Performance: An Artificially Created Stimulus, Or Running from the Bear! - The Body Mapped

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Abstract – In this paper I examine various performance environments from the point of a specific body. I take six different types of bodies: the body mapped, the body governed, the body connected, the body assaulted, the body pivotal, and the body breathless. I commence with what I title the body mapped. This body is derived from the neurobiological findings of neuroscientist and philosopher Antonio Damasio.

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BACKGROUND

Antonio Damasio's laboratory investigations, outlined in his book "Looking for Spinoza" (2003) suggest that the body be considered in its broadest sense and its bearing on the making of the mind. This view, according to Damasio himself, stands in opposition to the scientific view of the mind closely depending on the working of the brain (an idea that Hippocrates already held long ago), and in opposition to views of the mind and brain working together on one side, and the body on the other (Damasio 2003, p.190: my emphasis).

In mentioned work Damasio proposes that emotions precede feelings, that emotions are the foundations for feelings, which in turn are the perceptions of a certain state of the body. The difference between emotions and feelings need highlighting here. Emotions, according to Damasio, are actions or movements that are "visible", that play out in the body and are the foundations for feelings whereas feelings are always hidden. They are unseen to anyone apart from the person owning them and they play out in the mind (Damasio 2003, p.28). Thus, emotions always already imply a bodily condition, which the word's etymology also highlights. The Latin "emovere" literally means "moving out" and also implies "agitation", in the same way that the French word "emouvoir" suggests a physical aspect as it entails movement (se mouvoir - to move). "E-mouvoir" then is to "move out" of, "to agitate", "to stir up" (Harper 2001).

The idea of feelings being secondary to the perception of one's body state dates back more than a hundred years, to the findings of the psychologist William James (1842 - 1910). I briefly outline James' findings as I see them as precursory to Damasio. At the time, William James offered an understanding of the body/mind interaction that foreshadowed existing contemporary views. James saw mind and body as consisting of "entities of the same basic kind, each of which is neutral in that it is neither mental nor physical" (Parkinson in Spinoza 2000, p.18). According to James's pragmatic views, in line with Darwinian evolutionary theory, one thinks, one knows and one feels in order to encourage behaviour that enhances self-preservation. This James refers to as the mental life. For James, then, the mental life is followed by bodily activity of some sort. He says that the reason a person thinks and feels in a particular way is due to his feelings', thoughts' and his knowledge's practical consequences in reacting to the world around him. James' famous example is the, rather unlikely one would hope, situation in which one encounters a bear. He argues that one's natural, but not correct, way of thinking in such a situation is to assume that, "the mental perception of some fact excites the mental affection called the emotion, and that this latter state of mind gives rise to the bodily expression" (James 1884, p.190). This implies that the one mental state is induced by the other in such a way that when one encounters a bear, one becomes frightened and runs away. This order of sequence however, according to James, is incorrect. He proposes the exact opposite in saying that the bodily changes follow
the perception of the exciting fact directly, and therefore the feeling of these bodily changes is the emotion. This means that one mental state is not immediately induced by the other but, that the bodily expressions that result from the excitement-triggering perception, the bear, come first. Thus, one feels afraid of the bear because one's body trembles; one does not tremble because one is afraid (James 1884).

In brief, James proposed that one feels afraid of the bear because one's body acts in a particular way to the world; that when we feel emotions we perceive body states, and that feelings come after we perceive of our body having been changed by emotions. James' idea of a person's thoughts, feelings and knowledge existing out of a practical necessity, in which each thing endeavours to persist in its being, is an idea that already Baruch Spinoza (1633-1677) anticipated.

Spinoza also becomes the essential starting point for Damasio's investigations. Thus, Spinoza's revolutionary, and as Damasio argues often neglected, ideas from the middle of the 1600, as well as James' findings foresee ideas of contemporary thinkers, such as Damasio. Damasio argues that body, brain and mind are manifestations of a single organism and that the endeavour for perseverance forms the basis of one's existence, which is in place to achieve a state of positively regulated life. To take the example of the bear again: it is due to the existence of "conatus", due to the strive in persevering in one's being, that one eventually runs away from the bear. This bodily reaction has the one and only aim, so Damasio argues, of making "the internal economy of life run smoothly" (2003, p.39). Therefore it is due to the fact that one trembles, that one becomes afraid, which in turn makes one run from the bear. Damasio adds that, along with the perception of a certain body state, goes the perception of a certain mode of thinking and of thoughts with certain themes (2003, p.86). To Damasio, then, emotions are a natural means for the brain and mind to evaluate the environment (2003, p.54). In a simplified way this means that when one sees the bear, or the "emotionally competent object", as Damasio refers to such stimulus (2003, p.57), images related to that stimulus (the bear's giant claws, effulgent eyes and its massive teeth for instance) become represented in the brain's sensory processing systems. This is also called the presentation stage. Signals that relate to that stimulus then become activated at several emotion-triggering sites, such as the amygdala or the ventromedial prefrontal cortex amongst others, which in turn activate certain emotion-executing sites, such as the hypothalamus, the basal forebrain, and some nuclei in the brain stem tegmentum. These latter ones cause the emotional state in brain and body by releasing chemicals into the bloodstream. This results in the emotion-feeling process such as trembling, and certain behaviours such as running from the bear (Damasio 2003, p.58).

One of Damasio's central ideas is thus that, "the essential content of feelings is the mapping of a particular body state", i.e. feeling is an idea of the body, more particularly, "an idea of a certain aspect of the body, its interior, in certain circumstances" (Damasio 2003, p.88). This view reinforces Spinoza's idea of mind and body being simultaneous in nature, of being one and the same thing, as according to Spinoza, the human mind only knows of the existence of the human body "through the ideas of the affections by which the body is affected" (Spinoza 2000, p.135). For Spinoza, the human mind is an idea composed of many ideas, as opposed to René Descartes' (1596-1650) view of the mind and body as separate substances where the mind is a thinking substance and is absolutely independent of the body.
Spinoza saw the human body as a highly complex individual and considered the human being as dynamic, consisting of both body and mind. Spinoza thus strongly opposed Descartes' view of the mind informing the body. He thought it ignorant to state that the body had its origin in the mind and says that it would be wrong to claim that the mind guides the body (Spinoza 2000, Scholium, p.167). For Spinoza, Descartes' understanding reveals a total ignorance of what the body can do by its own powers. In that way, Spinoza refuses to ground mind and body on different substances opposing other thinkers in his time. By proposing that "the human mind must perceive everything that happens in the human body" (Spinoza 2000, Proposition 14, p.131), he offers a rather modern view of the human mind which becomes directly linked to, if not informed by, the human body. Damasio, influenced by the revolutionary thinking of Spinoza, shows that it is the body that informs and indeed shapes the mind, contradicting the traditional views that emphasise the mind as being filled with images related mostly to the outside world. This means that, as the mind arises from or in the brain, which is integral to the organism, the mind is part of the whole apparatus: "body, brain and mind are manifestations of a single organism", Damasio argues (2003, p.195).

In 1998, a few years before Damasio's book "Looking for Spinoza", Candace Pert had made a unique discovery. She discovered that when one has feelings, one experiences a kind of cocktail of neuropeptide and neurotransmitter activation. This not only takes place in the brain but all over one's body. This implies that the same biochemicals that exist in the brain and emotion system also exist in the spinal receptors, for example (in Gerhardt 2004, p.100). This discovery that one feels feelings with one's entire body reinforces Damasio's argument of the interconnectedness of brain and body and his emphasis on the brain as being situated within a body-proper, as well as the mind arising from or in the brain, which in turn is vital to the organism itself. For Damasio, then, the mapping of a particular body state as it occurs is the critical interface between the body-proper and mental patterns - the body mapped, I

hence title it. Damasio's findings persuasively show that the brain is influenced by the body itself, and that images not only arise in the brain, but that they are "shaped by signals from the body-proper" (Damasio 2003, p.214). He says that, "[t]he mind arises from or in a brain situated within a body-proper with which it interacts; [and] due to the mediation of the brain, the mind is grounded in the bodyproper… ." (2003, p.191).

PERFORMANCE AS LEARNED AROUSAL OF BODILY RESPONSES

Let me, then, consider performance in its broadest definition of somebody performing something in front of others, and approach it from the view of "the body mapped". This is a body that acts as an interface between the body-proper and mental patterns. Following on from the writings of Damasio, I want to suggest that any type of performance that involves the body can, just like any other stimulus, such as the bear for instance, turn into a trigger to a motivation, a drive, a fear or anger, pain or pleasure, in which the mapping of a particular body state sheds light on the highly complex interactions of body and mind. In such a neurobiological reading of performance, one can consider per formative actions, such as contorting body parts, pressing a key on a computer keyboard, playing an instrument, shouting a word, or gazing at an audience, as initiators for some kind of stimulus that in turn act upon the body. In this light, through the act of performing, an "emotionally competent object", a stimulus, is created. It can also be argued that in order to perform, a performer needs to learn how to create a particular stimulus. Hence, performance can be seen as a learned arousal of bodily responses.

In a simplified way, based on the findings by Damasio, the chain of event must go like this. While performative actions initiate a stimulus that cause bodily reactions, and this is true for both the audience and the performer, images that pertain to this stimulus become represented in the brain at the presentation stage at which seeing, feeling and hearing occur. One can see that these images will differ for the performer and for the audience. Whereas the performer's images that become represented in the brain are more directly linked to the stimulus, she is physically engaging directly with her instrument, the audience has no direct physical access to the performer's body or her instrument, but has access to images of the performer herself. Thus, at the presentation stage, the images pertaining to the stimulus that become represented in the audience's brain may be the facial expression of the contortionist, which the contortionist himself does not see but has physical access to, i.e. he can feel his facial muscles, or they may be the sight of the performer in the white shirt behind his laptop, the unpolished shoes of the cellist, or the posture of the gazing actress. Performance
effectively becomes just another stimulus. Admittedly this stimulus is an artificially initiated and self-chosen one by the performer, as opposed to the encounter with the bear that one could argue is not necessarily of one's choice. Extracting from Damasio's findings (2003, p.58), this artificially created stimulus ("the performance") is then made available at several emotion-triggering sites, such as the amygdala or the ventromedial prefrontal cortex, which then activate a number of emotion executing sites, such as the hypothalamus, the basal forebrain, and some nuclei in the brain stem tegmentum elsewhere. These emotion-executing sites, by discharging chemicals into the blood, cause emotions. Finally, the performer and the audience feel something, like trembling at the sight of the bear.

This chain of events makes me contemplate particularly how one thinks about and how one talks about performances. Does one not often tend to adhere to James' natural, but incorrect, way of thinking about a performance? Is it not true that one sees "the bear, one hears a sound or sees a work and one feels afraid, which is analogous to, "I hate that sculpture" or "I love that scratchy sound"? Whereas in fact, one is seeing the bear ("the performance"), while immediately changes in one's body occur. According to Damasio's and James' arguments, one should first be "thinking", or sensing may be a better word, how one's body has been affected before expressing one's emotions, as the changes in one's body state do occur before one even thinks or senses, as James argued. Of course, once the emotions-proper, such as hate or love for a particular thing are put into words, those emotions have already
turned into feelings. Emotions have played out in the body and vocalisation of the emotion was thus enacted. Damasio points to exactly this idea, that nothing is ever neutral in terms of emotion and that all feelings are always feelings of some of the basic regulatory reactions (Damasio 2003, p.92).

With a view to Damasio's findings of the essential content of feelings being the mapping of a particular body state, I suggest that instead of "I hate that sculpture" or "I love that scratchy sound", one needs to orient one's awareness to the changes that take place in the body, and should instead be saying "this sculpture made my left toe tremble" or "this scratchy sound made my skin tingle".

Considering performance as a stimulus or a trigger to a motivation is one possible way of thinking about performance, and it may open up different ways

of reflecting upon per formative activities. Moreover, and more interestingly though, is Damasio's finding of the mind being "filled with images from the flesh and images from the body's special sensory probes" (Damasio 2003, p.214), rather than the mind being populated by images from the outside world; that is by images that do not relate to our bodies. This brings to the fore the idea that complex interactions of brain, body and mind exist. Implicit in this is that there is not a one-to-one chain of events, and that there does not exist a linear way of conceiving the interaction of brain, body and mind. One can extract from Damasio's findings that nature already provides us with a certain diversity and with a certain complexity of the body. The body mapped, thus, has to be understood in a way more akin to the metaphor of translation and its implications that I outlined above. In this reading, a performance that celebrates this body and conceptualises the body in such a way, comes closer to the act of speaking a foreign language. This is a non-linear process that is context dependent and that is particularly characterised by a mismatch of information; a process in which a great potential for the making of mistakes exists and in which the focus is at times geared towards this potential for failure. I argued above that the opportunities for making errors also aid in shaping new languages. Finally, the body mapped, which accentuates diversity, stands in direct opposition to the idea of a one-to-one mapping of the body, of mapping a rising arm movement to a rising pitch, or of playing "happy music" to "sad" people.

ENACTING THE SURROUNDING

In thinking of performance as a stimulus, it is also implicit that what the performer eventually feels is dependent on the original input; an input that is chosen by the performer herself, so I argued. It seems that I am biting my own tail in suggesting that a stimulus affects the performer and that the performer's "output" is dependent on the "input", an artificially initiated and self-chosen one as created by the performer herself, i.e. the stimulus for the organism is in itself informed by external influences. The reason for putting "output" and "input" in inverted commas is to highlight that the organism does not function like some linearly conceived machine as an input-output device. This implies that the organism chooses the stimulus towards which it is sensitive. This theme of the organism as a whole extending beyond itself to include the interpersonal and social world of self and other has a long tradition in continental European phenomenology, as first elaborated upon by the philosopher Edmund Husserl (1859-1938). This theme is also one of the key issues in Maurice Merleau-Ponty's work "The Structure of Behaviour" (1963). Here, Merleau-Ponty describes the organism not as a passive input-output device, but as the initiator of the world, as one that in fact contributes to the enactment of his surrounding environment. One of Merleau-Ponty's passages reads: "Since all the movements of the organism are always conditioned by external influences, one can, if one wishes, readily treat behavior as an effect of the milieu. But in the same way, since all the stimulations, which the organism receives, have in turn been possible only by its preceding movements, which have culminated in exposing the receptor organ to the external influences, one could also say that behavior is the first cause of all the stimulations. Thus the form of the excitant is created by the organism itself, by its proper manner of offering itself to actions from the outside" (Merleau-Ponty 1963, p.13).

This passage reinforces the image of the serpent biting its own tail. The way, in which a person behaves is conditioned by the environment, and since the organism is receptive to external influences, it offers itself to the outside at the same time. To elucidate this idea I want to consider the act of breathing. Even if breathing is not strictly speaking a type of behaviour, it is however something which organisms are sensitive to. One reason that one breathes is the fact that there is oxygen in the environment. Breathing is therefore an effect of the oxygen being there for one to breathe. On the other hand, because a body capable of breathing exists, and I remind that one of the first ever cells on earth were anaerobic, i.e. they did not require oxygen, it may cause the environment to come into being. It may cause oxygen, the excitant, to exist.

This phenomenological approach of reciprocal specification and selection lies at the heart of Merleau-Ponty's writing and also characterises Damasio's findings of the brain, body and mind being manifestations of a single organism, rather than the mind depending on the working of the brain, or the mind and brain working on one side and the body on the other.

Francisco J. Varela et al. (1991), by focussing on cognition and human experience, also elaborates on this idea of a perceiver-dependent world; of perceiver and world being engaged in some mutual exchange. Varela argues that cognition has to be understood as an "embodied" action; embodied meaning that the mind, rather than being seen as located in the head, is embodied in the whole organism embedded in its environment. The title of the book "The Embodied Mind" (1991) already suggests this line of argument. Thompson suggests that Varela's writing is central to supporting the move from the classical, cognitivist view of an inner mind representing an outer world through

the use of symbols in a computational language of thought, to "enactive" or "embodied" cognitive science (Thompson 1999).

Varela's argument posits world and perceiver as specifying each other; therefore cognition ceases to be the representation of a pre-given world. One of the main points that Varela makes is that instead of the two extreme, he describes them as "the Scylla of cognition as the recovery of a pre-given outer world (realism)", and "the Charybdis of cognition as the projection of a pre-given inner world (idealism)", it is mutual specification that allows for the negotiation of a middle path between them (Varela, Thompson et al. 1991, p.172). This means that Varela proposes an "enactive approach" to perception in which it is not important to determine how some perceiver-independent world is to be recovered but
rather, "to determine the common principles or lawful linkages between sensory and motor systems that explain how action can be perceptually guided in a perceiver-dependent world". [In this approach], "the reference point for understanding perception is no longer a perceiver-independent world but rather the sensorimotor structure of the perceiver" (Varela, Thompson et al. 1991, p.173).

This line of thought also recalls Henri Bergson's view of the body as the centre of one's actions, in which Bergson particularly stresses that action has been neglected by realism and idealism that assume that conscious perception points to knowledge, rather than to action. I will return to Bergson in detail in section 2.3. By drawing on Non-Western thoughts and incorporating the Buddhist concept of mindfulness meditation, in which the aim is to lead the mind to one's experience itself, away from its theories and preoccupations, Varela is able to offer a reflective and immediate; a lived, rather than purely theoretically abstract concept of Western tradition (Varela, Thompson et al. 1991, p.22). Furthermore, Varela blames Western thought for being too strongly anchored in foundations. He says that Westerners suffer from what he terms the "Cartesian Anxiety"; an anxiety derived from the fact that one needs, and craves for, a fixed and stable foundation for knowledge, as otherwise one feels lost in confusion and things fall apart (Varela, Thompson et al. 1991, p.140). With this in mind Varela looks towards the Buddhist mindfulness meditation that I just mentioned, in which such grasping for an absolute ground is eliminated and a full realisation of groundlessness (sunyata), "the loss of a fixed reference point or ground in either self, other, or a relationship between them", is attained (Varela, Thompson et al. 1991, p.248).

I think one can extract two points from Varela's writing that are central to a performance discussion. Firstly, and this is probably the more straightforward point, any performance situation struggles with this "divide" of performer and listener/viewer, and questions as how to convey performative intent across the "gulf. How the listener/viewer is to engage with what is "on the other side" are recurrent preoccupations for a performer. To me, this recalls Varela's idea of Scylla and Charybdis that he encounters in cognition. The reader may remember that Scylla and Charybdis were the two monsters in Homer's "Odyssey":

Charybdis, once a nymph-daughter of Poseidon and Gaia, was turned into a monster by Zeus. She lived in a cave at one side of the Strait of Messina and sucked water in and out of the Strait, engulfing any vessel coming near her. Opposite her lived Scylla, once a nymph, transformed into a frightful monster with twelve feet and six heads by the sorceress Circe. Whenever a ship passed, each of Scylla's heads would seize one of the crew.

One can argue that in any type of performance situation, the Scylla of perception is found in the listener/viewer; in the person who recovers what is in the outer world or what is offered to her by the performer. On the other side of the "divide", there is Charybdis, the performer, who is engaged in the projection of an inner world. It is worth noting that in Homer's "Odyssey" the two monsters form a dangerous threat to passing ships, and it is their close bond that makes them so strong and menacing to passing vessels. This, then, can imply that rather than passively looking at this "divide" of performer and listener, and seeing performance as such "outer" versus "inner", there is a need to actively navigate the "middle path". Varela urges one to look at this "middle path", which is achieved through mutual specification; a path that, by bringing together the main elements of each side of the "divide", strengthens the bond between Scylla and Charybdis. I feel that Varela regrettably refers to this path as the "middle path", whereas I think Turner's idea of the threshold, or the liminal, a state of "betwixt and between" (Turner 1982) is a much more appropriate way of conceptualising this middle path, as it not solely exists between left and right, between performer and listener or viewer, but it is also one that moves between those same categories. It is on this middle path that extremes meet and touch, while at the same time, the extremes only exist due to the presence of the threshold.

PERFORMANCE AS NEGOTIATION OF THE CARTESIAN ANXIETY

The second point that Varela draws to my attention is the Cartesian Anxiety, of Westerners craving for a fixed

foundation. A powerful metaphor can be to understand performance as a way of negotiating the Cartesian Anxiety, as a way of eliminating the grasping for an absolute ground. In order to achieve such realisation of groundlessness (sunyata) in a performance, one has to acquire a certain mind-body unity; one that the performer needs to develop in order to perform. Varela suggests that when learning an instrument the accomplished performer develops a specific "mind-body unity", which comes into existence once the connection between the mental intention, i.e. how to play the notes on an instrument, and the physical, i.e. the actual playing of the notes, becomes so close that one achieves a specific condition that "phenomenologically feels neither purely mental nor purely physical; it is, rather, a specific kind of mind-body unity" (Varela, Thompson et al. 1991, p.29).

This specific "mind-body unity" can be found in the Indian performers educated in Kathakali Dance, for example. In this dance, the dancers' bodies literally become "massaged" and "danced into" the required shapes, until the dance "goes into the body". What is at first being imposed from the outside, slowly over the years, and it can take more than six years to become a kathakali performer, becomes read from the inside (Schechner 1988, p.314). One can argue that the acquisition of such mind-body unity can be understood as a way of leading the mind back from its theories to one's experience. Hence, if it is the case that in order to perform, one has to acquire this mind-body unity, one may be well equipped to negotiate the Cartesian Anxiety, to realize a certain groundlessness. The performer may be able to eliminate, even if solely for the duration of the performing activity, the grasping for such absolute reference point or ground. A specific type of performance, the Japanese Butoh dance, emphasises the fact that a mind-body unity can only ever be achieved by actively performing oneself.

Butoh dance is a particular type of performance that has at its basis such specific mind-body unity, which can be expressed in rather invisible ways. Since Butoh dance can deviate from what one may consider a dance to be, it is also sometimes referred to as a "un-dance". For example, by means of barely visible bodily movements the performer can attempt to shift air from the right to the left lung via the trachea, which may lead the viewer to wonder whether the dance is more in the mind than in the body. A characteristic example of "un-dance" is that of Tatsumi Hijikata's Butoh of "a dead man standing in desperation" (Kasai 2000). Such description highlights a more conceptual understanding of using one's body in a performance. Hijikata's Butoh specifically developed certain techniques that were not only non-existent in Western dance at that time, but that focused on such conceptual uses of the body. One such technique is te-boke (absent minded hands), where the dancer's hands are supposed to be wandering "anxiously in the air with no practical purpose" (Kuniyoshi 2004).

BUTOH DANCE

Butoh is a good example of a performance in pursuit of groundlessness; a dance that attempts to negotiate the Cartesian anxiety. I consider this a performance that features the body mapped, as it highlights the complex interactions of brain, body and mind. It is a type of performance that seeks the dissolution of the self in the body, in a body that becomes worn out, one that aims for a unity of mind and body. A strong endeavour is to minimize the mind/body split and, as Kasai and Parsons point out, the idea of "mind and body as an integrated, mutually influencing unit" is at the core of Butoh (Kasai, Parsons 2003, p.5).

In Butoh, the performer attempts to achieve a balanced position of being inextricably part of the world around her. This implies that she is not too focused on what is "out there" and not too strongly focusedon what is "in here". In a way, the dancer has to remain open to her surroundings, while at the same time allow for a certain diffusion of the external environment in order to perceive her own mind-body. Butoh uses movements in which the body is in contortion; the legs are bent and the performer's face reveals "grotesque ugliness of old age" (Kuniyoshi 1991). The body may tremble and jerk with distortions. The movements are rather disorganized and can be both abrupt and continuous. The dance is intended as a way of liberating the mind-body; as a way of examining the unconscious. It is a questioning of the human body and a way of confronting and liberating aspects of the mind- body that may have been suppressed by social conditioning. Thus, Butoh can be understood as a kind of watching and "noticing" of the mind-body (Kasai, Parsons 2003). One can see that Butoh approaches the body in a specific way, and in contrast to Butoh, there are performances that aim for bodily improvements, using extensions, implants and artificial organs. Such bodily constructs that are implemented with new technologies aim for the enhanced, extended and even re-engineered body and can be found in some of the works by the artist Stelarc. Artists constantly explore the impact of such new technologies, as was the case in the recent show "Designer Bodies" that investigated the impact of current scientific breakthroughs in human genetics (Nedkova 2004). I will examine performances that deal with notions of extension and re-engineering in chapter III.

The approach towards the body in Butoh is the opposite. The body's natural decline and its wearing-out is accepted. The idea is not to show off a body that can stand against nature, but to accept that man and nature are bound together. Accepting the workings of nature is also to accept the resulting changes in one's body. Butoh's dance movements highlight these deformations of the body. They show a debilitated body as imposed by nature (Kuniyoshi 1991, p.8).

Culturally different ways of thinking of the self come to light in the difference between:

1) The pursuit of an enhanced, re-engineered body, often seen as one of humanities' greatest possible achievements, and undeniably seen as a competitive necessity in a world increasingly imprinted with technology, and

2) The quest for a debilitated body; a body that, rather than designed against the workings of nature, is dragged from its prime position.

This also underlines the differences of self as central to survival on one hand, which is a self that is fixed and grounded in the world, and the self as groundless on the other hand, which is a self that becomes dissolved in the worn-out body.

To be able to dance Butoh is to aim constantly for a mind-body unity and to accept the debilitated body. To me, the idea that some reactions in the dancer's body may surprise the dancer himself, or the fact that the dancer may not even expect or predict certain reactions of his own body shows that the negotiation of the Cartesian anxiety has occurred. The dancer has managed to free himself from a certain fixed reference point; from a ground in either the self, in another, or in a relationship between them. The Butoh dancer has ceased to grasp for such absolute ground and realised groundlessness. Further, these surprising bodily movements suggest certain unpredictability in the workings of the performing body, an inherent instability, something that "the body mapped", an interface between the body-proper and mental patterns, celebrates. The body in this "un-dance" is highlighted as one that favours failure, the debilitated body, and non-control. It shows up as a body open to the encounter with surprise. I therefore see this body as unable to be conceived of linearly.

PERFORMANCE AS ALTERATION OF BODY STATES - TRANCE

I want to return to the act of breathing and consider performance activities that have breathing at their foundation, as breathing demonstrates particularly well the idea of triggering a motivation. Breathing highlights this idea of initiating a stimulus that brings with it the modification of one's normal body chemistry, and thus highlights the characteristics of the body mapped; that is the reciprocal interaction of body, brain and mind.

Above, I showed that any kind of stimulus always produces very physical outcomes, i.e. the bear that makes one run. The way one's body participates, or is being participated, in a performance has to be understood as closely related to its physical sensations: one sweats, one weeps and one smiles. It can therefore be said that performance, especially the kind of performing activity that has at its foundation the act of breathing, brings with it the modification of one's normal body chemistry. Performance always has the potential to lead to a physiological alteration of one's body state. Aldous Huxley in "Heaven and Hell" (1994), the sequel to "The Doors of Perception", suggests that such physiological alteration of one's body state can lead to meditative states, and even visionary experiences. He argues that long suspensions of breath result in a modification of the body's chemistry. This type of breath suspension can be seen in certain yoga practices as well as in the breathing cycles of singers, or instrumentalists for that matter; in short, in performers that tend to breathe little air in quickly and sustain a long slow out-breath. An increase in carbon dioxide in the blood, which in turn lowers the efficiency of the cerebral reducing valve, takes place. In such altered body states the brain admits, as Huxley puts it, "biologically useless material from Mind-at-Large". This means that prolonged shouting, chanting, the psalm-singing and sutra-intoning of Christian and Buddhist monks can create those same favourable conditions that lead to visionary and mystical experiences, Huxley argues (1994, p.105).

Trance performances are a good example of such acts that have at their basis the alteration of a person's body chemistry. The lexicographical meaning for "trance" derives from the Latin "trans-ire", literally meaning, "to go across". This may be understood as a going across from one's normal body chemistry to an altered body state; a going across from a state in which one moves from biologically useful to biologically useless material, from 'Mind-at-Small' to Mind-at-Large, from confined to unconfined. Trance is a well-researched phenomenon that has been tackled by fields as various as neurophysiology, social psychology, the anthropology of religion and psychodynamic psychiatry (Harrington 2000). I will therefore not detail it here. However, it is essential to note the agreement that, on a very general level, trance is considered an altered form of consciousness. Analogies between

trance and different forms of epilepsy have been drawn. On the other hand, various distinctions within the concept itself have been made. In this way, trance, understood as a more voluntary mastery of the experience, has been delineated from ecstasy, considered an involuntary experience, from trance-possession, or from absorption [see (Harrington 2000) for a thorough investigation into trance.

In order to induce a trance performance, changes in breathing patterns are essential. In addition, repetition, such as can be found in voodoo drumming, in the recurring and regular 4/4 beats in the deep bass lines of acid house music, as well as in the repetitive sounds produced in the Balinese Kecak Dance, and regularity become an important factor for the trance state to occur. A complex interaction of body, brain and mind has to take place for trance to occur, which is akin to the body-mind unity that characterises Butoh dance. The altered body state in trance performances underlines Damasio's view of the mind arising from or in the brain that is situated within the body-proper, and that all interact in non-linear and unpredictable ways with each other.

TURNER'S "PLAY" AS EVERYWHERE AND NOWHERE

The idea of performance pushing one's normal body chemistry towards an altered body state sheds a somewhat bi-polar light on the discussion; normal to altered, or biologically useful to biologically useless is mentioned, highlighting the dualistic or linear aspects that I am challenging here. I want to return to the ideas of two of the most influential writers on performance and performance theory: Richard Schechter's concept of "I" and Victor Turner's idea of "play", as both these thinkers propose concepts that I believe move the discussion away from those bipolar views, as they look at the in between, or the liminal instead. As a starting point for discussing performance and involved brain activities both writers take the brain's two hemispheres. However, both Turner and Schechter also go beyond the bipolar view that underlies this discussion of the brain. I will briefly provide an insight into the two brain hemispheres before proceeding to Turner's and Schechter's concepts.

According to scientists - Roger W. Sperry is most known for research into brain hemispheres - the brain is made up of a right and a left hemisphere. The left hemisphere tends to be associated with motor functions, analytical skills, and things like speech and processing capacities, whereas the right is seen to be "in charge" of spatial and tonal perception, pattern recognition and more holistic thought (Turner 1987, p.164). It has been shown that a conscious mind exists in both hemispheres, and Roger W. Sperry suggests that "both the left and the right hemisphere may be conscious simultaneously in different, even in mutually conflicting, mental experiences that run along in parallel" (Horowitz 2005). This implies that both hemispheres work via mutual inhibition, controlled at the "corpus callosum", the brain stem. In addition, it is understood that there are two systems in place in the nervous system: the ergotropic and the trophotropic systems, both being influential on the workings of the organism. In a way, the ergotropic system (from ergo = work + tropos = way, manner) looks after the organism's short-term wellbeing. It triggers quick responses and affects behaviour in the direction of arousal. This system is often characterized as 'fight or flight': the left hemisphere is associated with this ergotropic system. The trophotropic system (from trophe = food, nourishment) on the other hand looks after long-term wellbeing and renewal. While it maintains a certain baseline stability of the organism, it is also responsible for certain inactivity, such as sleep or drowsiness. The right brain hemisphere is associated with this trophotropic system (Turner 1987, p.164).

In their discussion of performance activities both Turner and Schechner question these clean-cut brain regions. Schechner suggests that if performance involves a way of learning to arouse the two extremes of brain activity, there must exist something like a "triple state", which he refers to as the "I" that stands outside, controlling the two halves (Schechner 1988, p.320).

Victor Turner situates the concept of play within the activity that takes place between the two brain hemispheres. He suggests that there is more to the brain in performance than the two halves. He bases his argument on the fact that so-called "spillovers" from one to the other system (the ergotropic and the trophotropic) occur (this, of course, is only true in the case of an intact "corpus callosum"). With those "spillovers" in mind, Turner suggests that ritual, for example is initially an ergotropic excitation, meaning that arousal is affected with the triggering of quick responses. If the excitation continues, so Turner argues, the trophotropic system also becomes excited. This kind of "spillover" shows that one can get mixed discharges from both sides, which Turner says, leads to ritual trance. In the midst of these mixed discharges Turner places the metaphor of play. He says that play's neuronic energies "lightly skim over the cerebral cortices, sampling rather than partaking of the capacities and functions of the various areas of the brain". Play's "metamessages are composed of a potpourri of apparently incongruous elements: products

of both hemispheres are juxtaposed and intermingled" (Turner 1987, p.168). By turning towards play, Turner shows, with a slightly different vocabulary from that of scientific enquiry, the complex motions that can occur in the brain. Turner even goes as far as suggesting that play can be dangerous as it "may subvert the left-right hemispheric regular switching involved in maintaining social order" (1987, p.168). In reminding of the interconnection of play and performance, above I argued that aspects of play have been reconstituted in performance activities, one can place performance, just as Turner placed play, in the midst of the ergotropic and the trophotropic systems, in the midst of those spillovers. Thus, on one hand, performance can be seen as a mediator of those systems, something that sits in-between, and has access to both systems. On the other hand, it can be seen as an interrupter to the system, as something that stirs up the "normal" workings of the system, something "betwixt-and-between all standard taxonomic nodes", in particular if it acts like play, which can be, "everywhere and nowhere, imitate anything, yet be identified with nothing" […]. [i]t makes fun of people, things, ideas, ideologies, institutions, and structures; it is partly a mocker as well as a mimic and a tease, arousing hope, desire, or curiosity without always giving satisfaction" (Turner 1987, p.168).

In this reading, performance constitutes something interstitial, something in-between that also has the potential to subvert. It is an act that arouses bodily responses while highlighting the complex processes within the body itself. The body mapped, a body conceived as a nonlinear and context dependent body, supports this argument.

THE BODY MAPPED - SUMMARIZED

In this chapter, I have considered performances from the view of "the body mapped"; a body seen as an interface between the body-proper and mind, and I proposed to consider performance as a kind of stimulus, which initiates the complex interaction of brain, body and mind. This highlighted the idea that not a simple one-to-one chain of events, or a linear way of conceiving the interaction of brain, body and mind exists.

The suggestion of the brain, body and mind being manifestations of a single organism, of the organism being an initiator of the world, as suggested by various thinkers, led me to examine performances that have at their basis a specific mind-body unity, such as the Butoh dance. Butoh exemplifies a performance that brings to the fore notions of failure. It is a performance that highlights deformations of the body, one that celebrates the body's struggles and potential for failure.

Finally, I examined Victor Turner's suggestion of considering the "spillovers", or of what occurs between the two brain halves, which led me to suggest that performance, in the same way as play, can be conceptualised as something interstitial, something in-between. It is an act that arouses bodily responses while accenting the highly complex processes that occur within the performing body.

THE CARTESIAN PERFORMANCE - THE BODY GOVERNED

"I am certain that I am a thinking thing" (Descartes 1986, 3rd Meditation, Paragraph 35, p.24). From performances that feature an inextricable link of mind and body, I arrive at performances in which, as an analogy to the notion of the Cartesian dualism, mind and body become manifest as separate substances, or in which the division of the two substances is emphasised. In this section I consider performance from the point of view of what I call the body governed; a body that is dominated, and controlled, by the mind.

Descartes' main hypothesis is that mind (res cogitans) is pure thought, and matter (res extensa) is something that does not think, establishing humans as consisting of two finite substances, where one can exist without the other. Although these substances seem to be separate, Descartes, in a seemingly bizarre twist, insists that mind and body do inform each other mutually. For the substances' causal interaction, Descartes gives the explanation that there exists a meeting point in the part of the brain called the pineal gland where the substances can interact.

This idea for the body governed I find expressed in Descartes' "Meditations" (1641), where Descartes says that things are not perceived by the senses or by the imagination, but by the intellect alone; that things are not perceived through sight or touch, but by understanding them (Descartes 1986, 2nd Meditation, p.22). This statement also reflects Descartes' more often quoted and rather famous argument, called the Cogito: "Cogito ergo sum", which translates as "I think, therefore I am", a statement that underlines his views of the existence of mind and body as separate substances.

In this section I discuss a performance that features the body governed. It will, however, become apparent that this body also reveals the fragility of the body. The potential for its breakdown leads me to think of this performance, rather than one that emphasises notions of control and predictability, as one that in fact

highlights traits of inconsistency and mismatches.

DAVID BLAINE - THE FREAK

The performances by David Blaine have been referred to as "public stunts" and I think that they represent at its most explicit the idea of what I term a Cartesian performance. The media refer to Blaine's Harry Houdini inspired events as anything from "attention-seeking freak shows" to the "must-see attractions of a conman", an illusionist, a conceptual artist, an existentialist, a genius or a sex god (The Independent 2003). I will refer to Blaine's stunts as performances. They are performances that incite one to rethink the borderline of art and life. In particular, they show the reciprocal relations of the performance and social life represented by the watching and re-acting public. Blaine's performances tend to attract public reactions of all kinds, and during his performance "Above the Below" spectators threw golf balls, eggs and bottles amongst verbal abuse at the performance space. Blaine's performances also tend to incite the public to stage their own perfomative acts - in forms of fights, but also in the form of street performances. (Contactmusic 2003). Blaine's performances explore the testing of the body's limits and thus set up a distinct ground for the body governed, for a body that is somehow informed by the higher rationality of the mind. In the 2003 performance "Above The Below" for instance, Blaine survived for 44 days without food in a small plexi-glass box suspended in the air near Tower Bridge in London. In 2000, Blaine performed "Frozen in Time", in which he let himself be encased for over 61 hours in a block of ice in Manhattan's Times Square.

Blaine has staged other similar performances that always push the body to its "limits"; the limits as conceived by the public, and as understood and imposed by the media.

Blaine's performances, in which he intentionally pushes his body to perform strenuous tasks, reveal the Cartesian idea of the body being guided by the mind, by pure thought (res cogitans). They highlight the idea that the mind is able to control the functioning of the body and as Blaine himself stresses, his acts of endurance rely on the ability to think and to stay mentally focused. He says that he needs to achieve a state in which the mind has control over the body (Blaine2005). In Blaine's performances the body is considered and treated as pure flesh; the body is rejected, and even despised. The ability to control the body, as well as the realisation of a higher spiritual state; a process in which, as Blaine says, one may even lose one's mind, is valued over the flesh. In Blaine's performances the body becomes a nuisance. The body needs to be purified and emptied of unnecessary waste. In "Above the Below", Blaine uses diapers until his body stops producing solid excrements. Afterwards a urine tube is used to eliminate the body's remaining excretions. The focus of the performance is on eliminating or at least reducing the biological functions of the body as much as possible. Blaine constantly highlights the fact that the body is somehow bothersome and that it is in the way. For performing "Above the Below", he insists on taking lip balm with him, as he states: "I've done these kinds of things before, and I know how annoying it is to get chapped lips" (Channel 4). Blaine's performances are intended to be heroic; they show a person publicly confronting his fears, as Blaine says. It is assumed that by bypassing one's body, by reducing it to its purely biological functioning, one is able to aim for a higher spiritual state, and is therefore capable of getting closer to God. Blaine is known for finishing his performances by sending a blessing to God: "This is just the beginning", and "God bless us all", he announces (Blaine 2005). For the flesh to continue in its most minimal biological functions that keep it alive, a focused mental intention has to be present. Mind over body becomes a necessity for the survival of the flesh and in the case of the body failing, one can question whether it is either the mind that has won over the flesh or the mind that has failed the body. Rather than a mind-body unity and mind and body informing each other, Blaine shows a performance in which the body is of lesser importance; the body is an object, something to be conquered, to be dominated and to be controlled by the mind. Blaine's performances celebrate the body governed, a body apparently controllable by the mind.

"Above the Below" also recalls the one-year performance by artist Sam Hsieh, who, in 1978, committed himself to one year of solitary confinement, without imposed starvation, inside a small cell built inside his own studio. Hsieh artistic statement reads: "I shall not converse, read, write, listen to the radio or watch television until I unseal myself" (in Schechner 1988, p.294). In a similar way of literally "starving" the body of its biological importance, the artist couple Marina Abramovic and Ulay performed "Nightsea Crossing" between 1981-86 (Abramovic, Ulay). This performance, in which the couple sits opposite each other at a table without moving, speaking or eating for up to 16 days, may reveal the "mystery of existence", as Warr suggests; but also, in the same way that Blaine's performance does, "Nightsea Crossing" displays the artists as "embodied consciousnesses, in the process of being" (Warr 2000).

It is worth remarking that in performances that feature the body governed, the potential for the body's

breakdown is what particularly attracts attention towards the performance. What is made explicit to the audience is the possible loss of control of the performer's mind over his body, and thus the potential for damage: Blaine could freeze, dehydrate, fall, break, or die. It is this inherent danger that Blaine's marketing team tends to point out before the start of each performance, which in turn creates the hype around the acts. Blaine's team assures us that the performances are accompanied by possible "dangers", "problems" and "risks". The potential for breakdown is continuously mentioned: possible brain and/or organ damage, starvation or even death. Blaine's statements such as, "this could easily be the last thing I do", help to emphasize the inherent potential dangers (Channel 4). The body's potential for failing, in case of the mind losing control over the body, lends the performance some, or
most, of its excitement.

The Body Governed - Summarized

The Cartesian performance, then, is one in which mind and body are emphasised as two separate substances, featuring the body governed. However, in pushing the body to its limits, and emphasising the involved risks in doing so, the performance also reveals the body's potential for vulnerability. One can argue that beneath the apparent ability of controlling the body, the potential for mismatches of body and mind, and the promise of human error is implied. In this line of argument, rather than conceiving of the performance as one marked by control and predictability, I see this performance as one that in fact points to the body as inconsistent, diverse and unpredictable; one that opens up this marginalised space full of the "possibility of potential forms, structures, conjectures, and desires, …", as Susan Broadhurst characterises this space (Broadhurst 2000).

A performance of the body governed discloses performance as something interstitial or liminal, as something that, contrary to Blaine's emphasis of the need for the body's control, highlights what it endeavours to conceal: the body's mismatches and inconsistencies, emphasised through the involved potential risks.

REFERENCE

1. James' pragmatic approach to the body/mind is often referred to as pragmatism (Goodman 2005). James elaborates on this approach in his work "Pragmatism" (1907/1979).

2. Spinoza's concept is also known as "conatus", which states that "each thing, in so far as it is in itself (meaning independent, my remark), endeavours to persevere in its being" (Spinoza 2000, p.171). Spinoza understood the organism as being integrated; a rather revolutionary idea for his time. And further, this organism, according to Spinoza, always produces advantageous reactions in order to lead one to a greater or lesser physiological balance. It is important to note that these reactions do not need to be consciously decided upon (Damasio 2003, p.50).

3. This seemingly single chain of event is evidently more complex. In fact, the process is a much more lateral one resulting in parallel rather than single chains of events, according to Damasio. One may for example recall other related stimuli when confronted with the bear (other frightful creatures one has encountered), which act as emotionally competent stimuli that can either trigger the same emotion or modifications of it, or even conflicting emotions (Damasio 2003, p.65).

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7. In Spinoza's eyes, body and mind are a unity, with the becoming-active of mind and body originating in passion, in impingement; and it follows that when the body is impinged upon, it is in a "state of passional suspension in which it exists more outside of itself […], than within itself" (Massumi 2002, p.31).

8. Recent mirror neuron research supports this

view: Giacomo Rizzolatti discovered in the ventral premotor cortex of the frontal lobes of monkeys the existence of neurons that discharge when a monkey executes a certain action, and, what is more interesting, that any given mirror neuron will discharge when the monkey observes another individual performing the same action (Kohler et al. 2002).

9. Performance studies use the term "metaxis", employed by Augusto Boal, to describe "the state of belonging completely and simultaneously to two different autonomous worlds: the image of reality and the reality of the image " (Boal 1995, p.43).

10. I am grateful to Richard Coyne who pointed out that one may consider oxygen as a purely scientific construct that supplies us with a plausible explanation for the cause. And indeed, scientists believe that oxygen was first produced by photosynthetic microbes, (also known as cyanobacteria, or blue-green algae), which, by performing oxygenic photosynthesis, converted carbon dioxide and water into food. In that process, oxygen was produced as a waste product; once the microbes had become so
abundant, free oxygen started to accumulate in the earth's atmosphere, creating breathable oxygen (Science Bulletins 2004, Siegel 2003).

11. Butoh is a dance form developed by Tatsumi Hijikata in the late 1950s in Japan.

12. These unconventional dance movements were seen as an attack on the conventional notion of dance during the early 70's

13. One can speculate whether Charlie Parker would have achieved the same virtuosic "speeding" while "on speed", had he focused on particularways of breathing, aiming for a drug-free induction of an altered body chemistry.

14. Roy Ascott refers to this state, in which one may be in two different fields of experience at one and the same time, as "double consciousness". According to Ascott, in classical anthropological terms, this state designates the shamanic "trance" (Ascott 2003, p.357).

15. Acid House is a music movement that appeared in the mid 80's. The movement was usually accompanied by the use of recreational hallucinogenic drugs such as MDMA, i.e. ecstasy (Lyttle, Montagne 1992).

16. In this dance over 150 men create a "cacophany of synchronized and repetitive chak-achak-achak clicking sounds while swaying their bodies and waving their hands" (Carvin, Carvin 2005). In Jim Jarmusch's film "Down by law" (1986), even a silly play on words such as: "I scream, you scream, we all scream for ice cream", repeated over a long period of time in combination with body movement, conviction, and an increase in amplitude, incites a trance-like state. In Jarmusch's film, the
three prisoners, the instigators of the chanting, motivate the entire prison to join in the rhythmic patterns, almost causing a revolt in the prison system.

17. In 1981 Roger Wolcott Sperry received the Nobel Prize for his important discoveries on what is known as "split brains". He showed that if the two hemispheres of the brain are separated by severing the "corpus callosum" (the brain stem), information can be no longer transferred between the hemispheres (Horowitz 2005).

18. René Descartes (1596-1650) conceptualised the body as made up of separate "substances", these being mind, body and God, whereby a "substance" is "a thing which exists in such a way as to depend on no other thing for its existence" (Descartes 1984, p.114). According to Descartes, the essence of mind (res cogitans) is pure thought and is not extended; a non-physical substance, as it were; whereas the essence of matter (res extensa) is extension and does not think (Gregory 2004). It is, then, that a person consists of two finite substances, in which one can exist without the other.

19. Gareth Southwell suggests that Descartes may have chosen this gland as a way of interaction for mind and matter, as he thought this gland only existed in man and not in animals, an assumption that recent research has disproved (Southwell 2003).

20. This is not to suggest that abstaining from food for over a month is not a difficult endeavour; I solely wish to point out that Blaine's performances raise the issue of what is considered "within the limits", or "doable" for a human being. One assumes that the performance act is a strenuous and impossible task that pushes the body to "its" (that is Blaine's) limits; this is something that one has been communicated to by the press. Until each of person defines for himself what is "within one's limits" or "doable", Blaine's marketing team has to be believed. Indeed, a recent news article in the Sunday Times (05/12/2005) speaks of Ram Bahadur Bamjan, the 16-year-old boy who is said not to have eaten or drunk in six months during which he has been meditating in the forest of southern Nepal.