Sampling Exercise

David Huron

Sampling Approaches

For each case, identify the kind of sampling employed.

1. A researcher walks into a music library with a question: *Are sharp keys more common than flat keys?* Wandering through the stacks, she blindly grabs volumes off the shelves and allows each volume to open spontaneously to some page. She takes note of the key signature.

2. A professional music marketer is interested in carrying out a detailed survey of musical tastes in Britain. The marketer decides to use the ACORN geodemographic profile. British households will be sampled in proportion to the second-level ACORN categories: *wealthy executives* (8.6 percent of the population), *affluent greys* (7.7%), *flourishing families* (8.8%), *prosperous professionals* (2.2%), *educated urbanites* (4.6%), *aspiring singles* (3.9%), *starting out* (2.5%), *secured families* (15.5%), *settled surburbia* (6.0%), *prudent pensioners* (2.6%), *asian communities* (1.6%), *post-industrial families* (4.8%), *blue collar roots* (8.0%), *struggling families* (14.1%), *burdened singles* (4.5%), *high rise hardship* (1.6%), and *inner city adversity* (2.1%).

3. A researcher is interested in assembling a random sample of "classical" keyboard music. She has determined that she needs roughly 20 pieces for her study. In order to maximize data independence, she wants each piece to be written by a different composer. Using Wikipedia, she finds an alphabetical list of "classical composers." For each letter of the alphabet, she selects the first composer who she knows has written for piano: Isaac Albéniz, Carl Philipp Emanuel Bach, Alfredo Casella, Claude Debussy, Edward Elgar, Manuel de Falla, etc.

4. In piloting an experiment, a graduate student recruits her graduate student colleagues as experimental participants.

5. A team of researchers is interested in emotional expression in Hindustani film music. Indian participants are asked to characterize the emotional tenor of various film scenes. Using the descriptions, the researchers then classify the scenes into 14 categories — such as *romantic, humorous, physical conflict, emotional tension,* etc. The researchers then select four scenes for each of the 14 categories and analyse the associated background music. Their goal is to identify musical features in Hindustani culture that signal *romance, humor,* etc.

6. A medievalist thinks that the Dorian mode was more likely to have been heard as comparatively "happy" whereas the Phrygian mode was more likely to have been heard as comparative "sad" for medieval listeners. In order to test this notion, the scholar examines all of the *Glorias* (nominally "happy" text) and *Kyries* (nominally "sad" text) in the *Liber Usualis.* The prediction is that Dorian will predominate for *Glorias* while Phrygian will be more likely to occur for *Kyries.*

7. A researcher is interested in changing harmonic patterns in the masses of Palestrina. The researcher makes us of the Humdrum database of the scores for the complete 103 masses assembled by musicologist John Miller.

8. Paul von Hippel and David Huron (2000) carried out a study to test the idea that melodies tend to change direction following a leap, and that this pattern is ubiquitous in musical melodies around the world. In order to test this idea, they made use of two musical samples. The first sample selected

music spanning five centuries. The second sample selected music spanning five continents: Africa, Asia, Europe, North and South America.

9. Unsure of the contents of a box, an archivist reaches in and grabs a couple of documents, which he then examines.

10. A researcher wants to know whether there is anything Italian, French or German about augmented sixth chords. Using large computer databases, the researcher uses Humdrum to isolate 900 sonorities in which the lowered sixth and raised fourth appear concurrently (including enharmonic spellings): 300 each written by Italian, French and German composers. Each of the sonorities is then classified as either Italian, French, German or Other.

References:

Paul von Hippel & David Huron (2000). Why do skips precede reversals? The effect of tessitura on melodic structure. *Music Perception,* Vol. 18, No. 1, pp. 59-85.