MEDICAL IMAGING AND CONTEMPORARY ART:
REDEFINITION OF THE HUMAN BODY

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‘Freud and Jung made the inside of our heads fashionable. The inside of our bodies is still taboo.’

Jeanette Winterson

INTRODUCTION

Röntgen’s discovery of X-rays in 1895 made it possible to access the human body without dissection, thus dismantling its ‘holiest’ parts such as the sex organs and brain (Kevles 1997: 27); consequently, the idea was born that the human body can be completely transparent and visible for medical diagnoses without damaging its integrity (Van Dijck 2005). With this discovery, which according to Slatman initiated ‘a new area’, ‘the Enlightenment of the body’ (Slatman 2009: 107), it became possible to experience and to confront visually not only one’s own inner body but also the bodies of others, producing a turning point from the use of anatomical images of dissected cadavers to the visualisation of the interior of the living body (Doyle 2007).

Since that time, many other more sophisticated computer-assisted medical imaging technologies such as computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET), and ultrasound have been developed (Slatman 2009: 107) that are routinely used in current clinical practice. Furthermore, in today’s media society, through the popularisation of medicine, these medical images have been disseminated into popular culture so that also the public can look inside the body, which was formerly the preserve of the medical profession. This has created what José van Dijck has called the ‘myth of the transparent body’ (Van Dijck 2005), i.e. the assumption that self-transparency means that the human body is more understandable or more familiar to everyone, and that these images can bring us closer to knowing what constitutes the human body.

By visualising the most intimate part of us, the interior of our body, these technologies have contributed to a new way of perceiving, experiencing, understanding, and defining our bodies (Slatman 2009: 107). Thus, they not only play an increasingly important role in clinical practice but also acquire a cultural presence and meaning, becoming a new influential phenomenon (Zwijnenberg 2010: 31; Van Dijck 2005: 9). This can be seen by the trend that many contemporary artists are becoming increasingly interested in the incorporation of medical images from their own or other’s bodies into their work.

In the history of art, there has always been an exciting connection between the fields of art and science, in which art played an important role in the cultural dis-
semination of anatomical and physiological knowledge until the mid-19th century, when scientists and artists acted within the same intellectual sphere and shared the same philosophical and theological ideas (Zwijnenberg 2010: 31, 34). However, the present relationship and interactions between them has changed and the role of art goes far beyond the mere visualisation and dissemination of knowledge.

Notably, since the second half of the 20th century, artists have been increasingly working at the intersection of art and science, thus providing fertile ground for collaboration between these fields (Kemp and Wallace 2000: 6). This approach has helped to demolish the disciplinary barriers between, according to Snow, the once separated, even hostile to each other, ‘two cultures’ (Snow 1990), the (natural) sciences and the humanities. Although artists often, according to the media artist and theorist Jill Scott, utilise the same visualisation tools as scientists (Scott 2004), they do not interrelate with medicine in an illustrative way. Instead, blurring the borders between artistic and medical images, they explore, at the philosophical level, conceptual ideas within scientific medical discourse, creating new meanings and evoking ethical questions (Abbott 2006: 18).

The focus of this treatise is an artistic reflection of the human body through the use of medical imaging technology. Firstly, some artists’ works that are based on new medical imaging technologies are discussed. Consequently, the following questions will be expounded: how does medical imaging change the perception, representation, and experience of the human body? How is the human body constructed and represented in art, and which bodies are thereby made visible for us? How has the representation of the body been changed by the development of more sophisticated medical imaging technology? What concepts of the human body do these artists transmit to us?

MEDICAL IMAGING TECHNOLOGIES AND ART

Since the second half of the 20th century, artists have been increasingly interested in using medical imaging to create self-portraits and to represent other people. These artists transform a medical image into an artistic pictorial representation and use their art to investigate the concept of the body, notions of self and identity, the relationship between what is virtual and what is real, the body and its image, and the vision and knowledge of the human body.

Early examples of artistic work that reflected on the representation of the body and the notion of identity which were created with the first medical imaging technology, the X-ray, include ‘X-ray of Meret Oppenheim’s Skull’ (1964) by Meret Oppenheim, a Swiss surrealist artist, and Robert Rauschenberg’s ‘Booster’ (1967), for which he X-rayed his entire body (Casini 2010). In these first attempts at using X-rays for artistic purposes, the human body appears to us as a constant image, and they were, therefore, similar to photography, i.e. directly mapping the human body. With the development of more sophisticated medical imaging techniques, such as 3-dimensional (D) and 4-D imaging, the representation of the body has profoundly changed.
CONCLUSION

The use of medical imaging technologies by artists demonstrates that the scanned inner body has become a complex, cultural construction which challenges our experience of the body and physicality, as well as our notion of self-identity and provokes questions on the cultural level such as how to integrate our body’s interior image into our general notion of body and self (Zwijnenberg 2010: 31).

Medical imaging technologies have made our body transparent without damaging its integrity, thus creating a ‘myth of the transparent body’ (Van Dijck 2005). Artists challenge this notion in their works and the idea that seeing is equated with knowing and understanding. Exposing the lightness of its layers and borders, while fragmenting and virtualising each part, artists show that the body becomes transparent, but not necessarily more comprehensive.

Their artworks do not transmit a clearly defined idea of the human body that is easy to identify with. They are fragmented and transient with fluid boundaries between the body and the outside world, and appear indefinite and problematic, thus offering us increased uncertainty about our bodies and physicality.

REFERENCES


