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Performance anxiety in actors: symptoms, explanations and an Indian approach to treatment

Who's who in stage fright?

There are numerous examples of renowned performers across the arts (actors and musicians) and in sports, which become news items in the media due to their *performance anxiety* (also called *stage fright* in English, or *Lampenfieber* in German). Thus we learn that Sir Laurence Olivier had a bout of stage fright for the duration of his performances of the title role in Ibsen's *The Master Builder* (1965); Sir Derek Jacobi suffered from stage fright for two years in the early 1980s, Sir Peter O'Toole regularly threw up backstage when he played Hamlet at the age of twenty-four at the Bristol Old Vic, and Ian Holm walked off stage due to stage fright during a preview of a production of O'Neill's *The Iceman Cometh* in 1976. In some cases, the bout of stage fright is temporary, limited to a performance, a few performances, a run of a play, or a few months, or years. Ian Holm only returned to the stage in 1993, after an absence of 17 years. Barbara Streisand did not appear on stage for 27 years after forgetting her lyrics at a public concert in 1967. Other notable celebrity sufferers from stage fright include tenor Andrea Bocelli, and actors Al Pacino, Antony Sher, and Colin Firth. Given the number of celebrity actors suffering from stage fright, the number of those actors who do not make the news headlines in relation to their stage fright but nevertheless suffer from it must be even higher.

The performer group most studied in the context of stage fright is musicians. A 1989 survey of US symphony and opera musicians (Lockwood 1989) revealed that 24% of the sample (2212 respondents) suffered frequently from stage fright, 13% experienced acute anxiety and 17% suffered from depression. A Dutch study in 1995 (van Kemenade et.al. 1995) showed that 59% of musicians in symphony orchestras suffered from stage fright to an extent that they felt it impaired their professional careers (Kenny 2005, 183). We surmise that stage fright or performance anxiety has affected an as yet unknown, and most likely large number of stage actors, as well. In this essay we provide an up to date account of the symptoms of stage fright, possible

explanations for it and a range of known approaches to treatment. This is followed by an original approach to treating stage fright, based on Indian performance techniques, using details of a study undertaken in 2005.

The symptoms

Stage fright manifests in a range of symptoms that occur on their own or in any possible combination. Overall, symptoms have been classified as emotional, cognitive, physiological and behavioural (Fehm and Schmidt 2006, 98). Emotional symptoms include the actor's lack of satisfaction with their performance caused by feelings of guilt and shame (Yondem 2007, 1416). Cognitive symptoms include memory loss, high levels of worrying about the performance, "preoccupation with feelings of inadequacy and anticipation of loss of status, together with distraction by perceived somatic arousal" (Steptoe and Fidler 1987, 242). Physiological symptoms include trembling, sweating, vomiting, palpitations, difficulty breathing, increased muscle tension (Johnston and Percy 2010, 24) hyperventilation, nausea, (Steptoe and Fidler 1987, 241), and vocal problems in singers and actors (Yondem 2007, 1416), such as a thin or quivering voice (Merritt et.al. 2001, 257). Behavioural symptoms include the avoidance of performance and audition situations (Fehm and Schmidt 2006, 99).

In some performers, symptoms of stage fright appear before the performance and stop as soon as the performance is under way. While those who experience such pre-performance stage fright may consider it uncomfortable, they tend to take it as a part of the profession and in some cases even consider it useful, and part of the process of bringing them to the level of mental and physical alertness that they need to perform well. In other cases, pre-performance stage fright does not completely stop once the performance is under way. In those cases, the performer is likely to consider the stage fright debilitating in relation to their perceived range of ability: they will never achieve what they consider their full potential due to stage fright. At low intensity, such ongoing stage fright perceived by the performer during performance may not be

obvious to colleagues on stage or audiences. At a higher intensity, symptoms of stage fright may become obvious to peers and audiences.

Explanatory contexts of stage fright

In psychological research, performance anxiety is discussed as one specific form of anxiety, with some emphasis on Spielberger's and Barlow's models of anxiety. Spielberger differentiates state and trait anxiety:

> State anxiety (A-State) … is a transitory emotional state or condition of the human organism that is characterised by subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system.
> Trait anxiety (A-Trait) refers to relatively stable individual differences in anxiety proneness, that is, to differences in the disposition to perceive a wide range of stimulus situations as dangerous or threatening, and in the tendency to respond to such threats with A-State reactions. (1972, p. 39)

Barlow differentiates three factors that contribute to the development of any kind of anxiety-related mental disorder:

> a generalized biological (heritable) vulnerability, a generalized psychological vulnerability based on early experiences in developing a sense of control over salient events, and a more specific psychological vulnerability in which one learns to focus anxiety on specific objects or situations. (Barlow 2000, 1247)

Any anxiety in general, and performance anxiety or stage fright in particular, is expected to relate in specific ways to a range of hereditary and environmental factors. The latter are easier to locate, define, operationalise and thus subject to empirical research. Other aspects of the condition that are within the grasp of the current methods of psychology are influences of gender, age, developmental differences

(Kokotsaki and Davidson 2003, 47), the extent to which "being prepared" affects the degree of stage fright, and levels of perfectionism (Yondem 2007). Research confirms that musicians who have higher levels of negative thinking and other dysfunctional attitudes suffer more from stage fright than those with lower levels of such attitudes (Yondem 2007). There is a high correlation between the level of stage fright and neuroticism and everyday fears, such as fear of crowds and social situations (Steptoe and Fidler 1987, 241). Perfectionism that materialises predominantly in the need for approval from others (as opposed to perfectionism where the measure is the performer's own standards related to self-criticism) equally leads to higher levels of stage fright. Among musicians, women seem more prone to stage fright than men (Yondem 2007, 1415). "More advanced musicians, in terms of training and experience, perform better under anxious conditions but they also benefit from their higher levels of pre-performance anxiety" (Kokotsaki and Davidson 2003, 45).

Available research that contextualizes stage fright among theatre actors, beyond the stories of individual performers' nightmares in the more popular media, has been predominantly in terms of psychoanalysis (Kaplan 1969, Ridout 2006). Most recently, Ridout launched his discussion of actors' stage fright with reference to Stanislavski, interpreting Kostya's fear of, and simultaneous attraction to the "awful hole beyond the footlights" (2010, 35), as a "bruising physical and psychological encounter with the audience that leads to the actor's complete failure and a collapse into the experience commonly known as 'stage fright'" (39).

Ridout proceeds to develop a historical context for the emergence of stage fright, defining it as a modern phenomenon. With reference to Georg Simmel, he highlights three implications of "modern urban living": "professional specialisation, the 'calculative exactness of practical life' and the cultivation of a 'blasé attitude' as the basis for social interaction" (41). To these, Ridout adds a further three: the unconscious, theatrical naturalism, and electric light (44). He concludes that stage fright is a historically determined symptom "in which the circumstances of a particular social and economic situation combine with the developments in theatrical

form and technology, and impact in a very direct and specific manner upon the psychological condition of the actor". (51). With reference to Lacan and Kristeva he develops Kaplan's psychoanalytic approach further, concluding as follows:

> Where it first seemed that stage fright was the experience of abjection in the theatre, we now find that it is the experience of the abjection of the theatre: the meaningless ground without which it could not signify, but which it must expel, time after time, every time its fearful but corrupt practitioners resume their dreadful trade. (68)

It is interesting to note that, predominantly, the explanatory framework for stage fright does not, necessarily, lead directly to suggestions for reducing excessive and debilitating stage fright. In the following section we provide a survey of these suggestions across a range of sources.

Approaches to treatment

There is consensus that an excess of stage fright, which debilitates the performer and adversely affects the performance, needs to be dealt with. Popular magazines for dancers, actors or musicians have columns of advice on how to handle stage fright. Performers describe their own ways of coping, such as looking through the curtain at the audience before the start of the performance, intense preparation and vocal warm-up, meditation, breathing exercises, or telling themselves "Get over yourself, it's a play", or "This is not about me. I'm just here to tell a story. That's it" (*Theatre Bay Area* 2009, 13). Experts reiterate such advice, emphasising the need for the performer to be in the moment, to be present, poised, and ready. Some recommend positive self-talk, both on its own and particularly when negative thoughts or images come up, and emphasise the need for a full warm-up, and the advantages of breathing exercises (Walker 2008, 49). Moreover, they advise explicitly against relying too much on superstition, such as associating the success of a performance with a ritual, a date or the weather, which can develop into a burden, making an emotionally complicated situation even more difficult rather than helping (McGuire 2010).

A systematic review of treatments for music performance anxiety published in 2005 differentiated between behavioural interventions, cognitive interventions, cognitive-behavioural interventions, interventions based on drugs, and "other" interventions that do not completely fit any of the previous categories. Behavioural interventions include breathing exercises and muscular relaxation exercises; cognitive interventions refer to cognitive strategies such as positive self-talk, while cognitive-behavioural interventions combine, for example, positive self-talk and relaxation; "other" includes meditation, Alexander technique, biofeedback, music therapy, and hypnotherapy; finally, drug-based interventions emphasise beta-blockers. The review concluded that:

> issues such as the number of studies in each treatment modality, their sample sizes and the methodological quality of most of the studies reviewed precluded firm conclusions about the effectiveness of any of the treatments assessed for music performance anxiety. (Kenny 2005, 183)

An Indian approach—theoretical context

Whereas approaches to treatment surveyed above are not necessarily directly linked to any specific explanatory context of the emergence of stage fright, in the remainder of this article we present an Indian approach to stage fright in which the explanation for the development of stage fright leads directly to the approach to treatment. Indian theatre aesthetics within its broader philosophical context offers a theoretical framework for an enhanced understanding of the phenomenon of stage fright, and comes with a related range of physical and mental exercises that can be employed by any actor who suffers from debilitating stage fright.

Just as discussions of drama and theatre in the Western context frequently go back to Aristotle, within the Indian cultural context, the text central to drama and theatre is the *Natyashastra*. In its first chapter, we learn about the mythological origin of the text: Brahma, one of the three major gods of Hinduism, created *Natya*, theatre, in response to the request from the leader of the gods, Indra, for an "object of diversion, which must be audible as well as visible", and accessible to all castes, to help humans regain

the characteristics of the golden age, which had only recently begun to deteriorate (Ghosh 1950, 3). Brahma gave the *natya* to Indra and instructed him to pass it on "to those of the gods who are skilful, learned, free from stage-fright and inured to hard work" (Ghosh, 4). In chapter 27, the *Natyashastra* discusses the criteria for success and failure of a performance. The self-made blemishes, which "arise from the actors themselves", are "loss of memory [of the actors], speaking other words (… those not in the play), [actor's cry of distress, (…) shyness of speech" (Ghosh, 514-5). These are clearly symptoms of stage fright as discussed above: loss of memory and speaking words that are not in the play are cognitive symptoms, and shyness of speech is a physical symptom.

Thus the *Natyashastra* mentions stage fright directly and refers to its symptoms. It does not provide an explicit suggestion of how an actor who experiences stage fright can overcome it. However, implicitly, all the means of acting and the methods of actor training that are described in the *Natyashastra* can be understood as preventing stage fright from developing in the first place. The *Natyashastra* develops and integrates a wide range of mental and physical approaches to acting that are derived from fundamental principles of Indian philosophy as well as the practical methods of spiritual, martial and medical traditions such as Advaita Vedanta, Yoga and Ayurveda. According to the Vedanta model of consciousness, three conventional states of consciousness, waking, dreaming and sleeping, have a fourth state of consciousness as their basis: transcendental, pure consciousness, also referred to as *pure unitary consciousness* in discussions of Christian mysticism (Stace 1960), or *nirvana* in Buddhism and *samadhi* in Hinduism and Indian philosophy. Pure consciousness is devoid of any content and aware only of itself as consciousness: it is the experience of consciousness without an object; consciousness becomes an object of consciousness. Vedanta defines as higher states of consciousness the simultaneous experience of waking, or sleeping, or dreaming together with pure consciousness. By way of an analogy, conventional consciousness (waking, dreaming and sleep) represents the projections on to the screen of pure consciousness: in most conditions, we are not aware of the screen – pure consciousness, and the screen is not aware of

the projections onto it. A higher state of consciousness is characterised by the screen being aware of the projections and observing, witnessing those projections without direct involvement.

Maharishi Mahesh Yogi has described pure consciousness further, on the basis of *Advaita Vedanta* philosophy of India. All creation is said to emerge from pure consciousness, and that process of emergence is captured as a play, a divine performance, *Veda Lila*, the play of *Veda*, (translated as "knowledge"). Maharishi Mahesh Yogi describes *Veda Lila* with reference to three unmanifest components of pure consciousness, in broad terms the knower (*rishi*), the known (*chhandas*) and the process of knowing (*devata*). They interact with each other and with the wholeness of which they are part (the wholeness is referred to as *samhita*). Those interactions give rise to energies and those energies in turn lead to manifestations, to specific aspects of creation emerging. Thus, for example, *rishi*, in colloquial terms, can turn to, and have a chat with the *samhita*, or with *chhandas*, or with *devata*. Each of those encounters leads to the emergence of a certain aspect of creation. In turn, those newly created, very subtle manifestations of consciousness approach the unmanifest elements of pure consciousness, (*samhita*, *rishi*, *devata*, *chhandas*), and further levels of manifest creation result.

Our aim in this section is to establish the cause of stage fright in the context of Indian theatre aesthetics (as described in the *Natyashastra*) and its broader philosophical context (*Vedanta* philosophy). Cosmic intellect, *buddhi*, causes the unity of *samhita* to express diversity within itself, thus giving rise to all creation, whose purpose is to regain unity. Thus the intellect "mistakenly" perceives duality where there is in fact no duality. A*yurveda*, the Indian discipline of medicine, describes this as the "mistake of the intellect" (*pragyaparadha*) that is responsible for illness in the body: primordial imbalance occurs when the intellect becomes absorbed in the diversified values (*rishi, devata, chhandas*) to the exclusion of the unified value, *samhita.* In terms of human consciousness: as long as pure consciousness is not permanently experienced in daily life, the intellect is bound to get absorbed in any field of daily activity, allowing

sensory impressions and other activities of the waking mind to overshadow the experience of pure consciousness (Maharishi Mahesh Yogi, xx).

The "mistake of the intellect" is the cause for duality to arise, and with reference to the *Upanishads*, Maharishi Mahesh Yogi argues that fear arises from duality. At the fundamental level of creation and consciousness, it is the duality of *samhita* and *rishi*, *devata* and *chhandas*. In the *Bhagavad-Gita*, a major component of the *Mahabharata*, a great Indian epic, the hero, Arjuna, the most highly skilled warrior on the side of the good, experiences debilitating fear. Lord Krishna teaches Arjuna about his true nature, brings him to the experience of pure consciousness, which eliminates his fear. In daily life, this primordial fear can manifest, express itself, with regard to almost everything. As Sri Sri Ravi Shankar puts it:

> Some people are afraid to go to bed. The fear is, they think they may not wake up. People are afraid of love, people are afraid of meditation, people are afraid of death, people are afraid of themselves. (2011)

Against this background, stage fright is one form of fear or anxiety whose ultimate cause is a series of mental and physical disconnections understood as 'duality'. . Such duality for the actor, as the ground cause for stage fright, can be located on several levels: within the actor him or herself, and between actor and role, or actor and audience. Help with stage fright in these contexts will be provided by tools that support the actor in overcoming this duality, temporarily, or permanently. We will discuss one such set of tools in the context of the case study, below.

An Indian approach: case study
In a project carried out in 2005, funded by the British Academy and the University of Wales Aberystwyth, Valentine, Meyer-Dinkgräfe, Acs and Wasley compared two distinct methods of reducing stage fright in stage actors (Valentine et.al. 2006), one of them based on Indian approaches (South Indian Techniques, SIT) and the other Neuro Linguistic Programming (NLP). The SIT approach makes use of a range of

psychophysical approaches deriving from the martial and performance traditions of Kerala including Yoga with a specific conceptual approach that is described already in the *Bhagavad-Gita* as the means through which Krishna rids Arjuna of his duality, his fears. NLP looks at how we name, map and classify our experience. The key is that it is a set of tools to alert us to the fact that we create internal mental maps to perceive the world. These maps are representations of reality, full of pre-suppositions, some of which are more useful than others. One classic example would be the person who says, "I'm no good at maths"; that person, when given a mathematical problem, would spend very little time thinking it through, against a person who thought of themselves as good at maths who would dedicate an appropriate amount of time to solve the problem. In other words the self-belief creates a set of behaviours that then leads to an outcome. NLP addresses such self-beliefs, enables people to become aware of undesirable ones and provides tools to develop desirable self-beliefs.

The following account, in non-specialist terms, focuses on the SIT approach, and is based on the publication of this project in *Medical Problems of Performing Artists*, which provides a much more detailed description of NLP than we include here, given the emphasis in our article on SIT.

Participants

Participants were recruited using advertisements placed in *The Stage* and *Equity Newsletter*, as well as the Arts Council website for actors who experience a high level of stage fright and who considered it harmful to their career. In addition to this, approximately 1,500 emails were sent directly to actors from databases in the public domain. Fifty actors asked for further information. They were sent a letter informing them about the details of the project, and that workshops in either SIT or NLP would be part of the project. In the end, 14 people participated fully in the project. One woman and five men were assigned to SIT; three women and five men were assigned to NLP.

Information on the following variables was obtained from questionnaires completed prior to the start of the project: sex, age, number of years active professional acting experience, expected success of SIT workshop in reducing stage-fright, expected success of NLP workshop in reducing stage-fright, desire to participate in SIT workshop, and desire to participate in NLP workshop. Participants also completed the following inventories prior to the start of the project:

- Performance Anxiety Inventory [PAI] from Nagel et al. (1989), adapted for actors. This consisted of 20 items. , for example, "I feel confident and relaxed while performing in front of an audience", "While performing my hands are cold", and "If I were to take an important audition I would worry a great deal before taking it". High scores indicate high anxiety.

- Personal Report of Confidence as a Performer [PRCP] from Craske et al. (1988a), adapted for actors. This consisted of 29 items scored true or false, for example: "My voice shakes when I open my mouth", "My thoughts become jumbled and confused when I perform in front of an audience", and "Although I perform well in front of my friends, I freeze on stage". High scores are indicative of performance anxiety, i.e. lack of confidence as a performer.

The SIT workshop

The SIT approach assumes that fear is predominantly a state of mind; one has to change that particular condition of the mind in order to reduce fear. At the same time, unless one works with the body, the performer cannot change the state of mind because the mind is experienced within the body and states of mind largely depend on the conditions of the body. The workshop has developed from a range of psychophysical techniques derived from Yoga, martial arts and traditional performance forms of Kerala: breathing techniques from Siddha Yoga, movement techniques from both performance forms such as *Kutiyattam* and *Kathakali* and the martial art known as *Tattu-Marma* (TM). The *Marma* medical system has been developed exclusively in Kerala and practiced within the family traditions of *marma* physicians. Believed to have been written by a Sage called Agasthiya, twenty-four palm leaf manuscripts of this exclusive medical practice have been found in Kerala.

Marma refers to vital points in the body, of which there are 108. The martial art of *Tattu-Marma* is mentioned in the *Marma* medical manuscripts and therefore, believed to be the oldest of the martial arts in the region.

According to *Tattu-Marma* (TM Technique), the oldest existing martial arts movement technique originating in the traditional medicine of Kerala, death and the notion of being attacked are the primordial feelings of fear relating to human existence. Fear is an inherent attribute of the human nature, and death is the most fearful threat to the existence of bodily mechanism. *Marma* medical practice offers two distinctive ways of handling elements threatening the bodily existence: 1) diseases causing damage to the body 2) attacks causing damage to the body. For diseases causing damage to the body, *Marma* practice offers a substantial range of clinical remedies based on plant medicines, such as oils and syrups, to cure specific physical conditions. In the context of attacks causing damage to the body, *Marma* medicine offers TM as a practice resulting from vital human knowledge about bodily movements to be used in defence against physical attack. In addition, *Marma* medical manuscripts offer invaluable information on breath, on the ways in which the air interacts with the physical and mental activities of the body. The breath restoration technique is equally emphasized in both the *Marma* medicine and *Siddha Yoga*. *Kutiyattam*, the Sanskrit theatre of Kerala shows some clear integration of breath and movement techniques derived from the medical and martial traditions of Kerala. On the whole, mental and physical wellbeing is the key focus of the physical systems mentioned above. TM, for instance, is a set of martial movements enabling the practitioner to develop fundamental physical skills to protect the body through defensive movements. A careful learning and application of the technique will not only create the physical qualities such as stamina, flexibility and quick reflexive actions but also create certain mental attitudes such as courage and confidence to face unnatural and difficult situations and environments. Therefore, the TM movement technique is said to have been developed in order to eliminate the fundamental fears of the human mind by employing various defensive movement techniques. Similarly, restoration of breath technique found in the *Siddha Yoga* of Kerala is a highly useful

method to develop core energy levels and bodily presence. Restoration of breath (RoB) is a meditation technique in which breathing is internalised and once the breathing is internalised in this way, there is no physical trace of breathing through nostrils, but rather the entire respiratory process will be internalised and defused within the nasal cavity through a subtle physical technique (Nair 2007). When the breath restoration is in operation, the body gets energised and the mental activities are focused and undivided. In the spiritual tradition of the monastic *Saivism* (*Siddha*) of Kerala, restoration of breath is a key meditation technique to attain *Samadhi*, an undivided (unity) state of mind. Therefore, the SIT workshop used these two methods (TM and RoB), defensive movement and breath restoration technique to achieve coordination of mind and body. The workshop also used specific movement techniques derived from *Kutiyattam* and *Kathakali*. Many of these movement techniques are based on rhythm and footwork, creating audible focus of mental and physical attention. In *Kutiyattam,* for instance, movements strictly follow rhythmic meters and chanting and this will help the actors to achieve a profound level of psychophysical synthesis in the body, consisting of the body's vocal, rhythmic, physical and mental properties. The body establishes the rhythm in the footwork and the same rhythm will be rendered vocally along with the movements. These physicalized rhythmic patterns will keep the focus and attention of the body intact during the movement work, creating mental and physical coordination. In this way, the actor's body becomes an object of attention. In particular, the workshop used the following:

Warm-up: This section included various stretching, bending and jumping exercises, and rotations including 'The Salutation to the Sun', a series of postures derived from Yoga. The series of bending, jumping and trunk rotation exercises are derived from the actor training of *Kutiyattam* and *Kathakali,* whereas the stretches are taken from selected Yoga postures. Participants were given meticulous instructions throughout in the movement work to ensure they maintained accurate body postures, rhythm, balance and weight required for each item of the physical work. The specific purposes of this movement work were to: 1) create the basic body awareness; 2) identify physical blocks; 3) create a sense of rhythm and flexibility; 4) identify the mental and physical coordination through rhythm and movement; and 5) achieve a degree of

physical and mental relaxation that would be required for subsequent exercises in the workshop. The intention of the movement part of the workshop was to create confidence and trust on one's own body by working with the body.

Breath Work: Various breathing exercises derived from *Hatha-Yoga*, aiming to explore and enhance the core energy level of the body and the textural quality of the voice. They included: 1) a series of body movements along with various patterns of breathing; and 2) basic breathing, which activates the lower abdomen and the lower back area of the spine. Breath work introduced a selection of eighteen subtle body movements coordinating breath and physical movements. All breathing exercises in this section of the workshop used abdominal breathing as a basic mechanism of breathing in which respirations is deep and prolonged. Instructions were given to the participants at several stages of the breath work to concentrate on various points in the body while undertaking specific breathing techniques in specific body postures and subtle movements. For example, "with feet together, stand straight while tilting the head backwards as far as it goes. Keep the eyes wide open and the mouth closed. Concentrating on the crown of the head inhale and exhale rapidly using abdominal breathing". According to *Hatha-Yoga* teachings, the exercise is of vital importance to develop self-reliance, and confidence with one's own activities. An enhanced physical energy level was evident in all these exercises due to deep and prolonged abdominal breathing.

Spine Work: The spine work included a series of sequential body postures, which were crucial to enhancing the energy level of the body. For example, "stand straight with feet apart, stretch out the arms and swing the trunk towards the right in a semi-circle while inhaling quickly. Exhale when the semi-circle is completed and repeat the movement towards left. Repeat the exercise ten times to begin with and carry on after a short break". This section of the workshop was intended to strengthen the spine and back of the body, the regions that are involved with many of the movement and breathing techniques.

TM Technique: TM is the short form of *Tattu-Marma,* a rare martial movement technique described in the traditional *Marma* medical manuscripts of Kerala. The practice includes three major techniques as follows:

- Circle of Attention: The basic movement pattern of TM, involving creating a martial wheel through the movement. A bi-polar movement in opposite direction created each spoke in the wheel. The participant stood in the axle position of the wheel and when the movement began, the spokes emerged and the wheel turned anti-clockwise (Figure 1). Each spoke consists of two movements in opposite directions, which include a series of feet and hand movements enabling various martial positions of the body. The left foot-on position will lead the movement from the axle to the rim of the wheel, while the right foot-on position will bring the movement back to the axle of the wheel. By engaging a series of bodily movements, a spoke of bi-polar movements will be created by activating the left and right sides of the body. Each movement will be precise, dynamic, and focused, demanding an intensive psychophysical engagement from the participant.
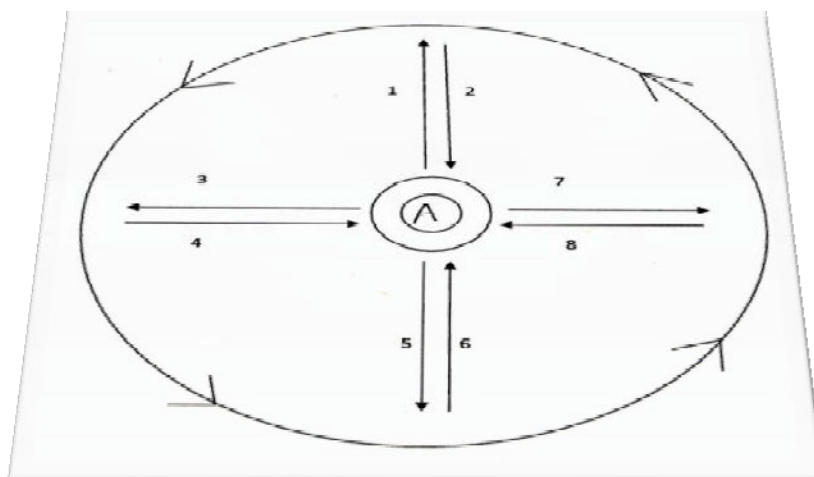

Figure 1: A=Axle position. The first martial wheel of *Tattu-Marma* showing the bipolar movements that creates four spokes and eight pathways. The progression of the numerical figures shows the direction in which the wheel moves.

This exercise progressed through two more wheels, with, respectively, eight spokes and sixteen pathways, and twelve spokes and twenty-four pathways. More attention and concentration were required when the number of spokes was increased, in the sense that the movements were more condensed in the spatiality of the martial wheel, and each twist and turn, each posture and movement needed to be done precisely and carefully. The circle of attention was intended to create focus and precision of bodily movements with quick reflexive action and flexibility of the body.

- *Concentration and Contact (basics):* A series of bare hand fighting techniques to resist attacks and secure safe positions of the body. The technique was introduced in a group of two participants, and each one in the group learned, in turns, a series of attack and defence movements. The basic intention of the technique was to develop: 1) a sense of what is to be expected from the other person and how to defend it; and 2) confidence through resisting the attacks and making the body safe and secure.

- *Concentration and Contact (Advanced):* the continuation of fighting techniques between participants using arm-length sticks. Following almost the same defensive movements from the basic stage of this exercise||, this advanced stage took advantage of using sticks to defend the body. Two variations of the technique include: 1) both participants using same kind of sticks to perform attack and defence; 2) using the stick for attack and bare hands for defence and disarming. The first added an extra level of substantial skills in comparison with the skills learnt at the basic stage to perform the technique, while the second tested the skills and confidence of the defender. The second variation of this technique was crucial in the process and created a profound impact in developing confidence and ability for independent decision-making within the individual participants.

- *Restoration of Breath*: A meditation technique involving subtle use of internal breathing. It included: 1) *Bellows Breathing*, which was abdominal breathing, making the breathing audible with sounds of a bellows. This abdominal breathing activated the dormant energy level in the body. 2*)* Internalising breath through restoration techniques. This included a subtle physical technique of engaging the upper nasal cavity to breathe in and out. When breathing out, the flow of breath

was to be redirected to the upper-nasal cavity by engaging the air pressure flowing from the abdomen. The re-direction of the outer flow of air in expiration caused the internalized breathing, where the outer flow of the air is found defused within the internal channels. Deriving from the *Siddha Yoga* meditation, the practice was used to create a peaceful and neutral of state of mind in each participant. Theparticipants were asked to learn the technique first and then advised to apply the technique in various activities. With breath restoration, the participants experienced a greater level of calmness, focus and presence while engaging with activities suggested in the workshop.

Method, measures and results

Participants were assigned to one of two workshops (SIT and NLP) on the basis of their expressed expectation and desire, rather than by randomisation, following the recommendations of Brewin & Bradley (1970), on the grounds that these motivational factors are the most important ones to balance across groups, since participants are likely to do better in a treatment they believe in / have positive regard for and expectations about. Efforts were made to balance expectation and desire as far as possible across groups; however, participants expressing a difference in expectation or preference of two or more scale points were allotted to their favoured group. This aim was achieved despite initially slightly higher expectations and desire for NLP than for SIT, probably because participants were more familiar with the former.

The actors performed two monologues, self-selected and lasting no longer than five minutes, one at the beginning of the week, prior to the start of the workshops, and the other following completion of the workshops at the end of the week. The workshops extended over four days between the two performances. Measures were taken (tests administered) before, during and after each performance, and on one occasion during the workshop to serve as a baseline comparison.

Measures were physiological (heart rate, breathing frequency and cortisol levels in saliva, an index of stress response) and behavioural (independent experts rated the

performances, the actors rated themselves before and after their performances and afterwards. The measures were taken to establish whether participating in the workshops helped the actors with their stage fright, i.e., whether they were suffering from it less after having taken the workshops.

On each of the two days of performances, fifteen minutes before their performance, the actors reported to the 'Green Room'. Here they first completed the first of the questionnaires, and their heart rate and breathing were measured. The heart rate was further recorded for a 2-minute period immediately prior to performance and then during the performance itself. The performances were video-recorded for later reference and rated by three independent judges. On completion of the performance, the actor returned to the 'Green Room', where they completed two further questionnaires. After the final performance, a general feedback questionnaire on the workshops was also completed. Twenty minutes after the start of performances a salivette was chewed for the measurement of salivary cortisol.

Analysis of physiological measures showed that heart rate (HR) before performance was similar in pre and post workshop testing for both NLP and SAT participants. The increases in HR (from pre-performance) registered in testing done during the performance was less in post-workshop samples than in those obtained in workshop testing. On average pre-workshop HR rose from 93.51 beat per minute before performance to 127.11 during performance, whereas post-workshop it rose from 92.08 before to 116. 36 during. This might plausibly be taken to indicate benefits resulting from both workshops, though the present design does not enable these to be distinguished from possible general practice effects. The baseline frequency of breathing was significantly lower in post-workshop testing than the frequency recorded during pre-workshop testing: i.e. 0.27 Hz compared with 0.33 Hz. There was no significant difference between SIT and NLP participants in that effect.

Inspection of the salivary cortisol levels revealed that the range and variance of the scores was very high—one actor in the NLP workshop in particular had very high

scores at baseline and in post-workshop testing. SIT participants showed a slight increase from baseline to pre-workshop and a slight decrease from pre-workshop to post-workshop, whereas NLP showed a marked decrease from baseline to pre-workshop and an increase from pre-workshop to post-workshop. The difference in the patterns of these results was significant. Baseline readings were taken mid-week, halfway through the workshops. In the case of the NLP group these were much higher than those either pre or post the workshop and are probably best interpreted as reflecting the stress induced by some of the activities engaged in (as supported by the participants' comments and observations made during the workshop). Results of the Behavioural Measures showed a tendency for performance quality for NLP participants to be slightly lower post compared with pre-workshop, while quality for SIT participants was rated higher post-workshop.

The Form Y-1 from the State-Trait Anxiety Inventory [STAI] (Spielberger et al. 1970) was used to measure state anxiety. The collective results showed that after the workshops, there was a statistically significant reduction in self-reported anxiety. However, whereas self-reported anxiety for NLP participants was reduced marginally, that for SIT participants dropped substantially, i.e. from a mean score of 47.87 to 46.00 compared with 47.50 to 33.50 respectively. This result is the strongest support from the study for the hypothesis that SIT has a greater effect on reducing stage fright in actors than NLP.

The actors rated their own performance on the same scales as did the independent observers. None of the differences was statistically significant. With regard to performance quality, the NLP group showed a slight drop from pre to post-workshop evaluation whereas SIT participants showed a marked increase. With regard to performance anxiety, the NLP group showed no change from pre to post-workshop, whereas the SIT group showed a decrease. The actors in both workshops rated themselves slightly lower on quality and slightly higher on anxiety than did the observers. Although these are only marginal effects, they are in the opposite direction to the results obtained by Konijn (1991). Her 20-year-old Dutch amateur actors were

more generous to themselves than were the observers, whereas our older, professional actors were harsher on/more critical of themselves than were the observers.

The answers to the six questions that appeared in the *General Feedback Questionnaire* on the workshops showed that SIT participants scored higher than NLP participants on all six questions. These differences were statistically significant for the individual questions on judged usefulness for performance in the long term and the extent to which expectations about the workshop had been met. In general, *qualitative comments* were very favourable from participants in both groups:

SIT

- Excellent. I think this has been a profound experience and it will help immensely.
- Every day [the workshop leader] was a joy and I loved doing all we did.
- I expected that there would not be as much practical work, and was very pleasantly surprised to experience such useful learning.
- I think this is the line of technique [SIT] that will show its strongest effects in time.
- I felt I worked really hard and was given a lot of tools and input, so much so that I could not have spent my week more usefully. Great leaps were made. (I am so grateful.)
- Thank you to all involved in the project for making it a really enjoyable and helpful week…it has been an amazing experience.
- I feel all [aspects of the workshop] were useful to me in many ways!
- I cannot think of anything [done in the workshop] that would NOT be useful!
- I have just thoroughly enjoyed the week, the course, the techniques, the weather, the people, the food, and everything.

NLP

- I found the project both enjoyable and beneficial and hope it will continue to have effects.

- For me, this workshop was special (amongst the many I attend!) for the generation of mutual warmth and genuine grounding. Heartfelt thanks to all.
- Thank you. It was an enjoyable and rewarding experience.
- Thank you. This has been a wonderful opportunity.
- Thanks again.

Several NLP participants commented unfavourably on what they perceived to be a lack of structure and the general rather than acting-specific nature of the exercises/activities engaged in, e.g "Life issues were being dealt with more than performance ones."

Summary of Results and Discussion

Although many of the results were not statistically significant, ten of the eleven main effects were in the predicted direction, i.e. a greater effect for SIT than NLP. The statistically calculated associated probability of this occurring by chance is extremely unlikely (i.e. 6 in one thousand). An obvious limitation of the study was the small sample size permitted by the logistics and budget, and unequal numbers of men and women. There was only one woman in the SIT group. However, it was considered more important to balance motivational factors. As one of the participants commented in the *General Feedback Questionnaire*, it would have been desirable to have had a larger audience to maximise performance anxiety. The performance situation was more akin to an audition than a public performance. However, for professionals this may be an even more daunting experience (see the work of Steptoe, 1983, on musicians). The workshops were relatively short and only immediate results are reported here. Participants judged the likely benefits on both performance and on anxiety to be greater in the long-term than in the short-term. This was also supported by some of the comments: "In the short term I do not feel my performance anxiety is lower as a result of a week of workshops – if anything I would think the readings will be higher." (NLP: in fact, this participant's heart rate and behavioural ratings showed an improvement but the self-ratings showed a decline.) "I expected to be less nervous

before the second performance but was more nervous. However, I feel that this is perhaps due to increased expectations of myself." (NLP: In general, this was borne out by the results for this participant.) It is undoubtedly the case that many of the participants gained substantially from the opportunity provided to interact with like-minded people, perhaps with similar problems, and a relatively closed environment, whether this was the workshops or the town and environs of Aberystwyth. The group lived, worked and 'played' together for a week. Close and positive relationships were formed. The group 'gelled' and bonded in a remarkable way. As many of them commented, it is likely that this week will have far-reaching effects on many of the participants, some as yet unknown. Non-specific effects apply particularly to members of the NLP workshop (including post-workshop reporting of overcoming writer's block and auditioning for new roles), where the exercises were more general and less specifically focused on acting per se, as many of their comments in the general feedback indicated:

- It was very useful in terms of working with other people with similar problems.
- The week was certainly helpful but often in unexpected ways.
- Opportunity to interact with like-minded people in a sheltered environment.
- Opportunity to work with some interesting people.
- Bonding with others [as one of the most useful aspects of the workshop].
- Pleased I attended. Definitely learned 'stuff', although not quite sure what yet.

In conclusion, both physiological and self-report measures indicated that training in either SIT or NLP may have beneficial effects in reducing performance anxiety in actors. Although at the outset, expectations and desires were higher for NLP than for SIT, the results of this exploratory study suggest that, on balance, the latter has more potential for reducing performance anxiety in actors. This outcome confirmed the project's initial hypothesis that SIT would have a greater effect than NLP in reducing

performance anxiety for two reasons: (1) SIT combines mental and physical aspects whereas NLP is predominantly mental, and (2) SIT stems from a tradition that has existed for many centuries whereas NLP is a relatively new development.

Conclusion

A reassessment of stage fright against Indian theatre aesthetics and practice as described in the *Natyashastra*, and placed within the broader context of Indian Vedanta philosophy, leads to the conclusion that stage fright is one form of fear or anxiety whose ultimate cause is to be found in mental and physical disconnections or the feeling of duality. Such duality for the actor, as the ground cause for stage fright, can be located on several levels: within the actor him or herself, and between actor and role, or actor and audience. Help with stage fright in this context will be provided by tools that support the actor in overcoming this duality, temporarily or permanently. The tools, in the form of SIT discussed in this article, derive from Indian traditions that share their very source with two approaches: firstly a conceptual and mental approach through spiritual means employed by Krishna in teaching Arjuna to overcome his fear in the *Bhagavad-Gita*. Secondly, a practical and performative approach based on the *Natyasashtra* to establish physical and emotional connectivity not only to overcome stage-fright but also to accomplish artistic means. These two aspects in the system are interdependent and inseparable within the SIT model as well as in the Indian systems of knowledge to a greater extent, integrating a combined methodology for dealing with stage-fright.

Note

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