Responses to Questions on *A Generative Theory of Tonal Music*

Chapter 2

***Q1**: In L & J's view, rhythm in tonal music arises largely out of the interaction between meter and grouping. Explain what is meant by these two terms. As L & J note, this view of rhythm is somewhat at odds with earlier views, such as that of Cooper & Meyer; what is the essential difference?*

L & J use the term "group" to refer to units of music divorced from the meter of the piece. Listed in order of increasing level, such units include "motives, themes, phrases, periods, theme-groups, sections, and the piece itself" (12). Groups distinguish places in a work where divisions *between* seem more natural than division *within*. L & J's term "meter" refers to the "regular pattern of strong and weak beats" (12), more akin to the pulse or metronomic qualities of a work. This distinction between group and meter, two "individual rhythmic dimensions," contrasts with the organizational principles of Cooper & Meyer who begin at the level of the beat and work up through a hierarchy that includes phrases and larger grouping structures. In essence, Cooper & Meyer conflate meter and group, the former being a lower level version of the latter, while L & J separate and distinguish the two. L & J's separation of group from meter already resolves one of the basic problematic features of the theory of Cooper & Meyer, this problem being the need to carry accents of the beat up to high levels of the piece, often with these accents in seeming opposition to one another. Summing up later, L & J say, "groups do not receive metrical accent, and beats do not possess any inherent grouping" (26).

***Q2**: Of crucial importance to L & J's view of meter is the distinction between "phenomenal accent" and "metrical accent." Explain this distinction.*

"Metrical accent," according to L & J, refers to the typical emphasis of strong versus weak beats that arise out of the metrical context of a piece, e.g. the first and third beats in a bar of common time would receive metrical accents by virtue of the meter itself. L & J point out as well that some pieces may not have any sort of regularly-defined metrical accents at all (18). "Phenomenal accent," however, is an accent unrelated to the natural flow of strong and weak beats that make up meter and refers to those locally stressed moments that occur on the musical surface, such as "sforzandi, sudden changes in dynamics or timbre, long notes, leaps to relatively high or low notes, harmonic changes, and so forth" (17). These phenomenal accents could happen in synchronization with the metrical accents or as syncopations to the metrical accents. L & J also offer a third type of accent called the "structural accent," which relates to those points in the music emphasized by the melodic and harmonic "points of gravity in a phrase" (17). Here, L & J seem to be evoking a view similar to that of Schachter's tonal rhythm, where tonal events such as cadences are seen as receiving some sort of inherent stress.

***Q3**: As well as covering traditional notions of meter–the idea of strong beats and weak beats within a measure–GTTM's metrical theory also extends to "hypermetrical" levels. How high up does hypermeter go, in their opinion?*

L & J have difficulty allowing metrical structures to extend to very high levels of a piece. In large spans of music, "metrical structure is heard in the context of grouping structure" (21), and due to the irregularity of grouping structure at higher levels, any sense of a regular meter is lost. L & J do not give a specific point at which this loss of meter occurs, only saying that, as one proceeds farther from the surface of the music, "the listener's ability to hear global metrical

distinctions tapers and finally dies out" (21). Using the first 23 bars of Mozart's G-Minor Symphony, L & G show how even at the level of 2- or 4-bars, defining proper metrical accents becomes troublesome (25). However, in further examples, such as 2.12 or 2.14, we can see L & J extending hypermeter to the phrase level. This allowance of hypermeter beyond the measure level derives from the interaction of the metrical structure and the grouping structure. In essence, it appears that L & J are comfortable assigning higher levels of accents so long as only one clearly-strong main accent exists in each grouping level. Even so, there seems to be a limit of "five or six metrical levels in a piece" (20-21).

***Q4**: What do L & J mean in saying that meter and grouping can be "in phase" or "out of phase"?*

Since L & J have separated meter and group from one another, the spans delimited by each can partition the music in different ways. For example, if the group includes an upbeat, then it begins just before a metrical span; this situation would be an example of the group being slightly out of phase with the meter. In a more extreme case, such as at the beginning of the Mozart G-Minor Symphony, more than a bar of music occurs in the higher groups before a strong metrical accent occurs; here, then, group and meter are "acutely" out of phase (30). The in-phase condition happens when groups cleanly begin on a beat that is the strongest beat of the group.

***Q5**: Lerdahl and Jackendoff also discuss "structural accents": moments such as cadences that are of special tonal importance. Are structural accents necessarily metrically strong? Are they* ever *metrically strong? Discuss, mentioning one or more musical examples cited by L & J.*

For L & J, it would be an impossibility for structural accents to be metrically strong in every case. In the example of a typical 4-bar phrase, such as K. 331, both the opening tonic chord as well as the dominant chord on which the half-cadence rests act as structural accents. Since these events occur on the first and last beats of a hypermeasure respectively, it would be impossible to reconcile these events with any sort of uniform metrical structure (33). Thus, structural accents are necessarily separate from metrical accents. Similar to how Carl Schachter used the Beethoven op. 14 no. 1 Piano Sonata example in his essay from *Unfoldings* to show how metrically-accented cadences should be a distinct case from those cadences that occur on weak beats, L & J want to be able to differentiate between metrically-strong harmonic arrivals and those harmonic arrivals that are metrically weak. L & J use the term "structural downbeat" to describe the convergence of accents in group, meter, and harmony (33).

Chapter 4

***Q6**: Below is shown a passage from a Beethoven Sonata, along with several possible metrical structures. Using L & J's preference rules, explain why we prefer the correct structure (A) over the incorrect ones (B, C, and D). (Do any of the preference rules favor one of the incorrect structures over structure A?)*

Each of the metrical structures besides A fail for a variety of reasons. I will list the Metrical Preference Rules and show how each incorrect structure does not match up to some if not all of those criteria:

MPR 1: If two groups are parallel (such as the melodic snippets in the first two measures), they prefer to receive similar metrical structures. Structure B (the 4/4 meter overlay) fails this test.

MPR 3: The event rule prefers structures that allocate strong beats to pitch-events. Although the pseudo-Alberti bass gives pitch-events throughout, the melodic line has fewer pitch-events. Structure B assigns the second strong beat to a non-pitch-event in the melodic line, thus failing this preference rule. Structure C also mostly fails this rule since the melodic pick-up notes are not given emphasis. However, structure C does seem to be preferable to structure A in bar 3 due to the beginning of a string of eighth notes

MPR 5a: Preference is also given to longer pitch-events. Structures B and D, by not giving strong beats to both half notes in the melodic line fail this preference rule.

MPR 5c: Slurs are given preference as a metrical group. Again, structures B and D fail this test, in this case by ignoring the strength of the slur in measure 3.

MPR 5e: This rule is not completely clear to me (perhaps I need to read chapters 6 and 7), but it seems to prefer notes that have deeper structural importance. Again, by not giving all of the half notes, preceded by the same notes and acting as structural pitches, structures B and D fail this rule.

MPR 5f: Unity of harmony within each metrical chunk serves as the basis for this preference. As structure B has a longer periodicity than the harmonic motion, it fails. Structure D is out of phase with the harmonic motion, so it fails, too.

MPR 6: The stability of the bass line also determines metrical structure. Here, structure C (basically a 6/8 meter) becomes perhaps most problematic since it is out of sync with the low pedal D in the left hand.

MPR 7: Cadences also can impact preferences for metrical structure, as seen often in the discussion of the "structural downbeat." This preference rule disfavors structures B and D, which give the weakest possible metrical allocation to the small cadence in bar 4.

To sum up the total failures for each metrical structure besides A:
Structure B: MPR 1, MPR 3, MPR 5a, MPR 5c, MPR 5e, MPR 5f, MPR 7
Structure C: MPR 3 (mostly), MPR 6.
Structure D: MPR 5a, MPR 5c, MPR 5e, MPR 5f, MPR 7.

WORKS CITED

Lerdahl, Fred and Ray Jackendoff. *A Generative Theory of Tonal Music*. Cambridge, MA: The MIT Press, 1983.