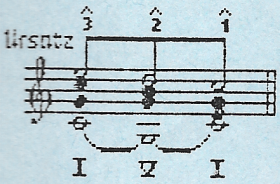

TEXAS SOCIETY FOR MUSIC THEORY

PROCEEDINGS

VOLUME 2

abstracts of presentations from annual meetings

1983 to 1986

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Copies may be requested from

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Texas Society for Music Theory

SIXTH ANNUAL TSMT CONFERENCE
Del Mar College, Corpus Christi
March 30-31, 1984

FRIDAY, March 30

Registration: 8:00 - 9:00

Welcome and Announcements (9:00).....William Schroeder

SESSION I (9:30-11:30) ANALYSIS AND COMPREHENSION.....John Harris, moderator

"Cyclic Motivic Projection".....Andrew Fowler
"Mozart's Expansion Joints".....Newton Miller
"Music Analysis and Its Relevance for the Performer".....Richard Parks

Luncheon

SESSION II (1:00-3:00) ANALYTIC THEORIES & APPLICATION.....Herbert Colvin, moderator

"Theories of Chord Progression in Selected British Writings During the 1st Half of the 19th Century".....Adron Ming
"An Analysis of Pitch Organization and Its Relation to Form in Schoenberg's Fourth String Quartet".....Laurann Littleton
"Pitch Set Pedagogy: Proposing Some Basic, Creative Tools, with Comments on Rahn's Basic Atonal Theory".....Thomas Clark

Coffee Break

SESSION III (3:30-5:00) PEDAGOGY FORUM I: Aural Skills....William Schroeder, moderator

"The Aural Perception of Set Equivalencies: A Computer-Assisted Investigation".....Jana Kubitza Millar
"An Integrated Approach to Kodály Hand Signs and Fixed-Do".....Andrew Fowler
Respondents: Joán Groom-Thornton
Thomas Clark

SATURDAY, March 31

SESSION IV (9:00-10:30) PEDAGOGY FORUM II: Musical Parameters ..Kathryn Hoppe, moderator

"Remarks on the Teaching of Music Stress and Accents in the Freshman-sophomore Program".....Richard McGowan
Respondent: Benito Rivera

Dialogue on Selected Topics

Coffee Break

SESSION V (11:00-12:30) ANNUAL BUSINESS MEETING

PITCH SET PEDAGOGY

Thomas Clark

Critical commentary on Rahn's recent textbook, BASIC ATONAL THEORY, acknowledges the usefulness of pitch set concepts for developing a broad and systematic understanding of pitch relations in the tonal universe beyond diatonic and triadic idioms. A valuable effort is made in that book to better define and crystallize concepts of pitch relation based on mathematical models.

However, there is still a strong need for some means other than the algebraic and analytic to begin discovering this universe of possibilities. Providing students with guidelines for creative musical construction is a common and effective approach. Making connections from one thing to another can be fostered by literally making one thing so as to relate to another, designing patterns with certain prescribed common elements. In this way, relationships become real before being searched for in the analysis of already composed master works.

Simple definitions worded in musical rather than mathematical imagery are offered. An emphasis is placed on patterns that commonly connect and relate pitch sets, patterns such as concatenation or alternation of set types. Simple tables of 3- and 4-note set types provide a ready means of identifying and becoming familiar with the basic entities of interval sets.

Then three recipes are described, compositional experiment guidelines for open-ended explorations of melodic, contrapuntal, and chordal configurations of pitch constructed using the concept of relating sets.

THE AURAL PERCEPTION OF SET EQUIVALENCIES
A COMPUTER-ASSISTED INVESTIGATION

Jana Kubitza Millar, McLennan Community College

Allen Forte's theory of pitch-class set structure for atonal music has gained great popularity and respect in recent years and has provided important tools for discovering structural pitch relationships in atonal music. As valuable as set-theoretic concepts are for composers and analysts, the extent to which set relationships are perceptible by the listener largely remains to be investigated. This study was intended to contribute to the need for perceptual considerations in the analysis of music, specifically, to test the aural perceptibility of equivalency between three-note sets.

In The Structure of Atonal Music, Allen Forte defines and gives a number of examples of the equivalency relationship. From these examples, it can be seen that equivalency relationships come in a variety of forms. The nature of the equivalency relationship can be transpositional, inversional, ordered or reordered; it may be further characterized through pitch invariance, proximity, similarities or differences in presentation, rhythmic setting, tempo, instrumentation, register and dynamics. Certainly such varied relationships, although all by definition are "equivalent," would have varying degrees of perceptibility.

The main hypothesis of this experiment posed that certain set equivalency relationships are more easily recognizable than others, that is, that some equivalent set pairs aurally seem more related than others. The aspect of equivalency under order permutation, in which originally adjacent pitches become non-adjacent and vice versa, makes set-theoretic relationships unique and presumably causes special problems for the listener. Therefore, one of the main questions of interest was the effect of reordering on the recognition of set equivalency. Additional questions concerning the relative perceptibility of set relationships were: are transpositionally-equivalent relationships more recognizable than inversional relationships? How does the perceptual ability of subjects affect recognition, specifically, does facility for absolute pitch recognition aid significantly in the perception of set equivalency? How does octave displacement affect recognition? Is it possible that non-equivalent sets in Rp, R_1 or R_2 relationships could be perceived as equivalent?

This investigation was limited to the examination of the perceptibility of equivalence between three-note, melodically-presented sets. Symmetrical sets and sets with obvious tonal connotations were excluded from the experiment. The remaining set types--3-2,3-3,3-4,3-5 and 3-7--are those used in the study. Five set equivalency relationships were chosen to be used in the test--ordered transposition, ordered inversion, ordered transposition with octave displacement, reordered transposition

and reordered inversion. All reorderings were second rotations in which the reordered set consisted of the orginal set's outside interval followed by the original set's first interval.

The experiment consisted of three phases for subject participation--(1) a perception ability test in which subjects were screened for absolute-pitch and interval recognition and were divided into three perception ability groups, (2) an interactive tutorial on the fundamentals of set theory for the purpose of providing subjects with some criteria for making judgments about set equivalency (but no strategies for aural recognition), and (3) a perception test designed to measure how recognition of set equivalency may be affected by the perceptual ability of the listener, the set types used, and the particular set manipulation involved in the equivalency relationship. All testing and training was administered using Apple microcomputers. All subjects were members of sophomore ear-training classes at North Texas State University.

The test paradigm consisted of the presentation of an original set followed by three comparison tests. The subject's task was to determine which of the three comparison sets was equivalent to the original. The subject was not required to identify the particular way in which the sets were related. One of the comparison sets was transpositionally or inversionally equivalent to the original. The other two comparison sets were non-equivalent lures. In the first run of the experiment, one lure was a set in a literal R_p relationship with the original; the other lure was a set in an R_1 or R_2 similarity relation with similarity in contour to the original set. In a second run of the experiment, the same-contour lure was replaced with a lure in an R_1 or R_2 relationship which preserved the original set's interval succesession (but not interval direction).

The data was subjected to analysis of variance using a split-plot factorial design with repeated measurements and Chi-square tests for homogeneity of proportions. Significant test results showed the following:

- subjects with an aptitude for absolute-pitch recognition performed with more accuracy than subjects without it;
- subjects with good interval recognition skills performed better than subjects with poor skills;
- ordered transposition was most recognizable as an equivalent relationship;
- ordered transformations were more recognizable then reordered transformations;
- transpositional equivalencies were more discernible than inversional equivalencies;
- octave displacement disguised set equivalency;
- non-equivalent sets with similarity through contour or successive interval invariance were heard as being equivalent;
- pitch invariance was not as strong a factor of association between sets as contour or interval succession.