking a worldwide view of things, one is bound to overlook specifics and to make judgments that can be debated in their details. The sweep of Lomax's work is the problem for most ethnomusicologists."

Supporters of Lomax point out that his work has pedagogical as well as professional value. Titon, for example, finds that Lomax's studies are extremely useful in teaching ethnomusicology to undergraduates. He reports that "Students who are introduced to cantometrics become passionately involved with music, culture, and the relation between the two." Lomax also emphasizes the educational value of his work. He says that analyses of song styles cause listeners "to become impressed by the varied beauty of music and culture, and, at the same time, more aware of their own cultural identity." It is important, he says, for people to understand and appreciate their own musical heritage, but this task becomes increasingly difficult with today's mass communication systems which tend to emphasize cultural uniformity.

Lomax seems to have an almost charismatic appeal to some of his supporters who describe him with effusive terms such as "a grand theorizer." Many of these supporters, however, are withholding judgment on whether Lomax's conclusions are valid until more data are in and the work is confirmed by others. Titon, however, believes that the professional value of Lomax's work must be viewed in the context of the field of anthropology as a whole. "If Lomax were not around, the field of ethnomusicology, at least, would be very much less attractive and less exciting," he says. "It may be that, with the data at hand, Lomax cannot answer the questions he is posing, but without him the field would have a less imaginative vision."

—GINA BARI KOLATA