



Comparison of Jāti in Hindustani and Carnatic Taal System

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Abstract- Jāti is a distinct concept of Indian classical music. Jāti is one of the 10 Prāṇa of Taal that deals with the changing patterns of rhythmic meter subjected to change of the Aksharkāl in one matra of a given taal in North Indian or Hindustani system. However, this phenomenon of altering the Jāti of a certain taal is achieved through a particular way in the Carnatic Sapta Suladi Taal system which is different from that of Hindustani Taal system. This study aims to examine the concept of Jāti in the Hindustani taal and Carnatic taal systems. The paper shall compare how Jāti is defined, categorized, and used in both traditions, focusing on its role in the construction of rhythmic patterns and their application in performances. The methodology involves analysing the classification of Jāti in each system, including the number of matrās and vibhāg in Hindustani Taal system, as well as the rhythmic patterns derived by alterations in the Laghu of the Carnatic Taal system. Data collection for this study involves gathering information through relevant books and other textual sources from academic libraries to explore the key themes. The findings shall highlight similarities and differences in the treatment of Jāti, such as its flexibility in Hindustani music versus its more structured use in Carnatic music. The study shall conclude by emphasizing the importance of Jāti in maintaining rhythmic integrity and enhancing the musical expression in both classical traditions, shedding light on their unique approaches to rhythm and musical form.

Keywords- Carnatic Taal system, Comparative Analysis, Hindustani Taal system, Jāti, Taal Das Prana.

I. Introduction

Taal forms the foundational framework for rhythm in Indian classical music. Taal plays the most significant role in composition of music. It is the measure of time in music done through the help of a particular set of beats arranged to run in a cyclic order. As per Indian musicology, the essence of a Taal lies in its 'Das Pranas' i.e. the ten attributes that contribute to its formation and practice. The 10 Pranas of Taal include 1. Kaal 2. Marga 3. Kriya 4. Anga 5. Graha 6. Jaati 7. Kala 8. Laya 9. Yati 10. Prastaar.



In the present scenario, Indian classical music is broadly divided into two major systems: Hindustani music of Northern India and Carnatic music of Southern India. While both systems share common ancient roots in Sanskrit treatise such as the Nāṭyaśāstra, they have evolved distinct theoretical frameworks and performance practices over time. It can be argued that the Carnatic music system as being closest to the original traditions of Indian musicology, as it has largely preserved its structure and aesthetic without significant foreign influence, unlike Hindustani music system.

II. Jāti in Carnatic Tāla and Hindustani Systems with Reference to Tāla Daśa Prāṇa

The theoretical framework of tāla in Indian classical music is deeply rooted in ancient Sanskrit musicological literature, particularly through the concept of Tāla Daśa Prāṇa, or the ten vital elements of rhythm. Jaati is the 6th Prana of Tāl. It can be literally referred to as a “kind” or “type.” The five classified jātis are as follows—

Tiśra (3), Catuśra (4), Khaṇḍa (5), Miśra (7), and Saṅkīrṇa (9)

In Carnatic music, jāti refers specifically to the value of laghu, forming the basis for taal structure where jāti has a precise and systematic definition. It denotes the number of akṣaras (beats) in the laghu, and serves as a core principle in the Sapta Sulādi Tāl system, which is system of seven tāls, Dhruva, Maṭhya, Rūpaka, Jhampa, Tripuṭa, Aṭa and Eka.

The Seven Talas and their basic structures:

Tāla	Symbolic Structure	Components
Dhruva Tāla	O	Laghu + Dhrutam + Laghu + Laghu
Matya Tāla	O	Laghu + Dhrutam + Laghu
Rūpaka Tāla	O	Dhrutam + Laghu
Jhampa Tāla	U O	Laghu + Anudhrutam + Dhurutam
Tripuṭa Tāla	O O	Laghu + Dhurutam + Dhurutam
Aṭa Tāla	O O	Laghu + Laghu + Dhurutam + Dhurutam
Eka Tāla		Laghu



These seven basic tālas combine with the five jātis to generate 35 tāla variations. Since each of the seven tālas can occur in five different jātis, the Sūlādi Sapta Tāla system yields 35 tālas ($7 \times 5 = 35$).

For example, Miśra Jāti Rūpaka Tāla has a structure of $O | = 2 + 7 = 9$ akṣaras, while Caturasra Jāti Tripuṭa Tāla has $| O O = 4 + 2 + 2 = 8$ akṣaras, which corresponds to the widely used Ādi Tāla. Likewise, the basic structure of Jhampa Tala is $| U O$ i.e. Laghu + Anudhrutam + Dhrutam. Thus, by changing the value of Laghu to 9 the total number of akṣaras will become $9 + 1 + 2 = 12$. This is how jāti is implemented in the Carnatic tāla system.

In contrast in the Hindustani taal system, jāti is often associated with the metrical groupings of beats or syllabic patterns. Rhythmic classification is based on mātrā (beat count), vibhāg. Every Tāla is sectioned into multiple vibhāgas which consist of mātrās (beats). The akṣarakāla of each matra is altered as per the jāti to accommodate the said number of akṣaras or bols. This creates the variation in the rhythm. Here is an example of a Paran that shows all the five jātis in a single Bandish. The Paran is Chakradhaar in nature, which means it repeats itself thrice to reach the Sam.

[Dhati teDha dhite Dhadha |
Tite Dhadha Kradha tite |
Dha SS Takka Dhikite |
Digana Nagana Takite DhaSn |
DhaS Tagena Takataka Takite |
Takadimi Takite Takadimi DhaS |
Kitetaka Dignana Kitetaka TakiteDhi |
kiteTaka DhatrikaDhi kiteTaka DhaS |
Takadhikite Dhikitetaka Dhikitetaka Takitethun |
DignanaSn TakiteKran DhaS Takdhikite |
Dhikitetaka Dhikitetaka Takitethun DigananaSn |
Takitekra DhaS Takdhikite Dhikitetaka |
Dhikitetaka Takitethun DigananaSn Takitekran |
DhaS ...] 3 times

In this composition, we can clearly see how the rhythmic pattern of syllables alter subject to the corresponding jāti. Hindustani Taal system, jāti is predominantly shown through such compositions that render rhythmic variations through patterns of aksharas arranged befitting the intended jāti. Sometimes it can even be a combination of one or more jātis.



Now, if we were to examine theoretically, this deviates from the accurate representation of jāti as mentioned in the ancient texts. While both Hindustani and Carnatic traditions share a common historical foundation, the role of jāti has evolved differently. In Carnatic music, jāti remains a fundamental theoretical and practical tool for tāla classification and its rhythmic alteration, whereas in Hindustani music, it becomes a medium of showing rhythmic variations in compositions without altering the tāla itself. The Carnatic interpretation of jāti becomes clearly systematized in a precise quantitative function to jāti by defining it as the number of akṣaras in the laghu, while Hindustani musicological literature reflects a gradual shift away from strict Daśa Prāṇa-based classification.

Objective

The objective of this research is to show the clear distinction of the Jāti applied in the Hindustani as compared to the Carnatic Tāla system. And in turn reach to the conclusion that jāti as applied in the Hindustani Tāla system deviates from the authentic theoretical definition of jāti as stated by the ancient musicological texts of Indian Classical music.

III. Methodology

The present study adopts a comparative framework for the qualitative analysis of the concept of jāti within the Hindustani and Carnatic Tāla systems focusing on theoretical interpretation and comparison, with particular reference to the concept of Tāla Daśa Prāṇ. The comparative analysis method forms the core of this research and is applied by comparing how jāti is defined in both the traditions analysing its functional role in tāla construction and its presentation.

This research relies exclusively on secondary data drawn from both primary textual sources and secondary scholarly literature. The texts are analysed to understand the original conceptualization of jāti and its placement within the Daśa Prāṇa system. The Secondary sources include scholarly books on Hindustani and Carnatic music as well as commentaries and translations of Sanskrit texts. The procedure of analysis in the present study follows a systematic and comparative approach beginning with the identification of jāti as one of the Tāla Daśa Prāṇas through the study of classical musicological treatises. The study then analyses the Carnatic tāla system as per the Sapta Sulādi Tāl system to understand the role of jāti in tāla classification, with the alteration of the laghu. Subsequently, Hindustani tāla structures are examined to assess their functional approach to rhythm and to evaluate the practical relevance of jāti within that tradition. A comparative framework is thereafter constructed to systematically highlight the similarities and differences between the Hindustani and Carnatic



perspectives on jāti. Finally, the findings are interpreted in the to explain the divergent theoretical and practical roles of jāti in the two Indian classical music traditions.

IV. Results and Discussion

Analysis of classical treatises, particularly Śārṅgadeva's Saṅgīta Ratnākara, confirms that jāti is explicitly identified as one of the ten Tāla Daśa Prāṇas. Within this framework, jāti is presented as a principle related to rhythmic classification and organization. The results indicate that in early unified musicological thought, jāti was conceived as an important conceptual element contributing to the understanding of rhythmic structure, though its practical application was not rigidly standardized. The findings suggest that both Hindustani and Carnatic traditions inherit jāti from this shared theoretical foundation. However, the degree to which this concept was retained and implemented differs significantly in later developments.

Jāti as Theory vs Practice

The findings highlight a broader difference between theoretical continuity and practical adaptation. In Carnatic music, jāti bridges theory and practice while in Hindustani music, although the theoretical underpinnings of rhythm remain intact, practical emphasis shifts toward expressive improvisation.

The study reveals that in the Carnatic tradition, jāti acquires a clearly defined and quantifiable structural role. Venkaṭamakhin's Caturdaṇḍī Prakāśikā establishes jāti as the determinant of the number of akṣaras in the laghu, forming the basis of the Sulādi Sapta Tāla system (Venkaṭamakhin, 2006). The identification of five jātis -Tiśra, Catuśra, Khaṇḍa, Miśra, and Saṅkīrṇa, allows for systematic tāla classification. Examples such as Catuśra-jāti Tripuṭa(Ādi Tāla) and Miśra Jāti Rūpaka Tāla demonstrate the practical application of jāti in defining tāla structure. The results show that jāti remains integral not only to tāla theory but also to compositional design and advanced rhythmic improvisation in Carnatic music.

In contrast, in the analysis of Hindustani tāla practice Jāti indicates the number of aksharas consisted in a single beat count i.e. Matrakāl as the Hindustani tālas are organized around mātrā count and vibhāga division. Hence, the application of Jati can be seen as a type of rhythmic progression in a tāla. Since, unlike in Carnatic system the Hindustani Talas do not change their original structure, the variation in Jati is shown through Bandishes in which the aksharas are grouped together corresponding to the value of the Jatis and not by changing the value of laghu, it cannot be stated accurate as per the directions of the ancient texts.



This technique can be identified as Gati, in reference to the Tāla Daśa Prāṇa theory. According to the traditional conception of the Daśa Prāṇas, Gati shapes the rhythmic flow of a tāla and contributes to its overall aesthetic character.

The term Gati literally means "movement," "course," or "mode of progression." In the context of rhythm, it refers to the manner in which time (kāla) progresses through the units of a tāla, thereby determining the flow and character of rhythmic movement. Śārṅgadeva explains that gati is the rhythmic movement produced through the succession of time units. It governs the manner in which the beats of a tāla are traversed and gives the rhythm its distinctive pace. Unlike laya, which denotes the overall tempo, gati concerns the internal movement and rhythmic progression within the tāla. Thus, Gati serves as the vital principle governing the rhythmic motion of a tāla, contributing to both its structural integrity and aesthetic expression. Laya answers the question of How fast is the music? While Gati answers the question of How does the rhythm move within that speed?

Summary of Key Findings

The study establishes that:

- Jāti is applied differently in the Carnatic and Hindustani tāla systems.
- In the Carnatic Sapta Suladi Tāla system, jāti is expressed by varying the numerical value of the Laghu aṅga, while retaining the basic theoretical definition of jāti as described in the classical texts.
- In Hindustani music, however, the practical application of jāti follows a different approach and does not correspond directly to its textual definition in the traditional treatises.
- The Hindustani approach is more closely associated with the concept of Gati, as it primarily concerns variations in the subdivision and movement of rhythmic units rather than the structural variation of the tāla through jāti.

V. Conclusion

The comparative examination of jāti in the Carnatic and Hindustani tāla systems reveals that, although the term is common to both traditions, its practical interpretation and application differ considerably. In the Carnatic system, particularly within the Sapta Suladi Tāla framework, jāti retains a clear structural function. It is expressed through the variation of the Laghu aṅga. The fundamental theoretical understanding of jāti remains consistent with its description in classical treatises. Thus, the Carnatic system demonstrates a relatively direct relationship between the textual concept of jāti and its practical application.



Contrastively, the Hindustani tāla system reflects a gradual shift from theory-based classification to performance-oriented practice. It does not occupy a functional role in contemporary Hindustani rhythm. rhythmic variation in Hindustani practice is more commonly understood through concepts such as Gati, which relate to the subdivision, movement, and distribution of rhythmic units within the tāla. Consequently, what may be identified as jāti at the theoretical level is often manifested in practice through processes that are closer to the functional idea of Gati. This indicates a gradual shift in the practical interpretation of the concept as it developed within different musical traditions.

The key result of this study is the identification of jāti as a point of divergence rather than convergence, reflecting differing approaches to rhythmic organization and theoretical preservation.

In conclusion, this research affirms that Tāla Daśa Prāṇa provides a unifying theoretical foundation, while the treatment of jāti reveals the dynamic nature of Indian classical music traditions. Overall, the comparison highlights the distinction between the theoretical meaning of jāti and its practical manifestation across the two systems. While the Carnatic tradition preserves jāti as a structural principle within the tāla framework, the Hindustani tradition demonstrates a diverse approach, where rhythmic subdivisions are associated more closely with Gati. These differences reflect the diverse historical and aesthetic development of Indian rhythmic traditions and demonstrate how concepts originating in the classical theoretical literature have been interpreted and adapted according to the requirements of different musical practices over time. Thus, by focusing on jāti as a comparative element, the study contributes to a deeper understanding of rhythmic thought in Indian musicology and opens avenues for further research into other Daśa Prāṇa elements, performance practice, and contemporary cross-traditional pedagogy.

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