Similarity in the Mozart "Twinkle" Variations

Donald Byrd, 27 Oct. 2006

This assignment is modeled on a special "Lecture/Recital/Survey session" that Steve Larson, professor of music theory at the Univ. of Oregon, and I did at the first ISMIR conference (in 2000). As we told the audience then:

> A main goal of the Lecture/Recital/Survey session is to stimulate thinking about the circumstances under which a music-searching program should retrieve a given piece of music in response to a given query. One way we hope to stimulate such thinking is with an informal "experiment". Pianist/music theorist Steve Larson will play excerpts from Mozart's Variations, K. 265, on "Ah, vous dirai-je, maman"—a melody better known in English-speaking countries as "Twinkle, Twinkle, Little Star". If you do a search using the theme of a set of variations as a query, each variation should be considered "relevant". Or should it?

But instead of hearing Steve play the music live, you'll listen to a recording. The idea is for you to evaluate how similar each of several variations is to the theme. There are several recordings in Variations2, but I recommend using a Variations2 timeline I created, namely MozartTwinkleVars.v2t (in the same directory as this document). As I demonstrated in class, this timeline makes it easy for you to compare the theme to each of the variations we're interested in: if the timeline is playing, just clicking on a bubble will jump to that bubble and start playing it. As you can see, there are 12 variations, but we care about only six:

A = Variation 1

B = Variation 5

C = Variation 7

D = Variation 8

E = Variation 11

F = Variation 12

These six are labeled with the variation number suffixed with "-A" thru "-F". Listen carefully as many times as you want, and decide how each is related to the theme. (Note that the theme is not exactly the standard version of the Twinkle melody: the difference may be important!) Then:

1. On the form below, rate each variation in terms of similarity to the theme by circling one of the numbers to the left of the music. Try to use the full scale of ratings available, from 1 to 7.

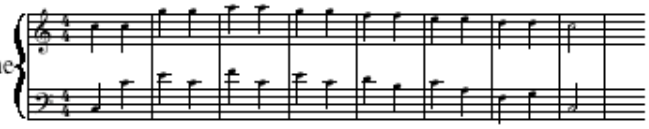
2. Write a paragraph (or more, if you want) for each variation, describing in some detail, and from the standpoint of music theory, how it's related to the theme. If you feel the theoretical description is misleading in terms of perceived similarity, say how.

Here's a brief example of what I have in mind (you could go into more detail): In Variation 10, the melody appears in the soprano, as in the theme; however, here some repeated notes have been replaced by chromatic passing tones, and some syncopation is added. The very simple texture of the theme, with two voices note-against-note, is replaced by a more complex texture of three voices, with a new, fast-moving inner voice. This variation is more complex harmonically as well, with the bass line also adding chromaticism to produce (among other things) a series of diminished seventh chords alternating with their resolutions. Thus, Variation 10 retains the essence of the original melody, harmony, and rhythm, but all three are elaborated, and it sounds much faster.

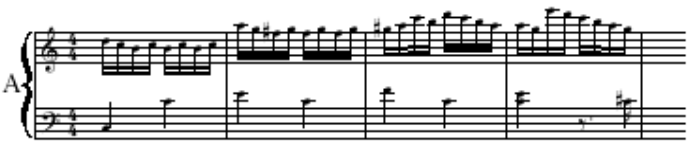
. Similarity to theme:

LEAST MOST

1 2 3 4 5 6 7 Theme

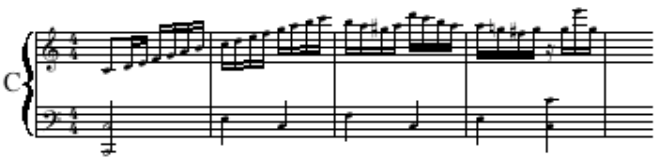


1 2 3 4 5 6 7 Var. A

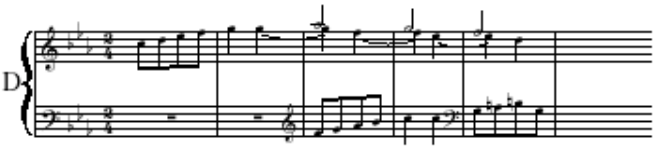


1 2 3 4 5 6 7 Var. B

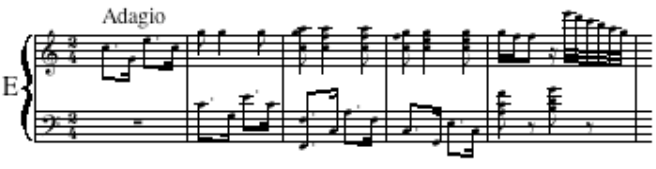
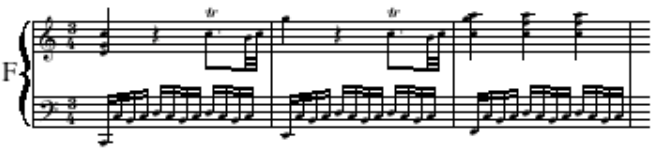
1 2 3 4 5 6 7 Var. C



1 2 3 4 5 6 7 Var. D



1 2 3 4 5 6 7 Var. E



1 2 3 4 5 6 7 Var. F