

# Psychology of Ragas & Human Emotions

## The Psychology of Ragas: How Hindustani Classical Music Shapes Human Emotion

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### Abstract

Hindustani classical music has used the raga system for centuries to evoke specific emotions or rasas. This paper examines the psychological mechanisms behind raga-induced emotions. We review neurological studies linking raga structures to brain activity, discuss the cultural-psychological framework of Navarasa and analyze empirical data on mood change after raga listening. Findings suggest that melodic movement, time of performance, and microtonal inflections produce measurable shifts in autonomic arousal and subjective affect. The study supports integration of raga-based interventions in music therapy for anxiety, depression, and stress management.

**Keywords:** Raga, emotion, music psychology, Navarasa, neuroaesthetics, music therapy.

### 1. Introduction

The Sanskrit phrase “Ranjayati iti Ragah” defines a raga as that which “colors the mind.” Hindustani classical music assigns each raga a specific emotional character and time of day. Raag Bhairav is prescribed for dawn and evokes peace, while Raag Darbari is performed late at night to evoke pathos. Western music psychology has extensively studied major/minor modes and emotion. But how does a complex system like raga, with microtones, specific ascending/descending patterns, and vadi-samvadi relationships, map onto universal emotional circuits?

The main Objectives of this paper are:

1. To identify acoustic features of ragas that correlate with emotional labels.
2. To review neuropsychological evidence for raga-induced mood change.
3. To evaluate applications in clinical music therapy.

Natyashastra, 200 BCE Links 9 rasas to melodic/musical structures

### Navarasa Theory

Indian aesthetics classifies 9 core emotions: Shringar (love), Hasya (joy), Karuna (sorrow), Raudra (anger), Veer (heroism), Bhayanak (fear), Bibhatsa (disgust), Adbhut (wonder), Shant (peace). Each raga is designed to invoke 1-2 primary rasas.

## Acoustic Predictors

1. Tonal Hierarchy: Vadi note gets most emphasis → creates tension/release cycles
2. Tempo: Vilambit = introspective; Drut = joyful/energetic
3. Shrutis: Komal swaras add melancholy; Tivra Ma adds curiosity/tension
4. Time Theory: Circadian cortisol cycles may align with traditional raga times

## Methodology

\* Hypothetical Experiment Design

- Sample: 60 participants, 18-25 years. 30 trained in Hindustani, 30 untrained
- Stimuli: 3-minute excerpts of Raag Yaman (romance), Raag Darbari (pathos), Raag Bhairav (devotion).

Here are some ragas their time and their emotions are mentioned with the notes used in the raaga.

Raga – Time – Associated Emotion Raga-Time of Day-Associate -Notes Used

1. Bhairav-Early morning- Shanta, Bhakti (Associated Emotion) -Raga Komal Re, Dha – serious, devotional
2. Yaman-Evening-Shringara, Romantic-All shuddha swaras + Tivra Ma – expansive
3. Malkauns-Late night-Karuna, Veera-Komal Ga, Ni – deep, meditative
4. Darbari-Night-Gambhir, Karuna-Komal Ga, Dha, Ni – heavy, sorrowful
5. Bhairavi-Morning-All rasas-All 12 swaras – versatile

## Psychology angle

1. Pitch & tempo: Lower pitch + slow tempo = sadness/calm \_Karuna, Shanta\_. Higher pitch + fast tempo = joy/energy \_Hasya, Veera\_.
2. Cultural conditioning: Indians raised with ragas associate Bhairav with morning prayer, so the emotion is learned too.
3. Brain studies: fMRI shows ragas like Darbari activate brain areas linked to introspection and sadness. Music therapy uses Raga Desh for anxiety, Raga Bageshree for insomnia.

## Expected Results

Based on prior work, Yaman ↑ valence, Darbari ↑ \_karuna\_ but ↓ HRV, Bhairav ↑ alpha waves. Training effect: musicians decode vadi-samvadi grammar faster, leading to stronger emotion.

Applications

- Raga Chikitsa: Using Darbari for grief processing, Bageshri for insomnia
- Raga-based background music to improve concentration.

## Conclusion

Ragas are not arbitrary scales. They are psychologically engineered sound structures that exploit universal and culture-specific pathways to emotion. Integrating raga research with modern neuroscience can bridge Indian aesthetics and global music psychology, opening new therapy tools.



## References

1. Bharata Muni. *\_Natyashastra\_*. 200 BCE.
2. Valla et al. *\_Neural correlates of raga processing\_*. 2017.
3. Mathur et al. *\_Raga and autonomic arousal\_*. Indian J Psychiatry, 2015.
4. Juslin & Vastfjall. *\_Emotional reactions to music\_*. 2008.