Dimitar Ninov

Texas State University, United States
dn16@txstate

Cognitive Aspects of Gradual Modulation

ABSTRACT

Background

Different approaches to modulation embody compositional techniques which generate different types of emotional and rational reaction. Some modulations trigger one type of perception related to the feeling of an immediate arrival, while others create the feeling of prolonging a space by steering through different key areas. Some modulations create a 'calm' effect, others exacerbate the anticipation of the listener. Some modulations are fully synchronized syntactically and their phases unfold within a single theme or musical thought, while others are not synchronized syntactically with a formal modulating passage and stretch across its boundaries to complete the image of a modulating process which comprises three phases: initial – modulating – confirmation.

The common chord modulation offers a variety of possibilities, including the use of a diatonic triad or a borrowed chord to connect the two intended keys. In addition, the practice of reinterpreting a common chord enharmonically creates the effect of surprise caused by the conversion of a diatonic chord into a chromatic chord, a chromatic chord into a diatonic one, or a chromatic chord into another chromatic chord.

The modulation via transitional key is also very diverse, ranging from the possibility of reaching a common chord via secondary dominant, to tangible outline of one or more intermediate keys via harmonic sequence or otherwise.

Tonicization versus Modulation. Didactic example of comparison shows the stages of conversion of a tonicization into modulation.

- short tonicization – miniature transitional modulation, a hint of an interior key. The new area is entered and exited immediately;
- expanded tonicization – more tangible transitional modulation, longer outline of an interior key. The new area is entered and well outlined, then exited;
- Modulation – the new area is entered and confirmed as new home.

The Complete Cognitive Image of a Modulation Process. The complete cognitive image of a modulation is created by three phases:

- initial phase – establishing a primary key or (if it has already been established) making a gesture in the primary key;
- modulating phase – departure from the established key (via modulating chord) and entering the new key area;
- confirmation phase – confirming the newly entered key via full cadence (as opposed to a half cadence).

These phases do not have to represent syntactical units per se, although they may occasionally coincide with some of them. The modulation phases (or stages) may cover different areas within a single formal unit or stretch beyond its boundaries. Besides, sometimes the modulating and confirmation phases may be united in an inseparable idea, especially if the modulating chord is the cadential six-four a root position dominant. In such cases the modulating phase may be an integral part of the final cadence which confirms the new key. This situation does not affect the completeness of the modulation image.

Syntactically Synchronized Modulation. The whole modulation process with its three phases is conveniently nested within a formal unit. This is usually the case with major structural units such as modulating themes or portions of modulating themes.

Example: Beethoven, Sonata Op. 14, No. 2, II. One can isolate the consequent phrase as 'modulation proper' and analyze its first five chords as initial phase, the following two chords as modulating phase, and the last two measures as confirmation phase. On a broader scale, one can analyze the whole period as a modulation process, and assign the task of 'initial phase' to the entire antecedent phrase plus the first five chords of the consequent phrase.

Syntactically Unsynchronized Modulation. The modulation process stretches beyond the boundaries of a formal modulating passage to complete the full image (perception) of modulation. This is usually the case with transitional passages which connect major thematic units (such as sonata-allegro themes and other themes).

The three phases of a typical modulating transition are a) initial, b) modulating, and c) prolonging the dominant of the new key. Therefore, the confirmation phase of the modulation process which involves a full cadence into the new key is lacking here. This creates the necessity to incorporate a moment of the new theme's opening which will confirm the new tonality. In cases where transitions are lacking an initial phase, the creation of the full image of modulation will naturally include the final cadence in the primary key as well as the beginning of the new theme in the secondary key.

Example: Schubert – Symphony No. 8, I. The transition between the first and the second theme areas only consists of a modulating phase. To complete the image of modulation as a three-phase process, the mind needs to unite the final cadence in the first key with the beginning of the second theme in the new key. The syntactical reduction of this transition is emphasized by the lack of a prolonged 'standing on the dominant' stage that is characteristic for other sonata-allegro transitions. This affects the sense of anticipation by reducing the tension related to the

expansion of the dominant function in time. The feeling of immediate arrival emerges as a result.

Both modulations reviewed so far are common chord modulations, the former being syntactically synchronized, and the latter – unsynchronized.

An indirect modulation via transitional key(s) is presented in the Example: Wagner – excerpt from Lohengrin, modulation before to the Bridal chorus. The Ortrud motive develops in the key of A minor and is connected with the Bridal Chorus in B-flat major via indirect modulation using the transitional key areas of G major and F major. The analyst could alternatively analyze these short intermediate modulations as tonicizations in A minor via sequence which leads to the dominant of B-flat. However, the introduction of the cadential six-four in the G area as well as the perfect resolutions into the new tonics seems to favor the former approach.

Aims and repertoire studied

The chief goal is to seek connection between various modulation techniques, presence or absence of syntactical synchronization of the modulation process, and perception. My observations claim validity within the so-called common practice period.

Methods

Two established methods of gradual modulation are presented which create a different impact on the listener. The first method is related to the use of a common chord as a connection between the initial key and the target key, while the second method is indirect and uses one or more transitional key areas as a connection between the two outer keys. Discussion also includes the presence or lack of syntactical synchronization between the process of modulation and the modulating passages as components of form.

Implications

The dynamic ways of tonal interaction open the door to regarding the process of modulation as a living organism through which musical texture breathes. This notion breaks the wall between theory and practice and stimulates creativity in the study of harmony.

Keywords

Harmony, Music Cognition, Structure, Synchronization

REFERENCES

Davie, Cedric Thorpe. 1966. *Musical Structure and Design*. New York: Dover.

Eliezer, Benzion. 1979. [Задачи по хармония] Tasks in Harmony. Sofia: Muzika.

Goetschius, Percy. 1921. *The Homophonic Forms of Musical Composition*, 19th ed. New York: G. Schirme.r

Hadjiev, Parashkev. 1976. *Хармония* [*Harmony*], 5th ed. Sofia: Mu zika.

Reger, Max. [1904] 2007. *Modulation*. Trans. John Bernhoff. New York: Dover.

Rimsky-Korsakov, Nikolai [1885] 1936. [*Практический учебник гармонии*.] *Practical Manual of Harmony*. Ed. Steinberg. Leningrad.