

The Implied Samvadtva in Carnatic Music

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The concept of vadi - samvadi is as ancient as Indian Music theory. Vadi is the strong note or the Amsa. In the 22 sruti system, a note at 9th or 13th sruti position from the vadi is the samvadi (implying a sa-ma or sa-pa relationship) In the system of 12 notes for an octave this would imply a fifth or seventh note. Thus in Carnatic System panchamam and suddha madhyamam are samvadi to shadjam, panchamam and chatusruti dhaivatam are samvadi to chatusruti rishabham and so on. Instrumentalists can see the relationship easily on pairs of strings.

In Hindustani music the raga definition invariably includes the vadi and samvadi notes. Two ragas with identical scales could be differentiated by the vadi, samvadi notes. However in the South Indian Carnatic music system, in the current usage, vadi-samvadi notes are never referred to in defining a raga, although the concept of 'jeeva swara' is used. Does this mean that this important aspect of musical development is ignored in the South? The purpose of this article is to suggest that it is not so and that the usage of the sa-ma or sa-pa relationship is strong in Carnatic music but is not mentioned explicitly

In Carnatic music the relationship between pairs of notes (rather than a note being strong and another supporting it) is important. The use of samvadi relationship in Carnatic music could be seen in two contexts.

(1) Phrase based samvadtva which is very significant as carnatic music is heavily phrase oriented. This could be further divided into (a) Usage of pairs of typical phrases of 3 or 4 notes - the entire phrase pairs (including the way notes are imparted gamakam) being related in sa-pa or sa-ma fashion, which I would like to call 'phrase samvadtva' (b) Special prayogams in ragas not indicated by the normal definition of arohanam and avarohanam influenced by phrase samvadtva.

(2) Note based samvadtva is reflected in (a) wider usage of Ragas where many pairs of such note occur and (b) usage of similar gamakams in pairs of notes with sa-ma or sa-pa relationship. The use of gamakam can even make some pairs non-samvadi even though theoretically the straight notes are having sa-ma relationship. An example would be suddha rishabham and prati madhyamam. The note suddha rishabham is oscillated upwards from shadjam while prati madhyamam is oscillated downwards from panchamam, thereby the relationship becomes very weak while prati madhyamam continues to have the pa-sa relationship with kakali nishadam which is oscillated with Sa.

Phrase based samvadtva: (a) Innumerable examples may be cited for this, starting with Mayamalavagowla in which beginner's lessons are taught. The corresponding notes in the phrases 'sa ri ga ma' and 'pa da ni Sa' are not only related as sa - pa but the

entire movement of one phrase could simply be transposed to get the other phrase. Other examples would be 'sa ri ga ma'/'pa da ni Sa' in Thodi and Kharaharapriya. In Kalyani 'ri ga ma pa' and 'pa da ni Sa' are related as 'sa ma' . There is strong similarity in the phrases 'pa da ma' and 'Sa Ri ni' in Pantuvarali.(thereby change of the madhyamam of Mayamalavagowla creates a new samvadi relationship). In Janya ragas Arabhi the way 'ma ga ri' and 'Sa ni da' are held (crushing the ga and ni).are very similar so much so it is not uncommon to hear kalpana swaram 'ma ga ree-Sa ni daa-Ma Ga Ree' (I am using capitals to denote tarasthayi). The Oduva ragas Mohanam, Suddha Saveri, Suddha Dhanyasi and Hindolam have many such pairs.- in Mohanam 'ri-ga-pa' and 'pa-da-Sa' , in Suddha Saveri sa-ri-ma and pa-da-Sa, in Suddha Dhanyasi sa-ga-ma and pa-ni-Sa and in Hindolam sa-ga-ma and ma-da-ni. Except in the last case the gamakams on the corresponding notes are also similar. The pair 'nee da pa' and 'maa ga ri' in Begada, 'ga gaa ri sa' and 'ni nee da pa' in Darbar are also worth mentioning.. (In the above I have not mentioned Sankarabharanam where theoretically 'sa ri ga ma' and 'pa da ni Sa' are related as sa-pa the way the corresponding notes ga and ni, ma and Sa are held is not the same. There is similarity only in the gamakams on ri and da.. However, the phrases using the gamakam khandippu in Sa (da) pa- pa (ga) ree: are similar.) Other examples are Saveri 'sa ri ga ri' and 'pa da ni da' and Surati 'ni ni da pa' and 'ma ma ga ree'.

(b) Special prayogams not indicated by arohanam-avarohanam definition and use of anyaswarams: In Saranga the frequent use of 'Sa da pa' omitting nishadam is perhaps due to the influence of (ri ga) ma* ri sa (with the anyaswaram suddha madhyamam which is very strong in this raga). In the same raga in the kriti Arunachala natham as given in Sangeetha Sampradaya Pradarsini there are "Sa ni\pa' prayogams with jaru symbol connecting ni to pa. Obviously this is the influence of 'pa ma \ree', the two phrases being related as pa-Sa. In Kambodi the jump from ga to pa in 'ma ga pa' is probably the influence of the jump da-Sa. In the same raga the descent to sa from ga is related to the descent from ni* to pa. The phrase 'sa ri ma' occurs in 'Taraka simha mukha' in the kriti 'Sri Subrahmanyaya' and also in the Adi tala varnam.. The phrases 'sa ri ma' and 'pa da Sa' are related as sa-pa. The use of anyaswarams ga* and ni* in Anandabhairavi in the phrases 'ma ga* ma' and 'Sa ni* Sa' is another example. These pairs of phrases are also used in Kapi with the same anyaswarams. In Natakuranji the descent from da to ma which is part of the avarohanam definition induces a descent from ga to sa though the later is not a part of the definition. In fact the Adi tala pada varnam 'Chalamela' starts with 'maa gaa saa..' and is full of 'ma ga sa' prayogams.

Historical: In the original 'suddha' scale in shadja grama sa-pa, ri-da, ga-ni and sa-ma were samvadi pairs In the madhyama grama where pa lost one sruti ri-pa became samvadi pair.. However, in Bharata's Natya Sasthra, prose part after verse 24 in Chapter 28, ni was described as 'anuvadi' (assonant) to ma and not as samvadi even though the rule of 9 srutis was applicable. (vide extract at the end of this article)

Though the concept was applied for individual note pairs, the omission of ma -ni from samvadi pair and mentioning it under anuvadi, could imply that not only an interval of 9 or 13 srutis was required but the sruti of the notes (from the preceding note) should also be equal (samasrutikatwa - mentioned in Brihaddesi) Ni is dvisruti (2 srutis from preceding da) while ma is chatusruti (4 srutis from the preceding ga) and this could

have led to not treating them as samvadi pairs. Later authors did not put this condition. It has also been hypothesized that the full octave used in Gandharva music was developed by joining the 4 notes of RigVeda with another 4 notes raised by a sa-ma or sa-pa relationship and spaced in such a way that an octave is covered

Both these suggest the possibility of samvadtva of not only individual notes but whole phrases and this becomes important in Carnatic Music which is heavily phrase oriented. Such a concept does not imply a vadi or strong note but a relationship between sets of notes or phrases as described above.

Note based samvadtva

The carnatic music Melams No. 20 (NataBhairavi), 22 (Kharaharapriya), 28 (Harikambodi) and 29 (DheeraSankarabharanam) have the largest number of janyams in wide use. These 4 melams and melam 8 (HanumatThodi) and 65 (MechaKalyani) can be arrived at by modal shift of tonic (or Graha Bedam) from one another. Melam 29 corresponds to the white notes of a keyboard. In these scales every note has at least one another note having sa-pa or sa-ma relationship. In these scales there are 6 pairs of notes related as sa-ma or sa-pa. Further except for one note others have a second note also with samvadi relationship. For instance the pairs in Melam 29, sa ri, ga, pa, da and ni have 2 samvadi notes each. Only ma is left with a single samvadi i.e. sa. Its other samvadi would be kaisiki nishadam not present in this scale. The existence of such large pairs of consonant notes has obviously been the reason for the extensive use of these scales. It appears that a note wants 'support' from its samvadi (Hanumathodi seems to be an exception on account of the special manner in which its notes are held in Thodi raga and has limited number of popular janya ragas).

In janya ragas the 5 ouduva ragas Mohanam, Madhyamavathi, Hindolam, Suddha Saveri and Suddha Dhanyasi (which could be arrived at from one of them by modal shift of the tonic), three notes have two samvadis and two notes have one samvadi. Not only are these popular but many other janaka ragas have the same arohanam but add more notes in the avarohanam - again pairs having sa-ma or sa-pa relationship. Prayogams like 'Saa Ri daa Sa paa da gaa pa ree' in Mohanam emphasize the jumps Ri-daa, Sa-paa, da-gaa, pa-ree which have ma - sa relationship.

The converse of this is the fact that ragas where a note is without a samvadi are not popular or not even used especially when this note is not close to a note from which it can be oscillated. The melams Namanarayani and Vakulabharanam could be cited as examples. In the former ni has no samvadi and in the latter ga has none. However, in some ragas like Malayamarutham (sa ri ga pa da ni Sa) with kaisiki nishadam and without suddha madhyamam or sadharana gandharam are in use. Here the ni is oscillated from the lower strong da which supports it. Among janyams Revathi with 'sa ri ma pa ni Sa' is popular but if we substitute chatusruti dhaivatam for ni, the result 'sa ri ma pa da Sa' with chatusruti dhaivatam is not used. If suddha dhaivatam is used instead of chatusruti dhaivatam the raga is (Karnataka) Suddha Saveri used by Deekshitar and the corresponding Ouduva-Sampurna raga Saveri is very popular. The raga 'sa ri ga pa ni Sa' with kaisiki nishadam (called Veenavadini and uses same notes as Hamsadhwani except for ni) is also not popular as ni has no samvadi, while

Hamsadhvani, with kakali nishadam which has pa-sa relationship with ga is very popular. The samvadtva relationship could explain why thousands of ragas possible by omitting different notes from (even common) melams are not all used in practical music.

Thus though not explicitly mentioned in raga definition, the samvadtva relationship is widely used in Carnatic Music. Musicians make use of them to add beauty to their manodharma music - in Alapana and Kalpana Swaram singing.

(Note: In discussing the relationship a 12 note scale has been assumed. If we strictly go by frequency ratios we cannot always get the 3/2 or 4/3 relationship with only 12 frequencies. But in common practice, the usage of gamakam and janta notes enable the consnance to be maintained.)

(Prose part in Natya Sastra on vivadi and anuvadi, Chap-28 after verse 24)

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वादिसंवादिविवादिषु स्थापितेषु शेषास्त्वनुवादिनः, ङ अनुवादिसंज्ञकाः यथा -
षड्जस्यर्षभगान्धारचैवतनिषादाः, ऋषभस्य मध्यमपञ्चमनिषादाः, गान्धारस्यापि
मध्यमपञ्चमचैवताः, मध्यमस्य चैवतपञ्चमनिषादाः, पञ्चमस्य । चैवतस्य
षड्जमध्यमपञ्चमाः षड्जग्रामे । मध्यमग्रामेऽपि मध्यमस्य चैवतनिषादर्षभ-
षड्जगान्धाराः, पञ्चमस्य चैवतनिषादर्षभगान्धाराः, चैवतस्य षड्जरषभगान्धाराः,
निषादस्य षड्जरषभौ, षड्जस्यर्षभगान्धारौ ।।ट तत्र वदनाद्वादी, संवदनात्संवादी,