INTRODUCTION

"How Does Music Work?" Toward a Pragmatics of Musical Communication

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Introduction

This opening essay highlights basic themes associated with the topic of music and manipulation by addressing the essential question "How does music work?" Can one describe music's most fundamental social functions and mechanisms? In order to address this question, the essay outlines a communication model for music, arguing that music is, in its most basic sense, an *associative enhancer of communication* at the group level. This view has several important ramifications: (1) music is, psychobiologically speaking, an emotive reward and reinforcer, one that acts to modulate arousal, affect, and mood; (2) music's principal mode of operation at the cultural level is associative, and this often manifests itself in specific linkages between musical structure and social meaning; (3) the objects of this association range widely, and include such divergent entities as verbal texts, group identities, social ideologies, and commercial products; and (4) music is ideally utilizable as a tool for persuasion and manipulation. This essay promotes a pragmatic approach to music, one that considers not only the "texts" and meanings of musical communication but the motivations that underlie this communication to begin with.

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Music's use in contemporary society is plagued by a host of moral problems, including censorship, propaganda, quotas, commercialization, and globalization.

What underlies most of these issues is the notion that music has a powerful influence over human behavior and that this influence can be exerted for a host of political and economic ends. Music is a major tool for propagating group ideologies and identities, and as such serves as an important device for reinforcing collective actions and for delineating the lines of inclusion for social groups. In addition, music is one of the most important marketing tools in modern society and one of its most important economic commodities. The music industry is a $40 billion enterprise, itself a part of a much larger transnational entertainment industry. The current volume deals with the social uses and controlling mechanisms of music. As an introduction to the major themes of this volume, this essay poses the basic question "How does music work?" In other words, what are music's most fundamental functions and mechanisms? In addressing this question, I hope to highlight some of the major features of the use and control of music discussed by the contributors to this volume. My approach will be to develop a general social-communication model for music that is both interdisciplinary and cross-cultural, a model that shows striking contrasts to the dominant cultural-studies approach to the sociology of music. In elaborating this model, I hope to set the stage for the remaining chapters of the book. At the same time, I want to emphasize that in presenting this model in the introduction of the book, I am in no way implying that all the contributors to this volume agree with the perspective outlined here. Far from it. Each contributor presents his or her own perspective on music's role in society and how music both influences and is influenced by the society that uses it.

Music and Behavioral Control

The communication model to be developed in this essay will be predicated on a dynamic model of society. Music can be best understood in terms of how it influences the livelihood and survival of individuals and—most especially—cultures. My overriding hypothesis is that music is a functional object whose universal persistence over time and place has resulted from its contribution to the operations of societies. This conforms with the "functionalist" ethos in sociological theory (e.g., Kincaid, 1990), which has been much criticized (Elster, 1983). Functionalism, in this context, is the application of functional explanation to social phenomena. It is, almost by definition, holist in its outlook, viewing society as something greater than the sum of the components that make it up, namely, individual people. This is in opposition to the philosophy known as "methodological individualism" (Watkins, 1957), which is anti-holist in its orientation and which explains all social phenomena in terms of individual behavior. With this commitment to functionalism in mind, it will be necessary to develop a dynamic macrosociological perspective. The analysis of social dynamics has been the domain of both anthropology and sociology, although they have adopted very different orientations. By focusing, respectively, on small and large societies, anthropology and sociology have developed

strikingly different theoretical emphases: anthropological theories have tended to focus on *consensus,* whereas sociological theories have tended to focus on *conflict.* The same applies in their approach to music: ethnomusicologists analyze small-scale cultures and the role that music plays in creating cohesion and cooperation, whereas sociomusicologists (especially those who study popular music) analyze large, industrialized societies and the role that music plays in defining social divisions among classes, subcultures, and interest groups.

Consensus and conflict are flip sides of a coin comprised of cooperation and competition. In order to understand how music operates in societies of all kinds, it is necessary to invoke large-scale sociological theories, and especially selectionist models (Boyd and Richerson, 1985; Henrich, 2004). Cooperation and competition can be unified by looking at group processes as a two-component system involving "within-group" dynamics, on the one hand, and "between-group" dynamics, on the other (Sober and Wilson, 1998). A group's chances of survival depend both on the internal integrity of the group (within-group processes) and on the ability of that group to function in relation to competing groups in a meta-population (between-group processes). The most important concept to be highlighted here is that internal cooperation is a necessity for groups to flourish at both levels. A conflict-filled social club will probably disband due to internal instability. Likewise, a conflict-laden army in which soldiers fight among themselves has little chance of success against an opposing army. Collective ventures like building bridges and waging battles require large-scale cooperation and coordination among members of a work force; one has to cooperate to compete. In sum, the long-term survival of groups depends on the balance of cooperation and competition both within and between groups.

In ethnomusicological analyses, the groups whose survival is analyzed are often self-contained though small-scale units such as tribal groups, whereas in sociomusicological analyses, they are usually groups within larger societies, such as political groups (based on ethnicity, nationality, and the like) and interest groups (based on gender, age, race, sexual orientation, and the like). I argue that music's role in both kinds of societies is fundamentally similar: Music serves principally as a cooperative device within social groups to foster both internal harmony for its own sake and group solidarity in the face of intergroup conflict (Brown, 2000a, 2003). What this implies is that music is ultimately used for behavioral control at some level, and that the consequences of this use vary strikingly depending on the side of the ingroup/outgroup divide one happens to be on. The principal difference between small-scale and large-scale cultures in this regard is that the latter societies are hierarchical and multilayered, and therefore that the relevant lines of separation between groups are to a large extent internal to the society as a whole; conflict occurs internally between competing subcultures as well externally between large-scale units like nations. This creates a much more complicated dynamic of within-group and between-group processes. Be that as it may, I argue that music serves as a

cooperative device at these many levels of structure, and identify six important aspects of music's role in this area that implicate behavioral control as a major mechanism of its action (discussed in Brown, 2000a).

1. Music has an important role in bringing about behavioral *conformity* and in stimulating *compliance* with social norms. In other words, music has the effect of *homogenizing* social behavior within groups, especially in ritual contexts. Boyd and Richerson (1985, 1990, 1992, 2002) have done extensive theoretical work demonstrating that "conformist transmission" is a major force influencing intergroup processes leading to cultural evolution. It does so by reducing behavioral variation within groups, thereby intensifying intergroup differences. How music promotes conformity and compliance is best seen in the context of group-wide performance-events, where it works on at least two major levels. First, music-events themselves comprise a significant component of the activities of the groups in question, and participating in such events serves as an important criterion for membership in the group. Attendance at the event is normative, and the ritual behaviors occurring at the event require conformity to group norms. Music reinforces codes of behavior. This applies equally well to tribal rituals, classical concerts, and raves. Second, music serves as an adjunct to language to emotively reinforce group values, virtues, and normative behaviors. Musical devices such as rhythm, repetition, and polyphony act to increase the meaning and memorability of linguistic messages (Richman, 2000). So at the level of contexts and contents, music acts as a force of compliance and conformity.

2. Along similar lines, music is a communication device that serves as an important component of systems of *persuasion and manipulation*. This fits in with music's role as a "knowledge-bearing function" (Eyerman and Jamison, 1998), one that reinforces group ideologies. This point is elaborated in detail in my communication model in the following sections of the essay.

3. As a force of social conformity, music has a major role in defining and reinforcing *social identity*, serving as a socializing force that fosters *enculturation* of individuals (for further discussion, see Dissanayake's and Volgsten's contributions to this volume). People learn about the normative behaviors of their society or subculture in the context of musical rituals. In addition, music, as a cultural entity, serves as an important symbol, in and of itself, of group identity, helping to create borders between ingroup and outgroup. This has emerged as one of the dominant themes in both ethnomusicology and sociomusicology. Much work in social identity theory has shown that identity formation is basically an exclusionary process. Music plays on our most tribal instincts and helps distinguish "us" from "them." As Frith and Street (1992: 80) wrote,

"When people feel most passionately about music together it is because of its power to mark boundaries."

4. Along these lines, music serves as an important basis for *sorting* people into groups in large-scale societies, creating musical-preference groups (Mark, 1998). This can be both the cause and effect of group formation: people not only sort into groups based on their musical tastes but use musical taste as an important criterion for membership in certain groups. Music is a means of creating and reinforcing group boundaries both within and between (sub)cultures. In recent years, this notion of sorting has found a role in studies of audience "fragmentation" in mass-media studies (McQuail, 2000) whereby musical-taste groups become increasingly divergent and autonomous collectivities, creating further boundaries and further independent genre groupings (see Martin's and Volgsten's contributions to this volume).

5. Music is an important device for creating group-level *coordination* and *cooperation*. Its ability to increase arousal and synchronize movement can lead to coordinated and cooperative action. Again, such coordination can be just as useful for threatening impending enemies as for reinforcing local sentiments of goodwill. When such coordination occurs in the context of group musical performance, it tends to create a symbolic feeling of equality and unity, one that produces a leveling of status differences among the participants, thereby dampening within-group competition. One area of intense analysis in sociomusicological studies has been in the music of social protest, where it is through music that social/political movements exert much of their influence on the society at large (see the essays in Garofalo, 1992a; Wicke, 1992; Eyerman and Jamison, 1998).

6. Music is an important device for *emotional expression, conflict resolution,* and *social play.* Music and dance are, in fact, among the very few devices for channeling emotional expression at the group level (e.g., Merriam, 1964). They are therefore among the most important means for creating cohesion and resolving internal conflicts. Such channeling of group emotion can be used to promote both social harmony and ethnocentric hate.

Each of these six factors helps to promote group formation, reduce internal competition, homogenize group behavior, and intensify intergroup differences. They highlight music's functional roles at the level of behavioral control. This should be seen in contrast to cultural theories that ignore the behavioral effects of music altogether and that focus on musical signification (e.g., symbolic interpretation) as an end in and of itself. Behavioral effects are at the core of my model, which provides a general approach to analyzing music in all types of societies by considering the ongoing balance between within-group and between-group processes.
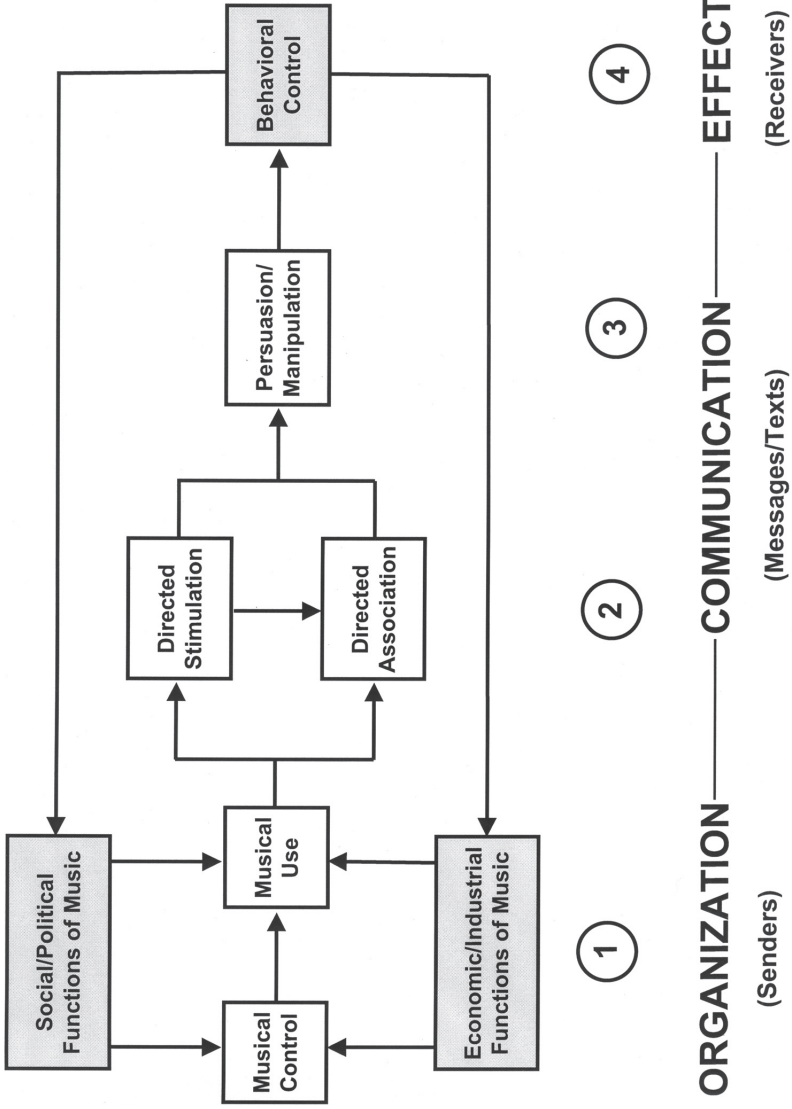
The Social Enhancement Model of Music

Having sketched the end-point of the model—the ultimate effects of music—I will now begin at the beginning, where the *functions* of music are seen as the driving force for the uses and controlling mechanisms of music. I will describe the operations of music in the form of a social communication model whose final outcomes are the behavior-controlling effects just discussed.

While music is usually conceptualized as a cultural product, it is rarely seen as a form of communication, at least not by the rigorous standards of communication theorists. Virtually all of the mainstream musicological approaches place music itself—not *the social production of music*—at their starting point. For example, musical semiotics, as a theory of musical "signs," rarely considers the social processes of musical creation (although Tagg is certainly an exception here, e.g., 1987, 1989, this volume). Likewise, aesthetic and psychoacoustic perspectives focus exclusively on perceptual processes. Finally, cultural-studies approaches place their emphasis much more on musical "consumption" and "emission" than musical production, as their overriding focus is on recorded music. As Garofalo (1992b: 19) has written: "[Cultural theorists] can be criticized for privileging the act of consumption in such a way as to ignore not only the political intentions of artists and cultural workers, but also the political economy of production and, in particular, the influential role of the culture industry itself." For these reasons, I find it essential to return to the traditional analytical framework of linear transmission models in communication research, wherein "senders" are essential components of the communication process (McQuail, 2000). Such models, while far from being unambiguous when applied to music, offer the benefit of considering the full gamut of processes from production to reception, permitting consideration of both intended outcomes and actual effects. Alternatives (e.g., reception models) that ignore senders, function, intended effects, production, context, messages, transmission modes, and the like are doomed to provide an incomplete view of how music works. In most cases, such alternative approaches can themselves be subsumed by a more general communication framework.

My goal, therefore, is to develop a sociomusicological analysis rooted in the dynamics of communication: who sends what messages to whom? what are the sender's intentions? to what extent do the receivers' responses conform with the sender's intentions? what are the conditions influencing the receiver's interpretation? and what kinds of costs and benefits are involved in this type of communication? However, there are substantial problems in creating a communication model for music. Can we unambiguously identify senders and receivers? Can we identify a message? *What* is being communicated? How are musical messages encoded and decoded?

Figure I.1 provides a schematic overview of the model, which I call the Social Enhancement Model of music, a framework for understanding group-level musical communication. In this flow diagram, three classes of processes—labeled as

Figure I.1 The Social Enhancement Model of Music

ORGANIZATION ——— COMMUNICATION ——— EFFECT

(Senders)　　　　　(Messages/Texts)　　　　(Receivers)

Note for figure I.1: The Social Enhancement Model of Music. The figure presents a flow diagram that outlines the dynamics of the sociomusicological processes described in this chapter. Four general processes are described as shown by the numbers toward the bottom of the figure. The first (1) is the organizational phase of musical communication, whose end result is the selection of musical senders. Musical use and control are driven by the functions of music, shown here as either social/political (all cultures) or economic/industrial (large-scale cultures only) in nature. Musical control is essentially control of use. The next two phases, (2) and (3), refer to the means by which musical messages are formed in a pragmatic manner by senders (and decoded by receivers) during musical use. Phase (2) refers to a set of two linked processes by which musical meaning is generated through either direct affective stimulation or through semiosis. Phase (3) refers to higher-level effects that impact on beliefs, attitudes and ideologies, thereby leading to persuasion and manipulation. All of this feeds onto the last process (4), which is that of behavioral control, conceptualized as the final outcome of musical communication in many contexts. This process of behavioral control then feeds back onto the initial social and economic functions underlying music use. In sum, music is viewed as an associative enhancer of social communication.

1, 2, and 3 in the lower part of the diagram—are seen as leading up to the final outcome of behavioral control. Briefly speaking, 1 refers to the organizational side of musical communication, focusing on music's social and economic functions and how these get translated into actual uses and controlling mechanisms. Stages 2 and 3 comprise the communication process itself, especially the message level. Message generation depends both on a process of affective modulation ("stimulation") and on a process of coupling these affective musical sounds to social objects ("association"). When the objects of this coupling encompass higher-order entities like beliefs, attitudes, and ideologies, music becomes a potent device for enhancing persuasion and manipulation. These latter processes are then used to promote behavioral control at some level, as described in the previous section of the essay. Finally, behavioral control itself feeds back onto the social and economic functions of music, thereby completing the loop. This creates the potential for both musical change and social change. The three parts of the model will be described in sequence below.

One of the goals of this model is to provide a view of music that applies to all types of cultures, both small and large. While there are many differences between the uses of music in different types of cultures and contexts, I believe that an extremely important difference lies in the mode of transmission—the "medium," if you will. I make a fundamental distinction here between *direct transmission* and *indirect transmission* of music (Burnett, 1996; McQuail, 2000). Direct transmission can be thought of as live performance of music, while indirect transmission consists mainly of the emission of pre-recorded music through speaker systems, either public or personal. The latter is usually associated with notions of mass communication. Direct and indirect transmission differ in many important respects in addition to the live versus recorded transmission route. In the case of direct transmission, musical senders are visible, identifiable, and often personally familiar people, whereas in the case of indirect transmission they usually are not. Direct transmission is usually

associated with definable music events in which people gather together for some specific and common purpose (whether for music listening or otherwise), while indirect transmission is usually not. For this reason, the receivers of directly transmitted music are clustered both spatially and temporally, whereas those of indirectly transmitted music are widely dispersed in both senses. In general, the latter audience is much larger than the former and is significantly more non-interactive, anonymous, and amorphous. Indirect transmission is usually associated with the concept of "mass culture," which itself is generally characterized as non-traditional, non-elite, mass-produced, popular, commercial, and homogenized (McQuail, 2000). But I will not focus on those aspects here. The important distinction for my purposes relates to the communication arrangement itself. In the case of direct transmission, senders and receivers are relatively easy to identify, whereas in the case of indirect transmission they are much more elusive. To understand the latter situation, one has to rely on theories of mass communication. However, my approach will be to apply such theories to *all* musics transmitted by the indirect channel regardless of their genre or social function (i.e., not only popular music).

As cultures expand in size, complexity, and technological sophistication, and as the major route of musical communication changes from direct to indirect transmission, there is a dramatic shift in the basic unit of cultural transmission of music: a change from *performances* to *phonograms*. This has many important ramifications. Phonograms are cheap to replicate and easy to disperse geographically, whereas performances are neither of these. Transmission of phonograms, therefore, has an explosive potential to influence cultural exchange and mediate cultural domination. This greatly complicates a process of musical communication that is already quite complex even when restricted to a single culture. Moreover, as phonograms are virtually always economic commodities, the shift from direct to indirect transmission is accompanied by a tremendous expansion in the commercial importance of music, including the industrialization of music production. This highlights the point that in many cases of direct transmission, especially in small-scale cultures, the senders and receivers of music tend to be the same overall individuals, whereas in most cases of indirect transmission there is not only a social separation between musicians and nonmusicians but an economic distinction between "producers" (phonogram producers, that is) and "consumers."[1] So while music that is directly transmitted is often under cooperative and interactive control, music that is indirectly transmitted is often under the strict control of market forces, leading to the creation of "culture industries" (Horkheimer and Adorno, 1944/1972).

Despite these differences, what unites direct and indirect transmission of music is the underlying process of communication, which begins with senders' intentions and ends with receivers' responses. Situations of direct transmission allow us to define a relatively straightforward network of senders and receivers in the communication process, especially in the case of music events. Indirect

transmission, in contrast, poses many challenges to understanding such a process. However, a lapse into non-communication-based frameworks that ignore musical senders and messages only makes matters worse as such models end up missing critical information needed to understand how music works.

Function, Use, and Control

I now go on to present the three phases of the Social Enhancement Model. The first phase comprises organizational processes related to the use and control of music at the social level whose end result is *the selection and arrangement of musical senders*. It is important to keep in mind that musical production and organization vary strikingly with the mode of musical transmission. Where it is direct, production deals with the contexts and mechanisms of musical *composition* and *performance*. Where it is indirect, production deals mainly with the contexts and forms of the *emission* of pre-recorded sounds. (I retain the use of the word "production" for the latter process even though no musical performance may occur in real time.) In both cases, senders comprise not only composers and musicians but the organizers of musical performance-events and emission-events.

One of my strongest tenets is that the use and control of music are motivated, specified, and controlled by social and economic functions (figure I.1), especially those related to behavioral control. Music is produced with social goals, costs, and benefits in mind, and this is usually related to group or subgroup function. Many contemporary approaches ignore the production of music altogether and therefore reduce music to a kind of environmental noise that impinges on unsuspecting listeners. By contrast, my model focuses on the *uses* of music (rather than its meanings or effects alone) and seeks to understand them in terms of social and economic functions. But what is the difference between use and function? Despite an abundant literature devoted to the study of music from the cultural-studies perspective, little mention has been made of the social functions of music, least of all from a cross-cultural vantage point. For this, one has to turn to the anthropological literature. But then the focus invariably shifts toward small-scale cultures and direct transmission of music, leaving a gap in the understanding of indirect transmission to mass audiences.

One of the few people to analyze the functions of music as well as clarify the dichotomy between function and use was Alan Merriam in his classic text *The Anthropology of Music* (1964). Merriam's analysis provides a useful starting point for my discussion: "When I speak of the uses of music, I am referring to the ways in which music is employed in human society, to the habitual practice or customary exercise of music either as a thing in itself or in conjunction with other activities.… 'Use', then, refers to the *situation* in which music is employed in human action; 'function' concerns the *reasons* for its employment and particularly the broader *purpose* that it serves" (p. 210, emphases

added). From this analysis we can see that uses tend to be contexts or situations, whereas functions tend to be purposes or reasons. Functions are broad in scope and few in number, while uses are particular and many. As a general tenet, I would state that *use emanates from function* (see figure I.1). While it is true that a given use may have several functions and that a given function can be subserved by a host of uses, it will be instructive to think of musical uses as emanating from and being motivated by particular functions of music. One of the most important pieces of evidence that musical use is dictated and driven by social function is that in small-scale societies—where direct transmission and ritual music are the rule—the performance of musical works tends to show strong context-specificity, or what ethnomusicologists refer to as "functionality." Each musical form is inextricably associated with a particular social function or activity; likewise a given social function or activity requires performance of the appropriate musical form in order for it to be complete and proper (e.g., Arom and Khalfa, 1998).

Would it be possible to identify a set of broad functions that effectively encompass all the uses of music? Merriam (1964), working from a functionalist anthropological perspective, identified ten basic functions of music cross-culturally: emotional expression; aesthetic enjoyment; entertainment; communication; symbolic representation; physical response; enforcing conformity to social norms; validation of social institutions and religious rituals; contribution to the continuity and stability of culture; and contribution to the integration of society. In a similar vein, Dissanayake, in discussing the social purposes of ritual music in her chapter in this volume, identifies six general functions: display of resources; control and channeling of individual aggression; facilitation of courtship; establishment and maintenance of social identity; relief from anxiety and psychological pain; and promotion of group cooperation and prosperity. By focusing on ritual music in small-scale cultures, both Merriam and Dissanayake see music as functioning to increase cooperation and affiliation within social groups while at the same time downplaying internal competition and hostility.

But what about the functions of music in large-scale cultures? Are they the same as those seen in the cultures that Merriam and Dissanayake describe, or are they radically different? There seems to be much overall similarity but at least three major levels of difference. (1) I described earlier the hierarchical nature of large-scale societies and the conflict between cooperation and competition among the multiple, overlapping layers that make them up. Music's functions in large societies must be seen in light of the more complex balance of within-group and between-group forces. All of the functions that Merriam mentions are things that support within-group solidarity. By contrast, Dissanayake presents important functions, such as courtship and resource display, that have the clear potential to foster within-group competition. Furthermore, most contemporary discussions of popular music in Western culture focus on the potential of music to create social *divisions* within large societies along the

lines of age, race, ethnicity, gender, sexual orientation, political orientation, and so on. So if music is functioning to promote the solidarity of groups, it is very often doing so in order to fuel opposition to other groups, to create difference. (2) For this reason, and for reasons related to the predominance of indirect musical transmission to temporally and spatially dispersed audiences in modern societies, a function related to *identity formation*, rather than social action per se, becomes highly accentuated (see the chapter by Martin, this volume, for a more detailed discussion). This has given lots of fuel to semiotic and cultural-studies approaches to music and their focus on signification for its own sake. (3) A new class of functions that are essentially absent in small-scale societies—*economic* functions—emerge in large-scale societies (see figure I.1). This applies mainly to cultures where music-making and music-producing are economic activities and, most especially, where a commercial music industry operates. The contention that economic functions may be among the most competitive functions of music has driven much Marxist thinking about the music industry (e.g., Horkheimer and Adorno, 1944/1972). Merriam doesn't include them in his anthropological discussion because music-making is generally collective and consensual in small-scale cultures, and the functions of music are mainly religious/political. But in societies where music-making is a professional specialization, where musical consumption (by either direct or indirect transmission) becomes an economic activity, and where music is used to promote other economic processes, a separate set of economic functions emerges as active determinants of the use and control of music. In sum, while music in large-scale cultures has political functions related to conformity, compliance, cooperation, and coordination, just as in small-scale cultures, much of the political emphasis is shunted toward group identity (rather than group action), and economic functions emerge as novel functions of great importance, two phenomena related to one another by the dominance of indirect transmission of recorded music.

Having discussed use and function—where use emanates from function—I would like to contrast this with "control." Control of music can involve suppression or imposition but its basic concern is to regulate facets of use. As shown in figure I.1, I conceptualize musical control as being *the control of use* and argue that use is the most salient target of control. It is a way of biasing use in certain directions by selectively favoring or disfavoring particular components of a music-culture. What aspects of musical use are controlled? To answer this question, it is instructive to look at the targets of musical censorship and propaganda seen throughout history (see Korpe, Reitov, and Cloonan, this volume): performance contexts, locales, composers, performers, song texts, musical works, genres, instruments, modes, intervals, rhythms, timbres, and so on. The important point to emphasize for my purposes is that *control is driven by exactly the same social and economic functions as use, and works to achieve behavioral control in a similar manner*. As is described elsewhere in this volume, musical control can assume at least three major forms: control by tradition (Dissanayake, this

volume), governmental control (Korpe, Reitov, and Cloonan, this volume), and industrial control (Wallis, this volume).

The product of this interplay between function, control, and use is the organization of musical-performance events (direct transmission) and musical-emission events (indirect transmission), as dictated by social concerns related to behavioral control. This, in effect, creates a selection and arrangement of *musical senders*, whether it involves live performance or the activation of sound systems. In the case of direct transmission, it involves specification of the contexts and contents of music to be performed, including the selection of musicians, musical works, performance arrangements, and performance styles, often as an accompaniment to other social functions: hunting, political rallies, worship, dance, and so on. Functionality might or might not be an important consideration here.

In the case of indirect transmission, a much more complicated arrangement is obtained because sending is spatially and temporally displaced from performance. This creates two types of sending processes: *recording* and *emission*. The first is typically the domain of the music industry as part of the process of phonogram production. Although some phonograms are recordings of concert performances, most are studio recordings organized by agents and industry executives, and economic functions are the dominant driving force for this. It is through the emission process that the senders and receivers of indirect transmission are defined, and this process takes many forms, depending completely on the particular uses of the music. The predominant one in contemporary society is far and away the most amorphous one: private listening to phonograms by individuals (see Brown and Theorell, this volume). The sending process in this case is difficult to specify beyond the musicians themselves and their industry handlers. The receivers will be comprised of a large, undifferentiated, and unorganized aggregate of people. But there are less amorphous arrangements. For example, owners of businesses can play recordings in stores in order to attract customers and enhance sales. The senders in this case will be not only the people who recorded the music but those who control the emission of the music, where the receivers are the customers in the store. Likewise, one can think about films, where underscored music is composed to enhance the narrative properties of the film, as received by audiences of film viewers. In a similar fashion, the directors of television commercials often select well-known songs to be played in their commercials to influence customer affinity for advertised items. The sender is both the recorder and the emitter, and the audience consists of a dispersed aggregate. The bottom line is that senders and receivers must be analyzed on a *case-by-case basis* in terms of the transmission events that characterize musical communication. For indirect transmission, emitters are just as important as performers, and often times have interests, intentions, and agendas that differs greatly from those of the performers, thereby raising important concerns about the moral rights of composers and musicians (for further discussion, see Volgsten and Åkerberg, this volume).
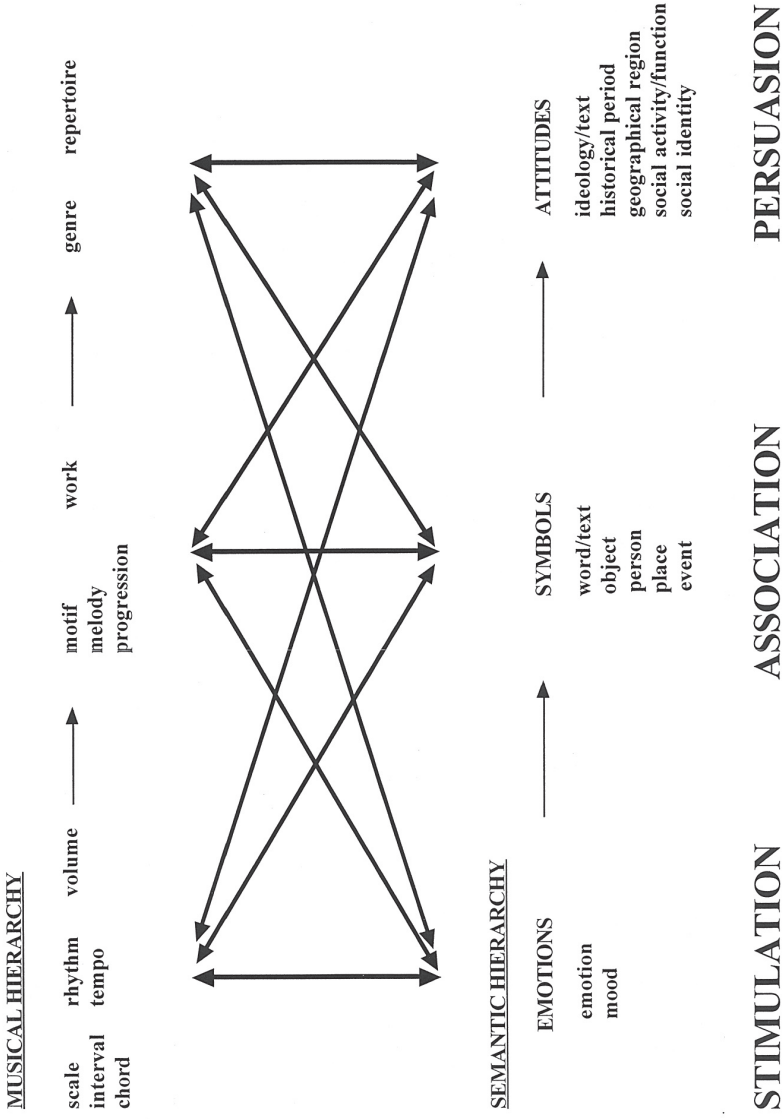
Directed Stimulation and Directed Association

With this notion of musical "senders" in mind, I go on to discuss the second phase of the model, which deals with the communication process itself and most especially with the generation of socially meaningful *musical messages*. From the production side, it deals with how senders formulate messages in order to convey their meanings. From the reception side, it deals with how receivers decode these messages and interpret their meanings. It is important to emphasize that these two general processes involve essentially inverse mechanisms, as described by simple information-transfer models of communication. Therefore, I do not make any point of distinguishing production and reception mechanisms at this stage, emphasizing that they are, for the most part, inverse forms of processing.

An analysis of musical messages is intimately related to the complex problem of musical meaning or musical semantics. What does music mean, and how do people use music to express their meanings? The dominant framework in this area of musicology comes not from communication studies but from linguistic theory, as represented by the field of musical semiotics. The overriding emphasis of theories in musical semiotics is on the search to define the nature of musical semantics vis-à-vis linguistic theory. As a result, language serves as the standard against which theories of musical meaning are measured (see Monelle, 1995). This has generated a long-standing discussion about the nature of musical "signs," as modeled after the semiotic formulations of Ferdinand de Saussure and Charles Peirce (see Turino, 1999). However, I argue that such a view of musical meaning is limited and places too much emphasis on language in explaining music. In addition, musical semiotics is a theory of message *interpretation* and thus gives little consideration to musical senders or the social functions of communication. In my opinion, a view of musical meaning based on messages and communication rather than signs and language holds greater promise in explaining how music works.

Many theories in musicology make a binary distinction between two levels of musical meaning (reviewed in Feld and Fox, 1994). The first level deals with intrinsic emotive meanings, and is described by what I shall call "effect theories" of music, which I define as theories that explain music's emotive effects as a causal function of musical structure. The second level deals with linguistic, connotative meanings, and is typically described by musical semiotic theories. This distinction between meanings based on musical structure and musical association is very common in the literature. Designations for this distinction include: intrinsic/extrinsic; musical/extramusical; absolute/referential (Meyer, 1956; Feld and Fox, 1994); and acoustic/vehicle (Brown, 2000b).

My approach to this problem will be to argue that the semantic level of music should be represented as a linked pair of nested hierarchies, as shown in figure I.2 (see also Volgsten, this volume, for a discussion of the hierarchical levels of music). The top part of the figure shows a *musical hierarchy* representing various

Figure I.2 A Hierarchical View of Musical Semantics

MUSICAL HIERARCHY

scale	rhythm	volume	motif	work	genre	repertoire
interval	tempo		melody			
chord			progression			

SEMANTIC HIERARCHY

EMOTIONS   SYMBOLS   ATTITUDES

emotion   word/text   ideology/text
mood   object   historical period
   person   geographical region
   place   social activity/function
   event   social identity

STIMULATION   ASSOCIATION   PERSUASION

Note for figure I.2: A Hierarchical View of Musical Semantics. The figure presents a conceptualization of musical semantics as a linked pair of nested hierarchies. The top part of the figure shows a *musical hierarchy* representing various levels of musical structure, from the most fundamental level (left) to the highest level (moving rightward). The lower part of the figure shows a *semantic hierarchy*, describing the musical meanings that are typically ascribed to components in the musical hierarchy. The hierarchy, again, proceeds rightward to higher levels of meaning. A progression is seen from (1) a level of emotional meanings to (2) a level of simple associative meanings to (3) a level of beliefs and attitudes. Musical semantics is basically concerned with defining the relationship between elements of these two hierarchies for particular musical messages. The interaction between the two hierarchies is highly multivalent, as shown by the criss-crossing arrows in the center of the figure. The vertical arrows occurring on line with the three categorical headings of "stimulation", "association" and "persuasion" show the most common means of linking the hierarchies, but many other connections are possible.

levels of musical structure. The lowest level of the hierarchy includes the structural features of music that effect theories typically describe: scales, intervals, melodic contours, chords, rhythms, tempos, volumes, timbres, etc. Higher up, and more inclusive, are motifs, melodies, and short progressions. Still higher are sections and musical works, with the highest level consisting of musical genres and entire cultural repertoires. This hierarchy is nested in the sense that anything at a higher level necessarily incorporates elements of all lower levels. Next, the bottom part of the figure shows a *semantic hierarchy*, demonstrating the musical meanings that can be typically ascribed to levels in the musical hierarchy. Such a semantic hierarchy shows parallels with that between icon, index, and symbol in Peircian semiology (Turino, 1999) although I do not make use of such concepts here. The lowest level typically involves affective ascriptions related to emotion, mood, and arousal, as described by effect theories of music. Higher levels in the semantic hierarchy deal with symbolisms, usually of the linguistic variety, as described by semiotic theories. Whereas a single chord is usually limited to a certain emotive meaning, a motif or phrase can have broader connotations, to include a word, object, person, event, place, and so on. A musical work can have even richer connotations, such as a verbal text, philosophy, historical period, social activity, social function, and the like. A musical genre can signify whole cultures, subcultures, geographical regions, social identities, and other similar things.

There are two important points to emphasize in this scheme. The first is the *nested* nature of the semantic hierarchy: higher-level meanings necessarily incorporate lower-level meanings. Symbolization of a geographical location by a musical motif, for example, necessarily incorporates the affective meaning of the chord as well. To my mind, the weakness of semiotic formulations is their inability to deal adequately with this kind of hierarchical arrangement, especially in relation to the affective properties of music. If I am correct in assuming that music's semantic system is hierarchical, then semiotic theories, as a class, should be seen to contain effect theories, even if this is not generally

mentioned by semiotic theorists. The second major point to highlight is the *multivalent* nature of the interaction, as shown by the criss-crossing arrows in the center of figure I.2. Structural elements of music can acquire a host of meanings, and particular meanings can be instantiated at many levels of the musical hierarchy, using a large variety of musical devices. The vertical arrows on line with the three categorical headings of "stimulation," "association," and "persuasion" show the most common means of linking the hierarchies, but many other connections are possible.

Given these two hierarchies, the pragmatic task for the sender is to create musical messages that effectively unite musical structure and semantic meaning. Theories that describe the outcome of this process fall into the two categories of effect theories and semiotic theories depending on the level of the semantic hierarchy invoked in the message. I will maintain this dichotomy between effect theories and semiotic theories in the current discussion for historical reasons, as the theories have been so radically different in kind. To make these theories compatible with my model, I will convert them into communication processes: what I will call *directed stimulation* and *directed association*. My use of the word "directed" in both cases implies not only a sense of communicative intent but the pragmatic concern of senders to select sound devices that are appropriate to the messages being communicated. Stimulation and association are shown as parallel processes in my flow diagram (figure I.1) as they are parallel perceptions of musical sound patterns. The principal way in which stimulation and association differ here is simply at the level of the semantic hierarchy at which connections are made to musical structure. Aside from that, the two processes of message formation will be formally equivalent.

Directed Stimulation. Directed stimulation refers to the process by which the sender uses musical devices to produce rather immediate effects on attention, arousal, emotion, and mood in the receiver while making minimal use of external referents. Such effects are generally perceived as resulting from properties intrinsic to the sound patterns with little mediation by linguistic or extramusical meanings. I use the generic term "stimulation" here to imply that the effects on arousal and emotional state cover a large spectrum of responses. Message generation by directed stimulation is based on two related elements: *formulaic devices* (a musical lexicon) and *content matching* (pragmatic rules for creating meaningful messages). Both processes suggest that music has clear design features for communication. Devices refer to a series of formulas that can be used by musical senders to communicate intended messages. They include scale types, melody types (contour), rhythm types, tempos, volumes, registers, and the like. They can be used in a highly combinatorial (syntactic) fashion. Such devices can be either universal or culture-specific. The existence of formulas implies that there is a musical lexicon that is shared between the senders and receivers of musical communication within a culture and that defines the borders of that communication. Given this lexicon of devices, content matching,

then, refers to the pragmatic process by which musical senders fashion their sounds so as to fit particular intended meanings. It is like choosing one's words and intonation properly when communicating something linguistically.[2] The sounds should fit the message. This is not just about expectancy or convention but about rationality and interpretability. Messages that are mismatched to content are misinterpreted or ignored by receivers. When Plato says that "the mode and rhythm [of a song] should suit the words" (*Republic* 398d), he means not only that language should take priority over music in creating songs but that the composed music should fit appropriately to the linguistic content of a song. Adorno (e.g., 1941, 1945) was wrong in his claim that commercial popular music was the principal genre employing conventionalized formulas. In fact, they are a prominent feature of every musical genre and tradition—improvisational as well as notated—if only because they facilitate communication. Cinema (Gorbman, 1987) and Western opera (Swain, 1997) provide a wealth of examples of such conventionalized formulas. Several empirical studies have demonstrated that people's verbal/emotive interpretations of musical passages are remarkably uniform (Tagg, 1987, 1989, this volume; Sloboda, 1991; Krumhansl, 1997, 2002; Sollberger, Reber, and Eckstein, 2003). Moreover, North and Hargreaves (1996) have demonstrated that people show highly convergent interpretations of which type of music they feel is appropriate for a given social activity or social context. There is thus an empirical basis for saying that the musical lexicon of a given culture is more or less shared by the members of that culture.

Formulaic devices are widely discussed in the musicology literature, and are well described by what I am calling here "effect" theories of music, which are the principal theoretical frameworks of the fields of music psychology, psychoacoustics, musical aesthetics, music physiology, and all areas of applied musicology (e.g., music therapy, commercial advertising). The power of music has been described from time immemorial in terms of its effects on people (Orpheus), animals (the dolphins of Orion), plants (growth stimulation), and inanimate objects (the walls of Jericho). The general idea behind effect theories at the semantic level is that features of musical structure intrinsically convey or communicate aspects of emotional expression without any mediation of cultural interpretation or convention (see caveats in Brown and Theorell, this volume). They thus place a strong focus on musical structure and have a definite nativist/universalist flavor to them.

Effect theories, whatever their form, suffer from a major weakness. They are exclusively *perceptual* theories: they completely lack the sender's communicative perspective. They tend to be individual-level theories that place receivers in a social vacuum. Music is viewed as appearing "out there," ready to impact on a passive listener. The sounds are environmental and purposeless. Because such theories rarely make mention of musical context, social function, communicative intent, musical taste, and the like, they are highly asocial and deterministic. Scott (1990) has rightly described such theories as reducing

music to the level of a "mood-altering drug." The best way of overcoming these weaknesses is to *re-introduce the sender's role*. The manner in which this can occur in the context of directed stimulation is through the pragmatic process of content matching: musical sounds should correspond, in some significant way, with the ideas being communicated by the sender. Once that condition is imposed, content matching is relatively straightforward to predict using the lexicon and formulas of effect theories as guides. Content matching places the communication process on an equal playing field for senders and receivers. The same is true of speech, where words and prosodic devices are selected in a pragmatically appropriate manner to convey intended meanings during discourse events.

Directed Association. I now go on to discuss the second component in my dichotomous scheme. Directed association can be thought of as the process by which the sender uses musical devices to produce symbolic associations between musical structure and cultural objects. This process is similar to directed stimulation except that it occurs at a higher level of meaning-genera-tion along the semantic hierarchy, namely, linguistically mediated associations. Theories of directed association are described by semiotic theories, which look to musical structure as a means of verbally associating, connoting, signifying, representing, etc., a broad array of cultural objects. Whereas effect theories are intrinsic and nativist, semiotic theories are extrinsic and cultural. I emphasize again that semiotic theories implicitly incorporate effect theories of music to the extent that musical semantics is an intrinsically hierarchical process, which is what I am arguing. In linking cultural objects to musical structure, semiotic theories are implicitly connecting the underlying affective associa-tions of musical structure through a kind of piggy-back process. Thus, it is not sufficient for associative theories to be purely interpretive, as they often are in text-based cultural-studies models; they must be affective as well.

What semiotic theories share with effect theories is a focus on formulaic devices and content matching. This is another piece of evidence that semiotic theories contain effect theories. However, the formulas generally occur at higher levels of both musical structure and semantic meaning than those described by effect theories. Consider the following example. The Muslim call to prayer (*adhan* in Arabic) functions as a signal to bring worshippers to the mosque for a ceremony involving prayer as well as the cantillation of the Quran. The mean-ing of the call's sounds can achieve signification on many different levels. To any listener, the structural elements of the call (e.g., its scale, melodic contour, intonation pattern, free rhythm, vocal style) evoke certain emotive responses, as predicted by effect theories. To a worshipper in Cairo within listening dis-tance of the minaret, the call's presence serves as a signal indicating the time for prayer, and its words remind the person of Allah's expectations that one go the mosque and pray. A visitor from Tunisia hearing these same sounds would be struck by the difference in their style and presentation compared to the call

in his home in Gadès. His local call would represent something personal and Tunisian. It would be a symbol of his identity, and the Egyptian call a symbol of difference. The same call used in a travel documentary about Egypt would function as a musical tag for a particular geographical location and its culture. It would serve as a generic example of Middle Eastern music.

The major point is that there is a complex network relating features of the musical hierarchy to those of the semantic hierarchy, making musical semiotics a complicated affair. Musical signification can occur simultaneously at many levels which themselves may be hierarchical and multivalent. There is a one-to-many relationship between music's components and what they can signify. That said, the major weakness of semiotic theories is similar to that of effect theories: the *intent* behind this whole web of signification is simply missing, and music's presence is seen as some kind of background noise whose meanings impose themselves upon unsuspecting listeners. Most semiotic theories of music are individual-level theories that focus solely on the interpretation of musical symbols. My proposed solution to this problem is to focus less on signification per se and more on *how signification is used* in the service of communication. My prescription is the same as before: re-introduce the sender into the context of musical communication, especially in relation to content-matching processes and the design features of musical messages. Content matching assumes that a type of rational correspondence is sought between what is being communicated and the properties of the message, again with the caveat being that both universal and culture-specific elements are employed.

Persuasion and Manipulation

We now move to the last stage in the communication model as well as the last level in the semantic hierarchy: persuasion. Synthesizing theories of stimulation together with theories of semiosis leads me to the general theme of this introduction—that music works principally as a type of *associative enhancer of communication*, and that this very often occurs in the service of persuasion. This is the principal means by which music operates at the social level, and the basic concept underlying the Social Enhancement Model. Music functions to enhance and reinforce those things with which it is associated, to amplify and give salience to the messages being communicated. This concept can effectively tie together many disparate ideas about the nature, functions, and mechanisms of music in many different contexts and cultures. Again, I emphasize the importance of the hierarchical nature of message formation: musical persuasion usually requires a form of association, which itself usually depends on affective stimulation. What makes persuasion different from simple associationism is its higher-order semantic nature, usually involving beliefs, attitudes, values, and ideologies rather than simple object-significations. And as with the other levels in this dual hierarchy, formulas and fit are important factors in determining the effectiveness of communication.

Although most research on persuasion occurs in non-naturalistic settings (Petty and Cacioppo, 1986; Petty, Wegener, and Fabrigar, 1997; Wood, 2000; Albarrancin, 2002), the phenomenon of persuasion permeates all aspects of human life, from the simplest dyadic interactions to group decision-making to the alluring messages emanating from mass-media sources. Persuasion is a central component of the operations of religion, politics, commerce, and family (Jowett and O'Donnell, 1999). It is not only about how attitudes are changed but how they are *maintained* and *reinforced* despite an onslaught of factors designed to weaken them. As shown in my flow diagram (figure I.1), persuasion is used principally for the purposes of behavioral control. It is used to create compliance, conformity, and cooperation for the purposes of reinforcing group affiliations, justifying collective actions, swaying purchasing behavior, and the like. Persuasion figures prominently in most contexts in which music is used (see below), mainly group-ritual events (such as religious rituals), public places (e.g., stores, restaurants), and the audiovisual media (film, television, commercials, video). By capitalizing on the processes of stimulation and semiosis, music effectively plays into systems of beliefs and attitudes, thereby influencing motivation and behavior.

The central feature of persuasion as a form of communication is that the sender is trying to influence—not merely inform—the receiver, with the intent of modifying the latter's attitudes and/or behavior. Persuasion is usually thought of as an honest, consensual, and interactive process in which the sender's intentions to influence are clear and open (Jowett and O'Donnell, 1999). Its desired outcome is voluntary change, not coercion. Such a transaction is usually socially positive for both the sender and receiver, often resulting in mutual need satisfaction. In other words, it is a cooperative arrangement in which the social rewards of the communication process—be they at the levels of emotion, motivation, or action—are shared more or less equally between the sender and receiver. Persuasion is typically contrasted with *manipulation*,[3] where the main difference lies at the level of the sender's intentions: manipulation implies that the sender's intentions are both selfish and concealed (though the message need not necessarily be false or socially negative). In this regard, manipulation is a type of deceptive communication in which the receiver falsely expects to benefit by acting in the interests of the sender. In general, sender and receiver reap asymmetrical social rewards from such a transaction, with a strong bias in favor of the sender.

How can this distinction be applied to musical communication? The contrast between honest and deceptive signaling permeates evolutionary theories of communication, where *all* acts of communication are viewed in individualist terms as forms of manipulation (Krebs and Dawkins, 1984). Likewise there is a broad sense in which all music can be said to be manipulative to the extent that it influences a person's emotional state and tendency to act. This is the everyday view of music as a powerful modifier of people's emotional responses and manner of behaving, as described by "effect" theories of music.

In this broad view, music is non-manipulative only to the extent that it fails to have an impact on a person's emotions or motivations, in other words, to the extent that it produces *no effects*. Be that as it may, all music is produced with the intention of being manipulative (i.e., affective and motivating). When this concept is extended into the realm of behavior, it essentially reduces to the evolutionist's claim that all communication is manipulation. But this catch-all description permits little functional distinction between different types of use of music.

Contained within this global and monolithic view is another that says that the term "manipulation" should be reserved for *deceptive* forms of communication in which the sender's intentions are both selfish and concealed. By this criterion, a distinction can be made between manipulative and non-manipulative uses of music, where manipulative uses are defined as deceptive, and non-manipulative uses as honest and cooperative forms of communication. In the latter case, music is used to signal something socially positive for both the sender and receiver, and it is done so in an open way. The social rewards are shared more or less equally among the participants. This, then, reduces to the definition of true persuasion as described by communication theorists.

The view of manipulation that I will adopt in this essay will sit somewhere in between the broad and the narrow viewpoints just described. On the one hand, I will argue that most uses of music are driven by social and economic functions that lead to behavioral control at some level. However, I will acknowledge that such uses cover a broad gamut of communicative possibilities, from cooperative to competitive, altruistic to selfish, open to concealed, voluntary to coercive, and honest to deceptive. The limiting factor in this analysis will be an ability to distinguish persuasion (honest and cooperative) from manipulation (deceptive and selfish) in most circumstances. Elements of both types of communication will be present in almost all cases. The bottom line for me is that *music is usually used to influence behavior (manipulation in the broad sense)* and that *this often makes use of deceptive devices in order to achieve its effects (manipulation in the narrow sense)*. So while I am not saying that all musical communication is self-serving and deceptive, I am arguing that music's uses must be analyzed on a case-by-case basis in terms of senders' intentions, receivers' actions, and the social functions underlying communication. I believe that most cases of musical use will be shown to involve a combination of honest and deceptive elements.

How does musical persuasion work? The scientific study of persuasion offers a diverse array of theories. However, theories that focus exclusively on networks of interacting beliefs (i.e., propositional statements) are ill-equipped to deal with the influence of non-verbal factors like music on attitude or behavior. So one must look to theories that incorporate non-linguistic elements into the influencing process. The most important in this regard is the "elaboration likelihood model" of persuasion (Petty and Cacioppo, 1986; see also the chapters by North and Hargreaves and by Bullerjahn, this volume), which is both

influential and controversial. According to this model, there are two parallel routes for processing messages. One is directly related to the message's (linguistic) content, and the other is peripheral to it. These are modulated independently. They are referred to, respectively, as the "central" and "peripheral" routes of processing. Importantly, the central route always involves linguistic statements and their interaction through networks of persuasive argumentation. They comprise the message in the crude sense of the term. Peripheral factors tend to be non-linguistic, affective cues, including such things as music, images, source characteristics (e.g., reputation, attractiveness, credibility), and so on, so the peripheral route is very often paralinguistic to the central route's verbal channel. These two routes serve as mutually reinforcing elements in the influencing process. Much research has suggested that peripheral cues are more significant during low-involvement processing and central cues during high-involvement processing (Petty and Cacioppo, 1986; for a classic example involving music, see Park and Young, 1986), but this dogma has been challenged (MacInnis and Park, 1991).

To a reasonable approximation, music would seem to work through a peripheral route of persuasion, operating more as a *reinforcer* than a direct message. As a peripheral cue, music is used to do many things, including (Huron, 1989; Dunbar, 1990): engage attention; enhance mood or emotion; act as an object's identity-marker, thereby enhancing message memorability; non-verbally comment on or describe narrative features; enhance message credibility; and provide unity and continuity. Such effects must be analyzed on a case-by-case, basis as the uses of music are so incredibly diverse. In addition, it is very important to distinguish between attitude *change* and attitude *reinforcement*, as the literature on persuasion has had an overwhelming focus on the former. An important generalization that has emerged from persuasion research is that deeply felt attitudes are quite resistant to change and that only unfamiliar, lightly felt, peripheral issues that do not matter much or are not tied to personal predispositions are subject to change. In the case of deeply held religious and political beliefs, music's major persuasion function might be related to the maintenance and reinforcement of beliefs already held about group identity and collective purpose. In contrast, in the case of lightly felt beliefs about everyday consumer goods where people's attitudes are swayable, music may serve more as an instrument of attitude change. In the one case, music directly reinforces beliefs of central importance (verbal texts about gods, historical epics, norms, collective activities, etc.); it is acting as a direct complement to the elaboration of issue-relevant arguments by the central route of processing. In the other case, it is complementing what is already a peripheral route of persuasion; for example, it is used to enhance the appeal of visual images in television commercials. It is difficult to make hard generalizations here as music's uses are so diverse. However, a persuasion perspective offers a valuable analytic approach to understanding music's mechanism of operation in many, if not most, contexts of use.

Understanding How Music Works:
Toward a Pragmatics of Music

The perspective of this essay and book calls for the introduction of a pragmatic approach to the sociology of music. This approach considers not only music's effects and meanings but the uses to which music is put in order to convey these effects and meanings, all within the context of the motivations that underlie them. Pragmatics is a branch of linguistics that considers the practical details of how people frame their messages in the context of discourse. It deals with people's intended meanings, assumptions, purposes, and goals, and the kinds of actions they are performing when they communicate (Yule, 1996). Pragmatics looks beyond formal considerations of semantics and syntax to more practical concerns for how people construct meaningful messages to suit their audience and the context of their presentation, all in accordance with their motivations and desired outcomes. In reality, all communication—be it linguistic, musical, gestural—is guided by pragmatic concerns. Because music has not traditionally been conceptualized as a communication system but rather as an art form, pragmatics has rarely been considered an essential part of musicological analysis, a situation which is dubious on both psychological and sociological grounds. It is currently sociomusicological dogma that artists are products of their society who create their works with particular audiences in mind, even if those are specialist audiences made up of peers and insiders. However, even much contemporary thinking in the sociology of popular music downplays the motivational side—and therefore the pragmatic side—of musical communication and instead places the analytic focus on listeners and their interpretation of musical symbols and texts, as if these symbols and texts simply appeared out of nowhere, like the "invisible music" of shopping malls. While it might at first seem vulgar or cynical to think about music as a persuader and/or manipulator, it is only too easy to identify such a role for music in social life.

To sum up, the Social Enhancement Model of music is a communication model that considers the full gamut of processes, from the social/economic functions motivating musical use to the ultimate influence of this use on individual and collective behavior. Music basically operates as an enhancer of persuasion processes, which themselves depend on more fundamental processes of stimulation and semiosis. As a communication system, music uses a lexicon of well-understood acoustic devices that are employed in a pragmatic manner to fit the content of the intended message. The notion of pragmatics places music firmly in the sphere of communication, with the focus on the senders and receivers of musical messages.

Overall, this volume makes a plea to implement a communication model in musicology, especially one that considers musical use and control from a pragmatic perspective. This perspective, while commonplace in linguistics, is all but absent in musicology, and it is hoped that this book will help stimulate work in this area. Understanding the relationship between music and society

will never come about by seeing music's social effects exclusively from the listener's perspective. This relationship must be seen equally well from the *user's* perspective in terms of the power relations that allow music's affective and semiotic devices to perform their special magic.

At the experiential level, the magnitude of our exposure to music is ever-increasing. Every acoustic niche is becoming filled with music. The roller coaster rides at Disneyland now come complete with Wagnerian orchestral scores supplying crescendos at just the right moments. People walk away from these rides feeling exhilarated. What was in the olden days merely a visual-kinetic experience has, in our time, become an *audio*-visual-kinetic experience in which a musical composer has carefully designed a correspondence map between the contours of the melodic line and those of visual space. The German comparative musicologist Erich von Hornbostel called this type of association between music and space "melodic dance" in 1904. Nowadays we seem to go through life experiencing a type of melodic dance wherever we go. The real question from the standpoint of the current volume is whether we dance freely or whether, like wooden puppets, we come with strings attached.

Notes

1. The cultural-studies term "consumer" has come to be used for describing *all* listeners of music, regardless of the transmission mode for music.
2. At the interface of music and speech, we see a wonderful example of the use of musical formulas and content matching in the case of mother-infant communication (Fernald, 1992; Papousek, 1996; Dissanayake, 2000a, 2000b).
3. Many texts contrast persuasion with *propaganda*, but I will use the more general term "manipulation" in the remainder of this introduction.

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