P.A.C
Performative Auditory Creation

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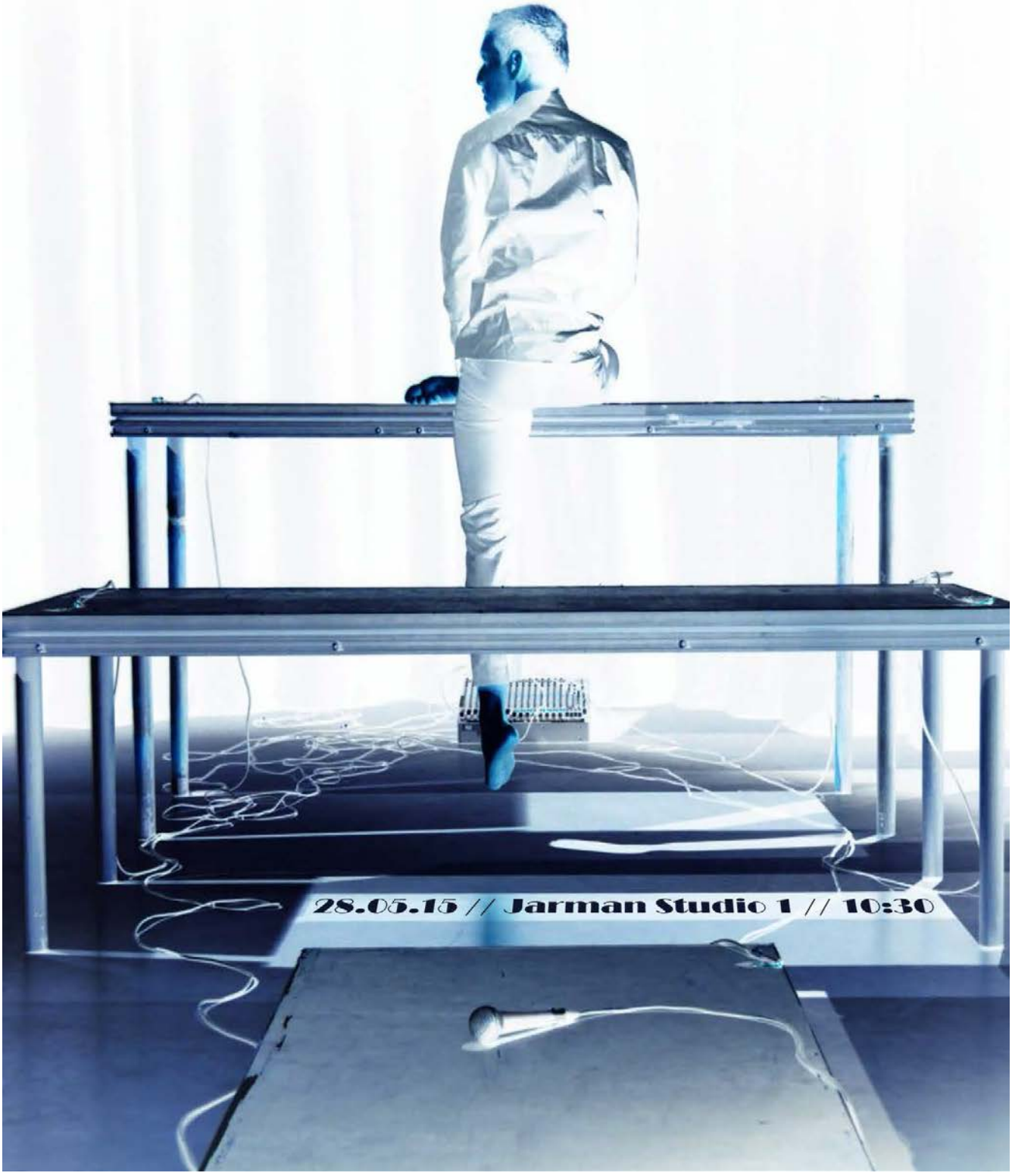

Abstract

This practice as research (PaR) paper, examines the effects of auditory perception on a dance physical performance and how internal and external sounds affected the performer's movement and behaviour during the whole process of creation. This PaR combines research of physical theatre and dance practices along with cognitive neuroscience. Throughout this paper, an interdisciplinary approach has been established by investigating the auditory perception of the human brain. The orientation of the performer's body helped to direct the movements in space, enabling the performer to pace their actions to sounds, especially during dance-physical actions. Likewise, this paper includes cognitive psychology, which is an integral part of cognitive neuroscience, demonstrating how emotional response changes through different sounds and gestures.

For this experimental and practical qualitative research on auditory perception, the main methodology incorporated was the use of sound technology. Thus, two different types of microphones were used; a regular microphone with its stand and ten contact microphones. These were used to enhance the performer's internal sounds, as means of exploring the different levels of sound providing high-quality hearing perception. Contact microphones were linked with three different platforms (rostra), creating three 'sound stages' on which the sounds of dance-physical movements were amplified and exaggerated, resulting in further explorations. These movements involved full-body actions, as the PaR examines dance-physical theatre performance and practice. Through this experimental research and with the use of sound technology, a specific methodology was defined, providing binaural audio within the performance space.

At the beginning of this PaR, internal and external sounds are investigated. Starting with the body and exploring its potential for inner and outer sounds physical sounds of varying pitch levels, such as the breath, voice, teeth, nails, etc., portrayed how each sound can affect the performer's physicality. Afterwards, this paper demonstrates how external sounds, such as an ambulance siren and an aircraft can interrupt gestures, movements, and even silence or immobility, affecting the quality of the motion and emotion. Finally, this PaR focuses

on how these sounds and their affections can influence the performer in the creation and execution of different movement patterns.

As follows, through the combination of the theoretical and practical research during the experimental period, this paper analyses the findings of this process which were presented through a solo performance. The findings provide a clear understanding on how amplification combined with the contrast of fluid and organic movements and jerky/fragmented gestures, created depth and variety of tone for the final practice, which resulted in a multi-dimensional performance.

Lastly, this paper offers propositions on how these results can help in further research on auditory perception combined with performing arts. More specifically, from this paper new questions have emerged and will expand in a PhD research such as how internal and external sounds affect the performer in the creation and execution of different movements during the creative process of a performance. Furthermore, the ultimate goal of this research is the establishment of a specific methodology and tools for use in the creation of performances, examining how different sounds affect the creation of movement patterns. Thus, the paper suggests a development of this practice, with the use of Electroencephalogram (EEG) Headset, which can provide analysis on the brain's wavelets and behaviour through different acoustic stimulations. Also, a final suggestion for the establishment of a methodology is to analyse movements with the use of Microsoft Kinect System. Finally, with the use of EEG Headset and Microsoft Kinect, the research hypothesis can provide quantitative results which will contribute in gaining further insight into the complex mechanisms of the human brain, which is involved in the perception and processing of auditory information.