

A SURVEY OF PERSPECTIVES ON SCHENKERIAN THOUGHT

by

Robert E. Cunningham, Jr.

A SURVEY OF PERSPECTIVES ON SCHENKERIAN THOUGHT

More than six decades after his death, the system of musical analysis espoused by Heinrich Schenker has become widely accepted among theorists, particularly in the United States. Initially, Schenker was often regarded as a quixotic figure on the periphery of music theory, founder of "an exclusive and dogmatically minded cult, speaking an impenetrable jargon."¹ Today, however, Schenkerian analysis (usually shorn of its originator's more illiberal attitudes) is taught and discussed in most American universities and is widely (although not universally) accepted. In the course of this transformation, a number of controversial issues have been debated, often bearing upon basic notions of musical structure, perception, and the role of theory. In order to highlight such issues, this survey will examine the views of a few representative thinkers who have considered and commented upon Schenker's ideas from 1935 to the present.

Obstacles to the Acceptance of Schenker's Approach

As William Rothstein has observed, a number of elements in Schenker's perspective initially impeded its acceptance in the United

States: his German nationalism; his aristocratic, antidemocratic social philosophy; his curious intermingling of theology and aesthetics; his conservative outlook on music history; his German dialectic philosophy; and the dogmatic manner in which he promulgated his own convictions.² In the opinion of this author, many of Schenker's positions, including his Kantian/Hegelian philosophical outlook as well as his political and social convictions, are not integrally connected to Schenker's musical thought.³ On the other hand, insofar as Schenker's method depends directly upon the recognition of natural forces in music which may be independent of cultural taste, that very method seems to entail definite aesthetic implications.⁴ Although these implications may be less rigid or conservative than Schenker's own assertions would suggest, they nevertheless have generated some friction in American academia, where value-preferences are generally regarded either as purely cultural or as impervious to rational scrutiny, and where assertions of such judgments are generally considered distasteful departures from a proper detached, scholarly perspective. In particular, much of the controversy over Schenkerian thought has centered on its possible implications for the post-tonal music of the twentieth century.

The significance of these obstacles became clear almost immediately after Schenker's death, in the critical reviews of American composer-theorist Roger Sessions. Noting Schenker's hostility to

contemporary music, Sessions nevertheless finds that some of his ideas “embody very clearly certain aspects of contemporary musicality,” crediting him for seeking to integrate theory with compositional practice, and finding utility in the concepts of Stufe, tonicization, and Auskomponierung. On the other hand, Sessions objects to the “dogmatism” of Schenker’s later writings.⁵ Later, after Der freie Satz becomes available, he decries this work as “repulsive and sterile reading,” accusing its author of “megalomania” and taking offense at his German nationalism (not surprisingly, in 1938).⁶

Some of Sessions’s criticisms also anticipate those of later critics. He regards the Ursatz as a mere “a priori assumption” (a contention which would later be refuted by Sessions’s own student, Milton Babbitt); although “every composer is aware . . . of a ‘background’ in his musical construction,” Schenker’s fundamental structure is “far too primitive” a representation of that background.⁷ Moreover, even if it were demonstrated that several masterworks shared a common Ursatz, argues Sessions, “the interest of these . . . works begins precisely at the point where their individual qualities begin to appear.” Furthermore, Schenker’s (allegedly) “static theory” is criticized for supposedly neglecting “evolutionary” aspects of musical style, and also for claiming universal laws and natural musical values. Theory, Sessions declares, should remain “strictly descriptive in character” and should seek no

"eternal laws" in music.⁸

Many of these criticisms reappear in a 1949 article by Michael Mann. By this time Schenker's theory has acquired a "certain esoteric fame," but most of his works are still not widely available, especially in English. Noting that Schenker is widely criticized both for his "dogmatism" and for his inflexible musical conservatism, Mann argues that these negative aspects are essential to and inseparable from his general approach to musical analysis. He also concurs with Sessions that the notion of the Ursatz is "far too primitive" and that Schenker's attempt to reveal a stylistic common denominator in tonal music overlooks "the constant metamorphosis of the visage of melody and harmony and form." More generally, Mann asserts that "all methods of musical analysis which attempt to find simplicity and unity, where actually there is complexity and diversity, in musical structure" threaten to become "a negation, rather than an explanation, of musical realities."⁹

Ultimately, the perspective implied by Sessions's and Mann's criticisms poses a challenge, not only to Schenker's approach, but also to the very discipline of music theory (as distinguished from purely descriptive musicology). Music theory and analysis, like other fields of knowledge, inherently involve the abstraction of common characteristics from a diversity of materials. Without such a process of abstraction, our

"understanding" of a musical work or style would consist merely of a collection of unrelated and unintegrated details; in order truly to make sense of such data, we must first distinguish common attributes. By recognizing common factors, one does not in any way negate or preclude the recognition of variations as well. On the contrary, any proper description of differences among musical works (or other objects of awareness) presupposes a prior grasp of commensurable characteristics --that is, of attributes that are verifiably similar in kind.¹⁰ For instance, before one can appreciate differences between two works in the relative complexity or subtlety of their prolongational technique, one must first comprehend that such concepts as "structure" and "prolongation" apply to both works in a comparable manner.

Historically, Schenker found it necessary to emphasize the common principles of tonal music in order to refute a notion, popular among his predecessors and contemporaries, that such masters as Chopin, Beethoven, and even Bach had willfully ignored the principles of tonality, aimlessly wandering from key to key and whimsically introducing inexplicable chromatic harmonies and other licenses into their works. As will be observed below, however, Schenker's followers have also been cognizant of stylistic development within the tonal period and have in fact used his theory as a framework for describing such evolution.

Schenker and Twentieth-Century Music

Schenker, as is well known, regarded his own era as one of musical decline and was vehemently antagonistic toward prevailing musical trends of the early twentieth century.¹¹ Several of his American followers, however, were much less dogmatic, displaying a certain open-mindedness which undoubtedly procured them a more ready reception in the intellectual climate of the time.¹² This new attitude is already evident in Adele Katz's Challenge to Musical Tradition (1945), where she sympathetically examines works from Bach to Schoenberg. Although Katz concludes (like Schenker) that the works of Stravinsky and Schoenberg do not exhibit Schenker's principle of tonal coherence, she insists that her remarks "should not be interpreted as a plea for a return to tonality" and in fact suggests that any attempt to view such works in tonal terms would only derogate from the unique achievements of these twentieth-century composers.¹³

Examining in detail works of J. S. Bach, C. P. E. Bach, Haydn, and Beethoven, Katz finds that each of these masters "broke innumerable traditions" but nevertheless "preserved the law of unity represented by tonality." Katz stresses differences among tonal styles as well as similarities: within a tonal framework, she finds, each composer found ample opportunities to create a unique and imaginative idiom. Beethoven, for example, was able to project a distinctive "passionate" expression

through "the type of subject matter he selected, the nature and length of his prolongations, and his unorthodox treatment of rhythmic stress."¹⁴

In works of Wagner and Debussy, on the other hand, Katz begins to discover passages which no longer adhere to the laws of tonal coherence; however, these passages are admirably suited to the artistic intentions of the composers, which were partly determined by dramatic or extra-musical considerations. Furthermore, after carefully analyzing passages from Stravinsky and Schoenberg, she concludes: "There is no connection between the principles on which the foundations of the old and new systems are laid. The concepts underlying these systems are totally opposed to and have nothing whatsoever in common with the concept of tonality." Consequently, a new "system of analysis," based on some alternative principle, is needed to explain coherence (if any) in these works.¹⁵

Using very similar terminology and emphasizing many of the same principles as Katz, Felix Salzer is still more accommodating toward twentieth-century composition in his widely celebrated book Structural Hearing (1952).¹⁶ Like Katz, Salzer distinguishes between "structure" and "prolongation"; prolongations, he proclaims, "are the flesh and blood of a composition." Although the fundamental structure provides the "basic direction" of the work, "the whole interest and tension of a piece consists in the expansions, modifications, detours and elaborations of

this basic direction" provided by the prolongations, Salzer contends, thus refuting the misconception (harbored by Sessions and Mann) that Schenkerian analysis is exclusively concerned with the Ursatz and overlooks the distinguishing features of the middleground and foreground.¹⁷

As described by Salzer, however, the fundamental structure need not embody a harmonic progression (such as I - V - I), but is frequently based entirely on "a melodic-contrapuntal conception," not only in contemporary music, but also in "music from the twelfth to the fifteenth century." Such a "completely contrapuntal structure" is exhibited, according to Salzer, in works by Hindemith, Bartók, and Prokofieff, works which "point to the great possibilities for a revitalized and, in every respect, contemporary expression of tonality." Salzer also applies a similar methodology to demonstrate tonal coherence in compositions by Debussy, Ravel, Martinu, Stravinsky, and Copland.¹⁸ This perspective, which the author indicates that he developed only in the years after Schenker's death, evidently departs radically from Schenker's own conception of tonal coherence. Salzer candidly acknowledges that his interpretation is unorthodox, contending that "dogmatism" has been "detrimental to the dissemination of [Schenker's] approach."¹⁹

Salzer does not attempt to extend his approach to Viennese twelve-tone composition, which in his opinion offers a "convincing musical

language” but is “definitely not within the wide tonal realm.”²⁰ Salzer’s student Roy Travis, on the other hand, builds upon these ideas, applying Schenkerian theory to works of Schoenberg and Webern as well as Stravinsky and Bartók. Travis defines tonality quite broadly: “Music is tonal when its motion unfolds through time a particular tone, interval, or chord.” The unfolded chord need not be triadic nor even tertian; generalizing from the minor triad, which Schenker admitted as a product of “Art,” Travis contends that the “tonic sonority” need not be limited to the overtone series nor even to consonances, but may consist of “any other conceivable combination of tones” which in a particular musical context serves as an underlying structure for prolongations.²¹

Allen Forte, in an influential 1959 article which led to increased acceptance of Schenkerian thought in American academia, also argues that “structural levels” and other Schenkerian concepts are indeed applicable to post-tonal music, provided that the analyst does not harbor expectations based on triadic harmony; he illustrates this approach by means of an analysis of music of Debussy.²² Previously, in his early study Contemporary Tone Structures (1955), Forte had used Schenker’s reductive method to analyze the “hierarchical structures of contemporary music.” The analysis applied by Forte here was highly contextual, approaching each work “on its own terms”; no special status was assumed for the dominant-tonic progression or other tonal

relationships. Forte later abandoned this approach, however, in The Structure of Atonal Music (1973).²³

These attempts to extend Schenker's system to embrace contemporary music were highly controversial from the start. Milton Babbitt (who has been credited, along with Forte, for promoting the acceptance of Schenkerian ideas among American academics)²⁴ finds Salzer's analyses of twentieth-century works "disappointing." Salzer, he contends, commits the same error as the "chord grammar" theorists: "He is too often satisfied with the merely identificational and seldom reaches the level of the significant."²⁵

More vehement were the reactions of Schenker's more orthodox followers. Oswald Jonas, who (like Salzer) was a student of Schenker himself, decries Structural Hearing for its "misinterpretation of Schenker's basic theories."²⁶ Ernst Oster (a student of Jonas) takes particular umbrage at Salzer's and Travis's implication that Schenker's ideas might require "amplification and modification." "Schenker's basic idea is the projection in time of the triad as given by nature," writes Oster. "Mutilate this idea . . . and an 'explanation' for virtually anything can be devised." In Oster's view the extensions appended to the Schenkerian system by Salzer and Travis render it virtually meaningless:

"Any musical composition . . . would reveal certain connections, even though it had been pieced together in the most dilettantish way. Somewhere some tone is certain to

continue to some other tone, and it is therefore easy to discover horizontal lines well-nigh everywhere. Thus, in non-triadic music we will occasionally find lines and simple progressions that resemble certain lines and progressions in tonal music."²⁷

If Oster's arguments were logically compelling, the highly polemical tone in which they were delivered was nevertheless unlikely to dissuade all theorists who were strongly inclined to extend Schenker's concept of prolongation to recent works. In a later article, Robert Morgan seeks to offer historical support for Travis's notion of dissonant prolongations. Even in the nineteenth century, Morgan claims, in works of Schubert, Liszt, and Wagner, dissonant sonorities are frequently prolonged. Often the prolonged sonority is a dominant seventh chord, in which case its function "is uniquely defined" by the preexisting tonal hierarchy. In other cases, however, more ambiguous chords, such as the fully diminished seventh or the augmented triad, are prolonged to generate entire sections of music; in such instances, the underlying meaning of the prolongations can be determined only contextually, by examining the structure of the particular work in which they are embedded. Schenker's own attempt to discover coherence in a passage from Stravinsky, Morgan argues, failed principally because he erroneously assumed that the background must be consonant.²⁸

In recent years analysts have been much more cautious concerning possible extensions of Schenkerian concepts to post-tonal works; as

Robert Wason remarked in 1985, the ambitious "earlier attempts" in this direction "proved to be naive and premature."²⁹ James Baker, in a 1983 survey of such efforts, expresses the opinion that "the analyses of those subscribing to these liberal positions, especially of those who accept the possibility of dissonant prolongations, are invariably somewhat arbitrarily based." Baker does find a role for the Schenkerian approach in some of the "transitional music" of Liszt, Scriabin, and early Schoenberg, and he applies such a methodology himself to a middle-period Scriabin work.³⁰ In a later article he argues that Schenkerian theory, separated from any preconceived "notions of diatonic functional tonality," is "a necessary component in a comprehensive approach to twentieth-century music." His own analysis of a Schoenberg piano piece is highly tentative, however: he offers two possible interpretations, involving two different tonal centers, for the work's Ursatz; furthermore, he notes that two other theorists have offered conflicting analyses of the same work.³¹

Paul Wilson also attempts to discern instances of prolongation in Bartók's atonal settings of modal folk melodies. Although he contends that some harmonic hierarchy may be implied contextually by the departure from and return to a primary chord, he admits that such hierarchy is far more attenuated than in tonal music.³² Similarly, in a 1985 article Forte discusses an excerpt (bearing a tonal key signature)

from Berg's Wozzeck, initially applying a "quasi-Schenkerian notation," but ultimately concluding that the excerpt is essentially atonal and analyzing it using concepts from set theory.³³

Finally, a 1987 article by Joseph Straus effectively rebuts the notion of prolongation in post-tonal music. Largely absent from this repertory, he argues, are all of the prerequisite conditions for prolongation in the Schenkerian sense: a consonance/dissonance distinction by which the relative structural weight of features could be determined; a hierarchy based on scale-degrees for constructing prolongation over larger spans; consistently definable "relationships between tones of lesser and greater structural weight"; and a clear distinction between horizontal voice-leading and vertical sonorities. Echoing Katz's original argument, Straus observes that true prolongation requires more than mere departure and return, for the intermediate components of the motion must relate in some way to the event being prolonged. Although Straus recognizes the validity of Schenker's approach within its original sphere of tonal music, he concludes that in twentieth-century music the concept of prolongation applies, if at all, only to those isolated passages where some vestige of tonality remains.³⁴

Schenker and Modern Linguistics

Many commentators have noted a parallelism between Schenker's theory of musical syntax and the formalized "transformational grammars" first proposed by linguist Noam Chomsky in 1956. In such grammars, all syntactically valid sentences are generated from an initial symbol by repeatedly applying precisely defined "rewriting rules" or "transformations," in much the same way that a tonal composition could be derived from its Ursatz by means of successively applied diminutions and prolongational "rules." Syntax descriptions based on such transformational rules are routinely utilized by computer compilers and interpreters, thus suggesting the possibility that musical structure might eventually be interpreted by computer algorithms,³⁵ in effect automating the process of Schenkerian analysis. Furthermore, Schenker himself frequently invokes the analogy between music and language, thus seeming to lend his authority to this interpretation.³⁶

In practice, however, the rather primitive results obtained by this approach have fallen far short of true formalization. For example, an application using symbolic list processing, in which Schenkerian theory could not be followed strictly but served as a kind of "launching pad," is described by Stephen Smoliar. Drawing upon Salzer's distinction between "chord grammar" and "chord significance," Smoliar observes that the former lends itself readily to computer algorithms, but that the

determination of chord significance (i. e., function within a given musical structure) is a much more elusive process.³⁷

The program described by Smoliar in fact depends upon the analyst, interacting with the computer, to make the crucial decisions: the analyst indicates each desired transformation and the point where that transformation is to be applied, and the computer outputs the transformed tree structure. Although this program thus automates only the most mundane portion of the analysis process, Smoliar suggests that it may accomplish the necessary first step toward formalization. Schenkerian graphs, he contends, are "ambiguous and may sometimes even conceal the transformation they were meant to display"; the structures created through this program, on the other hand, are quite precisely defined and moreover could be collected into a database, which might "then be subjected to analysis."³⁸

Theorist Fred Lerdahl and linguist Ray Jackendoff also approach musical syntax from the perspective of transformational linguistics. Like Smoliar, they find Schenker's methodology to be ambiguous: "Schenker's theory, which can be construed as having much in common with the generative approach to linguistics, is at bottom inexplicit."³⁹ Unlike Smoliar, however, Lerdahl and Jackendoff attempt to define more explicitly, not only the "well-formedness" rules by which musical structures are precisely organized, but also certain "preference" rules by

means of which those structures are inferred by the listener from a musical surface, much as the hierarchical syntactic structures of language are derived by a listener competent in that language from an input string of "terminal symbols." These authors wisely avoid full formalization, however, preferring that the analyst rely partly upon his or her intuition; thus their preference rules are often expressed using relative language (such as "very small"), and moreover no system (such as weighting factors) is provided for resolving rule conflicts.⁴⁰

As William Rothstein remarks, it is unlikely that attempts to formalize Schenkerian analysis will succeed "beyond a fairly primitive level." Schenker himself clearly regarded his analytical system as an art, and not as a science reducible to a finite set of axioms; for instance, regarding the inference of scale-steps, he comments: "There are no rules which could be laid down once and for all; for, by virtue of their abstract nature, the rules flow, so to speak, from the spirit and intention of each individual composition."⁴¹ Schenker, as Allan Keiler observes, did not intend to create "a strict system of rules of reduction," often declining to offer even informal explanations for his interpretation of the foreground. Keiler also finds that much of the research on connections between music and language has been "confused or misdirected." Although an approach to music theory based on principles of generative grammar would probably need to incorporate Schenker's insights "in

some form," he believes, the structures of such linguistic grammars cannot be translated "directly into a generative theory of musical competence."⁴²

Narmour's Challenges to Schenkerian Theory

Eugene Narmour's 1977 critique, Beyond Schenkerism, expresses many of the most common objections to the Schenkerian approach. Narmour reiterates the charge, previously asserted by Sessions and refuted by Babbitt, that the Schenkerian system is basically rationalistic, founded on the aprioristic axiom of the Ursatz.⁴³ He dismisses unceremoniously the abundant evidence that Schenker developed his concepts of the background and of organic coherence only gradually, even reluctantly,⁴⁴ over many years of detailed analysis of actual compositions, and that his theory therefore derives from perceptual facts. "Theories organize facts, not vice versa," Narmour nonchalantly proclaims.⁴⁵

As interpreted by Narmour, Schenkerian theory also simplistically regards all foreground details of musical works as fully determined by the Ursatz.⁴⁶ This claim, of course, is implausible on its face because Schenkerian theory recognizes only a very small number of possible fundamental structures, which can be realized in a very large (perhaps infinite) number of ways by actual tonally coherent compositions. As

discussed previously, Schenker was obliged by historical circumstances to focus on the role of the fundamental structure in order to demonstrate clearly the nature of tonal coherence. Nevertheless, Schenkerians such as Katz, Salzer, Carl Schachter, and Rothstein, as well as Schenker himself, repeatedly stress the significant role of creative imagination in determining the details of middleground and foreground prolongations.

It is true, as Narmour observes, that in Schenkerian theory the ultimate goals of prolongations are determined by the fundamental structure;⁴⁷ however, the paths by which those goals will be reached are not predetermined at all. Moreover, as Salzer writes, "the elaboration and prolongation of [the structural idea] gives the artistic detail, the deviations and detours with all their tensions and surprises."⁴⁸ Thus Narmour is grievously mistaken when he concludes that the theory accords no significance or status to the lower-level units and details of a composition.

Narmour also regards Schenkerian theory as " 'pre-Darwinian' in concept and thus indefensibly teleological" because diminutions conform to the requirements of the Ursatz, just as organisms were assumed to adapt to their environment by Lamarckian evolutionary theory.⁴⁹ A musical work, however, is hardly analogous to a biological population: for a work of art, unlike an evolving population, is the product of a conceptual consciousness.⁵⁰ Hence one should hardly be surprised to find

purposeful coherence (whether consciously intended or arising from subconscious intuition) in a musical work, particularly if that work is composed by an exceptional musical intelligence. For the same reason, Narmour errs when he insists that style evolution across a historical era must follow the same model as musical structure within a single work:⁵¹ historical evolution in musical style, unlike the structure of single musical work, is not designed by a single purposeful intelligence. Allan Keiler correctly observes that "Narmour's work . . . belongs squarely to a tradition of strict behaviorism";⁵² indeed, Narmour's view of musical structure seems to deny the very existence of volitional consciousness as a causal agent in the creation of music.

Schenkerian theory, in Narmour's estimation, is also deficient because it considers only harmonic structure, to the virtual exclusion of other parameters.⁵³ As Keiler remarks, however, "analysis by its very nature involves selection and generalization"; moreover, the methodological requirement that at particular stages in the analytical process certain features must be abstracted while others are excluded does not in itself constitute a distortion of the musical "facts."⁵⁴ For instance, to complain (as does Narmour) that "the melodic power of Beethoven's melody is completely flattened out" by the analytical reduction of its pitches to a single register⁵⁵ is to misconstrue the very nature and purposes of analysis. Such omissions from consideration by

Schenker of "other areas of organization in tonal music," Keiler observes, made possible the "extraordinary insight and depth of perception that he achieved in the area of harmonic structure and organization."⁵⁶

Admittedly, Schenker sometimes seems to insist that these discoveries regarding tonal coherence reflect substantially the entire structure of a musical work. Such claims, however, should probably not be interpreted too literally, but should be evaluated in the context of Schenker's rhetorical goals vis-à-vis other theories of his time. Keiler rightly dismisses them as "dogmatic conceits that need not be taken seriously in order to judge the success of his work."⁵⁷ Moreover, Schenker seems to place less emphasis on certain elements (particularly in the foreground) simply because he regards them as too obvious to merit discussion. For example, surface motivic parallelisms, which Narmour faults his theory for neglecting,⁵⁸ are regarded by Schenker as a more "immediately recognizable" type of motivic repetition, coexisting with the more subtle "concealed repetitions" which he discusses at length; each of these types "is, in its place, beneficial and advantageous."⁵⁹

Regarding Schenkerian theory as "very similar in philosophical outlook" to transformational grammar, Narmour emphasizes the shortcomings of the latter, both as a model for linguistic structure and

as an analogy to music. "Language is used for ordinary social discourse and music is not," he argues; hence the "style structure" of a musical work serves, not to facilitate "discourse," but to create "a specific aesthetic experience."⁶⁰ The most conspicuous exception to Narmour's generalization, of course, is poetry, which uses language structure for an aesthetic purpose akin to that of music. In another passage he argues, however, that just as no transformational grammar "captures the idiolect of, say, a Keats poem," similarly no "Schenker graph depicts adequately the structure of, say, a Beethoven symphony."⁶¹

In fact, Schenker himself invokes the poetry of Goethe in order to illustrate "the connection between counterpoint . . . and the actual work of art." Noting the idiosyncratic "sentence construction" in a passage from Faust, he asks:

"Aren't the reasons behind Goethe's use of the above construction just these, for example: considerations of verse (prosody, rhyme), and Faust's vexation, which psychologically motivates him to revolutionize and freely alter the normal ordering of the sentence components; also his zeal, which makes that vexation truly credible, and so forth? . . . But does Goethe's sentence, just because of this freer construction, constitute an offense against German grammar altogether? Who can miss the fact that this sentence, in spite of all kinds of departures from normal organization, basically manifests only prolongations of the most ordinary grammatical laws?"⁶²

Thus Schenker sees the musical art-work as analogous, not to the

"normal organization" of ordinary speech, but rather to the specialized language of poetry. Fully cognizant of the stylistic modifications entailed by artistic purposes in poetry, he nevertheless recognizes that poetic language and ordinary discourse share certain structural common principles. As Schenker's analogy clearly indicates, the laws of musical syntax should not be construed (as Narmour interprets them) as explaining all of the stylistic idiosyncrasies, determined by artistic context, of a particular musical work; rather, they establish the basic preconditions for tonal coherence. (As previously discussed, however, the model of transformational grammar may not be appropriate for describing such laws of musical syntax.)

This confusion of tonal syntax with all of the various features of artistic style also leads Narmour to question whether "tonality organizes an internally consistent repertory." Like Sessions and Mann, he faults Schenkerian theory for allegedly overlooking historical style-differences.⁶³ Schenkerian theorists such as Katz, Salzer, and Rothstein, however, are well aware of and in fact even emphasize such differences. Salzer, for instance, suggests in Structural Hearing that further research will probably show "that certain prolongations are used in different periods in different ways."⁶⁴ In a later essay on Monteverdi's madrigal style, he clarifies the distinction between style and tonal syntax, observing that Schenker conceives tonality "not as a style but as a

language, a language with its intricacies of construction and its capability to create musical sentences, paragraphs, and chapters, that is, wide arches of tonal continuity which transcend stylistic divisions."⁶⁵

As an alternative to Schenkerian theory, Narmour proposes an "implication-realization" model of musical structure. In contrast to Schenkerian theory as he views it, this model is "generated from the bottom up," an approach which he believes is much closer to "aural experience" and should be related to "certain psychological theories that bear directly on the problems of perception and structure."⁶⁶ Keiler contends that this bottom-up approach confounds "the problem of musical perception with the problem of clarifying the formal complexity of the stimulus object that is perceived." Issues "about the nature of the perceived object," he argues, should take precedence over "perceptual theories or strategies."⁶⁷

Keiler's own language, unfortunately, seems to reify musical structure, imputing to it some kind of independent metaphysical existence. In this author's view, such structure is better understood as a conceptual edifice, arising from the epistemological requirements of integrating one's aural perceptions. Thus Narmour is correct to describe the Ursatz as "a mental construct";⁶⁸ it should be emphasized, however, that such a structure is not ipso facto "subjective," provided that it is not imposed arbitrarily but is derived in accordance with objective

cognitive requirements.

Our aural perception of a musical work must of necessity begin with elements on the musical surface; we can "perceive" high-level structure only in a figurative sense, by a process of inference from surface features. As Keiler suggests elsewhere, such inferences may not be strictly reductive (i. e., bottom-up), but may also involve some "trial and error process" of "back and forth experimentation" between structural levels.⁶⁹ Moreover, in our final grasp a coherent musical work may well assume a top-down structure. Nevertheless, that structure is in truth a form of mental understanding and hence it must be reconcilable with any constraints which may be imposed by the nature of the cognitive process by which we perceive the work. Thus Narmour's approach here seems to pose a valid epistemological issue, meriting further investigation.

Narmour views Schenkerian theory as unacceptably "rationalistic," while Keiler describes Narmour's viewpoint as an "empiricist ideology."⁷⁰ In truth the epistemology implied by Schenker's approach seems to transcend both "rationalism" and "empiricism." When one examines Schenker's actual approach to music (disregarding his overt Kantian/Hegelian rhetoric), it becomes clear that his ideas are not aprioristic, but instead derive from his experience of actual musical works and are applied contextually to each new work. On the other hand,

Schenkerian analysis is clearly not a process of passive assimilation (in the sense of Lockean sensationalism), but instead requires an active mental process--i. e., abstraction and theory.

Actually, any conflict between these experiential and theoretical aspects is only apparent: the two are readily reconciled once one recognizes that abstraction and theory are not inherently subjective, but may derive objectively from one's experience and enable one to make sense of that experience. Reexamining Narmour's remark, one recognizes that the true issue is not whether "theories organize facts" or "facts organize theories," but whether a particular observer organizes his theories according to the facts. Regrettably, Heinrich Schenker, who like other intellectuals in the Germanic world of the early twentieth century was beguiled by Kant's analytic-synthetic dichotomy, was unlikely to articulate this epistemological alternative in explicit philosophical terms.⁷¹

The Future of Schenkerian Thought

Despite the protests of orthodox followers such as Oster, it appears that Schenker's ideas do require at least some amplification, if not actual modification. Concepts, of course, are not infinitely elastic, and attempts to extend Schenker's concept of coherence to embrace twentieth-century post-tonal styles have proven largely unsuccessful.

On the other hand, it is entirely appropriate to Schenker's methodology that his ideas should be applied in a contextually sensitive way within the realm of tonal music where they were initially conceived. Some appropriate directions for future Schenkerian research are exemplified by the work Phrase Rhythm in Tonal Music, by Oster's own student, William Rothstein. Rothstein successfully integrates a Schenkerian view of tonal structure with concepts of rhythm and form, some of which were first introduced by eighteenth-century theorist Heinrich Christoph Koch. Not only does Rothstein thus integrate harmonic and tonal structure with other musical parameters, but he also exhibits a strong sensitivity to historical style development in this study.⁷²

Although Schenkerian analysis (like other areas of human perception) has proven intractable to formalized approaches such as those based on ideas of transformational grammar, such efforts may eventually assist in clarifying Schenkerian theory, especially if they utilize flexibly applied, heuristic principles (such as those formulated by Lerdahl and Jackendoff). Keiler (among others) has described Schenkerian notation as "vague, often contradictory and even more often arbitrary,"⁷³ and formal representations of musical structure could eventually assist in eliminating such ambiguity and subjectivity. Formal models may also be useful in elucidating the process of listener perception by which structure is inferred from surface cues. Indeed, insofar as Schenker's

theory seeks to connect musical structure to aural experience, the listener's epistemology--that is, the principles by which he integrates his experience to arrive at such structure--presents an especially significant and challenging area for future investigation.

NOTES

1. This widespread attitude is thus described in William Rothstein, "The Americanization of Heinrich Schenker," In Theory Only 9:1 (March 1986): 7.
2. For a discussion of these obstacles, see Rothstein, 6-10.
3. As John Rothgeb remarks in his "Preface to the English Translation" of Schenker's Counterpoint, Schenker's musical precepts are capable of standing independently of his "extramusical speculations." Allen Forte also comments that Schenker's aural experience of music, and not his metaphysical speculations, are the real basis of his work. See Heinrich Schenker, Counterpoint [Neue musikalische Theorien und Phantasien, II: Kontrapunkt], trans. John Rothgeb and Jürgen Thym, 2 vols., first published in 1910-1922 (New York: Schirmer Books, 1987), 1:xiv; Allen Forte, "Schenker's Conception of Musical Structure," in Readings in Schenker Analysis and Other Approaches, ed. Maury Yeston (New Haven, CT: Yale University Press, 1977), 7.
4. Schenker implies a connection between natural musical laws and aesthetic values in Schenker, Counterpoint, 2:7.
5. Roger Sessions, "Heinrich Schenker's Contribution," Modern Music 12:4 (May 1935): 170-173, 178.
6. Roger Sessions, "Escape by Theory," Modern Music 15:3 (March 1938): 192.
7. Sessions, "Heinrich Schenker's Contribution," 175-176; Milton Babbitt, Review of Structural Hearing, by Felix Salzer, Journal of the American Musicological Society 5:3 (Fall 1952): 260.

8. Sessions, "Escape by Theory," 193-196.
9. Michael Mann, "Schenker's Contribution to Music Theory," The Music Review 10 (1949): 6-7, 16, 24, 26.
10. Thus a valid theory must be based on concepts determined, not by arbitrarily imposed mental categories, but on the abstraction from one's experience of objective similarities in kind. For further discussion see Ayn Rand, Introduction to Objectivist Epistemology (New York: New American Library, 1979), 11-23, 82-99.
11. Schenker's criticisms extend not only to post-tonal composition, but even to such late Romantics as Wagner, Tchaikovsky, Saint-Saens, Richard Strauss, Humperdinck, Pfitzner, Reger, Mahler, and Elgar. "Today," he writes, "there is neither ability for compositional synthesis nor even any art which has expressiveness as its central principle." See Heinrich Schenker, Free Composition [Neue musikalische Theorien und Phantasien, III: Der freie Satz], trans. and ed. Ernst Oster, 2 vols., first published in 1935 (New York: Schirmer Books, 1979), 106-107 (page references are to first volume); Schenker, Counterpoint, 1:xxi-ii, 15, 21.
12. For example, Rothstein attributes the popularity of Felix Salzer's Structural Hearing to its "kindly" tone as well as its positive approach to twentieth-century music, an approach which accorded well with intellectual fashions of the fifties and early sixties. In contrast to Schenker's apparent dogmatism, Salzer seems "confident of his own ideas yet liberal in spirit." See Rothstein, 11.
13. Adele T. Katz, Challenge to Musical Tradition: A New Concept of Tonality (New York: Alfred A. Knopf, Inc., 1945; reprint, New York: Da Capo Press, 1972), 396 (page references are to reprint edition).
14. Katz, xxvii, 39-193.
15. Katz, 194-294, 334-335. The author emphasizes that the simple presence of a twelve-tone row does not in itself insure such coherence, any more than the mere identification of tertian harmonies (the "chord grammar" approach to tonality, as she and Salzer disparagingly refer to it) explains coherence in a tonal piece. She also strongly rejects some

ideas in Schoenberg's theoretical writings regarding tonality. See Katz, 350-361, 386-391.

16. The acknowledgements expressed by both authors indicate an amicable and vigorous exchange of ideas between them. See Katz, vii; Felix Salzer, Structural Hearing: Tonal Coherence in Music, foreword by Leopold Mannes, 2 vols. (New York: Boni, 1952; reprint, New York: Dover, 1962), 1:xviii (page references are to reprint edition).

17. Salzer, 13-14; see also Salzer, 29.

18. Salzer, 1:26-27, 204-206, 219, 2:6-7, 75, 99-100, 178-188, 218-219, 234-237, 252-255, 288-290.

19. Salzer, 1:xvi-xvii.

20. Salzer, 1:282-283.

21. Roy Travis, "Towards a New Concept of Tonality?" in Journal of Music Theory 3:2 (November 1959): 261-263; Roy Travis, "Directed Motion in Schoenberg and Webern," Perspectives of New Music 4:2 (Spring-Summer 1966): 85-89; Roy Travis, "Tonal Coherence in the First Movement of Bartók's Fourth String Quartet," The Music Forum 2 (1970): 299.

22. Allen Forte, "Schenker's Conception of Musical Structure," 31-32.

23. See James M. Baker, "Schenkerian Analysis and Post-Tonal Music," in Aspects of Schenkerian Theory, ed. David Beach (New Haven, CT: Yale University Press, 1983), 161-162, 166.

24. Rothstein, 12.

25. Babbitt, 264.

26. Heinrich Schenker, Harmony [Neue musikalische Theorien und Phantasien, I: Harmonielehre], trans. Elisabeth Mann Borgese, ed. and annotated by Oswald Jonas, first published in 1906 (Chicago: The University of Chicago Press, 1954), viii.

27. Ernst Oster, "Re: A New Concept of Tonality (?)," Journal of Music Theory 4:1 (April 1960): 86, 96.
28. Morgan, Robert P., "Dissonant Prolongation: Theoretical and Compositional Precedents," Journal of Music Theory 20:1 (Spring 1976): 50-72.
29. Robert W. Wason, Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg (Ann Arbor, MI: UMI Research Press, 1985), 143.
30. Baker, "Schenkerian Analysis and Post-Tonal Music," 168-185.
31. James M. Baker, "Voice-Leading in Post-Tonal Music: Suggestions for Extending Schenker's Theory," Music Analysis 9:2 (July 1990): 191-194, 198.
32. Paul Wilson, "Concepts of Prolongation and Bartók's Opus 20," Music Theory Spectrum 6 (1984): 79-88.
33. Allen Forte, "Tonality, Symbol, and Structural Levels in Berg's Wozzeck," The Musical Quarterly 71:4 (1985): 484.
34. Joseph N. Straus, "The Problem of Prolongation in Post-Tonal Music," Journal of Music Theory 31:1 (Spring 1987): 2-19.
35. See David Gries, Compiler Construction for Digital Computers (New York: John Wiley & Sons, Inc., 1971), 46-169.
36. See, for example, Schenker, Counterpoint, 1:10-13; Schenker, Free Composition, 5, 27, 35, 108, 131.
37. Stephen W. Smoliar, "A Computer Aid for Schenkerian Analysis," Computer Music Journal 4:2 (Summer 1980): 41-42.
38. Smoliar, 41-48.
39. Fred Lerdahl and Ray Jackendoff, "Toward a Formal Theory of Tonal Music," Journal of Music Theory 21:1 (Spring 1977): 112.

40. Fred Lerdahl and Ray Jackendoff, A Generative Theory of Tonal Music (Cambridge, MA: MIT Press, 1983), 1-368.
41. Schenker, Harmony, 141. Schenker also writes in Der freie Satz: "Music is always an art--in its composition, in its performance, even in its history. Under no circumstances is it a science." See Schenker, Free Composition, xxiii.
42. Allan Keiler, "On Some Properties of Schenker's Pitch Derivations," Music Perception 1:2 (Winter 1983-1984): 207-210; Allan Keiler, "The Empiricist Illusion: Narmour's Beyond Schenkerism," Perspectives of New Music 17:1 (Fall-Winter 1978): 162-163, 176.
43. Eugene Narmour, Beyond Schenkerism: The Need for Alternatives in Music Analysis (Chicago: The University of Chicago Press, 1977), 12-25, 204, 209.
44. For a discussion of Schenker's early skepticism regarding the same ideas which later formed the distinctive core of his theory, see William A. Pastille, "Heinrich Schenker, Anti-Organicist," 19th-Century Music 8:1 (Summer 1984): 29-36.
45. Narmour, 24-25.
46. Narmour, 32-42.
47. Narmour, 37-40.
48. Salzer, 29.
49. Narmour, 38-39.
50. On goal-direction as an "emergent property" in systems based on ordinary efficient causation, see Harry Binswanger, "Life-Based Teleology and the Foundations of Ethics," The Monist (January 1992): 87-96.
51. Narmour, 45-47, 127-136.

52. Keiler, "The Empiricist Illusion," 195.
53. Narmour, 41, 77, 83-95, 197-201.
54. Keiler, "The Empiricist Illusion," 170.
55. Narmour, 84.
56. Keiler, "The Empiricist Illusion," 164.
57. Keiler, "The Empiricist Illusion," 164.
58. Narmour, 89-91. Babbitt raises the same criticism in his review of Salzer's work; see Babbitt, 264.
59. Schenker, Free Composition, 99. Surface repetition of motives is accorded greater significance in Schenker's earlier work. Cf. Schenker, Harmony, 12-13.
60. Narmour, 108-121, 169, 203-208. Keiler points out that some of Narmour's expectations regarding generative grammars are arbitrary and unrealistic (such as his insistence on algorithmic "discovery procedures") and result from fundamental misunderstandings of complex linguistic issues. See Keiler, "The Empiricist Illusion," 178-182.
61. Narmour, 169.
62. Schenker, Counterpoint 1:10-13.
63. Narmour, 20-21, 45-47.
64. Salzer, 264.
65. Felix Salzer, "Heinrich Schenker and Historical Research: Monteverdi's Madrigal Oimè, se tanto amate," in Aspects of Schenkerian Theory, ed. David Beach (New Haven, CT: Yale University Press, 1983), 136.
66. Narmour, 2-3, 83, 122-166, 212-213.

67. Keiler, "The Empiricist Illusion," 194-195.
68. Narmour, 205.
69. Keiler, "On Some Properties of Schenker's Pitch Derivations," 209-210.
70. Narmour, 13; Keiler, "The Empiricist Illusion," 162.
71. Such an alternative is clearly presented in Rand, 1-164.
72. William Rothstein, Phrase Rhythm in Tonal Music (New York: Schirmer Books, 1989), 1-349.
73. Keiler, "On Some Properties of Schenker's Pitch Derivations," 228.

BIBLIOGRAPHY

- Babbitt, Milton. Review of Structural Hearing, by Felix Salzer. Journal of the American Musicological Society 5:3 (Fall 1952): 260-265.
- Baker, James M. "Schenkerian Analysis and Post-Tonal Music." In Aspects of Schenkerian Theory, ed. David Beach, 153-186. New Haven, CT: Yale University Press, 1983.
- _____. "Voice-Leading in Post-Tonal Music: Suggestions for Extending Schenker's Theory." Music Analysis 9:2 (July 1990): 177-200.
- Binswanger, Harry. "Life-Based Teleology and the Foundations of Ethics." The Monist (January 1992): 84-103.
- Forte, Allen. "Schenker's Conception of Musical Structure." In Readings in Schenker Analysis and Other Approaches, ed. Maury Yeston, 3-37. New Haven, CT: Yale University Press, 1977.
- _____. "Tonality, Symbol, and Structural Levels in Berg's Wozzeck." The Musical Quarterly 71:4 (1985): 474-499.
- Gries, David. Compiler Construction for Digital Computers. New York: John Wiley & Sons, Inc., 1971.
- Katz, Adele T. Challenge to Musical Tradition: A New Concept of Tonality. New York: Alfred A. Knopf, Inc., 1945; reprint, New York: Da Capo Press, 1972.
- Keiler, Allan. "The Empiricist Illusion: Narmour's Beyond Schenkerism." Perspectives of New Music 17:1 (Fall-Winter 1978): 161-195.

- _____. "On Some Properties of Schenker's Pitch Derivations." Music Perception 1:2 (Winter 1983-1984): 200-228.
- Lerdahl, Fred, and Ray Jackendoff. "Toward a Formal Theory of Tonal Music." Journal of Music Theory 21:1 (Spring 1977): 111-171.
- _____. A Generative Theory of Tonal Music. Cambridge, MA: MIT Press, 1983.
- Mann, Michael. "Schenker's Contribution to Music Theory." The Music Review 10 (1949): 3-26.
- Morgan, Robert P. "Dissonant Prolongation: Theoretical and Compositional Precedents." Journal of Music Theory 20:1 (Spring 1976): 49-91.
- Narmour, Eugene. Beyond Schenkerism: The Need for Alternatives in Music Analysis. Chicago: The University of Chicago Press, 1977.
- Oster, Ernst. "Re: A New Concept of Tonality (?)," Journal of Music Theory 4:1 (April 1960): 85-98.
- Pastille, William A. "Heinrich Schenker, Anti-Organicist." 19th-Century Music 8:1 (Summer 1984): 29-36.
- Rand, Ayn. Introduction to Objectivist Epistemology. New York: New American Library, 1979.
- Rothstein, William. "The Americanization of Heinrich Schenker." In Theory Only 9:1 (March 1986): 5-17.
- _____. Phrase Rhythm in Tonal Music. New York: Schirmer Books, 1989.
- Salzer, Felix. Structural Hearing: Tonal Coherence in Music. Foreword by Leopold Mannes. 2 vols. New York: Boni, 1952; reprint, New York: Dover, 1962.

- _____. "Heinrich Schenker and Historical Research: Monteverdi's Madrigal Oimè, se tanto amate." In Aspects of Schenkerian Theory, ed. David Beach, 135-152. New Haven, CT: Yale University Press, 1983.
- Schenker, Heinrich. Harmony [Neue musikalische Theorien und Phantasien, I: Harmonielehre]. Translated by Elisabeth Mann Borgese. Edited and annotated by Oswald Jonas. Chicago: The University of Chicago Press, 1954. First published in 1906.
- _____. Counterpoint [Neue musikalische Theorien und Phantasien, II: Kontrapunkt]. Translated by John Rothgeb and Jürgen Thym. 2 vols. New York: Schirmer Books, 1987. First published in 1910-1922.
- _____. Free Composition [Neue musikalische Theorien und Phantasien, III: Der freie Satz]. Translated and edited by Ernst Oster. 2 vols. New York: Schirmer Books, 1979. First published in 1935.
- Sessions, Roger. "Heinrich Schenker's Contribution." Modern Music 12:4 (May 1935): 170-178.
- _____. "Escape by Theory." Modern Music 15:3 (March 1938): 192-197.
- Smoliar, Stephen W. "A Computer Aid for Schenkerian Analysis." Computer Music Journal 4:2 (Summer 1980): 41-59.
- Straus, Joseph N. "The Problem of Prolongation in Post-Tonal Music." Journal of Music Theory 31:1 (Spring 1987): 1-21.
- Travis, Roy. "Towards a New Concept of Tonality?" Journal of Music Theory 3:2 (November 1959): 257-284.
- _____. "Directed Motion in Schoenberg and Webern." Perspectives of New Music 4:2 (Spring-Summer 1966): 85-89.
- _____. "Tonal Coherence in the First Movement of Bartók's Fourth String Quartet." The Music Forum 2 (1970): 298-371.

Wason, Robert W. Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg. Ann Arbor, MI: UMI Research Press, 1985.

Wilson, Paul. "Concepts of Prolongation and Bartók's Opus 20." Music Theory Spectrum 6 (1984): 79-89.