

A Study of Asian Indian and Asian Indian American Carnatic Music Students on Emotive Responses to Six Carnatic Ragas: Qualitative Analysis of Student Responses

*Dr. Kalpana Mukunda Iyengar, **Mrs. Veena Prasad, ***Dr. Roxanne. Henkin

**Dr. Kalpana M. Iyengar is a San Antonio Writing Project Teacher Consultant and a postdoctoral researcher in the department of Interdisciplinary Learning and Teaching (ILT) at the UTSA. Her PhD dissertation focused on Asian Indian American Students' Expression of Culture and Identity Construction Through Narrative Writing.*

***Mrs. Veena Prasad has an MBA and she is currently in her first year of the PhD program in counseling at Texas A&M University at Corpus Christi. Ms. Prasad also teaches Carnatic music to students of Asian Indian origin. Several of her articles are published in scientific journals.*

****Dr. Roxanne Henkin is a professor in the department of Interdisciplinary Learning and Teaching at the UTSA. She is also the director of the San Antonio Writing Project and Limpopo Writing Project in Africa. Dr. Henkin has several publications to her credit.*

Abstract: *In order to assess Carnatic music students' emotive responses to a few selected Carnatic ragas, two interdisciplinary researchers and a music teacher conducted a qualitative study supported by Gee's definition¹ of discourse. The researchers analyzed the narratives written by Carnatic music students from India and a major city in the southwest of the United States. The study participants were six young adults between the ages of eleven and sixteen who have learned Carnatic music for more than five years. Some of them have performed their solo debut recitals after learning music for more than 4 years or more with a trained teacher. The participants recorded several emotions such as happiness, melancholy, anger, etc. after they listened to songs based on the selected ragas the researchers provided to the students. Participants also described their observations on the preselected ragas.*

Key words: *Carnatic music, ragas, emotive responses, feelings, Asian Indian students.*

"God is running towards me and I am trying to welcome him thro this Raga and also sounds like somebody is in deep thought on a topic or is remembering a person" (Participant 3, 2014).

I. Introduction

Music and dance are important for progression of culture (Walker, 2007). Performing arts also bring harmony among cultures and can be envoys between cultures. A nation is happy when people enjoy dance and music because performing arts play an important role in the overall happiness of people including children. Rao (1984) posits that, "a musical child is a sympathetic child, and its tender qualities grow with age." (p. 17). Further, ancient cultures like India, Greece and Rome have contributed to the performing arts. Some of these art forms are not well known in the western world. One such genre is the classical form of Indian music called *Carnatic* music. This art is usually passed on from teacher to the student and requires cultural mediation (Cole, 1996). This mediation can happen only if cultural events are practiced through generations and kept alive through stage performances.

Cultural awareness through dances is far more common than music because dances have visual appeal and music is integrated into the dances. For example, dance forms such as *Bharatanatyam* make use of complicated rhythmic patterns and ragas to enhance esthetic appeal of the dances. Audiences need not appreciate music if they pay attention to the words being sung and the narrative music rendered through the percussion and string instruments. According to Eisner (1998):

Education can be regarded as a process concerned with expanding and deepening the kinds of meaning people can have in their lives. The construction of meaning depends upon the individual's ability to experience and interpret the significance of the environment, including the ways in which others in the culture have constructed and represented meaning. Forms of representation—visual, auditory, kinesthetic, linguistic, mathematical—are ways in which members of a culture

¹ [Discourse is] a socially accepted association among ways of using language, other symbolic expressions, and artifacts, of thinking, feeling, believing, valuing and acting.

uniquely “encode” and “decode” meaning. The meanings that can be secured from music, for example, have no identical counterpart in any other form (p. 76)

Music is a language of emotions and needs to be situated as a representation of culture to a larger audience because music needs enhanced pathways of cognitive sensory interactions (Rao, 1984).

According to Bhargava, et al (2014), mathematics, music and poetry together feel like a very complete experience...All kinds of creative thoughts come together when [we] think about all three.” Two of our study participants, who are passionate about Mathematics, recognized this aspect of creating *ragas*. One of the singers commented, “I know hundreds of *ragas* through years of studying Mathematics behind how *ragas* are formed” (Participant 6, 2014). Thus music helps create curiosity and form new knowledge in the children if they are exposed to it.

There are several differences between western and Indian music. While western music makes use of harmony, Indian music uses melody or *raga*. Audience needs to work harder by paying undivided attention to the singer and by keeping the beat or *tala*, and follow the meaning of the songs rendered to appreciate *Carnatic* music. In addition, pitch, rhythm, language of the lyric add to complexity of listening to *Carnatic* music. But if one goes beyond these complexities, music can directly appeal to one’s inner most feelings and the abstract conception is left to the listeners’ imagination. Table 1 lists the notes in *Carnatic* music style and the western notes for compare (see table 1 below).

Table 1: Scale/Notes

Western Notes/Scale	D	R	M	F	Sol	La	Ti
Carnatic Notes/Scale	S	Ri	G	M	Pa	Dh	Ne
	a	a	a	a	a	a	

Sridhar & Geetha (2009) noted that, “*Carnatic* music is much more complex in the way the notes are arranged and rendered...*Raga* is much more complex than melody and scale in western music” (p. 571). There are hundreds of ragas including *Melakarta* (parent) and *Janya* (child) *Ragas* in Indian music. *Melakarta Ragas* are on the complete scale of sa, ri, ga, ma, pa, da, ne notes while *Janya* are the derivations from the *Melakarta Ragas*. However, for the purpose of this study, we will utilize the six popularly sung *ragas* by *Carnatic* music students (see figure 1 below).

The six *ragas* that were incorporated in this study are as follows:

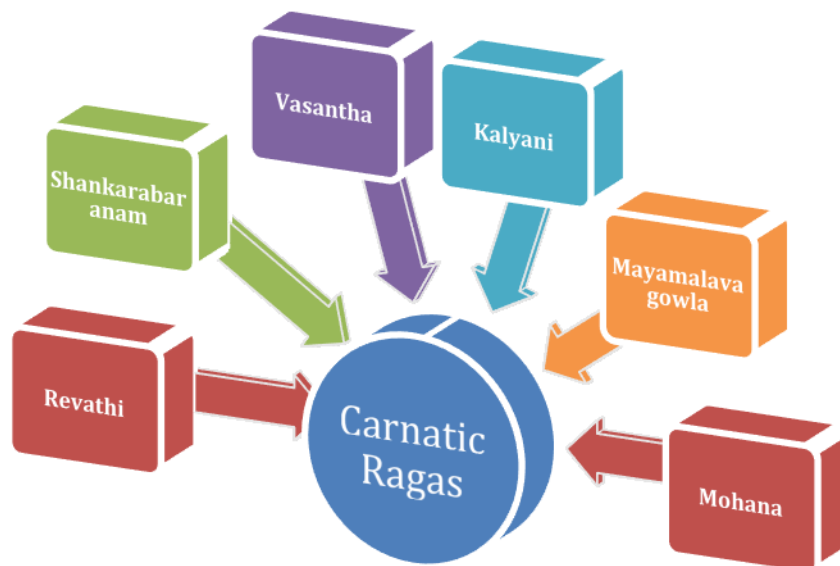


Figure 1 *Carnatic Ragas*

II. Raga

A *Raga* is one of the ancient traditional melodic patterns or modes in Indian music. A *Raga* is based on a scale with a given set of seven notes or *sapta swara*, a typical order in which they appear in melodies, and characteristic musical motifs. According to Sridhar & Geetha (2009), “*Raga* can be thought of as a sequential arrangement of notes that is capable of invoking the emotion of a song” (p. 571). There are several hundred *Ragas* in present use and thousands are possible in theory. The concept of *raga*, introduced sometime before the 9th century, became influential throughout South Asia, and it remains central to the region’s classical music.

According to Rao (1984), Carnatic musical notes produce the following moods:

S and *P* are tranquil notes
R1 and *D1* indicate disturbance
R2 and *D2* are perceptions
G1 and *N1* indicate disagreeableness
G2 and *N2* indicate enquiry
M1 denotes optimism or egoism
M2 denotes degradation (p. 23).

The following description provides a detailed explanation of the six *ragas* used in this study including their *arohana* and *avarohana* patterns. *Arohana* is the ascending pattern and *avarohana* is the descending pattern.

1) Revati

ārohaṇa: *S R1 M1 P N2 S*
avarohaṇa: *S N2 P M1 R1 S*

Revati is considered a *janya rāgam* of *Ratnangi*

2) Shankarabaranam: It is the 5th *rāga* in the 5th *Chakra Bāṇa*.

ārōhaṇa: *S R2 G3 M1 P D2 N3 S*
avarōhaṇa: *S N3 D2 P M1 G3 R2*

It is a *Janaka rāgam*.

3) Mohana:

ārohaṇa: *S R2 G3 P D2 S*
avarohaṇa: *S D2 P G3 R2 S*

Mohanam is considered a *janya rāga* of *Harikambhoji*, the 28th *Melakarta rāga*,

4) Mayamalavagowla: is the 3rd *rāga* in the 3rd *chakra, Agni*.

ārohaṇa: *S R1 G3 M1 P D1 N3 S*
avarohaṇa: *S N3 D1 P M1 G3 R1 S*

5) Vasantha:

Vasantha is derived from the 17th *Mela Suryakantham*.

Swaras used by this *rāga* is *Shudda Ri, Antara Ga, Shudda Ma, Chatusruti Dha* and *Kakali Ni*.

Arohanam: *S M1 G3 M1 D2, N3, SA**
Avarohanam: *S, N3 D2 M1 G3, R1 Sa*

6) Kalyani:

It is the 5th *rāgam* in the 11th *Chakra Rudra*.

ārōhaṇa: *S R2 G3 M2 P D2 N3 S*
avarohaṇa: *S N3 D2 P M2 G3 R2 S*

111. Purpose

The purpose of this study is to evaluate Asian Indian and Asian Indian American *Carnatic* music students' emotive responses based on the songs set to six pre-selected *ragas* they learn in music class. Because of the long history of oral culture in the Asian Indian communities, the researchers would like to explore the impact of music on Asian Indian children's emotional experiences.

IV. Hypothesis

Children who are exposed to music education will be more prepared to distinguish or acknowledge emotions than those who don't learn music. A follow-up study will be conducted to test this hypothesis. We will choose Asian Indian students with and without music education and conduct a comparative analysis of the responses.

V. Method

Procedure

We used Cultural Historical Activity Theory (CHAT) that is based on Vygotsky's constructivism to evaluate *Carnatic* music students' perception of the six *ragas* we chose for the purpose of this study. *Carnatic* music is an example of Cultural Historical Activity Theory. The following methods were used with the participants –

(1) Songs based on the chosen *ragas* were played using a recorder or YouTube so the participants could

hear the songs clearly. We used a quiet room to do this and *Carnatic* music students are familiar with listening to songs while they learn particular *ragas* in music class

(2) A post survey questionnaire with five questions was used to elicit music students' narrative responses. The instrument was given to the participants.

(3) A 7-question scale based on singers' likeability or preference to *ragas* was developed.

The study participants were Carnatic music students of one of the researchers of this study and two other Carnatic music teacher in the US and India. Their gurus trained these music teachers for a period of time before they began teaching students. Both the teachers teach music at their homes as out-of-school-activity because parents want their children to learn music for cultural maintenance and heritage connection.

The study participants answered the seven questions (see below for a list of questions) and provided the investigators with narratives wherever explanation was needed (see appendix A).

Questions

1. What is the total number of songs you have learned so far?
2. How many *ragas* do you know?
3. What is your favorite *Carnatic* song?
4. What is the name of the *raga* of your favourite song?
5. How does this song affect you?
6. Do you sing other songs that share the same *raga* as your favourite song?
7. Why do you prefer this *raga*? Explain using your own words.

The Institutional Review Board of the University of Texas at San Antonio approved this study in 2014. All of the participants' parents signed the consent forms based on their children's willingness to participate in the study. One of the investigators collected data from the Indian participants during her visit to India after she obtained IRB approval and the consent from the participants' parents.

The study participants were asked to listen to songs based on the 6 preselected *ragas* (see figure 1 below) provided and note their impressions including the emotions these *ragas* inspired in the student singers.

Scale

A scale was developed to assess the data. The scale is called Preference and Likeability Scale or **PLS**. PLS is an exploratory instrument to measure desirability and preference to *Ragas* and songs. One of the purposes of this study was to test the scale.

Teachers

Three of the students in this study were from India. They learn music from Mrs. Swetha Keshav, who teaches music in Begaluru, India. She is also an A grade artist in All India Radio and she regularly performs on the radio. The other three participants were Mrs. Veena Prasad and Mrs. Ramya Karthic's students from *Samanvaya Arts Academy* and *Kalalaya* respectively. Veena sings in peace choirs and fund raising events. Veena also sings solo and with her students in the *All World Gayathri Pariwar* celebrations.

Participants

The study consisted of six *Carnatic* music students from India and a major city in the southwest, USA (see table 3 below). The participants were selected from Asian Indian American and Asian Indian communities, who have been learning *Carnatic* music for several years. There were three males and three female singers. The participants were from ages 11 to 16 years of age. All of the participants have sung songs in all of the 6 chosen *ragas* and they are familiar with the scales. The following table illustrates participants' demographic information.

Table 2: Participants Demographical Information

Demographic Information	Number = 6
Age	11 to 16
Gender	
Male	3
Female	3
Religion	
Hindu	6
a. <i>Shanketi</i>	3
b. <i>Iyengar</i>	1
c. <i>Iyer</i>	1
d. Other	1
Languages Spoken at Home	
Tamil	1
Tamil Dialect and Kannada	4
Telugu	1
Education	
Middle school	2

High school	4
Co-curricular Activities	6
Years of <i>Carnatic</i> music training	>4 years
Performances	> 3
<i>Arangetram</i> (solo debut performance)	2

V1. Results

Seven themes emerged through the analysis of the Indian *Carnatic* music students' data. (see figure 2 below). The themes that emerged after data analysis were as follows:

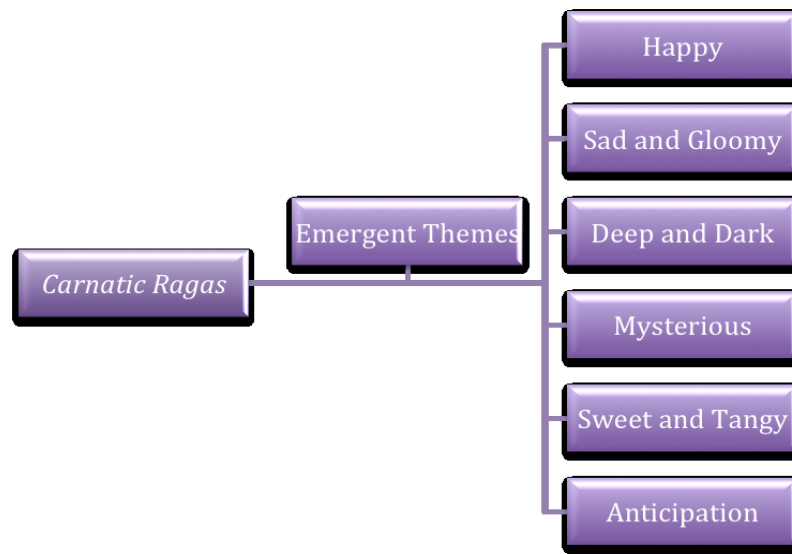


Figure 2 Emergent Themes

The following section provided descriptions of the themes that emerged from the data (see table 3 below).

Table 3: Themes and exemplars From the Study Participants

Theme	Raga	Sample Quotation
Happy	<i>Mohana</i>	"It's a celebration all the people and animals are very very (sic) happy. They are trying to express their happiness through the raga."
Sad and Gloomy	<i>Revathi</i>	"It is very gloomy. All the people, animals are sad. Sadness can be seen in even in plants. People have no enthusiasm in life...Even I feel like crying listening to this raga."
Deep and Dark	<i>Revathi</i>	"It sounds aggressive and reminds me of [Lord] Shiva performing 'Tandava' [Dance]."
Mysterious	<i>Mayamalavagowla</i>	"It sounds a little eerie. And also sounds like somebody is in deep thought on a topic or is remembering a person...It also sounds a little regretful."
Sweet and Tangy	<i>Kalyani</i>	"This sounds like a sweet and tangy raga. How you might feel when you taste a sweet mango or even a tangy sauce."
Anticipation	<i>Vasantha</i>	"Reminds me of bittersweet memories. Or the scene in the movie where the hero is reminiscing times spent with the heroine..."
Pleading	<i>Shankarabaranam</i>	"It sounds extremely melodious. I feel it is spiritual. It also reminds me of [Lord] Krishna pleading mischievously to his mother."

a. Happy

Three participants recognized happiness as one of the themes. They were able to articulate their assessment of the *raga* by providing examples about the *raga* that evoked happiness in them. *Raga Mohana* made singers happy.

b. Sad and Gloomy

Two singers recognized that *raga Revathi* evoked sadness in them. The examples they provided were of lack of energy in people and the singer felt like crying when she heard the song based on this *raga*.

c. Deep and Dark

One of the participants labeled the *raga Ravathi* as deep and dark. The singer compared Shiva's dance when the God of destruction is angry to this *raga*.

d. Mysterious

Three participants said that the *raga vasantha* induced the emotion of mystery in them. The example of hero missing the heroine was considered surreptitious.

e. Sweet and Tangy

Kalyani was considered sweet and tangy by two singers. The most intriguing response about *Kalyani* was that one student expressed how this *raga* reminded him of "superman chasing the bad guys" (Participant 2, 2014).

f. Anticipation

Three singers expressed how the *raga, Shankarabarana* reminded them of how people may get anxious after listening to a song based on this *raga*. One of the singers mentioned his spirituality and compared this *raga* to Lord Krishna's *leelas*.

The following figure (see figure 3 below) illustrates the different emotions and *ragas*.

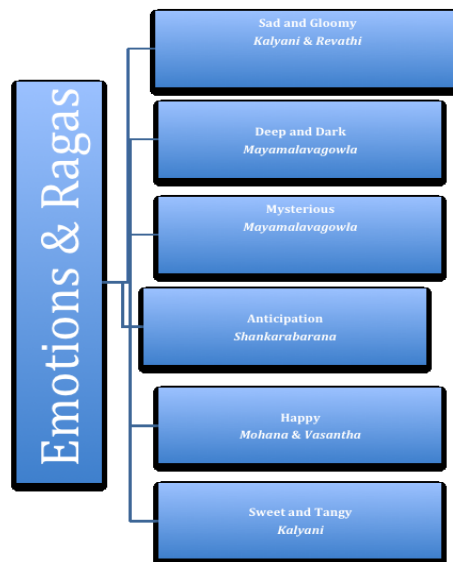


Figure 3 Ragas and Emotions

V11. Literature Review

There is limited research on emotive responses in *Carnatic* music students in the US. However, literature discusses the emotional aspect of music and the impact of music on listeners. According to Robinson (2008), music has the power to manifest different emotions in the listener, which is further endorsed by Bello, Chew, Turnbull (2008). According to these authors, the effects of music on listeners are both influential and equivocal. However, according to Loewy (2013), "In [some] cases, listening to a favorite song might be an intimate activity" (p. 11). Also, Bharghav, et al (2003) has researched on the mathematical connection to Indian music.

V111. Discussion

Music has an effect on singers who are exposed to the art for a prolonged period of time. The participants were able to identify specific emotions based on the songs set to 6 different *Carnatic ragas*. Participant 6 has noted that, "Ragas often invoke emotions various emotions in people" (2014). This pilot study helped the researchers understand the need to conduct extensive study involving different styles of music students learn and practice in both voice and instruments so the findings can be generalized. The follow up study with more music students and different genres of music must be conducted and longer narratives must be coded.

1X. References

- [1]. Bhargav, M. et al. (2003). The gigapop ritual: A live networked performance piece for two Electronic dholaks, digital spoon, digitaldo, 6 string electric violin, rbow, sitar, tabla, and bass guitar." *New Interfaces for Musical Expression (NIME)*.
- [2]. Bello, J.P., Chew, E., Turnbull, D. (Eds). (2008). *Music information retrieval*.
- [3].
- [4]. Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge, MA: The Belknap Press of Harvard University Press.
- [5]. Eisner, E. (2002). *The arts and the creation of mind*, In Chapter 4, *What the Arts Teach and how it shows*, (70-92). Yale University Press.
- [6]. Gee, J.P. (1996). *Social linguistics and literacies: Ideology in discourse* (2nd ed.). London, UK: Taylor & Francis.
- [7]. Lowry, J. (2013). *Music psycho therapy*. In *Painview: American Society of Pain Educators* 9(1), p 11.
- [8]. Rao, H.P.K. (1984). *The psychology of music*. New Delhi, India: Asian Educational Services.
- [9]. Robinson, J. (2008). *Music and emotions*. *Journal of Literary Theory* 1(2), p. 395-419. doi: 10.1515/JLT.2007.024
- [10]. Sridhar, R., & Geetha, T.V. (2009). *Raga identification of Carnatic music for music information retrieval*. *International Journal of Recent Trends in Engineering* 1(1), 571-574.
- [11]. Walker, R. (2007). *Music education: Cultural values, social change and innovation*. Springfield, IL: Charles Thomas Publishers.

X. Appendix A: Participant 5 Responses to our Questionnaire Carnatic Music Study

Questionnaire

1. My favorite song from what I have learned in Carnatic music is Ekamresha Nayike.
2. The name of the Raga of my favorite song is Suddha Saveri.
3. I prefer this raga because I have a sense of peacefulness and focus from the songs I have learned and listened to in this raga. I really like the way that the medium notes create beauty in this raga rather than the higher or lower notes.
4. This song affects me because it is one of the songs that I can sing really well. This influences me to picture Parvati better because I can sing the song really well. Moreover, the beat is simplistic and I feel that the notes have some sense of darkness in them, which makes me really like this song.
5. Yes, I do sing the song Ekamresha Nayike.
6. I know the ragas Kalyani, Durbar, Suddha Saveri, Saveri, Hamsadwani, Mohanam, Ananda Bairavi, Amruta Varshini, Mayamalavagoula, Sahana, Kamboji, Hari Kamboji, and more. I can't remember all the ones that I know, but I think I know at least 15.
7. I have learned all the geethams and 10+ varnams. I have also learned around 8 keerthanas. So, I would say I know at least 30 songs.

Ragas

1. Revati: I listened to the song Bho Shambo and it gave me a feeling of strength.
2. Shankarabaranam: I listened to the varnam, which I also know how to sing, and it made me feel happy.
3. Mohana: I listened to the varnam, which I also know how to sing, and it gave me a feeling of happiness.
4. Mayamalavagoula: I listened to Devi Sri Tulasamma and it gave a soothing effect and a sense of peace.
5. Vasantha: I listened to the varnam, which I also know how to sing, and it made me feel happy.
6. Kalyani: I listened to the varnam and it made me feel satisfied.

Paragraph

I really liked Carnatic Music from the second grade when I listened to the song Bho Shambo. The song made me feel like I had a sense of pride and this inspired me to learn Carnatic Music. The songs that I particularly like are the ones that give me focus. This usually tends to be the songs that are peaceful or sad because those have the lower notes and I feel as if that provides me with focus. The ones that are happier are more upbeat and have the higher notes, which I don't find as pleasing. I also don't find the happier songs easier to sing due to the higher notes.

Demographics

I am in 11th grade, and I am 15 years old. I have learned Carnatic Music for 8 years. My grandmother has learned music, and my family follows Carnatic Music. My brother learns the Miruthangam. I don't perform, but I also learn western violin.