Analysis of Universals of Dance Movements: A form-neutral and a style-neutral approach

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Key words: dance form, dance style, universal grammar, dance movements, posture, transition, rhythm

Introduction:

Movement is the mark of life, be it internal or external. The existential world that we live in and the experiential world that we perceive are marked with movements. The movements of the existential world constitute the natural movements while the movements of the experiential world constitute the re-created movements. The re-created movements are recreational in its essence and categorised as sports, games, dance, martial arts, dance, drama and theatre. All the mentioned recreational movements are inferred and cognised in the minds of the onlooker. The sentient beings infers meaning out of the movements and interprets the essence. Movement measures reality. Consequently, movement serves as the primal means through which sentient beings gauge the reality they experience. With this in mind, discussions have centred around understanding the fundamentals of movement, exploring the entities responsible for its production, and examining the intricate interplay of factors necessary for its creation.

The idea of Attam/Ata:

The term "*Attam*" or "*Ata*" is commonly used in the four major South Indian languages - Tamil, Malayalam, Telugu, and Kannada - referring generally to games or sports. However, a closer examination reveals that "*attam*" or "*ata*" often serves as a suffix to many verbs in these languages. For instance, in Tamil, "*kondattam*" means to enjoy, and "*uraiaadal*" means to converse. In Malayalam, "*neerattam*" means to bathe, while "*kondattam*" refers to a snack. In Telugu, "*joodaata*" refers to gambling, and "*poradu*" refers to revolt. In Kannada, "*bombeaata*" refers to doll play, and "chellaata" refers to throwing a fit (Fig. 1.). Across these languages, "*aattam*" or "aata" is essentially used as a universal verb, encompassing sports, games, aesthetic sports, aerobics, asanas, martial arts, dance, drama, and theatre.

It's important to recognize that although these performative acts are collectively referred to as "*aattam*" or "*aata*," each form has its distinct defining parameters, creating unique experiential spaces for the observer. Differences among these forms arise due to their spatio-temporal parameters of movement. Sports, games, aesthetic sports, aerobics, asanas, martial arts, dance, drama, and theatre each have their own spatio-temporal coordinates defining their form. When discussing spatio-temporal coordinates, particularly within the context of performing arts, it extends beyond theoretical discourse and necessitates a negotiation with the daily artistic endeavours of performing artists. Furthermore, considering "aattam" or "aata" in terms of spatio-temporal coordinates prompts a discussion on the agency through which dance is executed. Dance is not limited solely to the human body; it can also be performed by non-human entities adhering to the parametric features defining dance.
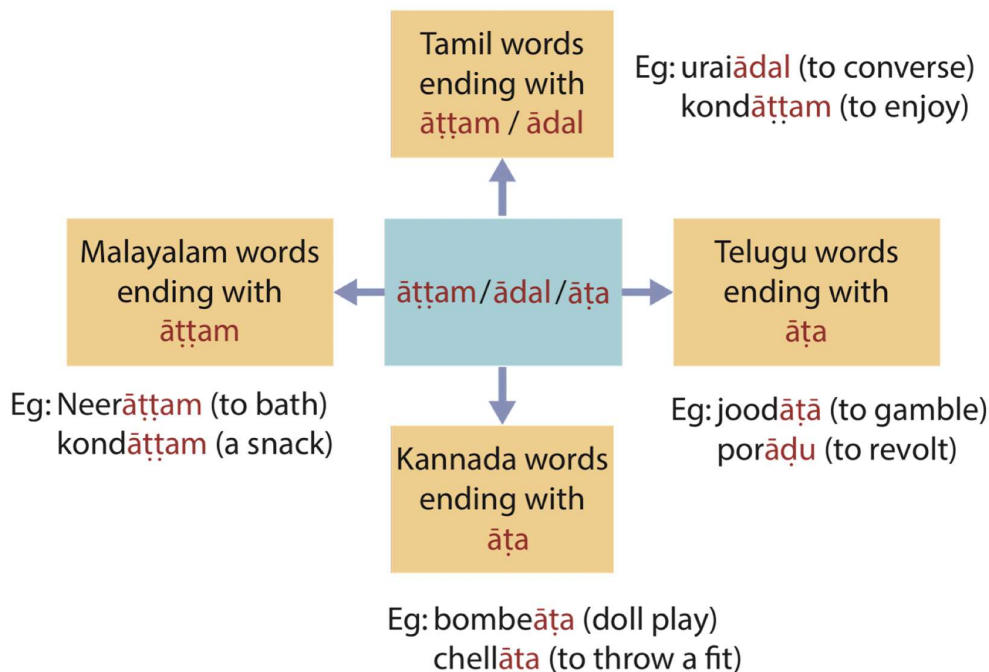
Fig. 1. The term attam/ata in the four major South Indian languages

The of dance the human body and the alternative body:

It's noteworthy that music is produced both by the human voice and by instruments. The cognitive process behind music production involves the thinking mind conceptualising and representing music, often through instruments[1]. The primary instrument representing music is the human voice, although it may also be the voice of another individual. Musical instruments operated by humans are also used to represent music. Similarly, in dance, a human mind conceives the choreography. The choreographer may choose to perform the dance movements themselves or designate another body to execute them. This raises an intriguing question: if music represented through human-operated musical instruments is termed instrumental music, can there be instrumental dance? The answer is affirmative. Dance can be represented through instruments operated by humans, whether it's a puppet manipulated by a performer or animated characters designed and controlled by a human.

This leads to a parallel inquiry: if the fundamental grammar of music applies to both vocal and instrumental music, can a similar analogy be drawn for dance? If dance fundamentals are thought to be confined to the human body, then instrumental dance would not be encompassed. Therefore, dance fundamentals extend beyond the human body, delving into the concepts of space and time (Fig. 2.). The essence of dance fundamentals lies in the concepts of posture and transition. Posture refers to the spatial organisation of the dancing entity, while transition denotes the movement between postures. The temporal aspect, known as rhythm in transition, adds another layer to the fundamentals. As both dancing bodies and instrumental entities can adopt postures and transitions with rhythm, it becomes apparent that the fundamentals of dance revolve around spatial and temporal coordinates. Now, let's delve into the spatial extension of dance fundamentals, focusing on postures and transitions.

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[1] Brown, S., & Jordania, J. (2011). Universals in the world's musics. *Psychology of Music*, *41*(2), 229–248. https://doi.org/10.1177/0305735611425896
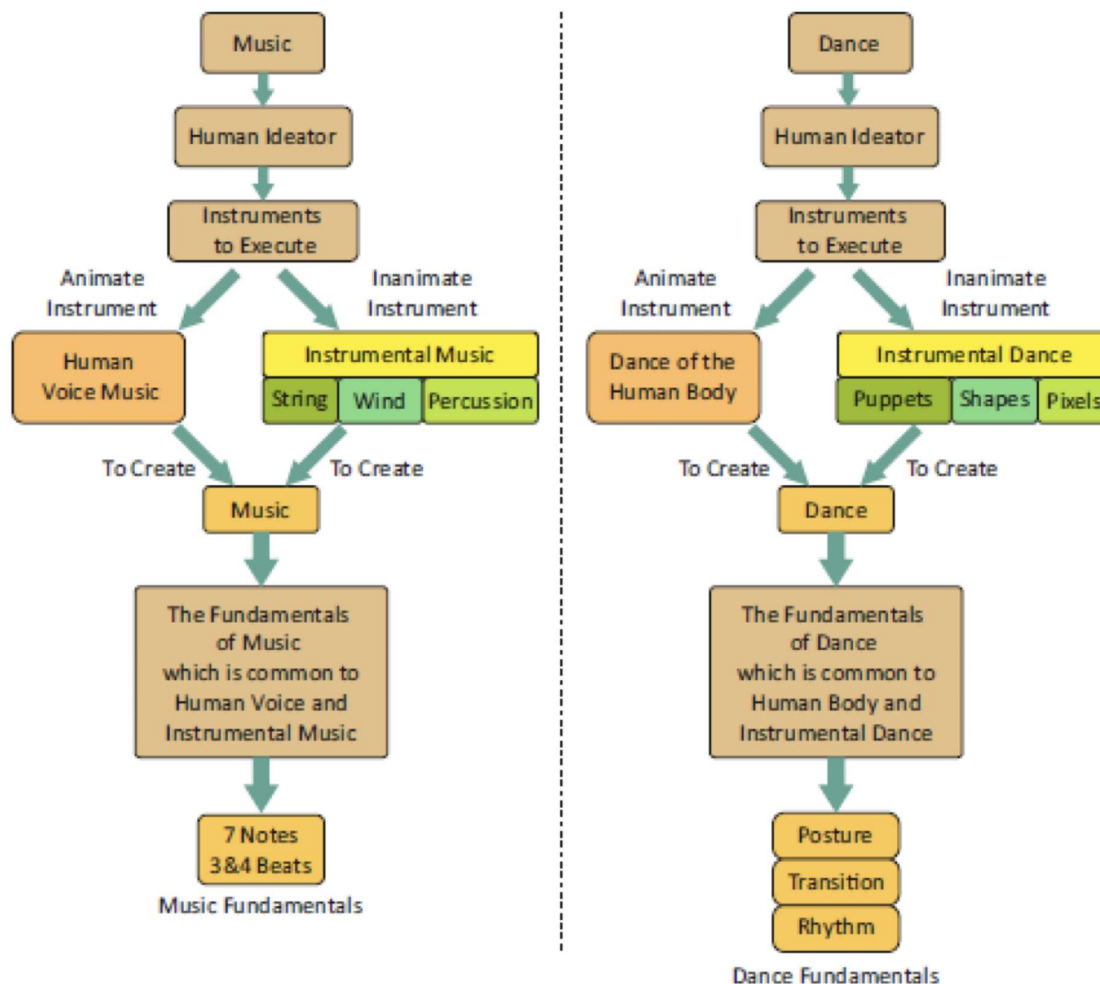
Fig. 2. Fundamentals of Music and Dance

The Universals of Dance - Postures and Transitions:

When teaching a beginner to draw, such as an apple, the process often begins with placing a few dots that outline the outer structure of the object (Fig. 3.). These dots are strategically determined by the drawing instructor and are crucial for capturing the essence of the apple. Removing even one of these basic dots can hinder the student's ability to accurately depict the object. With these foundational dots in place, the student is instructed to connect them with simple straight lines, resulting in a basic representation of the apple's outer form. These dots serve as key reference points, similar to postures in drawing training, while the connecting lines represent transitions between these points. As the student advances in their painting training, additional dots may be introduced between the existing ones, leading to more intricate and articulated connecting lines. With increased training, these additional dots become less visible to the observer and are known only to the artist. Ultimately, it is the smooth transition lines that become visible to the audience, revealing the apple as envisioned by the artist, while the dots remain a mental construct for the artist.

A parallel can be drawn to dance movement training, where as the training progresses, more postures are introduced between the basic ones, resulting in more controlled transitions. Ultimately, it is these transition movements that define the dance and serve as a distinctive marker of the artist's personal style. Postures can be likened to spokes in a wheel, providing structural support, while transitions are akin to the rim of the wheel, determining its shape and functionality. In architecture, walls represent postures, while the spaces between them represent transitions. It is the utilisation of these spaces that ultimately defines the functionality and identity of the architecture, rather than the walls themselves. Just as adding more spokes strengthens the wheel, adding more

transitions in dance enhances its artistic expression, with the transitions serving as the defining elements of the art form.
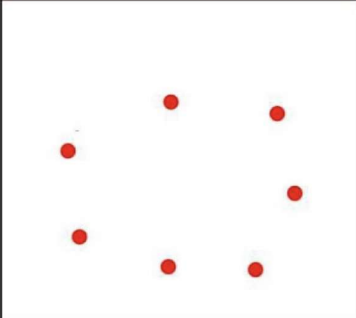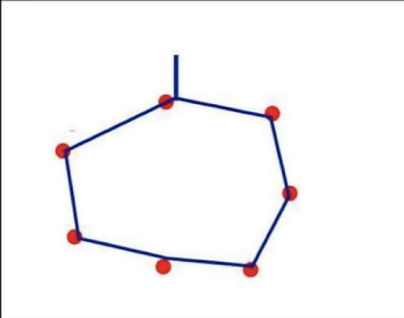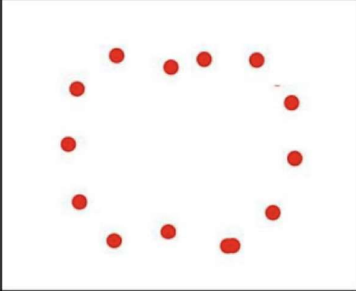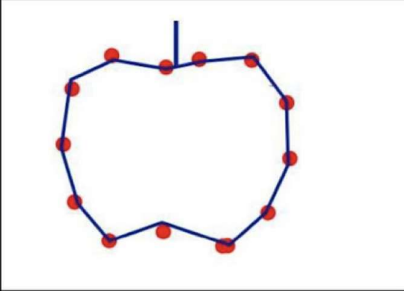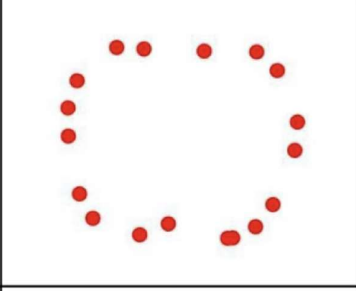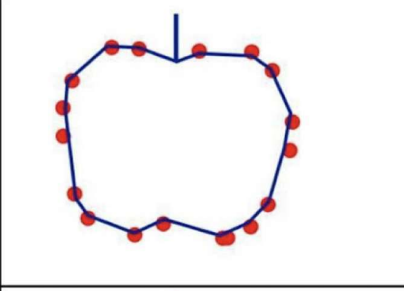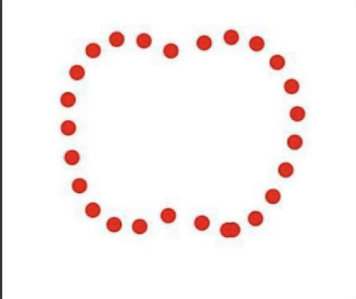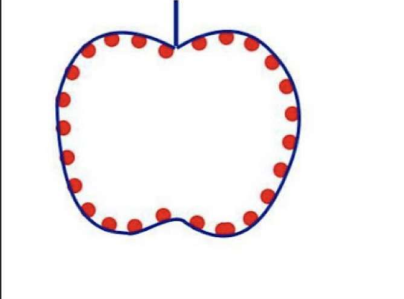

Fig. 3. The idea of Postures and Transitions

The inner force and the outer force in different forms of Movements:

As previously discussed, postures and transitions play a significant role in distinguishing[2] between different movement-based practices. While postures may be common across various practices, transitions serve as the defining factor that differentiates one form or style from another. The concept of "Attam" encompasses various movement-based practices, representing the universal nature of movements. However, within the framework of Attam, there exists a modular and individualistic approach where specific instances of movement, such as sports, games, aesthetic sports, aerobics, yoga, martial arts, dance, theatre, and infotainment shows, are categorised (Fig. 4.). Despite the potential for common postures across these instances, they differ from one another due to variations in transitions and rhythm.

The distinguishing feature between these practices lies in two parameters: inner force and outer force. In sports and games, the outer force predominates, implying a high reliance on external agencies. Movement in these activities is heavily influenced by the actions of other players, minimising the role of inner force. In contrast, aesthetic sports exhibit an increase in inner force compared to pure sports and games, leading to a decreased dependency on outer force. The presence of inner force further escalates in activities such as aerobics, yoga, and martial arts. However, it's in dance, theatre, and performing shows where inner force reaches its peak. Among these, theatre demonstrates the highest degree of inner force. While there may be shared postures across different streams of Attam, the ratio of inner force to outer force varies, thereby influencing the transitions and rhythm associated with each practice. Consequently, transitions and rhythm become the distinguishing factors that differentiate one form of practice from another.
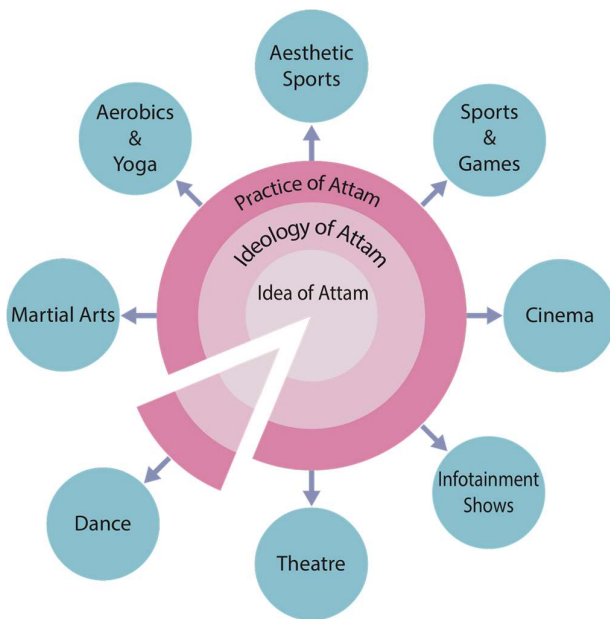

Fig. 4. Different forms of Movement Paradigms

Movement as a measure of cognitive space and time:

This section delves into the fundamentals of the movement vocabulary, which underpins various movement-based practices like sports and arts. In existential reality, space and time form a continuous flow, making it impossible to plot a specific space or time instance as a point. However, in the realm of experiential or

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[2] Berardi, G. (2017). Dance Psychology for artistic and performance excellence. *Journal of Dance Medicine & Science : Official Publication of the International Association for Dance Medicine & Science*, *21*(3), 132. https://doi.org/10.12678/1089-313x.21.3.132

cognized reality, space and time are perceived as discrete entities. Here, reality is cognized and re-modeled to suit individual needs and requirements. Movement serves as an essential means to perceive and measure cognitive space and time in the experiential realm. Observers perceive movement as the body traversing space in a specific rhythm. Variations in the flow of movement result in the perception of different *Postures, Transitions* and *Rhythm in Transition* (Fig. 5.). Thus, the idea of movement comprises three fundamental components: *Posture, Transition* and *Rhythm in Transition*. *Posture* and *Transition* represent the spatial components, while *Rhythm in Transition* represents the temporal component.

The ratio of inner force to outer force changes based on the intent of the movement, influencing the choice of *Posture, Transition* and *Rhythm in Transition*. Intent drives these changes in parameters. Sports, games, aesthetic sports, aerobics, yoga, martial arts, dance, theatre, and infotainment shows are diverse methods through which cognitive spatio-temporal coordinates are created and perceived by audiences. Movement serves as the fundamental component across all these presentations, serving as a measure of cognitive space and time. Thus, movement constructs a spatio-temporal fabric in the experiential realm, which is an image-making domain, and it is through movement that these spatio-temporal coordinates are established and conveyed.
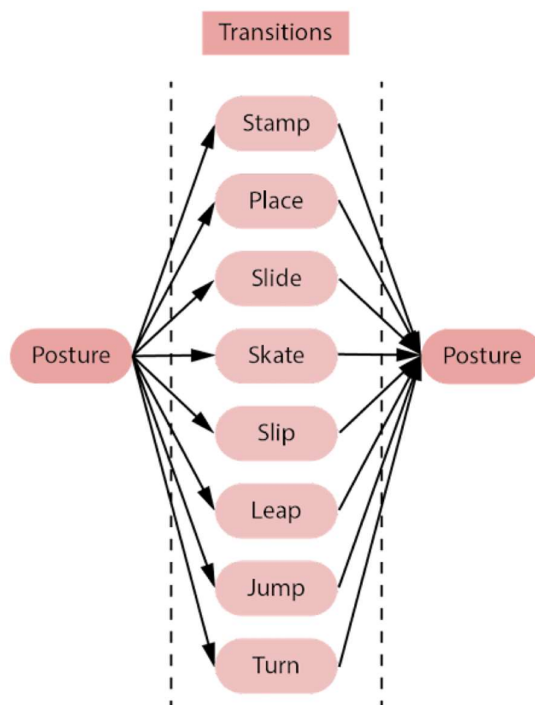

Fig. 5. Relationship between Postures and Transitions

Form-neutral and style-neutral universal movements - a universal measurement of space and time:

We've previously discussed how posture, transition, and rhythm in transition are fundamental components of movements[3]. Now, let's explore the concept of universal fundamentals of movements. In the practice of movements, various existential pedagogies have emerged to train individuals in sports and arts. When training beginners, especially up to a certain age, it's essential to break away from the idea of form-specific and style-specific movement practices. Instead, beginners should be engaged in a form-neutral and style-neutral method of movement vocabulary. This approach introduces beginners to a world of movements that are fundamental and generic in nature, devoid of inhibitions related to form and style.

This form-neutral and style-neutral pedagogy allows beginners to explore a wide range of movement options. It involves combining various postures, transitions, and rhythms. One method to achieve this is by training beginners with a diverse range of postures that extend beyond the realm of dance alone. Cross-training, which involves practising movements from other movement traditions such as sports, yoga, and martial arts, is also beneficial. After familiarising individuals with different postures, attention is given to transitions, which facilitate the movement from one posture to another. There can be several transitions connecting two postures, including stamping, placing, sliding, turning, slipping, and many more options.

Following posture and transition training, individuals are taught rhythm in transition. This aspect focuses on the temporal coordinates of cognitive space, complementing the spatial training in postures and transitions. Through this method, beginners are trained in a form-neutral and style-neutral way of movement vocabulary, providing them with universal fundamentals for movements and offering an expansive view into the world of movements. This open view of form-neutral and style-neutral movements pedagogy serves as the universal fundamentals for form-specific and style-specific practices. It allows individuals to develop a versatile foundation in movement, adaptable to various forms and styles of practice.

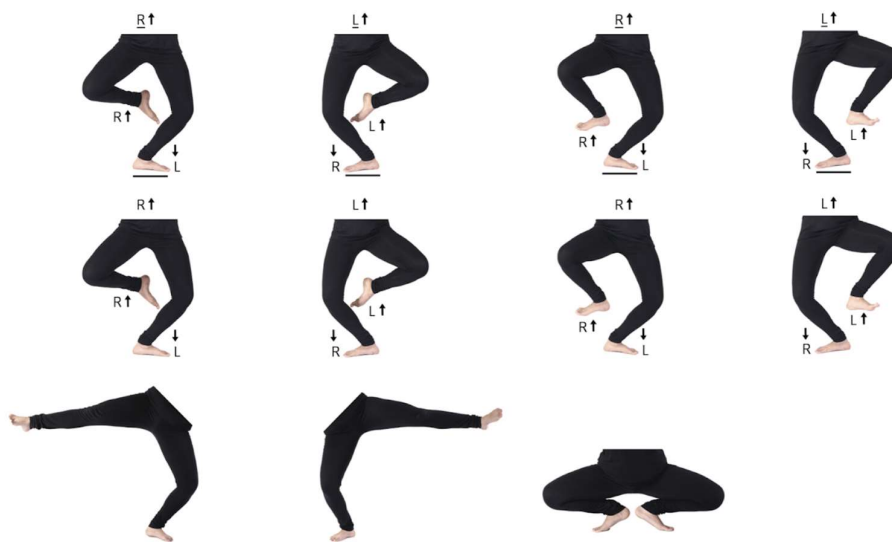
Fig. 6. Form-neutral and style-neutral universal movements

[3] Bose, Mandakranta. "Movements of the Angas, Upangas and Pratyangas." *The Dance Vocabulary of Classical India*, 1995th ed., Sri Satguru Publication, Delhi, Delhi, 1995, pp. 99–143.

Form specific and style specific movements - modular measurement of space and time:

This section focuses on explaining how universal fundamentals combine to form a specific dance form and style. After training the body in a form-neutral and style-neutral universal movement vocabulary, it becomes relevant to discuss the modular grammar of dance movements. The modular grammar represents the specific dance form, which becomes more refined and distinct as it evolves into a particular style. In a form-specific modular version of the universal grammar of movements, postures are carefully selected to align with the definition and aesthetics of the dance form. Each dance form has its own set of posture-specific movements. Similarly, transitions are also specific to the dance form, selected based on aesthetics, regional sensibilities, and the utilitarian value of the form. The arrangement of movements is crafted in accordance with the chosen dance form.

Postures, transitions, and rhythm in transition are meticulously crafted to reflect the aesthetic choices, regional sensibilities, and utilitarian values of the dance form. Postures and transitions serve as spatial coordinates, while rhythm in transition serves as temporal coordinates. In the experiential space of the onlooker, the chosen dance form is created through specific spatio-temporal coordinates, reflecting the parameters of the form and arranged in unique permutations and combinations (Fig. 7.). Within the dance form, style represents a specific subset of the chosen postures, transitions, and rhythm in transition. If the dance form is the content of expression, then style is the manner in which this content is expressed. Specific styles of dance have very distinct and personalised parameters, adapted to the sensibilities of the artist.
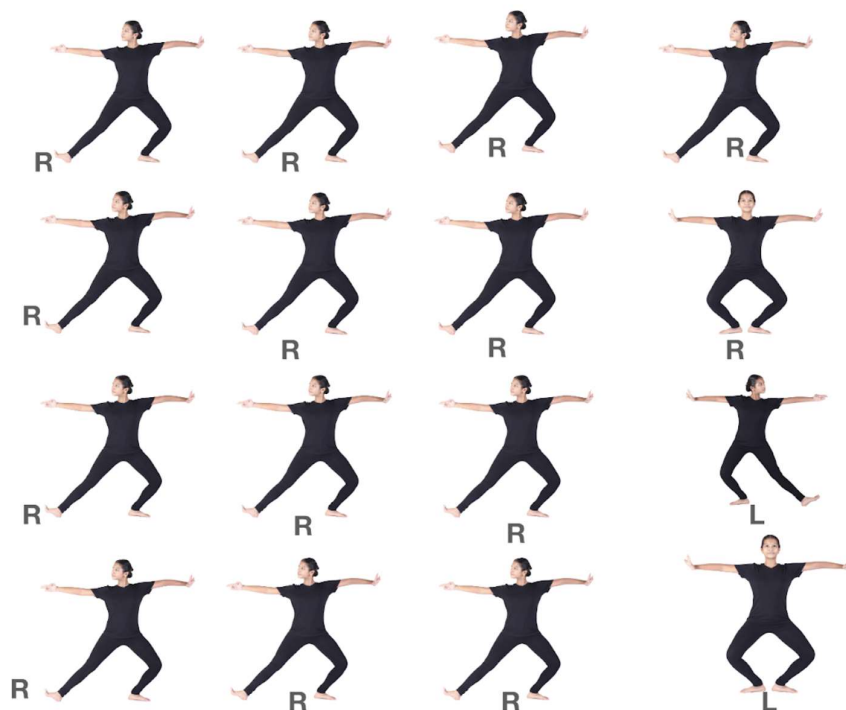

Fig. 7. Form specific and style specific movements

Rhythm in Transition - the crucial factor deciding the dance, the form and the style:

In this section, we will delve into the crucial role of rhythm in transition in shaping the form and style of dance. Rhythm in transition serves as a signature feature to a movement transition, providing it with identity and clarity. Without a definitive and perceivable rhythm, a transition becomes ambiguous. Furthermore, the characteristics of the rhythm in transition determine the affordance for the range of movement. The rhythm dictates the extent to which a transition can be expanded or contracted, allowing it to be either elaborate or minimal. This aspect of rhythm influences the features of dance forms and styles. It's important to note that a minimum of four

beats is required to establish a specific dance form with a distinct dance style (Fig. 8.). Two beats are necessary to identify a specific dance form. Less than two beats make it challenging to differentiate between various movement practices such as sports, games, aesthetic sports, aerobics, yoga, martial arts, dance, or theatre.

For instance, consider an experiment involving a martial artist and a dancer standing straight and beating their legs alternatively. Initially, it may be challenging to discern the difference between their movements with just one beat. However, after two consecutive beats, the distinction between dance and martial arts becomes clear. Similarly, when a group of dancers from the same form but different styles perform together, it takes two beats to establish that they are all performing dance. Three beats are needed to identify and establish a specific form of dance, while four beats are necessary to perceive the stylistic differences within the same form of dance. In summary, it takes a minimum of two beats to establish the idea of dancing and a minimum of four beats to establish the style and form of dancing. Rhythm in transition plays a crucial role in this process, providing clarity, identity, and differentiation within the realm of dance movements.

	Primary Level Dance Training	Dance Performance Training	Amateur Dance Performance	Professional Dance Performance
4 beats	4 beats Dance Form & Dance Style appears			
3 beats	>2 beats Dance Form appears	>2 beats Dance Form & Dance Style appears		
2 beats	2 beats Dance appears	>1 beat Dance Form appears	>1 beat Dance Form & Dance Style appears	
1 beat	1 beat No distinct Dance appears	1 beat Dance appears	1 beat Dance Form appears	1 beat Dance Form & Dance Style appears

Fig. 8. The relationship between rhythm, dance form and style

Conclusion:

Through this discussion, it becomes evident that dance is just one specific instance within the broader universal movement vocabulary known as "aattam/aata." The concept of "aattam/aata" distinguishes one particular instance from another based on their spatio-temporal coordinates, which create a cognitive space and time paradigm. Dance serves as a means to measure this cognitive space and time paradigm, with measurement occurring through three fundamental parameters of movement: posture, transition, and rhythm in transition. Posture and transition constitute the spatial coordinates of movement fundamentals, while rhythm in transition serves as the temporal coordinate. Dance, therefore, becomes a crucial particular instance for measuring cognitive and artistic space and time within the movement paradigm. While postures may be common across various forms of movement practice, it is the transition that delineates one form from another. The rhythm in transition becomes the signature parameter that determines the specific type of transition, playing a crucial role in establishing inherent distinctions between different forms of movement practice. In summary, within the paradigm of movements, to move is to measure cognitive space and time, with measurement achieved through the spatio-

temporal coordinates of movement. Dance, with its unique combination of postures, transitions, and rhythm in transition, provides a distinctive means of exploring and expressing this cognitive space and time.

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