1.0 INTRODUCTION

One of the most quoted definitions of Yoga is *'yujyate anena iti yogaḥ'*. Here, *'Yuj'* in Sanskrit means 'to Yoke' or to unite. Here it refers to the union of the *jīvātmā* (individual soul) with the *paramātmā* (the supreme soul). Music in it true sense is said to be the union of *shruti* and *laya.* The perfect union of *shruti* and *laya* renders the listeners in a meditative trance provided they submit themselves to the music. Flow experiences (Csikszentmihalyi, 1990) are quite common in music practise, performances and composition. The novel construct introduced in this study focuses on an individual's experience listening to a given piece of music; the focus is on how he internalizes a given piece of music. 'Flow' experiences may occur quite often when an individual internalizes a given piece of music to a great extent.

In this study, we proposed and developed a construct, Music Receptivity and further constructed a psychometric instrument called Music Receptivity Scale (MRS). Music receptivity and *musicality* are closely related, yet different constructs. The difference being that, the former is a state and trait construct whereas the latter is purely a trait construct. Even though, music perception potentially induces affective processes, music perception is inherently and predominantly cognitive in nature whereas, music receptivity is inherently and predominantly affective and has associated cognitive processes. Music receptivity is the measure of the extent of internalization that an individual has, while listening to a given piece of music, as measured at the point of listening. The 'extent of internalization', is indeed difficult to quantify. Unlike music perception, where different physical features of music can have identifiable thresholds and ranges, music receptivity follows a psychological continuum, varying from a lower degree to a higher degree of receptivity. This differential receptivity may have direct implication in employing music as therapy and in rehabilitation of various ailments and traumatic conditions. To the same piece of music, one may have different music receptivity levels at different times. Music receptivity is hence both a state and trait construct. i.e., generally, if a person has a particular amount of internalization to a piece of music at a time, it is possible that he may have almost the same amount of internalization to that piece of music when he listens to that at any later point of time. Therefore, it can be used in music therapy settings very much like

how a trait measure is used, unless the individual's mood/emotional state varies too much over that particular period of time which is of clinical interest.

1.1 Music Receptivity: Operational definition of terms

Music Receptivity is defined as the measure of the extent or depth of internalization that an individual has, to a given piece of music, while listening to it, as measured at the point of listening. In the context of music receptivity, internalization may be explained as: Music is an external entity, separate from the individual listening to it. The extent or depth to which this external entity is taken in/absorbed by the individual listening to it; or the extent to which an individual becomes one with the music/resonates with the music. Music receptivity constitutes of five domains. They are attention, interest, lyrical appraisal, emotional experience and hurdles.

1. Attention: The ability of an individual to focus efficiently to a given musical stimuli, at the point of listening, in the presence or absence of external/internal disturbances or hurdles.

2. Interest: This comprises of both state and trait interest. State interest is when someone listens to a music piece and finds it novel in one or the other way or when he develops a sudden liking, be it for any reason. This is quite similar to *situational interest. Situational interest* is elicited by aspects of an object or a situation, such as novelty or intensity, or by the presence of interest-inducing factors, contributing to the attractiveness of the situation (Krapp, 1999; Tobias, 1994). Trait interest is very similar to the idea of *musical identity.* The development of people's musical identities begins with biological predispositions towards musicality, and is then shaped by the people, groups, situations, and social institutions that they encounter as they develop in a particular culture (Hargreaves et al., 2002). Music Receptivity of an individual to any given piece of music may be strongly mediated by the individual's *musical identity.*

3. Lyrical appraisal: The extent to which an individual understands and appreciates the lyrical content in a given piece of music. One may have high interest towards lyrics, if he appraises it to be meaningful. Otherwise, low interest, or that ranging anywhere in between suffices. Some people by default are ones who appreciate a song if its lyrics are meaningful.

4. Emotional experience: The sum total of all the feelings and emotions evoked through the cognitive and affective processes occurring in an individual while he listens to a given piece of music. Juslin & Vastfjall (2008) proposed a theoretical framework featuring six psychological mechanisms of emotion induction through music - (1) *brain-stem reflexes*, (2) *evaluative conditioning*, (3) *emotional contagion*, (4) *visual imagery*, (5) *episodic memory* and (6) *musical expectancy*. They suggest that these mechanisms, along with *cognitive appraisal* can explain most emotions induced by music in everyday life (Juslin & Vastfjall, 2008).
5. Hurdles: Internal and/or external distractions or difficulties that one may face while listening to a given piece of music. Internal distraction can be mental distraction and/or bodily distraction. Mental distractions can be owing to intrapersonal communication i.e., mind-wandering, day-dreaming, etc. One may start mind-wandering for various reasons-Owing to lack of interest in the music being played, due to him having low ability to focus- general lack of attentive ability or while listening to a song, a word or a line in the song might catch the fancy of an individual listening to it and he may start mind-wandering through a train of thoughts triggered by that word or line. Bodily distractions or difficulties are such as - an individual having a bad headache, nausea, stomach pain, uncomfortable posture, etc. while listening to music. External distraction are essentially physical distractions e.g., sound of a passing vehicle honking very loud, someone interrupting the individual listening to music, etc.

1.2 How is music internalized?

When an individual is listening to music, he actively or passively perceives music (Music Perception). There is a state of mind or a mood state in which a person is in, just before he starts listening to a piece of music. Let us call it the baseline mood state. This baseline mood state of an individual may or may not change while he listens to music. In case where his mood state changes or gets enhanced owing to him listening to music, it happens because the powerful medium that is music, modulated his mood state and transformed it into another mood state or enhanced the existing mood state. This is *mood modulation* (Bleyle, 1992). Say, Music Receptivity is conceptualized to have three potential levels or extents of internalization: Low, Average and High. Without mood modulation occurring, high music receptivity may

not happen. Mood modulation may be mediated by the *musical identity* of the individual. Variations in mood modulation may result in variations in music receptivity. Fig. 1 shows two major pathways that leads to various levels of internalization of music – Top and bottom pathway.

1. Top pathway: Processes occurring through the top pathway is the one through which high music receptivity suffices. When an individual is listening to a piece of music and the music is in synchrony with his musical identity, mood modulation may occur and this leads to higher degree of psychological processes*. This may eventually lead to higher-order mind body responses and all of these results in high music receptivity. In this case, interest, attention and emotional experience may be high. Lyrical appraisal may be high if he appreciates the lyrics of the piece of music.

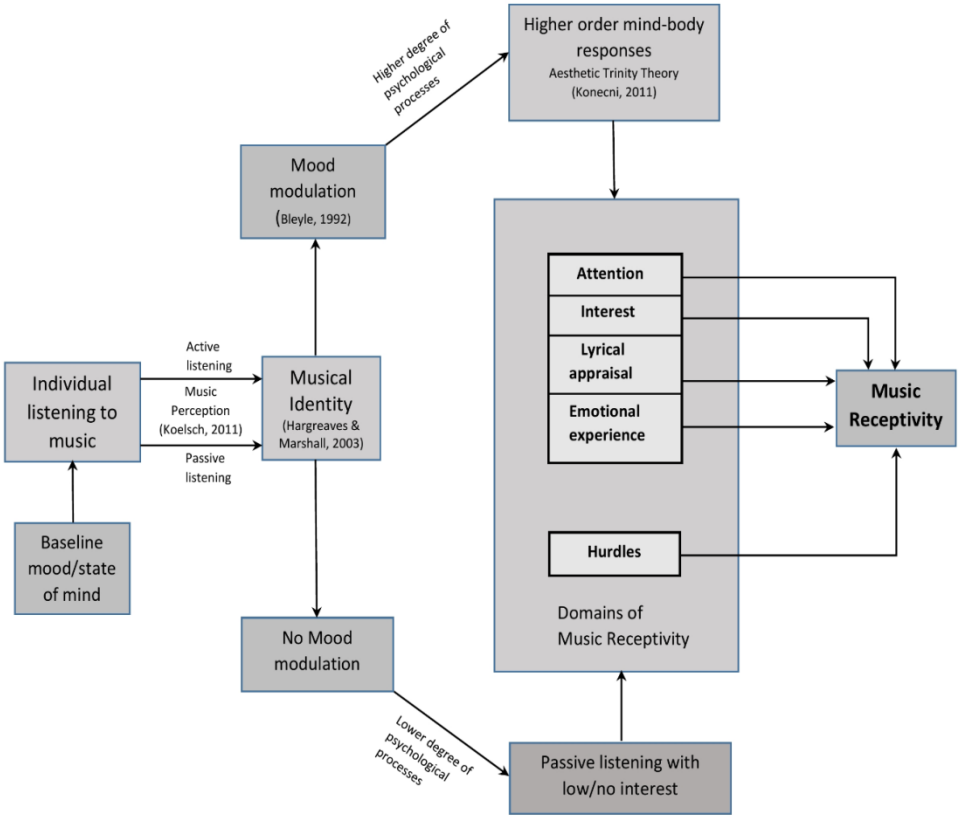

Fig 1: Conceptual framework of music receptivity

Hurdles maybe overcome to a certain extent as the music receptivity of the individual is high. Please note that, even if one has high music receptivity and one experience higher order mind-body responses, still if the music transitions

away from his musical identity, then the music receptivity may reduce. Transition can happen from the top pathway to bottom or vice-versa.

2. Bottom pathway: When an individual listens to a piece of music and the music does not correspond to his musical identity, mood modulation does not occur. The interest, attention, emotional experience, lyrical appraisal may all be minimal. Psychological processes may be low and what ensues is passive listening with low/no interest. This leads to low or average music receptivity.

*By the term higher or lower degree of psychological process we mean: a cumulative of both the number of psychological processes and their intensities.

Also, note that transition can happen anytime from one path to the other depending on how much the music is in synchrony with the musical identity of the individual. Mood modulation may always be associated with higher degrees of psychological processes and may lead to higher order mind-body responses such as 1. Physiological chills, thrills, tears etc. 2. Feeling moved 3. Aesthetic awe. These three mind-body experiences are termed 'tripartite hierarchy of responses' and the *Aesthetic Trinity Theory* suggests that all musical/aesthetic experiences may be encapsulated within these three responses (Konečni, 2011). The first and the most common of these higher order mind-body responses is 'physiological thrills, chills, tears etc.' This occurs to us when we listen to certain inspiring, emotionally uplifting, energizing pieces of music, e.g., listening to patriotic songs, experiencing the national anthem while attending the Independence Day parade etc. The second level of response is 'feeling moved', which, in comparison with the first one, is rarer to come by. We experience 'feeling moved' when the music is outstanding, when it is highly appealing to us, when it is mind blowing and we become emotionally triggered, sometimes, accompanied by tears and a feeling of heaviness in the heart, feelings of compassion, love etc. are often associated with it. The third response is 'aesthetic awe'; one experiences it rarely to a sublime stimulus. For example, say, when the music triggers an individual emotionally and he is moved by the music and then he is elevated into a totally unique and rare experience of being awestruck, or when one experiences/'conjures up' the presence of the divine, he may experience 'aesthetic awe'. Music Receptivity may be positively correlated with these higher order mind-body responses. When these occur, the music receptivity may be the maximum. When a person listens to music, despite of whether he listens to it actively or passively at a point of time, as the individual

continues to listen, the listening process may switch back and forth from active to passive or vice-versa, given that, naturally, no one has one hundred per cent attention/active listening while listening to an entire piece of music. Music listening process may be more of a transition between active and passive listening. i.e., the states of listening between passive listening to active listening or vice-versa, varies along a continuum. A person listening actively to a piece of music need not necessarily get mood modulated as there are various other factors involved, as already discussed. Whereas, in the case of a person choosing to listen actively to one of his favourite pieces of music, chances are high that he gets mood modulated owing to that, he submits himself to experiencing that piece of music, and even a *placebo effect* could suffice in such situations (he believes "this piece of music has the power to heal me!"), yielding high music receptivity. Novel musical stimuli heard without a conscious goal can elicit strongly positive feelings and limbic activations, just as familiar favourites do (Brown et al., 2004). This study suggests that there is a direct route in the human brain for such aesthetic responses. Therefore, when an individual is passively listening to music, owing to this direct route existing in the brain, the music may evoke interest, either owing to novelty (state-interest) and/or as the musical pattern changes to favour the individual's *musical identity* (trait-interest), the listening mode tends towards active listening, and as the individual listens further, he may get mood modulated if the music continues to conform to his *musical identity.* Higher degree of psychological processes may be associated with mood modulation and further may lead to higher order mind-body responses, resulting in high music receptivity. When a person gets mood modulated and continues to be in that state, he may submit himself to the musical experience, and as a result, the psychological processes and higher order mind-body responses may peak, and the individual's conscious awareness becomes lesser and he may lose himself to the musical experience yielding high music receptivity. When hurdles, external or internal, are present, attention reduces, in the normal case, and generally, interest is considered to be related to attention. When a person listens to his favourite piece of music, he is usually attentive owing to him being intrinsically motivated. However, when an external hurdle - say, someone rings the doorbell, his attention gets diverted from the music and then he chooses to continue listening, or to go and attend to the person who rang the bell. Hurdles could be overcome depending on, to what extend an individual is motivated to listen to a particular piece of music.

Conceptualizing music receptivity, its domains and their interplay along with other associated constructs may add up to our knowledge of music psychology. A psychometric assessment is developed based on this and this could be an effective measurement tool where music is heard in real-life situations and hence having good ecological validity as well.