



From Registers to Reflections on the Body in Process of Creation

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ABSTRACT – From Registers to Reflections on the Body in Process of Creation – The article presents a reflection on the body through the study of movement registers in the creation process of the show *Aldebaran*, by *Grupo Oficcina Multimédia*. Considering the body as the focus, an inventive observation, corporeal reading of movement drawings and a literature review were undertaken. Movement registers are discussed as performative mnemonic instances that enable corporeal resonances between the scholar of the process and the images of the movements. The body in resonance is shown as a condition for poetic interactions in scene constitution in dance and theater, and resonance is considered as a corporeal operator of artistic fruition and alterity practices.

Keywords: **Body. Process of creation. Register. Resonance.**

RÉSUMÉ – Des Enregistrements aux Réflexions sur le Corps en Cours de Création – L'article propose une réflexion sur le corps à travers l'étude des enregistrements de mouvement du processus de création du spectacle *Aldebaran*, du *Grupo Oficcina Multimédia*. Afin de penser au corps, de faire une observation inventive, une lecture corporelle de dessins de mouvement et de réaliser une étude de la littérature correspondante. Les enregistrements sont discutés comme des instances mnémoniques performatives qui permettent des résonances corporelles entre le chercheur du processus et l'image du mouvement. Le corps en résonance se présente comme une condition pour des interactions poétiques qui font partie de la scène de la danse et du théâtre, et la résonance peut être considérée comme un opérateur corporel de jouissance artistique et de pratiques de l'altérité.

Mots-clés: **Corps. Processus de Création. Enregistrement. Résonance.**

RESUMO – De Registros a Reflexões sobre o Corpo em Processo de Criação – O artigo apresenta uma reflexão sobre o corpo por meio do estudo dos registros de movimento do processo de criação do espetáculo *Aldebaran*, do *Grupo Oficcina Multimédia*. Com o objetivo de pensar o corpo, realizou-se observação inventiva, leitura corpórea de desenhos de movimento e revisão da literatura. Discute-se os registros como instâncias mnemônicas performativas que viabilizam ressonâncias corpóreas entre o estudioso do processo e a imagem do movimento. O corpo em ressonância apresenta-se como condição para interações poéticas de constituição da cena de dança e teatro, podendo a ressonância ser considerada como operador corpóreo da fruição artística e práticas de alteridade.

Palavras-chave: **Corpo. Processo de criação. Registro. Ressonância.**

Introduction

Creation processes leave traces beyond the memories of the subjects involved in them. We can identify them, especially, in the registers of creation processes made in logbooks, process notebooks, artist journals and books that accompany the creators of different artistic languages, such as literature, music, the visual arts, theater, and dance. Mobilized by the desire to develop a reflection on the performing body from the traces of the creation process, I have studied the artist's actions from scenes registered in the form of drawing, writing, and erasure.

In this text, I reflect on the relation between the registers of actions, in process notebooks, and thoughts on the body as part of the research results from *O corpo em processo: a performatividade dos registros na gênese da cena*¹. This investigation began with the following questions: when the body in a state of creation is registered, how does this register reach an affective state with power to generate other scenic actions? What can we say about the body from the study of movement drawings originated in processes of creation? I share below a consideration based on the critical-interpretative study of the movement drawings registered in the process notebooks of the show *Aldebaran*², by the theater director and musician Ione de Medeiros³, which were experienced corporally through improvisations, with the goal of reflecting on the body in the creation process.

It is important to point out that we deem the movement danced by the artist of the scene to be an *action* in the sense proposed by Grotowski (1993), who differentiates between action and movement by emphasizing that the action is loaded with intentionality and carried out with purpose. In this reflection, the idea of movement will not be viewed as a set of reflex actions, much less the simple execution of a plan, but rather the result of a comparison between memory and the prediction of the consequences of action through the medium of perception (Berthoz, 2000). It is also important to highlight that the registers studied, the process documents, were developed during the process of creating the show, while what I present in this article refers to the process of the research undertaken. Therefore, the creation process of movements was studied through the

registers of movement that generated a new process of body experimentation, as we will see below.

The creation process was understood as space-time for the invention of new movements in their dimension of experimentation, which implies freedom of choice intertwined with the repertoire of the researcher/improviser. In this way, the creation of movements was not carried out with the aim of producing results in the form of a new spectacle, which is why there are no imagetic records of this process. I would also like to stress that being in the process of corporal creation, from the study of registers in process notebooks, was what made it possible to reflect on states of body in the realm of artistic experimentation. As such, two processes of creation were interwoven through the study of the registers of movement: the creation process for the show *Aldebaran* – which provided the drawings of movement – and the creation process as methodology of the study itself, experienced via body improvisation with the objective of thinking about the body, and moving it.

The idea of register, which from the Latin – *registum* – means to reclaim something that already happened (*re-gestum*), refers to the writing of important information. I considered register as a *full writing of performativity*. Its performative aspect is exactly in its capacity to transform and affect the scholar of the creative process, as proposed by Fischer-Lichte (2008) when defining performativity. She argues that the performative experience surpasses hermeneutic limits and generates a kind of *emotional infection* in the active-receptor. Thus, analogously, the researcher of creation processes who employs the registers as a priority investigative source could *suffer* the impact of the registers' performative power, being affected by the vestiges of the work. The very process of documenting the creation in process notebooks can be seen as a performative act that makes traces of the creative path present.

Registers were treated as *mnemonic performative instances*. By tracing a brief review of certain Western practices in registering danced movement, it is possible to see that modes of register are closely associated with thoughts about the body in movement, and dance.

Around 1700, there was what has been considered to be the first choreographic notation of Raoul Feuillet and Pierre Beauchamp⁴. This

notation was recorded by means of drawings – characters, figures and signs – which schematically described the directions of the body and the ornamentations of arms and legs. The purpose of the register was to preserve the choreography for later performance, with a view to exporting the baroque dance of Louis XIV's court to all of Europe (Moraes, 2019). This notation became known as *Beauchamp-Feuillet Notation* and was a reference throughout the 18th century.

Still in the 18th century, Pierre Rameau adds movements of arms and trunk to the register of danced movement, applying them in a French courtesan dance manual, using figures of both men's and women's bodies. The very idea of the manual shows that there was little space for artistic invention on the part of those who would come into contact with the notations for new choreographic staging and those who carried out the act of registering.

In around 1928, with Rudolf Laban, the register of movement condenses the so called movement laws into symbols of high abstraction. In this system, known as *Labanotation*, what was of interest was the *essence of the movement* inscribed in the register in accordance with a code that covered aspects such as: meaning, direction, the part of the body doing the movement, the duration and the dynamic quality. It involved an interweaving of traces that attempts to guide the act of dancing and denote another way of conceiving the notation of movement in dance by making evident a larger space assigned to the interpreter of the dance register, and also to the one who carries out the documentation of the dance. Something very important was therefore in focus: the idea of authorship, the autonomy of the dancer. Even if the need to reproduce the essence of the movement was maintained, consisting of its qualities – in relation to space, time, weight and fluency – in a certain way, abstraction conferred greater freedom of interpretation, favoring the *personal signature* of the dancer in the dance's execution (Ribeiro; Teixeira, 2008).

Abstraction also marked other choreographic registers, such as those of Rudolf Benesh, producing the *Benesh Notation* system (Benesh; Benesh, 1956). In the mid-1980s, we could see that this abstraction was headed towards a greater freedom to invent the register itself, going beyond the previous trend of faithful representation to maintain the *original* movement. Anne Teresa de Keersmaecker and Jonnathan Burrows are

among the European creators of dance, prominent in the 1980s and 1990s, whose choreographic notations demonstrate an expansion of the performative potency of the act of registering and the consequent opening of the space for interpretation and creation by the artist/performer of dance, from the reading of these registers.

The modes for registering danced movement have been significantly affected by digital media. While in the mid twentieth century, video was the protagonist, in a short space of time software has contributed to new perspectives on notations, drawings, and the remnants of creation processes. The performativity of the register *explodes* when, in 1994, William Forsythe and Volker Kuchelmeister transformed these *remnants* into a dance work with their *CD-ROM Improvisation Technologies (interactive multimedia): a toll for the analytical eye*. It is software for studying movement that is organized into four major categories: writing, reorganization, lines and additional material to be explored from tasks in the resolution of proposed paths and trajectories. In the software registers, the traces accompany the present of the motor execution, in a coexistence of the image of the body moving and the traced drawing of the movement, which is configured as part of the work⁵.

In the field of dance, in Brazil, there are many artists interested in registers of movement, whether for educational purposes, as in the case of the thesis by Gabriela Christófaró (2018), which introduces us to movement registers from classes by Marilene Martins, in the modern dance school *Trans-Forma Centro de Dança Contemporânea*, or interest from artists from the dance scene. In 2011, the improviser Dudude Herrmann published the book *Caderno de Notações: a poética do movimento no espaço de fora* [Notation Notebook: the poetics of movement in the outside space], a work that contains written registers – reflective texts – referring to four of her process notebooks, from the years 2003 and 2004. Márcia de Moraes drew the solos of dancer and choreographer Juliana Moraes, between 2002 and 2005, and has made them available online⁶. The doctoral research of the dancer and choreographer Thembi Rosa (2020), which discusses the notion of archive, based on the study of the insertion of movement registers in digital media, is another high point in the study of movement registers associated with new digital media.

Since the end of the twentieth century, we have witnessed a strong impulse in the archiving and handling of movement registers for creation processes in dance in several countries. This impulse can be seen on the website *Synchronous Object* (2009)⁷, created by William Forsythe, which is the first part of *Motion Bank*, also coordinated by him along with Scott de Lahunta (2010-2013 - Phase 1)⁸. Both are digital platforms that enable the shared study of procedural modes of choreographic practice, with particular emphasis on the new possibilities for creation using registers made available online (Rosa; Falci, 2018). The *Motion Bank*, a research project codirected by Florian Jenett and Scott de Lahunta, within the ambit of the Mainz University of Applied Sciences, is noteworthy in that it is a platform focused on real-time notation and recording based on the dialogue with choreographic artists – Debora Hay, Jonathan Burrows and Matteo Fargio, among others –, which makes several investigative possibilities feasible⁹. For Themi Rosa (2018, p. 6), these are instances provided to create “networks of interdisciplinary gatherings generated to think, create, propose and produce forms of visualizing dance”. In 2019, Themi Rosa, in partnership with Scott de Lahunta, began a deployment of this project in Brazil: *Motion Bank Brazil*. As such, she brought to the international scene the work of choreographers such as Dudude Herrmann, Dorothé Depeauw, Margo Assis, and herself, who became involved in the digital documentation, notation and visualization of characteristics of their dance works¹⁰. In Universidade Nova de Lisboa, there is the example of Prof. Carla Montez Fernandes, with her award winning project *Black Box*, a collaborative platform to document and analyze the composition of performances, inter-relating scenic studies and cognitive linguistics.

This brief overview of practices in documenting movement in dance does not intend to be exhaustive, and its presence in this text is in line with the idea of introducing different forms of approaching register, so that we may conceptualize it as performative instance. Through these examples, we notice that the act of registering involves both the need to represent the movement to make its subsequent execution viable, as well as incorporating and appropriating the register as part of the dance work and, furthermore, treating the register as invention. (Rosa; Falci, 2018).

The research I carried out began with the proposal of looking at the registers of movements traversing their condition not only as a

representation of the movement performed by the actor-dancer, the movement created by the choreographer, or a register as a work, as Forsythe proposed. Beyond that, I was interested in observing the register in order to see how it could affect me in the direction of other movements. Without working with computer resources, which could have been done using the *Motion Bank*, I operated in the proximity of the *remnants* of the movement in the process notebooks of Ione de Medeiros, created during the show *Aldebaran* (2013), considering *observation as an inventive act*. Realizing the association between visual perception and kinesthetic perception, I experienced the corporeal reading of the registers through the improvisation of movements¹¹.

Modes of Taking the Research Path

Research was carried out by studying registers of creative processes for *Aldebaran*, using the approach proposed by genetic criticism in the theatrical field¹², and used corporeal reading and a review of the literature as methodology. Genetic criticism, which began in the field of literature in the 1960s, deals with the study of creation processes also resulting from registers made during the creation of works¹³. It is important to say that I did a scenic movement consultancy, in 2012, added to the coordination of the corporal preparation research for the stage performance along with the director Ione de Medeiros, which provided me with close contact with the artists and nuances of the process. The data, derived from observation and subsequent corporal experience of movement registers, in the form of drawing, were imbibed with concepts coming from bordering fields, such as the cognitive sciences. This connection between concepts and movements is because of my desire to perceive and conceive, through the trace of the drawing, the writing, and also that which is on the edge of the register, thoughts about the body in the creation process.

I experimented with *observation as an invention*, in tandem with a *corporeal reading* of the drawn movement. Classifying observation as inventive consists in considering that in this act there is reason and emotion intertwined (Damasio, 1996) with a good dose of imagination, which makes us concur with what Paul Valéry (2012) says about Degas' drawings: "To observe is for the most part to imagine what we expect to see". Initially, I sought to identify which registers transported me towards other

movements and, on feeling what the images *asked* of me, I made the choice of those that would be experienced in the movement *of/in* my own body. In this manner, I did not study the registers limited to systems of analysis, but I let myself be affected by the drawings, and by the movement that remains in the trace. Then, from this exercise of visual and kinesthetic perception, I tried to understand which movement the drawing requested of me, instigated and elicited in me in reflexive terms. After experimenting that which I saw with movements - what I call corporeal reading - I wrote by hand the sensations and suspicions about the state of the body in that process of creation. I danced the drawing, thinking about the body during the movement itself and performing my thinking through the exercise of reflective writing. Thus, we reiterated the indispensable interlacing between thought-sentiment-action – present in the processes of inventive experimentation – liable to occur in research into the arts.

From the idea of *translating* the drawing to the danced movement, I exercised a type of *betrayal* or updating of the instant captured by the gesture of writing the movement. This methodological experimentation was strongly anchored in the consideration that there is reflexive thought in the movement, as well as in the image, even if it is not initially operated by words. It is not necessary to untangle the body in parts, in the Cartesian manner –thought/movement/feeling/reason/motion – in order to carry out a careful reading of the poetic experience of movement. And when I refer to reading, I ask the reader not to restrict it merely to the organs of sight, because we read with the whole body. I set the register in motion (Figure 1), through this strongly affective observation, which intentionally included me as the creative subject of that which I observed. It involved a practice of thought in motion that sought composition with remnants and vestiges.



Figure 1 – Body improvisation for the show *Aldebaran*, 2012.
Source: Medeiros (2012).

I experiment torso flexing with hands behind my head, knees bent, looking at my feet. Pause. I release the right arm, the left arm. Pause. I return to the intertwining of the hands behind the head, on the neck. Suddenly, I raise my torso, I look forward. I spin. I return to the initial image, that of the drawing. I unravel. I resume. I slowly unravel... I quickly resume. Unravel. Repetition. Repeat with variations (Ribeiro, 2015).

The drawing, as Didi-Huberman (1998, p. 10) tells us, “opens thinking”, makes us think towards dialogues with theories and other practices. The performativity of the registers implied transformation in my own body. Although the experience was configured as an exercise in repetition with variations, through imitation of the drawn movement, followed by improvisation, I tried to “redo differently” (Hissa, 2013, p. 125). In moving my body, seeking to embody the drawing, I studied the image, the trace of the creation process now experienced by the artists from *Grupo Oficina Multimédia*.

Having said that, I will present, below, images from *Aldebaran*, whose montage facilitated the drawings of the movements studied, associated to textual reports on certain fragments, constituting a brief reflection on the show. Next, I will develop the discussion as a result of the corporal processes of the observation, simulation and imitation. Such processes were recognized during the research experience to arrive at the proposal of

resonant bodies, which enable the perception of their relational constitutive quality.

The Context of the Drawn Movement: *Aldebaran*

The drawings of studied movements were made from 2011 to 2013, as part of documenting the creation process for *Aldebaran*.

Aldebaran refers to these apothecotic times, when laws have proliferated and political correctness installed itself as a social rule, but paradoxically, never has so much horror, violence and cruelty been seen. This sum of deviations and human arbitrariness has unleashed on the planet a great disorder that has extended to nature and to everything around us (Medeiros, 2013, p. 1).

From studies on monsters – from antiquity’s sea monsters to contemporary *monsters*, such as wars, massacres and the cruelties of man – the group began the creation of the show with practical and theoretical studies. From the field of literature, encounters with Lisley Nascimento, author of *Da fabricação de monstros* (2009) and professor at Universidade Federal de Minas Gerais (UFMG), marked the theoretical studies for the staging of the show at hand. The emphasis on working with movement, a characteristic of the Group, was even more acute and counted on the collaboration of artists such as Mário Nascimento, choreographer and dancer, Rosa Antuña, dancer and actress, and Gabriela Christófaró, UFMG Dance Degree professor and dancer¹⁴.

On this journey of creation, materials and objects – cardboard boxes, cardboard and bubble wrap – were part of the improvisation in scenes from the beginning, and became crucial in the show, as you can see below in the images from performances. In *Aldebaran*, in terms of its scenic importance, the object equates to the actors. They both move through space, witnessing setbacks, authoritarianism, and coups. The scenic movement of the actors and objects, associated with the video images, unleashes scenic metaphors of catastrophes, such as wars, fires, and disasters, sometimes in the fast pace of the major urban centers, other times in a slow rhythm.

At the beginning of the monster theme and the investigation into what a *monster* would be today, the dramaturgy of the scene presented an imagetic universe in which actors hybridize with objects and compose a landscape of micro-movements, as we can see in the following image (Figure 2), by photographer Netun Lima. In it, we can see the cardboard-

object which, little by little, expands its movement until it is in a vertical position. The actors who animate the paper are not seen and the scene is constructed, minimalistically, in earthen tones to the sound of birds.



Figure 2 – Image from *Aldebaran*. Author: photographer Netun Lima, 2013. Source: Group's personal archive.

The object in this work is primarily made of cardboard and bubble wrap. Boxes, trays, covers, bundles, all these types of cardboard operate in space-time in tandem with the actors. Animated, these artifacts sometimes veil the bodies of the actors, making them seem so close to each other that they disappear. The object becomes a device that metamorphoses the subjects into mysterious beings – monsters. Or we can imagine that the actors merge with the paper-object, animating it and being animated by it.

In the following images (Figure 3; Figure 4), also by Netun Lima, we can infer the fast rhythm that the scene takes on in a clear allusion to the agitation of major cities. Actors and objects *run and jump* through the space, providing a sensation of rush and a certain annulment of the subjects who mix together, in tone and movement, with the cardboard boxes.



Figure 3 – Image from *Aldebaran*. Author: photographer Netun Lima, 2013. Source: Group's personal archive.

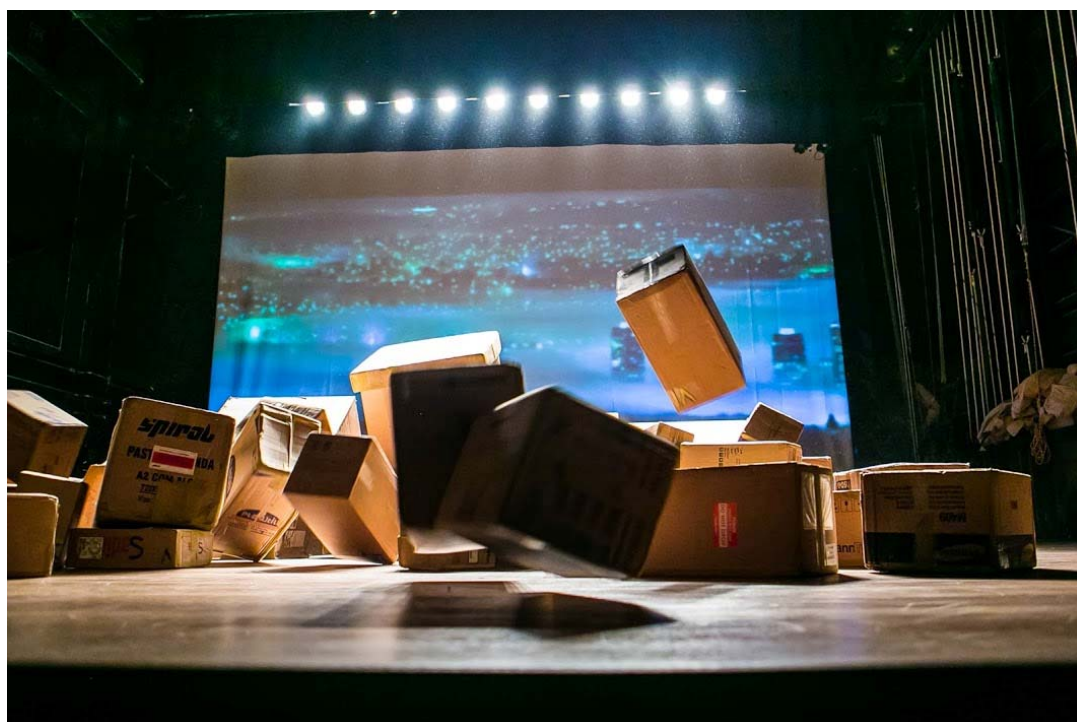


Figure 4 – Image from *Aldebaran*. Author: photographer Netun Lima, 2013. Source: Group's personal archive.

At the end of the work, the star Aldebaran, possessing a great shine, approximates bringing with it a promise of peace and renewal. In the scene, Aldebaran breaks through to save the planet, rescuing from the Earth that

which is most precious, so we may continue towards the construction of a new world.

In opposition to the monsters, Aldebaran, guardian of the universe emerges, representing the forces of good against evil. A star of immense brightness, fifty times greater than the sun, its function is to rescue from planet Earth all that was considered sacred and precious and with these assets from humanity rebuild a new world, in some distant point of the universe. Once this task is completed, all that remains of the old planet is the memory of something deeply beautiful that was lost forever (Medeiros, 2013, p. 1).



Figure 5 – Image of *Aldebaran*. Author: photographer Catarina Paulino, 2014. Source: Group's personal archive.

Looking at the photo above (Figure 5), we see the immense plastic ball – an image of cloud, water, mystery – covering the stage and, under it, dolls coupled to the actors, walking. The desired impression is that these beings could create a world without wars, inequalities, cruelty or monsters.

The show ends with a sequence of images of artworks, artists, scientists and philosophers that marked the history of humanity (Figure 6), clearly showing its belief that the valorization of culture is the path to building a new mode of living¹⁵.



Figure 6 – Image from *Aldebaran*. Author: photographer Catarina Paulino, 2014. Source: Group's personal archive.

The actors were closely accompanied in their inventive process for scenic movements. Since 1977, the director has kept the habit of registering the whole phase of mounting the show, which includes corporal rhythmic training¹⁶, improvisations and theoretical studies. For Medeiros, writing in process notebooks enhances due to the precision of the details in the registers of that observed. Writing composed of words and drawings has allowed me to think of the body in process. And what marks this body in the creation process of *Aldebaran*? What would its singularities be?

About the Body in Process

To reflect on the body in process is, above all, to underline its condition as moving matter in continuous invention and transformation of itself. The body that constitutes itself as a space of intertwining is also text and movement that make thought feasible.

Thinking about the body and body-thought entails considering parts of the world. This body, not objectified by the drawing, is marked by the trace that marks something of the movement performed in the rehearsal. Getting in touch with the drawings makes us exercise our memory in

performance, moving subjectivities by observing, in an inventive way, the register on the notebook's page.

Perceived by the drawing, the body of the person who moved in the rehearsal is also contextualized by the edge of the stroke, by what is on the paper beyond the drawing. There are words that inform the context of the rehearsal, the training and the improvisation. Thus, studying the registered image also meant walking along its margins to make room for new *affections* coming from other traces of the process. Therefore, the body in action, drawn, became a body-world, a body-process of creation, a trace that bears stories. The register revealed the body-subject, and showed itself to be averse to analysis that would lean towards its objectification.

The potency of the movement that the drawing produces led me to invent other movements. I chose to improvise the drawings, performing them once again. Looking at the drawing and feeling like it was looking at me, *à la* Didi-Huberman (1998), resulted in an outflow of creation through *affection*. How does the drawing affect me? Affect is a verb resulting from the provocation that modifies the body and “makes it move itself (affect and be affected by other bodies) and, from the perspective of the mind, it makes it think” (Chauí, 2011, p. 84)¹⁷. What is the drawing capable of?

Initially, I felt myself led to reproduce the observed movement, imitating it. An imitation that segued into motor experimentations during improvisation. I tried out the trace and its thickness, responding to a sensation of *belonging*. During inventive observation, added to corporeal reading, I felt part of that which I saw. The image bade me move, and part of this movement I discovered through observing. I experimented with recognition of myself, my resulting knowledge from my life trajectory, in and for the other. I became aware of the existence of another *common* dimension between myself and the other who was drawn (Figure 7).



Figure 7 – Body improvisation for the show *Aldebaran*. Source: Medeiros (2012).

I sit. I gradually slide down the chair. I follow the drawing. The head tilts forwards. I look and see tiredness, a body exhausted from movement. I let be... I only move internally. I think, I feel, think-feel, I imagine. On the outside: silence. The feet I see are asking me for movement. I drag the soles of my feet on the floor alternating between right and left. I accelerate. I run seated. I fall. *Acceleration. Interruption* (Ribeiro, 2015).

In terms of corporal processes, what would make this *affection* viable? My body *resonates* with the drawing, just as it may resonate in the perception of other people's movements? Whenever we see someone yawning, for example, our body internally maps this action – mentally stimulating the yawn – and we begin to yawn (Houzel, 2007). These are processes of resonance between the person observing and the person observed. But could we imagine that by looking at the drawing, my body would be doing this internally, resonating with the pictorial image?

We know that when we observe an action, our body maps it internally in the cerebral cortex, due to our multimodal cells, called *mirror-neurons*, discovered by Rizzolatti, Fadiga, Fogassi et al. (1996). As such, it could be said that when I enjoy dance, theater, visual artworks, among others, I internalize that which I observe, introducing my own body to *experiences of alterity*. I can claim they are experiences of alterity because this simulation comes from our capacity to perceive the intentions and objectives of the one whose movement we observe, which intensifies the very idea of movement and the actual act of observing.

Therefore, during the improvisation attempted in the corporeal reading of the register, the drawing asked me for movement. It was this feeling of *affection* that led me to the inventive action in the improvisation: I began by imitating, and then I imprinted new expressive possibilities on

the observed and practiced movement. The visual perception of the register was associated with a kinesthetic perception of it in my body.

Perception, in the manner of Berthoz (2000), is an exploratory action, a choice that predicts, that launches hypotheses about the world, judging the action and anticipating its consequences. Although we think we are seeing the movement, we are also apprehending the other, learning about it, in an intersubjective exercise. The 'I-other' approach takes place through *simulation*, a process that triggers neural trajectories concerning the observed movement. It is as if this movement occurred simultaneously in my body, but not in a visible way. In 2008, we identified the need to understand that movement begins in a way that is not perceptible to the observer (Ribeiro; Teixeira, 2008). We could say that bodily movement is composed of a visible part and a non-visible part, which occurs on a cortical level. In the simulation of the observed movement, therefore, there is the cortical realization of this movement, that is, its non-visible part.

By this affirmation, I am not attributing to the brain a protagonist responsibility for the modes of perception, in a manner detached from the world. Such a split between the world and the brain would be impossible, since the brain is body and the body is constituted in its relationship of imbrication with the world: body-world. Csordas (1993) assists us in this caveat when distinguishing body and embodiment, stating that body is biological matter and *embodiment is the mode of engagement and presence of the subject in the world* that takes place through perceptive experience. This understanding tallies with studies of *embodied cognition* that view the mind as body in continuous relation with the world (Varela; Thompson; Rosch, 1993; Berthoz, 2000; 2004; 2006). It is this embodied dimension that interests us, with the aim of thinking about the body in the creation process.

Along these lines, we have Gabriele Sofia (2009; 2012) who talks about the *spectator's performance*. In his research on the participation of spectators on the theatrical scene, he revisits studies on mirror-neurons to reflect on this co-constitution of scenic *poiesis*, considering how the artist's action in the scene affects those who observe and enjoy it. And Sofia goes on to suggest that the actor provides the conditions to receive the performative experience of the spectator. Consistent with these reflections, we see that the encounter with the artwork – whether spectator-actor

(actress); spectator-film/video; spectator-painting/drawing/engraving – is deeply anchored in corporal processes of resonance which are, in turn, embedded in cultures and subjectivities.

In the experience of the research shared here, the vision was explored in its imbrication with kinesthesia and, from the conscious practice of this sensorial multimodality, underlying the act of improvisation, I approached the intentions of the actor/actress performer of the registered movement and the one who drew their movement, by studying the behavior of the trace. As we said before, this motor investigation started by the *imitation* of the drawing. The imitation, resulting from the aforementioned internal simulation, is also constituted as an operator of ‘I-other’ resonance. Therefore, I emphasize that the body bears processes in itself – observation; simulation; imitation – that make possible the inter-subjective relationship through perception. This possibility of introducing parts of the observed movement to my own body evinces the relational condition between body and world.

Improvisation, through procedures such as repetition, acceleration, deceleration and interruptions, enabled the provisional composition of writing with the body based on the remnants of another creation process: that of *Aldebaran*. This composition, mobilized by corporeal reading, was possible due to the exercise of perceiving myself resonating with what I observed and the intentions contained in the trace of the drawing, especially. This resonance spurred the inventive trajectory of the perception into action.

Jeannerod (2008) tells us it is exactly the awareness of the intention of the other’s movement that facilitates the ‘I-other’ distinction. In this sense, we can say that these *resonant bodies*, which resonate among themselves through shared attention at the moment of the aesthetic experience, do not lead us to the erasure of subjectivities. On the contrary, being in the shared experience, in the collective, can make the singularity of each subject stronger. Observing the other, in observing the drawing of the movement, and comprehending it beyond the trace, considering its context, does not lead to the ‘I-other’ fusion. This is because this internalization of the other in itself demands self-perception and facilitates the conditions necessary for intentional expression: bodily awareness, capacity for variation, and ability to update motor proposals. The metaphor of resonance thereby refers to the

correspondence between the observed action and the executed action. We could say that its outcome is the interweaving of perceiving and acting, as well as I and the other. We comprehend that this resonance is part of the processes of communication, *interaction* and, also of *affection* felt in the encounter with the register.

Possibly, due to the context of body improvisation, imitation generated more than copying and this inventive aspect happened as a consequence of repetition in this context. The corporeal appropriation of the drawn movement, operated in improvisation, occurred by means of the aforementioned compositional procedures – repetition, acceleration, deceleration, and interruptions – which also included fragmentation, displacement of the movement's focus, changes in speed, size, variations in muscle tone, direction, movement, alternation, superposition, succession, among others. Thus, identity and difference coexisted (Derrida, 1991) in the repetition in different contexts, which promoted the displacement of the drawings' sense as register. Therefore, I treated them as performative instances. To repeat in order to arrive at the different was the prioritized procedure.

As to the question I asked myself, wondering if my body was resonating with the pictorial image, I would answer in the affirmative. Gallese (2010), one of the researchers involved in the discovery of mirror-neurons in the late 1990s, suggests that the aesthetic response to works of art – paintings and sculptures – is based on the activation of body resonance mechanisms, such as motor simulation. Although the researcher says that these simulations occurred with images of hand movements trying to grasp an object, or something similar, he suggests that there may be a simulation of images for movements performed by other effectors. Gallese adds that recent neurophysiological studies have shown that when a familiar action is observed, even if it is not executed by the hand or mouth, it is also mapped on the motor cortex of the observer. As such, self-awareness, necessary for the perception of the other, as previously mentioned, added to the repertoire of the observer, interferes in his/her ability to interpret the register and create from it. I again refer to Gallese (2018) who says that our brains possess the capacity to reconstruct actions *a posteriori* when observing a painted or drawn movement. When we look at the drawing, we imagine the body that moved it, the gesture of the one who registered it, and we feel

the drawing in our body in such a way that we set ourselves in motion. In this way, we perceive, in the experience of corporeal reading, the resonance theory of the mirror neurons. We understand the resonance experience as an interrelation between observation, feeling, imagination and movement.

The performativity of the register is due both to its power to affect whoever observes it, and the capacity of the observer to be affected during the perception of the register, as well as the capacity to have its meaning displaced in the repetition with variation. It is important to highlight that we do not need to organize this *affection* in a linear form, from the drawing to the observer or vice-versa. The *affection* comes about through the *encounter* that blurs excessive temporal distinctions in revealing something from the past that will necessarily be updated in the present and reconfigured in new possibilities of movement.

The drawing is thus configured between two bodies in movement: the body that was drawn and the body that will embody the drawing in the form of dance. This space-time *between* allows resonance to unfold through the observation, simulation and inventive imitation of the movement. Through the drawing, the bodies of different times and subjects come together in the imbrication of visual and motor perception as if, in the instant captured by the hand that drew it, past and future were connected.

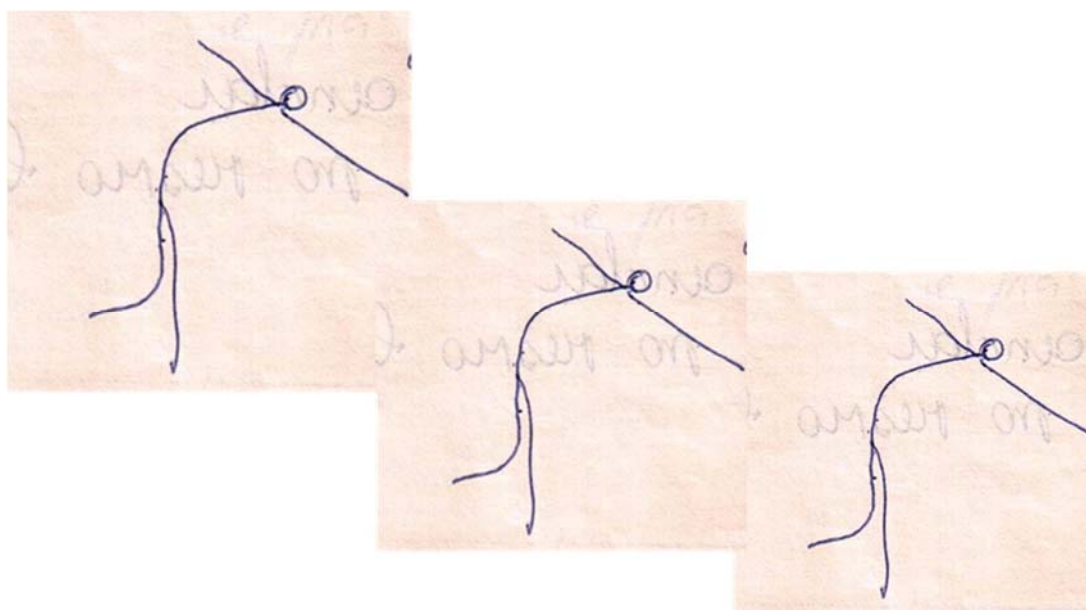


Figure 8 – Body improvisation for the show *Aldebaran*. Source: Medeiros (2012).

The drawing-register (Figure 8) operates as a *third body-between*, which as Cássio Hissa points out (2017, p. 18-19), “[...] is not one, but two

or several intersected. [...] The third is the border [...]”. In the drawing, there is an intertwining between the drawn body, the gesture-body that draws – made present in the drawing itself – and the body-subject that observes and embodies it. Bodies of subjects-world that bear their movement authorships. A borderline place, this body-drawing permits the exercise of co-existence between singularities, through the personal signature given to the movement, associated with the remnants of the other. We assume that the border potentiates the *common* that enables us to resonate with the other, operated by the sensations of belonging, recognition and interaction. Mediated by the resonance, the encounter also facilitates the updating of the movement itself as the effect of comprehending that which differs from me.

The state of imagined and thought bodies, based on studying the registers of the creation process for *Aldebaran*, is of resonance. *Resonant bodies*, bodies woven in and for relationships, underline the need to experience alterity. Perceiving myself and perceiving the other in me require activating corporal processes of resonance. To ponder on resonant bodies is to consider that there is no ground, isolated; it also means knowing that attentive experience in inventive observation promotes the ‘I-other’ interconnectedness. We are always traversed by others. From this comes the awareness that self-knowledge implies learning to perceive what is different.

Final Considerations

Studying the registers of movement constructed in the creation process of the show *Aldebaran* led me to discover various modes of registering movement, also called written dance scores or notations. The register has been elevated to a status of invention par excellence, as we can see by accessing the cited digital platform *Motion Bank*.

The investigation into creative processes provided by the critical-interpretative study of primary documents, such as the logbook, process notebooks, among others, is part of the agenda of dance researchers not only with the aim of preserving the works, but mainly due to the performative potency of the different registers of movement. Having experienced this performativity, through the *affection* resulting from contact with the drawings, which made me dance them and think about the

corporeal processes involved in this encounter between the observer and the movement register, leads me to suggest that *resonance* is a condition for the poetic interactions in constituting the scene in dance and theater, and may be considered as a *corporeal operator of the fruition*.

For this reason, *resonant bodies* seem to be indispensable to the act of shared creation – which occurs in the encounter between artist and spectator – and in the exercise of coexistence so dear to the performing arts community. Being aware of the existence of these kinds of corporeal processes, which lead us to intertwine with the other, can sensitize us in how we experience collective practices, in order to strengthen both our singularities and our understanding of the importance of what is common to us. Perceiving the constitutive relational condition of these *resonant bodies* gives us courage to insist on the practice of the collective.

The study of the registers of creation processes, as mnemonic performative instances, in the field of corporeal studies - in dance, in theater - accesses memories of the process and, equally, can be a mobilizer of new inventive experiences in the arts. Body improvisation, added to observation and corporeal reading of images-drawing, creates the conditions, based on movement, for the reflective exercise on the body in the process of creation. The research done here, partially shared, highlights the importance of making aesthetic alliances between the most diverse writings that make up our ways of creating readings of the world through artistic practice.

Notes

- ¹ *The body in process: the performativity of registers in the genesis of the scene*. Research funded by FAPEMIG, through the Edital Demanda Universal, and comprising the critical-interpretative study of procedural documents — artist notebooks — on the body in process during the phases connected to the shows *As últimas flores do Jardim das Cerejeiras* (2011); *Play it Again + Dressur* (2012) and *Aldebaran* (2013), from Grupo Oficcina Multimédia. This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001. Pesquisa realizada no âmbito do programa de Pós-graduação em Artes da Escola de Belas Artes da Universidade Federal de Minas Gerais.

- ² Show by Grupo Oficcina Multimédia, opened on April 18, 2013, sponsored by Petrobrás/Ministério da Cultura. Available at: <https://www.youtube.com/watch?v=Ve_ZWIOjf8>. Accessed on: Dec. 11, 2019.
- ³ Ione de Medeiros is a musician and theater director from Grupo Oficcina Multimédia (BH) since 1983. Available at: <<http://oficcinamultimedia.com.br/v2/c/o-grupo/>>. Accessed on Nov. 20, 2019.
- ⁴ Raoul-Auger Feuillet (1659 or 1660-1710) (Goff, 1995).
- ⁵ Available at: <<http://www.niea.unsw.edu.au/research/publications/improvisation-technologies-tool-analytical-dance-eye>>. Accessed on: Jan. 20, 2020.
- ⁶ Available at: <<http://www.julianamoraes.art.br/Desenhos-de-Marcia-de-Moraes>>. Accessed on: Jan. 10, 2020
- ⁷ Available at: <<https://synchronousobjects.osu.edu/media/inside.php>>. Accessed on: Jan. 10, 2020.
- ⁸ Available at: <<http://motionbank.org/>>. Accessed on: Jan. 03, 2020.
- ⁹ Available at: <<http://motionbank.org/>>. Accessed on: Jan 03, 2020.
- ¹⁰ Available at: <<http://www.sdela.dds.nl/motionbank/brazillab2019/#/mosys/grids/718d441b-f9f0-4381-8850-80dc81b5d779>>. Accessed on: Jan. 03, 2020.
- ¹¹ This text develops the lecture *REGISTROS para MOVIMENTOS: a observação como operador de invenção*, presented in *UFMG Talks*, in December 2019, which shared some of the results from the research entitled *O corpo em processo: a performatividade do registro na gênese da cena*.
- ¹² Theatrical Genetics has been developed in several countries, notably in France and Brazil, as may be read in *Revista Brasileira de Estudos da Presença*, volume 3, n. 2, published in 2013. Josette Féral, Jean-Marie Thomasseau, Almuth Grésillon, Marie-Madaleine Mervant-Roux, Silvia Fernandes and Luiz Marfus are among the authors who discuss fundamental aspects of genetics criticism in the theatrical field through experiences associated with theoretical studies.
- ¹³ There are several researchers from the field of arts who are dedicated to studying creation processes, which may be seen in works by, for example, Fayga Ostroyer (2009), Cecília Salles (2004; 2008; 2010; 2017), Ângela Grando and José Cirillo (2009), apart from in the archive of *Revista Brasileira de Estudos da Presença* v. 3, n. 2, 2013.

- ¹⁴ The actors from the show *Aldebaran*, directed by Ione de Medeiros, were Arthur Camargos, Diego Matos, Escandar Alcici Curi, Gabriel Corrêa, Henrique Mourão, Jhonathan Oliveira, Jonnatha Horta Fortes, Marco Vieira, Nicolás Bolívar and Sérgio Salomão, and the dolls were created by Daniel Herthel, the soundtrack by Francisco César and the lighting by Telma Fernandes. To get an idea of the group's working process during assembly, we suggest you visit the following link: <<http://oficcinamultimedia.com.br/v2/espetaculos/aldebaran/>>. Accessed on: Jan. 03, 2020.
- ¹⁵ The full presentation of the show, which took place at the BH International Theater Festival in Teatro Bradesco, in May 2014, is available at: <<https://youtu.be/1nlx6z53PSQ>>. At minute 1:01:53, you can see the final images with the citation of artists, scientists and philosophers. To access other photos from the show, we suggest the link <<http://www.focoincena.com.br/aldebaran?programa=true>>. Accessed on: Jan. 03, 2020.
- ¹⁶ *Rítmica Corporal* is a body training practice developed by Ione de Medeiros with a strong influence from the pedagogical practices of Edgar Willems and Jaques Dalcroze.
- ¹⁷ It is worth noting that in this reflection it is not intended to separate body and mind, but rather reiterate that they are distinct dimensions of the same matter.

References

- BENESH, Rudolf; BENESH, Joan. **An Introduction in Benesh Notation**. London: Adam & Charles Black, 1956.
- BERTHOZ, Alain. **The Brain's Sense of Movement**. Cambridge: Harvard University Press, 2000.
- BERTHOZ, Alain; JORLAND, Gérard (Org.). **L'Empathie**. Paris: Odile Jacob, 2004.
- BERTHOZ, Alain; PETIT, Jean-Luc. **Phénoménologie et physiologie de l'action**. Paris: Odile Jacob, 2006.
- CHAUÍ, Marilena. **Desejo, paixão e ação na ética de Espinosa**. São Paulo: Companhia das Letras, 2011.
- CHRISTÓFARO, Gabriela Córdova. **Convivência e alteridade no processo de conhecimento em dança: a abordagem de Marilene Martins no Trans-Forma Centro de Dança Contemporânea**. 2018. Tese (Doutorado em Artes) – Programa

de Pós-graduação em Artes, Universidade Federal de Minas Gerais, Belo Horizonte, 2018.

CSORDAS, Thomas J. Somatic Modes of Attention. **Cultural Anthropology**, v. 8, n. 2, p. 135-156, 1993.

DAMÁSIO, Antonio R. **O Erro de Descartes**: emoção, razão e o cérebro humano. Tradução de Dora Vicente e Georgina Segurado. São Paulo: Companhia das Letras, 1996.

DERRIDA, Jacques. **Limited inc**. Campinas: Papyrus, 1991.

DIDI-HUBERMAN, George. **O que vemos, o que nos olha**. São Paulo: Editora 34, 1998.

FISCHER-LICHTE, Erika. **The transformative power of performance**: a new aesthetics. New York: Taylor and Francis, 2008.

GALLESE, Vittorio. **Mirror neurons and Art**. 2010. Available at: <https://www.researchgate.net/publication/284661288_Mirror_neurons_and_art>. Accessed on: 20 June, 2017.

GALLESE, Vittorio et al. Behavioral and autonomic responses to real and digital reproductions of works of art. **Progress in Brain Research**, v. 237, p. 201-221, 2018.

GOFF, Moira. The art of dancing, demonstrated by characters and figures: French and English sources for court and theatre dance, 1700-1750. **Electronic British Library Journal**, London, 1995. Available at: <<https://www.bl.uk/eblj/1995articles/pdf/article14.pdf>>. Accessed on: Nov. 20, 2019.

GRANDO, Ângela; CIRILLO, José (Org.). **Arqueologias da criação**: Estudos sobre o processo de criação. Belo Horizonte: C/Arte, 2009.

GROTOWSKI, Jerzy. Conferenza a Liège, Cirque Divers, 2 gennaio 1986. In: RICHARDS, Thomas. **Al Lavoro con Grotowski Sulle Azioni Fisiche**. Milano: Ubulibri, 1993. P. 85-90.

HERRMANN, Maria de Lourdes Tavares. **Caderno de Notações**: A Poética do Movimento no espaço de Fora. Belo Horizonte: Edição da Autora, 2011.

HISSA, Cássio Eduardo Viana. **Entrenotas**: compreensões de pesquisa. Belo Horizonte: Editora UFMG, 2013.

HISSA, Cássio Eduardo Viana. Entre. In: SILVA, Maria Ivonete Santos; MOREIRA, Maria Elisa Rodrigues (Org.). **Literatura**: espaço fronteiroço. Colatina; Chicago: Clock-Book, 2017. P. 11-28.

- HOUZEL, Herculano S. **Por que o bocejo é contagioso?** São Paulo: Zahar, 2007.
- JEANNEROD, Marc. **Motor Cognition: what actions tell the self.** New York: Oxford University Press, 2008.
- MEDEIROS, Ione de. **Caderno de processo 2E.** 2012.
- MEDEIROS, Ione de. **Programa do espetáculo Aldebaran.** 2013.
- MORAES, Juliana Martins Rodrigues. O conceito de coreografia em transformação. **Urdimento – Revista de Estudos em Artes Cênicas**, Florianópolis, v. 1, n. 34, 2019.
- NASCIMENTO, Lyslei; JEHA, Julio (Org.). **Da fabricação de monstros.** Belo Horizonte: Editora da UFMG, 2009.
- OSTROWER, Fayga. **Criatividade e processos de criação.** Petrópolis: Editora Vozes, 2009.
- RIBEIRO, Mônica Medeiros. **Caderno de processo.** Arquivo pessoal da autora. 2015.
- RIBEIRO, Mônica Medeiros; TEIXEIRA, Antônio Lúcio. Aprender uma coreografia: contribuições das neurociências para a dança. **Neurociências**, v. 4, n. 4, 2008.
- RIZZOLATTI, Giacomo et al. Premotor cortex and the recognition of motor actions. **Brain research. Cognitive brain research**, v. 3, n. 2, p. 131-141, 1996.
- ROSA, Thembi. **Dança: arquivos como invenções.** 2020. Tese (Doutorado em Artes) – Programa de Pós-graduação em Artes, Universidade Federal de Minas Gerais, Belo Horizonte, 2020.
- ROSA, Thembi; FALCI, Carlos. Registers as inventions: body, dance, memory and digital medias. In: INTERNATIONAL CONFERENCE ON MOVEMENT AND COMPUTING, MOCO, 5., 2018, Genoa. **Proceedings...** Genoa, Italy, 2018.
- SALLES, Cecília Almeida. **Gesto Inacabado: processo de criação artística.** São Paulo: FAPESP: Annablume, 2004.
- SALLES, Cecília Almeida. **Redes da criação: construção da obra de arte.** São Paulo: Editor Horizonte, 2008.
- SALLES, Cecília de Almeida. **Arquivos de Criação: Arte e Curadoria.** São Paulo: Editora Horizonte, 2010.



SALLES, Cecília de Almeida. **Processos de Criação em Grupo**. Diálogos. São Paulo: Estação das Letras e Cores, 2017.

SOFIA, Gabriele (Org.). **Dialoghi tra teatro e neuroscienze**. Roma: Edizioni Alegre, 2009.

SOFIA, Gabriele. Teatro e Neurociência: da intenção dilatada à experiência performativa do espectador. **Revista Brasileira de Estudos da Presença**, Porto Alegre, v. 2, n. 1, p. 93-122, jan./jun. 2012.

VALÉRY, Paul. **Degas dança desenho**. São Paulo: Cosac Naify, 2012.

VARELA, Francisco J.; THOMPSON, Evan; ROSCH, Eleanor. **The embodied Mind: cognitive science and human experience**. Cambridge; London: MIT Press, 1993.

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