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Darren Daly

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Essai

Finding agency in the imagined body through Unreal Engine's Live Link performance capture

Darren Daly

This essay reflects on a series of workshops I delivered with a group comprising undergraduate and postgraduate performance students at the University of Salford. The workshops explored Michael Chekhov's Imaginary Body technique using a Motion Capture system streamed into the 3D Virtual Production software Unreal Engine. Unreal Engine's Live Link function can provide real-time visual feedback of data captured from actors' bodies and mapped onto industry-standard computer game avatars. When introducing the technique to students, the notion of creative individuality was stressed as a central component of Chekhov's work. From an agency perspective, the creative individuality of the actor, linked to and informed by their own social, cultural and educational background is paramount. Whilst they would be exploring the same characters, often through a shared image, the individual interpretation and expression of each student would be present and (hopefully) visible. Questions of visibility and invisibility of the actor within character formed part of our reflective discussions and are central to the wider debate around acting for the motion and performance capture industry. The intention was both to explore how we can develop our technique for character physicalisation which could be suitable for use within the computer gaming industry and retain some sense of creative individuality through the process. Each workshop practically explored the Chekhov technique, through real-time visualisation of digital characters and involved reflexive discussions.

> As soon as you saw it, you imagined how it might move.
> (Chiamaka Ezeibe – MA Screen Acting student, 2023)

The technique of the imaginary body relies on image. The actor visualises their character's body in their mind – a body outside of their own with a different physicality, then imagines transforming their own inner, energetic body into that image. The energetic body is able to transcend the physical body. Chamberlain describes it as wearing the body 'as if it were a different costume' (2004, 77). In motion capture, this corresponds to what Delbridge (2015, 27) refers to as the costume space – the space around the actor's body which is present only in the digital realm. In our workshops, the images of the character body were already drawn, made freely available by the games designers in Unreal Engine and visible on screen as referents. The image creation in this instance was removed from the actor and provided by someone else. This replicates some of the issues around actor agency in the computer game industry in terms of character authorship and creation. From a training viewpoint, it shortcuts an important but also difficult part of the Chekhovian process of visualising detailed images through the imagination. For some actors who struggle with visualisation (those who have aphantasia, for example), which often forms a key part of so many acting techniques, having an image present can help to spur the imagination and allow them to bring the creations more easily to life in their minds. Many of the actors in the workshop welcomed the pre-formed visual representation of the character at the outset, although the relationship became more complicated as the weeks progressed as I will outline. Within our workshop space we were working with three sets of bodies, the actor's physical body, the imaginary body (in the mind of the actor) and the imagined body (created by the designer and present on screen).

We began by exploring some of the most widely available and detailed free avatar 'skins' from the Unreal Engine marketplace taken from Epic Games' *Paragon* game series. The skins are very detailed, and each character has a short biography from the game storyline that we could use as prompts to develop further imaginative material. They ranged from robots to reptilian creatures to humanoids as seen in the figure below (Figure 1). As consistent with industry norms, the visual representation of some of these bodies (particularly the females) often raised difficult and challenging questions around sexualisation, gender and culture and how they were represented. The sexualised representation of the female characters formed part of reflexive discussions and was acknowledged as problematic although the general feeling from the (largely female) group seemed surprisingly uncritical as the actors engaged with the transformation internally. As Maria Kapsali notes:

> whereas the decoupling of the movement from an image may lead to the body's disappearance, with all the implications that this may have for issues of representation, this can also work in reverse: it opens up the movement to those bodies that may have felt excluded by idealised images of the body. (2021, 166)

The distance between the physical and the imagined body and the actor's body clothed in the motion capture suit seemed to act as a protective barrier.

Figure 1 Paragon characters – Grux, Yin, Lt. Bellica, Morigesh, Crunch.

> You know I actually felt very empowered – I don't know if I should but that's how I did.
> (Elizabeth Stefanec – MA Screen Acting student, 2023)

> As a lady you don't often get to kill things, it doesn't matter that you're doing it in a bathing suit. *I'm* in the mocap suit.
> (Sophie Stewart – BA (Hons) Theatre & Performance Practice student, 2023)

We might consider the imaginary body to have a life of its own – a *suggestion* of agency. Whilst Chekhov advises us to create characters in our imagination, he also suggests that there they are freed in the subconscious of our imagination to interact and live. As it is so in the incorporation of image exercise, we might observe them walk, talk, or perform actions, ask them questions (Chekhov, 2002, 29). They make suggestions to us as actors that we can use in creating our art. When describing his own characterisation process for the role of Muromsky in Sukhovo-Kobylin's *The Case* he speaks of imitating this imaginary character 'which *itself* acted for me in my imagination' (Chekhov, Kirillov, and Merlin 2005, 110). In, *To the Actor,* Chekhov instructs us to impose our will on our creative images, suggesting that they often become 'obstinate' (Chekhov, 2002, 30), telling us to order them, making them subject to our own conscious demands.

The actors allowed the imagined bodies to mobilise in their minds, starting the process of transforming their inner selves (Figure 2). Whilst moving through the space, many began to encounter a perceived resistance from the bodies as viewed on the screen. They felt a loss of agency, dominated by the structures inherent in the imagined body and the translation of the data into it. An 'obstinacy' from the image resisted their efforts, no matter how much they ordered it. This represented an erosion of agency that is consistent with the industry whereby the actors' efforts and bodies can be

Figure 2 Imagining the character body while in the MoCap suits.

dominated by the systems, software and designers. It also highlighted a pre-disposition to become focussed on the external physicalisation of what should be an internal process in the imaginary body technique. They were reminded of the need to focus on the internal rather than the outward physical expression. It demonstrates how easily we lose sight of our own creative processes to conform to what appears 'correct' or 'appropriate' in our training. As students responded to the visual feedback, they adapted their movement (Figure 3) and began to explore and collaborate within the defined bodies of their avatars – 'Thus, you will learn to collaborate with your creative image while working on your part' (Chekhov, 2002, 30).

> I am stuck in this body and now I have to learn how to use it.
> (Ewa Wojciechowska – MA Screen Acting student, 2023)

> I think that how I interpreted the avatar would be very different to how other people interpreted the avatar.
> (Dominic Lane – MA Screen Acting student, 2023)

As the workshops progressed and students were encouraged to remove their focus from ideas of the 'appropriate' or 'correct' mani-festation of the external, they began to find more control and author-ity over their character bodies. We explored other aspects of Chekov's technique, added imaginary centres, worked with the image of stick, ball, veil and attuned our attention much more to the psycho-logical and emotional impulses arising through the physical state. We discovered that each of the characters comes with a pre-defined set of

Figure 3 Students physically exploring the body of the avatar Grux.

animated gestures which can be activated and viewed in the engine. In the industry these are known as emotes and idles. For example, the avatar Yin has an emote where she squashes a bug with the toe of her boot, Grux has a battle roar with fully extended arms and an arched back. Using the pre-loaded animations as stimuli, we began to imagine and create our own emotive gestures for each of the characters, visualised first in our minds engaged through our energetic and then physical bodies and realised in collaboration with the bodies on screen (Figure 4). The expert skills of our technician allowed us to discover how simple it was to remove default elements of the avatar body such as the weapons or change certain clothing elements in Unreal Engine. Whilst the main physiognomy of the characters remained the same, it was possible to tweak the images and, to an extent, impose our own will on them.

> I can't describe this in words I can only really do it in actions.
> (Freya Davis – MA Dance Performance & Professional Practices student, 2023)

The digital bodies on screen thus moved beyond their gaming context, at times in humorous contrast to the gameplay, at others quite dramatically gripping. The hulking reptilian Grux, for example, appeared a very sensitive soul once bereft of his battle axes and running, light-footed through a cityscape. Our explorations reversed the usual workflow of actors' bodies and data being presented to post-production teams for 'fixing'. They began to find their own agency inside the industry structures, through exploration of the characterisation technique. The

Figure 4 Yin and Grux (controlled by student performers in LiveLink mocap).

moments of incongruity became a central part of the learning process and actors began to play and imagine with the bodies in ways that revealed their creative individuality, often at odds with the initial expectations arising from the image of the character. David Zinder (2007) writes about Chekhov's technique as imagining with the body. Here, students were imagining with the imagined body.

Mark Evans (2019) notes that training the 'digital actor' for Motion Capture presents several issues in relation to agency. Actors invariably have their images captured, recorded, stored and manipulated in post-production by a team of animators, VFX artists and other creatives. Maria Kapsali (2021) distinguishes between training for and training with Mocap whereby the training *with* focuses on utilising the system to explore technique outside of the industry as opposed to *for* the industry. The workshops described above were designed to combine elements of both *for* and *with* by training *inside* Mocap. We worked with the systems to explore and develop technique, but also utilised game assets designed for the industry, becoming familiar with them and the systems through our explorations. As we consider the challenges of agency in training the fragmented digital actor, the freedom to imagine and play inside of industry structures offers the potential to adapt existing technique to influence as well as respond to a rapidly changing landscape.

ORCID

Darren Daly (iD) http://orcid.org/0000-0001-6016-4371

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Darren Daly *is the Programme Leader for MA in Screen Acting at the University of Salford. His research focusses on actor training for digital media and university/theatre collaborative training models.*