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COG 316

RSMD Assignment Written Portion

1.) RSM Diagrams and High-Level Perception

Question: Write a short text which advances the notion that modeling a melody as in RSMD (i.e., in terms of an RSM Diagram) is a problem in high level perception.

Modeling a melody as in a RSMD is a problem in higher level perception. To quote Hofstadter, "The end product of the process of perception, when a set of raw data has been organized into a coherent and structured whole, is a representation." As Hofstadter just stated, the process of creating a representation, in our case the representation of a melody, is a highly complex process in itself. You must first recognize something about all of the raw data that is similar, allowing you to see the relationship between the elements of the raw data. This could be a certain property or function that all the data shares. This process alone can pose a problem in high level perception. In the case of a melody, the raw data would be the notes that are shown or played for you to enjoy and to process. Like I stated previously, you must first recognize that the melody has individual notes and particularly which sound corresponds to what note. This can be extremely difficult for someone that has no prior musical background playing or working with music, as they most likely have never been exposed to any form of musical notation or scale. So, without recognition and understanding of the notes makes it even more complicated to perceive the melody and its structure at a high level. When constructing a RSMD you must remember which notes are played together and find any patterns within. This is done by our brains grouping different notes together, finding natural breaks in the melody, showing high level perception at

work. By being able to group and hear natural breaks, it shows that someone has processed what they have heard and understand the structure of the piece being played. These groupings and natural break are exactly what are shown with the different elements found in a RSMD melody representation. Through the use of shapes and arrows, we are able to visualize the connections and similarities between the groupings of notes. Also, these groupings that someone creates may not be the same as someone else, although this does not mean that one grouping is better or more correct than the other. The way someone perceives the groupings and breaks in a melody mainly depend on their musical background. This again shows that having an enhanced musical background heightens your perception when modeling a melody. When modeling a melody using a RSMD, it relies on the musical experience and knowledge of the creator. This means that everyone is going to have different knowledge and experience when perceiving a melody at a high level or really any level. Therefore, due to this fact that modeling a melody in a RSMD requires someone to have "various forms of knowledge", which stem from someone's independent musical background, poses a problem for high level perception.

2.) RSM Diagram Construction

Question: Articulate how you believe one generates an RSMD representation of a melody that is given in some surface level notation such as JFugue or ABC or common music notation, with the intent of capturing a structural/relational hearing consistent with that which a prototypical experienced listener might produce.

I believe to generate a RSMD representation of a melody, you must first try and hear the written notes in a mental space. Try and envision what the melody would sound like if it were to be played in front of you. After, look to see if you can find a pattern within the written notes in whatever notation they are presented in. Look at what notes come after one another and more

importantly why they are placed in the order they are in. By doing so it could show someone the rhythmic pattern the composer used when constructing the different measures of the melody. After dissecting the piece, trying to hear what the melody sound like in a mental space, someone needs to than try and place the notes of the melody into various groups. When grouping notes, it is important to consider the gestalt principles. Principles like proximity, similarity, pragnaz, and symmetry make grouping notes more systematic and reveals the underlying reasons to why something is grouped in a particular way. Proximity is simple, just look at the notes before and after an individual note or set of notes that you are trying to group. Similarity is a crucial principle, as it looks to find notes that are in the same pattern or scheme as other notes in the melody. By looking at the similarity between notes also allows for someone to determine if a particular set of notes is identical to another or appears to be derived from another group, which is reflected in a RSMD. Pragnaz is important for high level perception as it takes a simplified look at the melody, looking at and dissecting the individual parts instead of the whole. This is important in high level perception, because by not understanding the individual pieces of the whole may take away from the melody's purpose and intent. The way someone decides what notes make up the different parts of melody shows the natural breaks that person hears in the and allows them to reflect those breaks in their RSMD. Symmetry goes along with the underlying purpose of the principle pragnaz and is also very critical for high level perception. Part of symmetry looks at the pitch and duration in a melody and often objects that are considered to be symmetrical are formed into groups together. Symmetry of notes allows someone to again look at the individual parts of melody and see how those parts relate to form the melody as a whole. By using these principles that I describes someone can group the individual notes of a melody, see the relationship between the groups of notes, find any natural breaks, and finally form a

RSMD. Lastly, as discussed previously once you have constructed the diagram you can look and see which groups of notes are derived or identical to one another, further revealing the underlying aspects of the melody.