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LABYRINTH PSYCHOTICA - SIMULATING PSYCHOTIC PHENOMENA

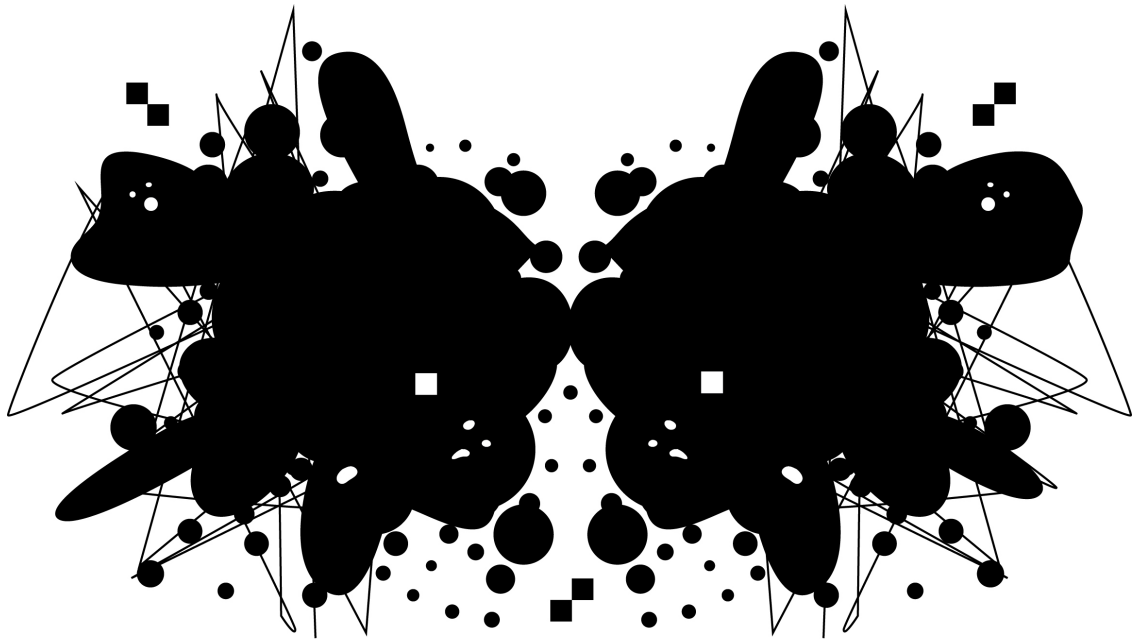
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LABYRINTH PSYCHOTICA

SIMULATING PSYCHOTIC PHENOMENA

by **roomforthoughts**
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Jennifer Canary Nikolov(a)

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**RESEARCH
DEGREES
WITH
PLYMOUTH
UNIVERSITY**

LABYRINTH PSYCHOTICA: SIMULATING PSYCHOTIC PHENOMENA

by

Jennifer Kanary Nikolov(a)

A thesis submitted to the University of Plymouth
in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

School of Art & Media
Faculty of Arts

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*To Gergana Nikolova †
To my husband and daughter
To friends and family
To all who deal with psychosis*

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AUTHOR'S DECLARATION

At no time during the registration for the degree of *Doctor of Philosophy* has the author been registered for any other University award without prior agreement of the Graduate Sub-Committee. Work submitted for this research degree at Plymouth University has not formed part of any other degree, either at Plymouth University or at another establishment. Relevant scientific seminars and conferences were regularly attended at which work was often presented; several papers were prepared for publication of which a list is provided in the Appendices.

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Signed: Jennifer Canary

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LABYRINTH PSYCHOTICA: SIMULATING PSYCHOTIC PHENOMENA

Jennifer Canary Nikolov(a) – independent artistic researcher

ABSTRACT

This thesis forms a valuable tool of analysis, as well as an important reference guide to anyone interested in communicating, expressing, representing, simulating and or imagining what it is like to experience psychotic phenomena. Understanding what it is like to experience psychotic phenomena is difficult. Those who have experience with it find it hard to describe, and those who do not have that experience find it hard to envision. Yet, the ability to understand is crucial to the interaction with a person struggling with psychotic experiences, and for this help is needed.

In recent years, the psychosis simulation projects *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living With Schizophrenia* have been developed as teaching and awareness tools for mental health workers, police, students and family members, so that they can better understand psychotic phenomena. These multimedia projects aim to improve understanding of what a person in psychosis is going through. This thesis represents a journey into taking a closer look at their designs and comparing them to biographical and professional literature. In doing so, throughout the chapters, a set of considerations and design challenges have been created that need to be taken into account when simulating psychosis. After a series of artistic case study labyrinths, *Suicide Pigeon*, *Intruder*, and *Intruder 2.0*, two final ‘do-it-yourself-psychosis’ projects have been created that have taken the aspects collected into account: *The Labyrinth* and *The Wearable*. Together these two projects form experiences that may be considered analogous to psychotic experiences.

My original contribution to knowledge lies, on the one hand, within the function that both *The Labyrinth* and *The Wearable* have on a person’s ability to gain a better understanding of what it feels like to be in psychosis, and on the other hand within the background information provided on the context and urgency of psychosis simulation, how the existing simulations may be improved, and how labyrinthine installation art may contribute to these improvements.

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1 INTRODUCTION

We don't have a language for the senses. Feelings are images, sensations are like musical sounds. – Anaïs Nin (1932)

The way a question is asked limits and disposes the ways in which any answer to it — right or wrong — may be given. – Suzanne Langer (1942)

1.1 PSYCHOSIS SIMULATION

When I tell a person that my research is about understanding the subjective experience of psychosis through artistic psychosis simulation, I often receive the comment: 'why would anyone want to simulate psychosis, let alone experience the simulation?'

My own personal reason for wanting to investigate psychosis simulation is that my sister-in-law, who had been diagnosed with schizophrenia, committed suicide in 2005. After her death, I was struck by my own lack of knowledge about psychosis or, indeed, why she might have wanted to end her life. Apart from a general 'it must be too horrible to imagine' sensation, I realised I had not made any in-depth inquiries whilst she was alive, instead somehow just passively accepting the status quo. I *did* research schizophrenia and psychosis, learning about objective descriptions of hallucinations and delusions, but I did not venture further into understanding what these phenomena were or how she was experiencing them. I did not ask her if she was hearing voices, or seeing things, nor did I think about what the tactile subjective qualities of such experiences were. As I am usually a curious person when it comes to phenomena related to the brain, I wondered why this was the case. On the one hand this could be due to the fact that I did not see her often, as she lived in Bulgaria, and on the other hand this could be due to a language barrier, her English being minimal. In hindsight, however, I felt there was something more to it. During my research I learned much about her potential experiences. For instance, I learned that people may leap off a building because they think they can fly, or because voices relentlessly tell a person to jump, which I found comforting to a certain extent, but perhaps more importantly, I learned that I

was not the only one with a knowledge deficit, and that even professionals are limited in their understanding of the subjective experience of psychosis.

A simulation is generally designed to help people better understand practical realities that are hard to understand from mere theoretical descriptions alone. To represent, to illustrate, to imitate, to emulate, to copy or re-enact different forms of simulation involves a process, an act of taking something, a characteristic or a quality, that is considered real, and re-creating it in a form that has its own analogue reality. A simulation is often created for a designated use, which may be to enlighten, to provide an aesthetic experience, or to educate. Simulations might consist of several different forms and methods. Software may simulate the gravity of a physical object to test architectural structures. In exposure therapy, the use of a virtual spider may help to overcome a fear of spiders. A whole airplane cockpit may be built so that people can learn how to fly, and simulations for earthquake rescue teams or personnel dealing with other disasters often involve hundreds of people acting as if they are wounded and panicked so that rescue workers learn to deal with unexpected large-scale situations. Presumably, a psychosis simulation could therefore help a mental health worker better understand what their patients are going through. So, why would people not want to experience a simulation of psychosis, if it helps them to understand it better? What is psychosis?

Psychosis is often described as a severe mental illness during which thoughts and emotions are so impaired that contact is lost with external reality. Psychosis is considered to be triggered by other conditions such as schizophrenia, bipolar disorder, or severe depression (NHS, 2015). In a state of psychosis one might hear things that others do not hear, see things that others do not see, and have beliefs that others do not share, often causing someone to act, speak and think in unfathomable ways. In isolation these behaviours and cognitions are not necessarily seen as illness, but when they manifest themselves in a way that causes someone to retreat from society, to become a danger to him- or herself and/or others, they are usually considered as a set of symptoms. Symptoms, or phenomena, that are considered prevalent in psychosis are often placed into categories such as: hallucinations, delusions, disorganised thought or speech and chaotic or cartoonish behaviour.¹

¹ This thesis will further refer to 'symptoms' as 'phenomena' in order to adopt a more neutral stance on these experiences, out of respect for those who do not view the experiences as symptoms of illness.

'Hallucinations' are described as sensory experiences that are experienced without an apparent source. Examples can be: hearing voices, seeing light coming out of the eyes of a person, feeling that one is being touched by invisible forces or hearing a fly flying around in one's head. Intricate narratives that form around these experiences, known as delusions, often accompany hallucinations (Wunderink, 2002 [1997], p.15).

'Delusions' consist of strong convictions that do not match with what is considered real in a society, and are held in spite of any contradicting evidence. Examples are: a person believing that people in the street are watching and laughing at them, thinking that their neighbour is influencing them with a laser or thinking that they have travelled through the hole in the ozone layer and are on a special mission or assignment for an alien civilisation (Ibid, p.15). In short, delusions are usually considered to be a set of irrational beliefs.

'Disorganised speech' or 'disorganised thought' could be defined as a person speaking or appearing to think in a way that may no longer be rationalised. The individual in question might jump from one topic to another, or might seem to randomly change the structures of sentences and use made-up words. In general, there is a lack of consistency in narrative. Narratives might become very elaborate, or they may be limited to single repetitions of a word or sentence (Ibid, pp.15-16). In a sense, one could say that thoughts and speech become so altered that a person shows difficulty in communicating.

'Chaotic or cartoonish behaviour' is when a person seems to act irrationally, and their behaviours are difficult to make sense of. Actions are seen as being without aim or purpose, and they are seen as inefficient. Examples are: pointless repetitions, disrupted or rigid gestures or actions, aimless motor movements (Ibid, p.16). Not only are one's thoughts and speech and senses altered, one's behaviour, and physical control over one's body, are altered as well.

These phenomena are described as being positive or negative based on the premise that they were either added to or subtracted from a person's usual functioning. Examples of positive symptoms are hallucinations or delusions. Examples of negative symptoms are lack of attention to personal hygiene or withdrawal or loss of interest in socialising (Ibid, pp.21-37). Hallucination, delusion, disorganised thought, speech and behaviour form the starting point for this thesis. In order to design something that emulates the experience of

psychosis, a practice of psychosis simulation should take a simulation of these phenomena into account.

The descriptions mentioned above clarify, to a certain extent, the question: 'Why would anyone want to experience it?' This may be simply because it seems intensely difficult to endure, but understanding psychosis through simulation is important.

But *what is it really like to experience this mental disease?* There is currently very little means for mental health workers to empathise with patients. Doctors have long struggled to understand the fragmented thought that characterises this disease. Sufferers have to describe their symptoms to their therapists who can only imagine what they are describing. The traditional medical school approach to teach healthcare providers about psychosis has been to use books of text and still images. Therapists and family members alike, currently have considerable inability to objectively verify and evaluate these hallucinations (Fernandez, 2002, p.1).

A simulation of psychosis will provide an opportunity to discuss one's experiences. It forms an important educational tool, yet it is also important to be critical about such a tool, as psychosis is '[...] often stigmatised and poorly understood, and sufferers often feel alienated from the community' (Banks et al, 2003, p.869). As such, it is important to investigate how education about the topic is being carried out and to understand where it can be improved.

1.2 ROOMFORTHOUGHTS - LABYRINTH PSYCHOTICA

At this point I would like to introduce my own art practice, *roomforthoughts*. The art practice *roomforthoughts* began in 1998 with one burning question: 'What is a thought?'² And its associated sub-questions: How does a thought grow? How

² The initial backdrop to my practice was fashion. My interest in fashion was related to the symbolic language we speak with our clothing using material, colour, silhouette, and how our interpretations of this language form meaningful narratives with a social function. This later developed into an interest in other forms of 'hidden' communication. For instance, when I would produce doodles, I was interested to see if they formed some sort of language, so I produced doodles and printed them in relief on pyjama fabric, so that I might wear them on my skin while I slept. I imagined that during my sleep, communication took place between the doodles resting on my skin and my dreams. In 1998, when I manifested my practice *roomforthoughts*, I redirected my investigations from fashion and its direct interface with the body, towards space as an interface. I became an installation artist. I started by reducing the fabric of clothing down to its minimum of seams and threads, finding forms for them, and 'doodling' in space, as it were. The spaces literally became rooms in which thoughts were materialised and became clothes to wear.

does it behave? What are its patterns? I imagine a thought in a given moment, being born from a body, a mind, and then being able to capture them as if one could freeze them in time and space. This means contemplating what they would look like and what they were made of, and arriving at the creation of 'air drawings' with fabrics that expressed the physics of these thoughts, focusing, for instance, on what one might consider a harmful thought. I was able to begin to look at these 'materialised thoughts' as something that one could cut, stitch, weave, and knit together in a complex spatial composition, in which the materialised thoughts could form mental landscapes that might be able to express the thoughts and experiences of others. Much like the simple act of trying on a crown to imagine what it would be like to be a king, I became interested in seeing if I could create experiences as if they were outfits that were analogous to the complexity of another person's subjective experiences; experiences that a visitor could 'try on' as if they were clothing, to *understand* the experience of someone else. This has led to several creations that are more complex, in the form of installations that formed complete worlds in which the visitors could literally become lost.

The topic of psychosis was of interest to my practice as it is often termed a 'thought disorder'. If psychosis is a state of 'broken' or 'disordered' thoughts, what, then, do they look like, how do they feel? Could such a state be portrayed artistically and, if so, could this be useful for gaining more understanding about the experience of psychosis?

Another significant interest in my art practice is how thoughts are often experienced in a state of psychosis. One's thoughts might feel like they are sped up or slowed down. One is often convinced that thoughts are being inserted or extracted from one's mind or that one's thought can be heard by the whole world. One might also believe that they have control over the thoughts of others. The artist Antonin Artaud (1896-1948), who was diagnosed with mental illness, once described his thoughts as follows:

When I think, my thought searches itself into the ether of a new space. I am on the moon, as others are on their balcony. With the cracks of my mind I participate in planetary gravity (Artaud, 1976, [1956], cited in van den Bosch, 1993 p.13, free translation).

Artaud's description of his thoughts' behaviour is very much how I attempted to

illustrate how thoughts behave in the work *Entangled* (2000).



IMAGE 1 - *roomforthoughts Entangled*, 2000, Leuven, station post office, installation 16m²

In psychosis, thoughts seem to become objectified, and as an artist I was curious about the nature of these 'objects' as mind-specific art. In essence, the works created form an experience for a visitor. For me, the experience of my work becomes nested in the visitor's brain as a mental or synaptic object, which, in turn, I hope, may function as prosthetic with regards to the imagination, to help better understand psychosis.

In the context of *roomforthoughts*, I started to investigate the nature of psychosis and expressed what was learned in artistic case study labyrinths: *Suicide Pigeon* (2006), *Intruder* (2006), and *Intruder 2.0* (2008).



IMAGE 2 a, b and c – Mapping of *Suicide Pigeon*, *Intruder* and *Intruder 2.0*, see Appendix IV for full iamges.

In addition to the development of these artistic case studies, I discovered several multi-media psychosis simulators that had been developed as teaching and awareness environments for mental health workers, police and students, to increase their knowledge and comprehension of the subjective experience of psychosis; *Paved with Fear* (2001), *Mindstorm* (2007), and *Virtual Hallucinations* (2004), *Living with Schizophrenia* (2000).³

***** Please view the video documentation in the provided SD card (recommended player is VLC) or online video documentation of which links and images may be found in Appendix III and IV.**

Their aim is to help professionals to become more empathic towards their patients as well as towards their patients' friends and families, thus fostering a greater understanding of precisely what their loved ones were going through.

Studying and experiencing some of these simulations helped me develop a better understanding of my sister-in-law's condition, but, as an artist, and as a researcher of the subjective experiences of psychosis, I also felt that there was room for improvement in their design, and that the installation art I was making with *roomforthoughts* could play a role in further developments. To back up this artistic sentiment, for this thesis, I investigated psychosis from various perspectives, with a focus on the subjective experience of psychotic phenomena and analysed findings against the design of a number of these multi-media psychosis simulation projects and other experimentations. My investigations resulted in the design of a thought experiment to help view a space from the perspective of psychosis, and two final practical research results, *The Labyrinth* (2013) and *The Wearable* (2013). Both holding a metaphorical collection of analogue experiences of psychotic phenomena, such as seeing things in the air that are not there or seeing ones colleague become a potentially magical creature, as well as several recommendations for further improvement of the existing simulations.

³ The first version was launched in 1999 with VR characters, the second version was launched in 2000 with real actors (Fernandez, 2002, p.4 in reference to *Virtual reality unit mimics frightening effects of schizophrenia*. - The Canadian Press, 2001)

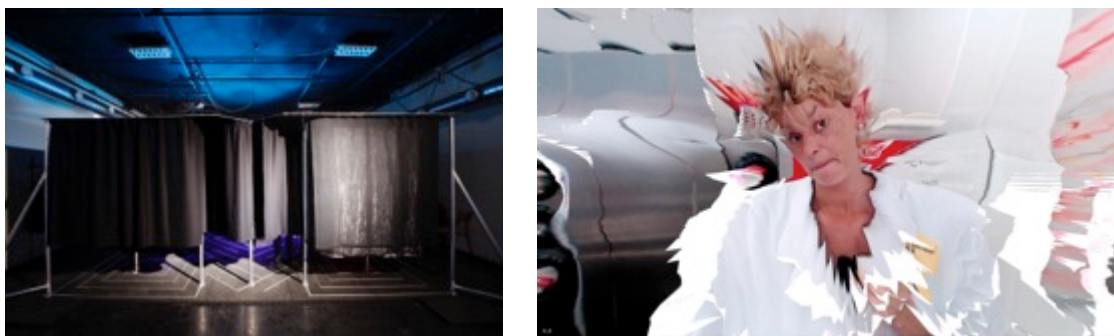


IMAGE 3 a and b – *The Labyrinth* and *The Wearable*, please see Appendix IV for credits

After a year of pilot testing in 2012-2013, *The Wearable* and *The Labyrinth* were officially introduced to the world in September 2013, after which the two projects were picked up by the media, featuring in several TV shows, TV news, newspaper articles and radio shows, reaching over five million people in a matter of weeks.⁴ Since then, bookings have been frequent, and the project has been to Germany, England, Belgium and several countries in the Middle East, such as Saudi Arabia, Qatar, Bahrain, Kuwait and the United Arab Emirates, in the process reaching thousands of people working in mental health services. For the interested reader I refer to the Appendix V for media reactions, and experiences from visitors and participants. This showed me that the desire to know more about psychosis is international.

Due to the research emerging from my practice, the decision was made to produce the account of this thesis in the first person, as an appropriate reflection of the nature of the practice-based research.

1.3 THE SIGNIFICANCE OF UNDERSTANDING PSYCHOSIS BETTER

Understanding psychosis is important for several reasons, one being the sheer number of people who are diagnosed with psychosis. Psychosis is thought to affect between 2 and 3% of a given population, of which approximately 1% are diagnosed with schizophrenia (Banks et al., 2003, p.869, Frith and Johnstone,

⁴ This number was reached by counting the average number of viewers of each media it was presented in.

2003, p.1).⁵ Simply put, schizophrenia can be characterised by a vulnerability to psychotic episodes. It is important to understand psychosis as it affects the very young, the majority being between the ages of 15 and 25. Early detection has a positive influence on a young person's outlook on life, yet is hard to detect, as its symptoms are so similar to normal adolescent behaviour. In spite of such a high incidence, psychosis remains a phenomenon in the shadows. The diagnosis is very stigmatising. Talking about it seems taboo, which in turn makes early detection even more difficult. A diagnosis of psychosis, and in particular schizophrenia, will often lead to a loss of social connections, jobs and financial means. This leaves many young people unable to take care of themselves, as they have a poor outlook on job opportunities, and their quality of life rapidly declines. It is also important because of its financial cost to society. In the 1990s, research showed that in the UK alone schizophrenia cost £397 million in terms of care and treatment, while the indirect costs in terms of lost production were conservatively estimated for the same period at £1.7 billion (Frith and Johnstone, 2003, p.1). Early recognition contributes to a better prognosis in later life, yet there is very little information provided to the young about psychosis during their general education. A better understanding of psychosis could help de-stigmatise the condition, people could thus recognise it sooner, talk about it sooner and seek help sooner, and as a result reduce the costs to society, by bringing down the number of people needing long-term care.

Another very important reason why a better understanding of psychosis is crucial, not only to those experiencing it, but also to society in a more general sense, is that there is much emotional distress endured due to misunderstandings surrounding the condition, misunderstandings which can in extreme cases lead to untimely death. An estimated 10-15% of people diagnosed with schizophrenia will die as a result of (accidental) suicide (Torrey, 2006 [1983], p.106). Some might do this directly because voices are telling them to do so; others might do this because they become depressed about their situation. Others might take their lives because they are no longer capable of handling the intensity of their experiences, and finally some simply die due to the very nature of the narratives of experiences and how they are formed, for

⁵ Note: The numbers vary slightly with different sources, but 3 in 100 is the most commonly used reference I have encountered. This is also cited on (NHS, 2015)

example jumping off a building believing they can fly. In all cases, friends, family and loved ones are often left in complete shock, and none the wiser about the motivation for these actions. For all of these reasons, a better understanding of psychosis could help to alleviate emotional suffering.

Psychosis is one of the biggest mysteries of the human psyche, and that reason alone demands that a greater understanding of its many complexities be sought. Even though science is aware of an array of possible contributing (risk) factors, in reality, science still does not know what psychosis is, or what causes it. In spite of significant progress, and of helping many people, for many, treatment remains difficult, ineffective and for some, may even be considered harmful (Read, Moscher, Bentall, 2011 [2004], p.3). The history of our understanding of psychosis is addressed in the appendix. A better understanding of psychosis would begin to redeem the victims of this history, and ultimately contribute to a diminishing of suffering in general.

The popularity of *Labyrinth Psychotica* highlights the need to better understand the subjective experiences of psychosis. But why is it so difficult to do so in the first place?

1.4 THE SIGNIFICANCE OF UNDERSTANDING THE SUBJECTIVE EXPERIENCE OF PSYCHOSIS AND THE OBSTACLES THAT MAKE THIS DIFFICULT

There are a number of reasons why understanding the subjective experience of psychosis is challenging. The first relates to language and communication, the second to the development of the medical model of psychosis, the third to the intensity of the emotions involved, and the fourth to the potential neurological barriers that need to be overcome.

1.4.1 LANGUAGE AND COMMUNICATION

In order to be able to understand the personal experience of the other, the other needs to be able to communicate. Yet, those who have personal experience of psychosis find it hard to explain, and those who do not find it equally hard to

envision, making it extremely problematic not only to understand but also to empathise with:

Currently patients have to describe their hallucinations, auditory and visual, to their therapists. There is no way that therapists can either share the experiences or objectively evaluate them. As a consequence patients often feel their therapists do not really understand them. Therapists themselves have difficulties learning about the exact nature of psychosis, as they have no personal experience of it (Banks et al., 2004, p.2).

Additionally, the impossibility of expression through common language and communication forms a barrier, as clinical psychologist Louis A. Sass explains:

In attempting to communicate with a patient in such a state, the interviewer or therapist is liable to have the sense of bumping up against the limits of language and communication. Few patients can offer more than the cryptic statement that things seem somehow 'different,' 'unreal,' or 'intense' (Sass, 1988, p.225).

Finally, there have been lingering issues with the very language that is designed for use in doctor-patient relationships, as well as the protocol within mental health institutions, as psychiatrist Ronald D. Laing (1927-1989) points out:

As a psychiatrist, I run into a major difficulty at the outset: how can I go straight to the patients if the psychiatric words at my disposal keep the patient at a distance from me? How can one demonstrate the general human relevance and significance of the patient's condition if the words one has to use are specifically designed to isolate and circumscribe the meaning of the patient's life to a particular clinical entity? (Laing, 1990 [1959], p.18).

These issues still exist today. This professional distance affects a patient's sense of self-worth. As an artist, and a person with lived experience, Jannemiek Tukker says:

The problem with how the condition is treated is that it undermines self-confidence rather than boosting it, the caregivers are there for you, but they don't show anything of themselves, there is no 'real' contact, yet all a person with schizophrenia really needs is a real connection with fellow human beings and not someone who hides behinds medical jargon (Muis, 2011, p.37, free translation).

So if language and communication prove problematic on so many different levels, how should we improve our skills? How can we find out what it is actually like to be in a state of psychosis?

The psychologist George Kelly (1905-1967) once said: 'If you do not know what is wrong with a person, ask him: he may tell you' (as cited in Geekie, et al 2012 p.1). Is this really so difficult to follow? Henk Driessen, who has personal experience of psychosis in the form of a diagnosis of schizophrenia, explains that people with the condition have their own logic, and, if you make the effort to follow their thought paths, you can see it is very logical (Muis, 2011, p.25, free translation). Psychiatrist and professor emeritus Aaron Beck notes: '[...] In fact, if one investigates the subjective experiences, the apparently mysterious, incomprehensible symptoms of the mentally ill are actually extensions of what many of us experience every day' (Bentall, 2004, p.xi). Yet, as Tukker also observes, if you really want to explain what psychosis *is* to the outside world, you have to retain a grip on the language of the healthy other, and this is only possible after you have left the psychosis (Muis, 2011, p.35, free translation). Another person with the skill to explain in an accessible way what it is like to experience psychosis, alongside Tukker, is linguist Wouter Kusters.

In his award-winning 2004 book *Pure Waanzin Op Zoek Naar De Psychotische Ervaring*, Kusters worked on developing a philosophical language that could articulate what it is like to be psychotic.⁶ The autobiographical documents and experience reports he studied rarely satisfied him. He noticed that a psychosis is often described as something that is somehow beyond comprehension ('Nobody understands how special I am') or as something really horrible ('Look how pitiful I am.'). He found descriptions by 'experts' such as psychologists and psychiatrists to be superficial, as he felt they were based on the presumption that there is a clear boundary between madness and normality. Further to this Kusters argues that psychiatry is good at suppressing, controlling, healing and even preventing psychosis; but that it is unversed in understanding and describing the subjective experience of psychosis (Kusters, 2004, p.9). Kusters came to this argument by writing down his experiences and

⁶ In 2004 Wouter Kusters won the Van Helldingenprijs from the Foundation of Psychiatry and Philosophy for his essay 'Met de waan aan de wandel', which was later adapted into his book *Pure Waanzin: Een zoektocht naar de psychotische ervaring*. (Free translation: *Pure Madness: A Search for the Psychotic Experience*). In 2005 this book won the Socrates trophy for most stimulating Dutch philosophy book of the year.

comparing them to the documentation made by health care staff. The differences were considerable.⁷ This required further investigation on my part. How is it possible that a profession that studies mental experiences has such a poor grip on the inner experience of psychosis?

1.4.2 THE BACKLASH OF THE MEDICAL MODEL

Understanding of the subjective experience of psychosis has been, in a sense, held back by the very model that is designed to understand and treat the condition. In the materialism of modern-day psychiatry, psychotic phenomena tend to be regarded as the result of an abnormality of the brain, or the result of a disease that affects related regions of the brain, such as Alzheimer's. This has led to a focus on investigating psychosis within the biomedical realm of the body, limiting attention to subjective experience. During my research I learned that, in spite of the vast amount of research conducted into understanding experiences of psychosis, there has been little focus on the subjective elements of the experiences:

However, given the nature of the phenomenon we are referring to, it seems to us that the experience of the individual concerned must be central to any understanding of psychosis that we may develop. Sadly, if we look at the scientific research, we can see that this position is not shared by the vast majority of those who conduct research in this area, where the voice and perspective of the individual who experiences psychosis has been marginalised. [...] Those who have such experiences feel 'silenced' and often subjected to the perspectives of others. [...] our understandings of psychoses are hampered by our failure to recognise the great contributions that can be made by those who are most intimately familiar with the phenomenon' losing opportunities for 'genuine collaborations' between professionals and experiencers. (Geekie, et al, 2012, pp.1-2).

In relation to this, the development of the medical model of psychosis has been frequently criticised, first and foremost because, so far, the biological evidence for the model has been poor.

⁷ One example he found was that staff viewed him as an escape risk, due to the fact that he sat at the back of the church during a mass, while the rest were seated at the front. Kusters reveals that he was only attempting to bring balance so that the church would not tip over. There was no thought in his mind about escape.

Psychosis is a phenomenological-psychological concept. There is neither a biological definition covering the term, nor is there a specific biological 'marker' for psychosis. Every attempt to find a neurological correlate has been unsuccessful (Cullberg, 2006 [2000], p.26).

Secondly, it has been criticised for the stigmatising nature of the diagnosis and its classification as severe illness. Professor of clinical psychology John Read, clinical professor of psychiatry Loren R. Moscher (1933-2004) and experimental psychologist Richard Bentall note that:

The heightened sensitivity, unusual experiences, distress, despair, confusion and disorganization that are currently labelled 'schizophrenic' are *not* symptoms of a medical illness. The notion that 'mental illness is an illness like any other', promulgated by biological psychiatry and the pharmaceutical industry, is not supported by research and is extremely damaging to those with this most stigmatizing of psychiatric labels (Read et al, 2011 [2004], p.3).

Thirdly, the medical model is criticised for the way it describes and labels. Manuel González De Chávez, a Professor and the head of a psychiatric service, addresses the practice of traditional descriptive psychiatry by asking what it has offered for the last two hundred years. He describes it as:

A triple pirouette of ignorance, that initially considered these persons as alienated, then as brain damaged, and finally it stopped listening to them. It redefined voices on an exclusively pathological basis as auditory hallucinations, a symptomatic paradigm of diagnostic labels, such as schizophrenia or psychosis, with the unquestioning presumption of a (still undemonstrated) underlying brain disorder (as cited in Romme and Escher (eds.), 2012, p.xiv).

Fourthly, it is criticised for the way it has pushed away the notion of psychosis as a 'normal', albeit extreme, reaction to trauma and the difficulties of life events, also described as spiritual emergency or personal crisis, as De Chávez once again explains:

Institutional processes and interactions by which asylum psychiatry interpreted the voices in a historic moment to firmly embrace scientific positivism and the materialism of brain disorder with the abandoning of any religious or spiritual trace from previous periods, was a mistake, one which was still followed by many, even after the development of psychoanalysis and its understanding of unconscious disassociation, splitting and other reactions to trauma and developmental distortions.

This was a serious mistake, with serious consequences for the diagnosis, image and stigmatization of insanity for all those who, with whatever frequency, intensity and attitude, had the subjective experience of hearing voices at some time in their lives (Ibid, p.xv).

And lastly, it is criticised for the way it influences how a person's experiences are marginalised, as De Chávez continues:

And what is even worse, it condemned these persons to silence, because it maintained *a priori* that the voices had no meaning, that they were noises from a damaged brain machinery that were not worth listening to. Therefore, the professionals of the traditional descriptive psychiatry did not listen to them (Ibid, p.xiv).⁸

Yet, in spite of such severe criticism of the medical model, Daan Muntjewerf, who has lived experience with psychosis, states that any treatment seems to be better than no treatment (Tellegen, Mous, Muntjewerf (eds.), 2011, p.62). The quest is to improve treatment where possible. Professor emeritus of psychiatry Robert van den Bosch points out that, luckily, interest in the subjective experience of psychiatric disorders is rising (van den Bosch, 1993, p.9).

Another reason why an understanding of the subjective experience is so underdeveloped relates to the fact that a person's emotional functioning has been perceived as disturbed, to the point that he or she seems to have no emotion, which is considered a symptom of the illness.

1.4.3 MISINTERPRETATION OF EMOTIONS

In 'The Inner World of Madness: View from the Inside,' a chapter from his book *Surviving Schizophrenia: The Indispensable Guide to Today's Most Misunderstood Illness*, the American psychiatrist Dr. Fuller Torrey suggests that, in order to better understand psychosis, we should, among other approaches, imagine how we would feel if we lost the capacity to feel emotions

⁸ The reader should be aware that much of the criticism on the historic development of the medical model of mental illness I found was collected in a series of *Routledge* publications for the organisation ISPS, *The International Society For The Psychological Treatments Of The Schizophrenias And The Other Psychoses*. Contributions to these publications are made by prominent international professionals. In several of these publications there is a focus on the social-political and economic sphere of definitions and in particular the absence of the voice of the patient as an expert in their own experiences.

(2006 [1983], p.3).⁹ The idea that a person experiencing severe psychotic phenomena loses the ability to feel was already prevalent even in early psychiatry. The psychiatrist Eugene Bleuler (1857-1939), who coined the very term 'schizophrenia', stated that schizophrenics were 'strange, puzzling, inconceivable, uncanny, incapable of empathy, sinister and frightening' (as cited in Porter 2003 [2002], p.194). That the founding fathers of psychiatry held such notions sheds light on why it was possible for so little attention to be paid to the subjective experience so early on in the development of the field.

In the 'Madness and Emotion' chapter of his book *Madness Explained*, Richard Bentall describes that even though emotions are pivotal to human nature, they are indeed, curiously, not usually considered to be important features of madness (Bentall, 2004, p.205). Bentall speculates that the lack of understanding of the emotions experienced during psychosis could be related to the manifestation of so-called 'negative symptoms'. The term 'negative symptom' is used by psychiatry to describe aspects of a person's character or behaviour that were initially present but have subsequently been lost. An example of such a symptom is the apparent absence of emotion in schizophrenia patients. This is sometimes described as *flat affect* or *affective blunting* (Ibid, p.219). Bentall describes *flat affect* based on the description of the American psychiatrist Nancy Andreasen, which includes features such as the patient's face being unchanging, wooden, mechanical or frozen, the body not being used to express emotions, poor eye contact, no laughter when prompted and speech often having a monotonic quality (Ibid, p.220 in reference to Andreasen, 1989, pp.53-58). Bentall warns against the dangers of equating outward expression with subjective experience. As he points out, recent studies have revealed that people diagnosed with schizophrenia who show evidence of flat affect actually have normal subjective emotions, and that flat affect, therefore, appears to reflect a difficulty in expressing rather than feeling emotions (Ibid, p.225). Clinical psychologist Bertram P. Karon confirms this notion in his article 'The Fear of Understanding Schizophrenia'.

⁹ Fuller Torrey does state that the best way to learn what a person with schizophrenia experiences is 'to listen to someone with the disease' (p.3), and, later in his book (p.44), he says it is becoming increasingly apparent that many individuals showing flat affect actually show difficulty in expressing themselves, but this does not take away the suggestion that is made, in relation to how to imagine what it is like to be psychotic.

One of the great mistakes made in evaluating schizophrenia, a mistake that even Eugen Bleuler made, is to assume, because they look as if they have no feeling, that they have no feelings. In fact, schizophrenic persons have very intense feelings, although they may mask or even deny them. The primary or most basic affect is fear, actually terror (Karon, 1992, p.194).

This fear is a pivotal problem. In order to understand this, one needs to take a closer look at what it means to understand the subjective experience of the other, which in essence requires empathic or sympathetic skills.

The ability to engage in a process of understanding with sympathy and empathy is crucial to a person struggling with psychosis; it makes the experiences more bearable as it creates an environment of support in which a person may feel safe about sharing what is bothering them (De Hert and Sperans, 1998, p.101). But understanding psychosis is extremely difficult. People seem to say the strangest things and act in the weirdest ways, making it hard to sympathise with:

[...] it is as if the person has lost control of his/her brain. How can we sympathize with a person who is possessed by unknown and unseen forces? How can one sympathize with a madman or madwoman? [...] Because there is little understanding of schizophrenia, so there is little sympathy (Torrey, 2006 [1983], pp.2-3).

When one tries to understand what it is like to be someone else, one engages in the process of empathy and sympathy. One could say that an attempt is made to construct in oneself a feeling of what the other feels. When it comes to psychosis we are often afraid – most probably *because* of our empathic and sympathetic skills. Karon notes:

Sometimes the therapist may, all too successfully, empathize with the schizophrenic patient's terror and tend to withdraw in terror just like the patient. Human beings are not easily able to tolerate chronic, massive terror (Karon, 1992, p.194).

Karon also points out:

Fundamentally, we do not want to know about schizophrenia because we do not want to feel terror at that intensity. All of us have the potential for schizophrenic symptoms if there is enough stress; the only differences

seem to lie in the quantity and qualitative nature of the necessary stress (Ibid, pp.194-195).

If a well-informed professional is having an arduous time, what does that mean for non-professionals? Just because we are afraid of something does not mean we automatically avoid understanding it. There must be something more going on that is holding us back.

And indeed, during my investigations, I found clues that this could be the case. In addition to fear, there seem to be neurological barriers that need to be overcome, before one is able to understand the experience of another person. When another person's experience is very different from one's own archive of experiences, one might say that the brain simply runs into a 'neurological wall'.

1.4.4 NEUROLOGICAL BARRIERS

In the chapter 'Perspective Taking: Misstepping into Others' Shoes' in their *Handbook of Mental Simulation and Imagination* (2009), Nicholas Epley and Eugene M. Caruso point out that, although humans possess the mental capacity necessary to adopt another's perspective and consider another's thoughts, feelings and mental states, possessing this capability does not mean that people will necessarily use their perspective-taking skills when they should. In fact, they confirm how recent studies show that there are several important challenges to using one's perspective-taking capabilities to their fullest potential. Supporting their argument, they explain, is a recent neuroimaging experiment, in which neural regions associated with self-referential thoughts were activated when participants reasoned about the mental states of a person perceived to be similar to them, but not when they reasoned about a person perceived to be very different (Epley and Caruso, 2009, p.295, p.303).

Epley and Caruso name three barriers that need to be overcome when trying to understand what it is like to be another person who is very different from you. First, the mental process of taking a perspective must be activated. This, they point out, requires people to actively think about another person's mental state: '[W]hen it is appropriate to do so', as they say, 'there is no more immediate barrier to accurate perspective taking, than failing to use it in the first place' (Ibid, p.297). They add: 'People who are actively attempting to adopt another's perspective, must first get over their own, to try to experience,

simulate, or infer the perceptions of another person' (ibid). They explain how one's own perspective is 'typically immediate, automatic and easy, whereas thinking about another's perspective is typically slow, deliberate, and difficult' (ibid). The second barrier is none other than taking the more difficult road rather than the easy one, and being aware when this happens. Third, 'overcoming one's egocentric perspective', they describe: '[...] may require using some other information in its place to intuit another's perspective'; too often such substitutes are based on 'stereotypes or other idiosyncratic information known about the target being evaluated' (ibid). They continue with: 'Accurate perspective taking requires using diagnostic and useful information about another's mental state' (ibid). This forms the core of why understanding psychosis through the deployment of psychosis simulation projects such as *Living With Schizophrenia*, *Paved with Fear*, *Mindstorm*, and *Virtual Hallucinations* is so crucial, yet also why it is so important to be vigilant of their design.

1.5 THE SIGNIFICANCE OF USING PSYCHOSIS SIMULATION PROJECTS TO HELP UNDERSTAND THE SUBJECTIVE EXPERIENCE OF PSYCHOSIS

In the process of learning about the barriers mentioned above, one realises just how important the simulation of psychosis is. Simulation is not an unknown phenomenon in medical science. In order to help their patients, doctors have traditionally simulated symptoms to better understand what their patients are going through. But how can they simulate psychotic phenomena? In the past, doctors took drugs, such as LSD, to better understand hallucinatory phenomena. But as such actions are now considered taboo, one might instead consider the possibility of simulating psychotic experiences with the aid of technical innovations as a form of 'digital LSD'.¹⁰ Just as a flight simulator helps aspiring pilots in their journey of learning how to fly, technological tools can be

¹⁰ 'Digital LSD' is placed in inverted commas throughout this thesis, to emphasize the informal nature of the term and its connection to historic attempts of doctors to understand the nature of their patient's experiences by taking LSD. I decided to use it because many people who experienced *The Wearable* referred to their experiences as being like a 'trip' without taking any drugs. They would say: 'This part of the experience was similar to my ketamine experience!' or 'This part was similar to my mushroom or LSD experience'. On the one hand the term conflates experiences of psychosis, that are described as similar to taking drugs, while on the other hand it forms a term that is 'marketable' in the sense that it has a professional function to attract visitors to exhibitions.

developed in a way that may act prosthetically towards a person's imagination, to help better understand what it is like to be in the mental state of psychosis. To be able to break the first barrier, it requires that a person actively and consciously decides to imagine what it is like to be another person, but with psychosis this is particularly hard, as stated earlier, precisely *because* of our ability to be empathic.

On a personal note, my own creation of artworks that envisioned my understanding of psychosis, as well as my visits to the existing simulations, helped me to break the first barrier within myself, by allowing me to be activated consciously in thinking about what my sister-in-law was going through. This allowed me to begin to break down the second barrier, as I consciously started to take the more difficult road in trying to understand psychosis, helping me to overcome my own 'easy' perspective. This brought me to the third barrier: 'Accurate perspective taking requires using diagnostic and useful information about another's mental state'. As the designs of the simulations were carefully based on patients' real stories and not, for instance, on media stereotypes of violence, it made me realise how crucial it was not only to base my work on stories from literature and my own imagination, but also to invite people with experience of psychosis to interact with and comment upon my work. In comparing the simulations to my own case studies, I began to see where my own work might contribute to psychosis simulation practice. As my knowledge about psychosis grew, I became more vigilant about certain aspects of the designs of the simulations, for instance their focus on fear, whereas biographical stories often focussed on the pleasurable aspects of psychosis. As an artist, I also questioned the methods that were used to represent and illustrate the subjective experiences, in particular towards the literal interpretation versus the visual translation of experiences towards a more metaphorical approach. For example simulating the hallucinatory or delusional appearance of a lion with special effects in a literal sense, vs. a re-creating of an experience, by alteration the senses leading to the subjective experience of meeting a lion as metaphor. In other words, designing an experience that aims to create a similar subjective experience of meeting a lion without resorting to adding a 'literal' lion. This led me to investigate how I could build my installations as metaphors, instead of making literal visual simulations. I elaborate on this in chapter four.

The dangers involved in using a simulation may be that the simulation might become self-referential. Just because a medical student may perform an outstanding operation on a virtual patient, or a pilot in training may perform better than a professional pilot in a simulated flight, does not mean they will be able to perform an operation on a real human, or fly a real plane with the same level of skill. The same danger, I feared, could exist in a mental health care worker believing they now know what psychosis is, based on their experience of my simulations. However, I learned that in general my simulations allow for understanding why a client or patient does not react, or becomes aggravated when one is only trying to help. In particular when it comes to young students in training, I feel, the risk of taking personal offense to a person's behaviour in psychosis, is diminished significantly. My simulations provide practical insight as to why a person in psychosis is simply not able to react, or how easy it is to become aggravated when one is attempting to straddle the realities of an inner world, while the outside world keeps interrupting those realities. Nonetheless one must not think that using tools of understanding is equal to actual understanding. One must not forget that psychosis is based on unique individual experiences, making it crucial to place a person's perspective on the foreground of any understanding. In spite of the limits of psychosis simulations they are very effective tools of education, of which, I feel, the benefits outweigh the potential negatives.

1.6 THEORETICAL FRAMEWORK

A theoretical framework can be thought of as the 'looking glass' through which one has investigated one's research. In my artistic psychosis simulation practice, I have employed several such 'looking glasses'. Metaphorically speaking, some of those 'looking glasses' pass through one's glance in an instant, others have been used together simultaneously, others waved in a kaleidoscopic 'looking glass dance', with all their resultant creative distortions. In short, when it comes to artistic research, none of the 'normal' 'looking glasses' is actually used in a normative way, meaning they are not used within any set of parameters within a single discipline, something that, when it comes to the topic of this thesis, is extremely relevant. As a result there is very little

time and space to go into all the detail of how they were used or how they functioned. Nevertheless, below is an attempt to summarise the most influential frameworks, by mentioning their most inspirational thoughts.

1.6.1 ARTISTIC RESEARCH

At a time when the world's understanding of the value of art seems to be in rapid decline, I found myself needing to better understand what I was actually contributing to the world, especially within the context of my idiosyncratic search for what a thought is. What is the value of such art? I found direction towards an answer in the pioneering field of artistic research, in which art practice is considered a form of knowledge production:

Art practice qualifies as research if its purpose is to expand our knowledge and understanding by conducting an original investigation in and through art objects and creative processes. Art research begins by addressing questions that are pertinent in the research context and in the art world. Researchers employ experimental and hermeneutic methods that reveal and articulate the tacit knowledge that is situated and embodied in specific artworks and artistic processes. Research processes and outcomes are documented and disseminated in an appropriate manner to the research community and the wider public (Borgdorff, 2006, p.18).

From this perspective, I could position my work solely within the theoretical framework of artistic research (I will say more about this in the final statements of this chapter). However, when the situated knowledge of an artwork is related to other fields, it is still necessary to define the other looking glasses. In this, I found a home in various facets of consciousness studies.

1.6.2 CONSCIOUSNESS STUDIES

As the purpose of *roomforthoughts* was to understand the thoughts and states of being of another person, an investigation into the field of Consciousness Studies seemed logical. An inspirational compass for what type of knowledge my art practice might deliver came from the Australian philosopher David Chalmers:

When we think and perceive, there is a whirl of information-processing, but there is also a subjective aspect. As Nagel (1974) has put it, there is

something it is like to be a conscious organism. This subjective aspect is experience. [...] In this central sense of “consciousness”, an organism is conscious if there is something it is like to be that organism, and a mental state is conscious if there is something it is like to be in that state (Chalmers, 1995, p.2).

The question made famous by the American philosopher Thomas Nagel, to which Chalmers refers – ‘Is there something it is like to be’ – is described by Chalmers as ‘The Hard Problem’. Chalmers argues that there is a gap between objective knowledge (third-person) and subjective knowledge (first-person):

If we observe someone listening to music, relevant third-person data include those concerning the nature of the auditory stimulus, its effects on the ear and the auditory cortex of the subject, various behavioral responses by the subject, and any verbal reports the subject might produce. All of these third-person data need explanation, but they are not all that needs explanation. As anyone who has listened to music knows, there is also a distinctive quality of subjective experience associated with listening to music. A science of music that explained the various third-person data just listed but that did not explain the first-person data of musical experience would be a seriously incomplete science of music. A complete science of musical experience must explain both sorts of phenomena, preferably within an integrated framework (Chalmers, 2004, p.2).

In that sense, I began to view my art potentially as a form of cognitive science with an expertise in subjectivity that could help me understand *what it is like to be* in a state of psychosis. I found support for this notion in John Searle’s claim that ‘science will never understand the nature of subjective experience’, that ‘subjectivity is beyond the descriptive resources of objective science as we now conceive it’ (as cited in Gazzaniga, Ivry, Mangun, 2002, p.655). Jack Petranker’s article ‘Who will be the scientists?’ in which he reviews B. Alan Wallace’s ‘The Taboo of Subjectivity’, notes:

Once one accepts that consciousness cannot be the object of first-person observation, the way is open to explore alternative first-person methodologies for knowing consciousness. Such methodologies may well abandon the model of distanced spectatorship at the heart of the scientific method. But they can stay true to the spirit of creative inquiry that inspires the best in scientists, philosophers, and other friends of knowledge (Petranker, 2001, p.90).

This builds support for the notion that it is possible that works generated by *roomforthoughts* hold a potential for knowledge production, when it comes to understanding and transferring the experiences of others. As it is very difficult to find words that express the experience of psychosis, one might wonder if an art experience could help facilitate communication, by providing alternative methods of understanding. Alternative methods are sorely needed, as Scottish psychiatrist Ronald Laing (1927 – 1989) describes:

[...] these issues cannot be grasped through the methods of clinical psychiatry and psychopathology as they stand today but, on the contrary, require the existential-phenomenological method to demonstrate their true human relevance and significance (Laing, 1990 [1959], p.18).

Perhaps my art practice may provide such a method by generating art experiences that function as existential-phenomenological metaphors about the subjective experience of psychosis. In that sense, I would be using a metaphorical experience to understand the reality of the other. As it is our imagination that fails, perhaps we need to find a structural way to help aid our imagination. In order to understand how a metaphorical experience may contribute to a deeper understanding, I found it useful to take a closer look at empathy as an analogous mental simulation of the experience of 'the other', one that is subtly different from sympathy.

1.6.3 EMPATHY vs. SYMPATHY

Studying a broad body of papers within the field of consciousness studies helped me to reveal the distinction made between empathy and sympathy:

In empathy the self is the vehicle for understanding, and it never loses its identity. Sympathy, on the other hand, is concerned with communion rather than accuracy, and self-awareness is reduced rather than enhanced [...] In empathy one substitutes oneself for the other person; in sympathy one substitutes others for oneself. To know what something would be like for the other person is empathy. To know what it would be like to be that person is sympathy. In empathy one acts as if one were the other person [...] The object of empathy is understanding. The object of sympathy is the other person's well-being. In sum, empathy is a way of knowing; sympathy is a way of relating (Wispe, 1991, p.80 as cited in Barnes and Thagard, 1997).

In their paper 'Empathy and Analogy' (1997), Canadian philosophers Allison Barns and Paul Thagard argue that empathy is a cognitive process that is fundamentally analogical. Cognitive psychologists Boicho Kokinov and Robert M. French point out that analogy-making is crucial for human thinking as it helps us to learn, understand metaphors and communicate emotions, requiring a form of abstract mapping between two domains based on their common structure as a system of relations (2003). When one regards empathy as an abstract analogical cognitive process, it might help create the necessary emotional distance in attempting to understand the experience of psychosis in a way that stops a person from substituting others for oneself (sympathy) and begins to substitute oneself for the other (empathy), moving away from knowing what it would be like to be the other, into thinking or 'acting' as *if* one is the other. By understanding this subtle difference, one might be activated in such a way that one is able to overcome one's fear, and begin to understand, instead of feeling the experiences of others.

But empathy as an analogical process remains problematic, and, as Barns and Thagard point out, empathy can still easily fail:

Because the other person is very different from you, it may be very hard for you to find a source analog from your own experience that has features and causal structure that are similar to those of the other person. Empathy is particularly likely to fail if you are not motivated to go to the effort of constructing an appropriate source analog when simple retrieval produces inaccuracy (Ibid, 1997).

So what does one do when the archive of one's own experiences falls short? How does one find a source within oneself that could be analogous to the features and causal structure of another's experience? An answer to this might be close to hand, in the American philosopher Alvin Goldman's theory of 'High-Level Simulation-Based Mindreading'. The basic idea of Goldman's simulational mind-reading is:

[T]o 're-enact' or 're-create' a scenario in one's mind that differs from what one experiences in an endogenous fashion. It is to imagine a scenario, not merely in the sense of supposing that it has occurred or will occur, but to imagine being immersed in, or witnessing, the scenario. In other words, it involves engaging in mental 'pretense' in which one tries to construct the scenario as one would experience or undergo it if it were currently happening (Goldman, 1992).

In other words, one needs to use one's imagination. By 'mind-reading' Goldman means the attribution of a mental state to self or other. For him to 'mind-read' means to form a judgment, belief, or representation that a designated person occupies (or undergoes) a specified mental state or experience. For him it is based on enactment imagination, perspective shifts, or self-projection, found in activities like 'theory of mind'.

'Theory of Mind' refers to the ability to reason and make inferences about another's mental states, and presupposes the ability to hold beliefs about another's beliefs, or to mentally represent another's mental representation (Barnes and Thagard, 1997). To engage in such mental 'pretence', one must rely heavily on one's ability to imagine. But what if constructing the scenario in your mind proves to be too complex? What if your imagination fails? Could an artist be capable of using his imagination to create a structured experience that plays with the senses of the visitor in such a way that it facilitates mental 'pretence' towards understanding the experience of another? In essence, to be able to 'mind-read' to form a belief or judgment in a way that enacts in one's imagination, one might need help from outside tools.

1.6.4 ACTIVE EXTENDED MIND

Philosophers of consciousness studies Andy Clark and David Chalmers (1998) argue that beliefs can be constituted partly by features of the environment. In this they are partly constructed by external coupling, which they term 'Active Externalism'. They describe the human organism as linked with an external entity in a two-way interaction, creating a coupled system, in which all the components play an active causal role that may be seen as a cognitive system in its own right. Clark and Chalmers point to language as a possible central means by which cognitive processes are extended into the world. As an example they mention the game Scrabble in which one re-arranges tiles to form words. In this sense one could look at an installation about psychosis as an *external entity* with which the visitor is actively coupled, to aid the visitor in forming a belief about psychosis. Canadian philosopher of communication theory Marshal McLuhan, famous for 'The Medium is the Message', explains how experiences are tools of an extended mind: just as a knife can extend your fingernails, tools change the way you touch and are touched, and this may be

seen as a translation, a loop (YouTube, AdamBlainey, 2013). In this, my thesis puts the idea forward that the experience of (my) art installation could be used as an active cognitive extension of mental 'pretence' that could aid empathic understanding of the subjective experience of psychosis. To do this, I would have to look at my installation art as an intricate system of experiences that is analogous to psychosis (a system being a set of connected things that form a complex whole). This, I suggest, may be considered possible, as installation art in general combines concepts, space and media to immerse the viewer in a sensorial and contextual network in order to create a physical as well as mental experience (Kanary, 2008, p.162).

If one accepts the notion of installation art as a system that helps a person to form a belief, one might be critical of that belief holding any significance. One might not accept an artist like me being able to simulate an experience of something that I have not experienced myself. But, as it is known that creative people and people with schizophrenia share many cognitive traits (Torrey, 2006, [1983] p.389), I considered it possible for me to 'look' within my own brain, investigate the shared cognitive traits, and begin to simulate experiences from there in a way that is transferrable to another person. I found support for this notion in the neuro-aesthetic theory of Semir Zeki, professor of neurobiology at University College London, who states that 'artists are, in a sense, neurologists who study the capacities of the visual brain with techniques that are unique to them' (neuroesthetics.org). I understand this to mean that the artist will 'test' his or her own brain. If a work triggers an affect within the artist, it has a chance of triggering an affect within a visitor. For instance, if a work disorients the artist in time and space, if it causes a sense of fear or loneliness within the artist, the artist is creating a probability that a visitor might experience similar affects while visiting the work. So even though I have no experience of psychosis, by learning that psychosis is but an enlargement of everyday human experiences, I considered it possible that I may be able to simulate psychosis to a certain extent, in particular as it is suggested that the artist and a person in psychosis share many cognitive traits. I elaborate on this in the chapter on the simulation of delusions. After arguing that it is acceptable for an artistic research practice to venture into a psychosis simulation practice, I had to determine which questions needed to be asked, answered and investigated, and to determine how this could best be achieved.

1.7 RESEARCH QUESTIONS AND METHODS

In his search for the perfect thought, the artist James Lee Byars created the World Question Center in 1969. According to Byars the perfect thought must take on the form of a question. He believed that one does not proceed forward with answers and explanations. He phoned up the brilliant minds of his time and asked them what questions they considered urgent for themselves, their fields of activity, or for their own evolving sense of knowledge (2003, Hlavajova, p.9-10). The mapping of these questions provides an idea of where the boundaries of our current knowledge lay. I have used questions as a scaffold for each chapter of this thesis, in a sense creating a mini 'world-question-center' that explores the fuzzy boundaries surrounding general and personal knowledge of psychosis.

My main research questions were: What is psychosis? Why is it important to understand psychosis? How are people trying to understand psychosis? How does one simulate psychosis? Is there a field of psychosis simulation in which the research can be positioned? Is there room for improvement in the methods of comprehending the condition from an artistic perspective? Are there any ethical consequences to simulating psychosis? As stated above, in this thesis, several psychosis simulators are discussed that have been developed in an educational context: *Paved with Fear*, *Mindstorm*, *Virtual Hallucinations*, and *Living with Schizophrenia*. Since then, my body of questions directed to how these developments might be improved and what role my own art practice could play in these developments. Which forms, which materials, which technology could best be used to creatively express and transfer key aspects of the experience of psychosis?

In order to answer these questions, I studied several autobiographical accounts containing descriptions of the subjective experience of psychosis. Discussions took place with people with experience of psychosis, several of whom became regular advisors to this thesis. One of them was Wouter Kusters, philosopher and linguist, mentioned above, who is the author of various publications on understanding the subjective experience of psychosis. His books, *Filosofie der Waanzin* (2014), *Alleen: berichten uit de Isoleercel* (2007),

and in particular the *Pure Waanzin* mentioned earlier (2004), proved very helpful in improving my understanding of the subjective experience of psychosis. Also very important were communications with, and works by Jannemiek Tukker, co-contributor to *Alleen: berichten uit de Isoleercel*. Two more contributing advisors were Bas Labruyere, media artist, maker of the film *Verloren Jaren* (2010), and Tilly Gerritsma, at the time the chairman of the *Hearing Voices* organization in the Netherlands. Professional and autobiographical literature, films, papers and essays provided inspiration for the artistic case studies, which were accompanied by texts, drawings and in some instances an art diary. The main artistic method I used was labyrinthine installation art, which includes all kinds of materials and styles, with a particular emphasis on understanding the immersion of the visitor and the role of the visitor in knowledge production. As previously described, these artistic case studies predominantly consisted of large paper labyrinths. In order to gain insight into the experiences that visitors took home with them, I created what could be described as a questionnaire, which functioned not as a formal sociological investigation, but as part of the performative act of the visitor in the installation. These questionnaires explored the boundaries of the visitor's knowledge of their own direct experience of my work, thus becoming a tool for them to explore the boundaries of their own knowledge. Before going into my labyrinths, I would request that the visitor put on a doctor's jacket and take a clipboard with the questions. The questions enquired about the associations of the sound, light and other materials within the structure. This metaphorically represented for me the act of trying to get into somebody else's mind, but also provided a reminder to the visitor of their ability to be an expert in their own experience. One needs to look to see. When a visitor moves through an installation, they are the cameraman/woman of their own subjective interactions, and, asked to think of their associations, visitors are able to become aware of the meaning that the elements generate for them. This formed a method of engagement, while at the same time it provided an opportunity to understand the associations of the visitor as a support structure for further development of my practice. In addition to the paper questions, conversations were conducted asking the same questions. One conversation has been archived in the form of online video footage (YouTube, 2010, Jennifer Kanary). One of the commenters in the video expressed their experience of The

first labyrinth case study as a juxtaposition of feeling like one is part of a scientific experiment vs. an assault course of trying to get into some else's mind (Youtube, 2010, Jennifer Canary, 1.31 min). Which later inspired my Prague lecture on 'mind-warriors', and the concepts of artists as such 'mind-hackers' (Vimeo, 2013, CIANT Prague). By comparing artistic case studies, and findings in literature, to existing psychosis simulation projects, I was able to identify and then present a list of practical points to consider for a more informed and effective simulation of psychosis. I also took account of how these elements may be improved or further developed by using newer technologies, but in particular by using labyrinthine installation art as a tool, in particular when used in an educational context. With the knowledge gained, two final artistic research results were created, as mentioned above: *The Labyrinth*, and *The Wearable*. In developing the last two projects, another method of development was collaboration, in developing interactive technological elements, hardware and software. Collaboration took place with other artists, but also with the developers of the simulation *Paved with Fear*, Janssen Benelux. After I experienced *Paved with Fear*, I approached the developers with my initial ideas for improvement, their reaction was positive, and subsequently a trajectory of several presentations and conversations took place from which a network consortium was created, and major funding was secured to finance the final two simulations.

The ethical protocols of the audience engagement and development of these works were monitored by the supervisors of M-Node NABA and explored in the pilot testing phase with collaborating professionals and institutions, determining if there were any adverse side effects, for instance from the flashing lights in relation to epilepsy, migraine. With regards to the paper labyrinths, fire and safety regulations were followed according to the requirements of each institute. With regards to *The Wearable* and *The Labyrinth*, in collaboration with several professional institutions, and in line with the ethical and compliance considerations of these institutions and the consortium partners, twenty pilots were executed in educational contexts with over 500 people to test and monitor the reactions to *The Wearable* and *The Labyrinth*, in order to ensure that the art experiences would not have any negative effects. This was done with the full consent of all participants, and with a plan of action if any severe emotional distress should occur, often involving a

standby team of psychologists and psychiatrists from the host institution. During the pilot tests, no negative affects were observed other than reports of dizziness and or nausea. During several of these pilots, people with lived experiences underwent the experiences, their reactions were overwhelmingly positive, ensuring that no-one became psychotic as a result these experiences. With more than 10,000 people now having experienced the projects, there have been reports of nausea. The nausea is a well-known side effect of experiencing VR. The phenomenon is known as 'simulation sickness', which is similar in nature to people being carsick or seasick. In two instances people expressed difficulty concentrating while driving directly after the experience. In consulting the TNO research facility on this phenomenon, I learned that no guidelines exist at present, so in instances of dizziness or nausea we warn people to wait until the symptoms subside before getting into a car. In deliberation with the consortium partners, we decided to warn visitors in advance of flickering lights in *The Labyrinth* and *The Wearable*. One person reported a lessening of tinnitus symptoms and suggested that it might be used as therapy for people with tinnitus, however one instance mentioned a temporary worsening of tinnitus symptoms. No instances of migraine or epilepsy have been reported. There were several instances of emotional reactions related to an awareness of what loved ones might be going through, as well as from health care professionals understanding how their acts influence a persons experience in positive sense as well as a negative sense, leading to request to discuss policy changes within their institutions. The vast majority of reactions have been of immense gratitude for the existence of the experience, frequently resulting in declarations that the experiences should be made mandatory for all mental health workers. Please see the appendix for a list of reactions from visitors. One educational institute has integrated the experience in their curricula for young nurses, several years in a row. Please see Appendix V for a sample-list of reactions from visitors, wearers, experiencers as well as media reach.

1.8 RESEARCH HYPOTHESIS

My thesis argues that there is a need to increase general understanding of the subjective experience of psychosis, and that, in order to do so, valuable help

can be found in the form of psychosis simulation projects. The hypothesis assumes that the lack of understanding of the subjective experience of psychosis in professional approaches to understanding psychosis will most likely also be present in the design of existing simulations of psychosis, and as such will leave room for improvement, and that, when it comes to expressing the subjective experience, labyrinthine installation art may contribute to these improvements. This forms the basis of this thesis by mapping what needs to be taken into account when simulating the subjective experience of psychosis, and analysing the existing simulations against this mapping, making recommendations for improvements, with a particular focus on when the simulations are used in an educational context.

1.9 PURPOSE OF THE STUDY

The purpose of this study has been to better understand psychosis and to build an informed artistic psychosis simulation project termed *Labyrinth Psychotica* – as part of the larger framework of *roomforthoughts* – that contributes to the development of existing psychosis simulations in their function as tools of empathy; a form of ‘digital LSD’ that adds to a person’s archive of experiences, functioning as a potential prosthesis for the imagination to help better comprehend what it is like to experience psychotic phenomena. As described above, when I told people about my research, they were sometimes emotionally affected by the fear that the projects might involve psychosis *stimulation* instead of *simulation*. By breaking down aspects of psychotic experience in relation to psychosis simulation practice, my research has helped to make psychosis less of an enigma and more of something one may recognise in oneself, and that, by approaching the subject matter with artistic sensibilities, artistic research can be used to help loved ones and healthcare professionals to better deal with and understand the subjective experience of psychosis, in particular when events seem impossible to understand, as well as inspire those interested to improve and further develop psychosis simulation practice.

1.10 CHAPTERS

This introductory chapter argues that understanding psychosis, in particular the subjective experience of psychosis, is important, and that psychosis simulation is crucial to this understanding, due to the barriers that need to be overcome when imagining what it is like to experience another person's experience.

Chapter two shows how my own project can be positioned in the field of psychosis simulation, by providing a brief overview of methods and motivations from those who have simulated psychosis. The chapter relates the research to the development of educational multimedia simulations, arguing for an awareness of the ethical consequences that accompany a psychosis simulation practice.

Chapter three argues that the simulation of the hallucinogenic aspect of psychosis is possible and that there are ways of determining the success of a simulation, when used in an educational context. Chapter three also argues for what needs to be taken into account when simulating hallucinations through a comparative analysis of audio and visual simulations and literature. It makes suggestions for further improvements in the overall visceral experience, related to narrative, and the relationship between fear and ecstasy.

Chapter four outlines what needs to be taken into account when simulating delusions by analysing existing simulations of delusions against literature. It does this by zooming in on the delusion that media such as television or newspapers are communicating to an individual person in a very peculiar way, and on the possible consequences for simulation practice when investigating the relationship between creativity and psychosis.

Chapter five investigates how to simulate 'The Land of Unreality', arguing for the use of labyrinth-like installation art as a system of metaphors, to further develop the current practices of psychosis simulation, by focusing on the subjective experience of psychosis as a journey into other worlds, as rebirth of the self, and as an experience in which the senses are altered and as such influences among other the experience of time and space, and the experience of objects, as well as speech and behaviour.

Chapter six introduces the project *The Labyrinth*, and explains how it contributes to the field of psychosis simulation. It does this by analysing how it simulates hallucinations, delusions, and 'The Land of Unreality'.

Chapter seven introduces the project *The Wearable*, and also demonstrates how it contributes to the field of psychosis simulation. As with *The Labyrinth*, it does this by analysing *The Wearable* with regards to the aspects of what one needs to take into account in a psychosis simulation practice, but it does so by segregating the elements in relation to its design as a serious game.

The last chapter focuses on a conclusion that brings together all aspects that need to be taken into account when simulating psychosis, summarising how the project *The Labyrinth* and *The Wearable* fulfils these aspects in comparison to the existing simulation projects. It touches upon the limitations and delimitations of the research, ending with an attempt to better understand an extreme example of psychosis sensationalised by the media to illustrate the potential implications of the research. It concludes by making suggestions for further research.

For the interested reader, unpublished aspects of my research may be found in the appendices, such as how the practice of psychosis simulation may position itself in a history of understanding madness, which might be seen as an additional argument for the need to be vigilant about the modern-day understanding of madness, and as such be vigilant about contemporary psychosis simulation practice. The appendices also list published works that investigate the notion of the term hallucination being in an existential crisis, as well as conference proceedings, forming the base of several of my chapters.

1.11 FINAL STATEMENTS

The nature of this research as an artistic investigation may bring challenges to the reader, whom might be confused about my work as an art practice. A reader might wonder what the work exactly entails, or where the artistic value lies? Some of these questions I will address throughout the thesis. In general, as an installation artist, I am accustomed to bringing together different methods and materials to come to an artistic outcome, but as installation art is still new to many readers, it is important to emphasise where the values are embedded for me. This requires some clarifying statements from my part. From a personal perspective, I feel, there are several areas of artistic value. For me there is artistic skill in the use of materials and how they are structured in both works, ranging from the manner in which I used paper and textile, to the manner in

which cinematic choices were made using new and old school technologies as they were born in collaborative processes. There is strength and beauty in the collaborations. There is autonomy in the individual art-pieces, and an overall aesthetic in how they are curated together. The art, for me, is not only in its appearances, but also in its educational impact and this, I feel, comes from bringing together different field paradigms. There is design in its ability to elicit an immaterial emotional experience with such consistency. There is theatrical presence in the narratives, voice acting and story arcs. There is improvisational method in the interactions. There is epistemological beauty in its function as a serious game. There is gratefulness in what it tends to mean to people, the comments and emotional faces of professional health care workers, of loved ones and those with lived experiences. I feel there is affect in the personal journey of understanding a family member and helping others to better understand their own stories. But there is also urgency in its educational value for society, for police, as well as policy makers. And there is direction in the scientific value of the developed knowledge. This is why I think the field of artistic research is so important, as it provides a place for such trans- and interdisciplinary activities. In hindsight, my installations have been inspired by play, and as such have become metaphors for psychosis as a 'game' that the human mind plays. These 'games' may then be placed in the developments of 'serious gaming', games that have an educational aim. Mental health care professionals have embraced the epistemology born from playing my 'games' as a valuable contribution to the quality of their profession. For me achieving affect, that holds a social, educational, as well as economical value, is one of my main goals as an artist and why I feel at home in the emerging field of artistic research.

Yet, as a growing field, artistic research comes with challenges. How do I capture and interpret the subjective experience of my artistic research results as a form of knowledge production that contributes to an understanding of psychosis, when it is I, the same artist who has created the artwork, and produces the knowledge that is analysed? It is something that is considered a problematic aspect of artistic research. According to art critic Camiel van Winkel, the difficulty of artistic research is that:

The artist seems to be asked to jump over his own shadow when he knows he cannot [...] The artistic researcher must mention all references in his work, argue and validate all artistic choices, making the whole generative process visible and understandable.” [...] The artist is expected to identify himself with the work completely and at the same time stand above it with a sovereign mind (van Winkel, 2006, p.8, free translation).

He clarifies this difficulty as follows:

The balance between objectifiable and non-objectifiable aspects of art production oscillates in a nervous interaction between conscious and unconscious, individual and collective impulses. The objective knowledge-component of the artistic production is not problematic because art would be a purely subjective affair, but because the determination of the objectifiable content indeed forms the employment of an artistic rhetorical battle that needs to be fought at the cutting edge (Ibid, p.9).

During my process I struggled with the structure of how to share this journey, which at times, indeed felt like a cutting edge battle of jumping over impossible shadows. If I referenced all my decisions, I could write a PhD for every labyrinth I built. I had to ‘kill my darlings’ and find the narrative that bound them together. In order to achieve this I limited my research to auto-ethnographic questions, digging deep into my own fears, experiences of heightened or altered senses and connected those to the experiences of others. I was inspired to do so by the first-person methods of my advisors on what it is like to experience psychosis, but particularly because I feel that artistic research differentiates itself from other forms of research precisely because of the importance of first-person observations in an art practice. The nervous oscillations, of which Van Winkel speaks, I feel are born from jumping between the first-person methods and third-person methods. One might view my role of artistic researcher in this as a ‘second-person empathic resonator’, whom attempts to consolidate both methods.¹¹ Each individual artistic research project must customize its own methodology, as a consequence the reader may feel the nervous oscillations as the chapters fluctuate and lumber through various levels of expertise and aesthetics. It is not to be avoided, I feel, but to be embraced as part of an artistic research paradigm. This PhD is not just research about how to simulate

¹¹ The second person empathic resonator is a function described by Jonathan Shear and Francisco J. Varela (1999) as a person who is able to bridge between first-person data and third-person data.

psychosis, which materials to use or what content voices should have, it is the sediment of my own artistic research journey in how I attempted to understand and simulate it, which is a subtle, but very important difference. A journey I made with many people.

Discarding van Winkels requirement of a sovereign mind, I have attempted to argue, validate, and reference relevant artistic choices as best I can for the reader. In order to understand the decisions I made, it is important that the reader views the video material provided on the SD card, and or in the video documentation links in Appendix III.

2 PSYCHOSIS SIMULATION – MAPPING THE TERRAIN

He who fights with monsters should be careful lest he thereby become a monster. And if thou gaze long into an abyss, the abyss will also gaze into thee – Nietzsche (1886)

Artistic activity, for its part, strives to achieve modest connections, open up (one or two) obstructed passages, and connect levels of reality kept apart from one another. – Nicolas Bourriaud (2002, [1998], p.8).

As described in the introduction, this thesis investigates aspects that should be taken into account in a psychosis simulation design, and how an art practice may contribute to a discourse on psychosis simulation design in general. In order to understand where my own work could contribute to any developments, I needed to become aware of other people simulating psychosis, and study the methods they used, why they used them and what problems (if any) were encountered in their methods. These investigations provided an opportunity to inspire my own methodology as well as understand where my practice might make a valuable knowledge contribution. In this chapter I first introduce my own artistic research on psychosis simulation, and then map other examples of psychosis simulation, so that I am able to position my research and begin collecting the aspects that need to be taken into account. In light of the fear I encountered in others, their anxiousness about becoming psychotic as a result of experiencing my simulations, this chapter also investigates the potential ethical consequences of simulating psychosis that should be considered, other than the potential danger of contributing to stigma through one's own design, as mentioned in chapter one.

So who is simulating psychosis, how are they doing it, what are their underlying motivations, are there any ethical consequences, and how do answers to these questions influence a psychosis simulation practice? Where to position my research?

2.1 SIMULATING PSYCHOSIS IN AN ART CONTEXT

Let me begin with my own attempts. For my research I built three labyrinth installations: *Suicide Pigeon*, *Intruder*, and *Intruder 2.0*. In this chapter I will give a brief introduction to each labyrinth, and as I go deeper into their designs throughout the thesis, I will focus on the more general aspects of their designs.

2.1.1 ROOMFORTHOUGHTS - 'SUICIDE PIGEON'...A CLEAR THOUGHT IN A PSYCHOTIC MIND...

The installation *Suicide Pigeon* consisted of a 130m² white paper labyrinth that was built and presented during a two-month artist-residency at Lokaal-01, in Breda, The Netherlands in 2006. The theme of the residency was 'landscape of the mind'. *Suicide Pigeon* was, in many ways, an expression of the relationship between my sister-in-law and myself, an expression of her being in a mysterious reality to which I had no access, and of my search to understand what her subjective experiences felt like. The path of the labyrinth was constructed with several crevasses, each crevasse representing different investigations into the aspects of psychosis, using various media, ranging from drawings, photographs and videos to texts and objects, such as a coat rack with a doctor's jacket, but also medication leaflets. As such the work was an attempt to understand what the condition of psychosis was in general, but also an attempt to understand what elements surrounded a diagnosis of psychosis, such as the potential for being locked away in an isolation cell.

The premise of the work was that my sister-in-law's mind was actually quite logical. I imagined her thoughts were clear, but that somehow they were not able to come out properly, as if they somehow got lost, finding only partial and limited ways to squeeze out of her mind, making their communication somehow inappropriate and mistimed. In that sense I imagined how 'a clear thought in a psychotic mind' would behave, in which a thought was not so much 'disordered', but was somehow trapped and 'misbehaving'. When entering the labyrinthine structure, a visitor automatically became part of the art experience. They were invited to interact with the space, and play with it. Some people ran through the corridors to make the walls move, some crawled through nooks and crannies in a manner I never expected, and the work came to be experienced as an 'assault course/scientific experiment' (YouTube, JenniferKanary, *Suicide*

Pigeon, 2010 [2006]). For me the visitor's movements also represented, in part, the movements of my sister-in-law's potential thoughts on suicide.

In that sense, the visitor walked the path of a thought of suicide that was 'going around in circles'. The thoughts of suicide, for me, were not so much being born out of a dark depressing crevice, but out of a curiosity for 'the other side' as an optional form of freedom, like a temporary experiment of bird flight motivated by a belief that one can fly, innocent towards any physical consequences, hence the fragile lightness of the work, as opposed to suicide born out of darkness, while, at the same time, considering a thought of suicide as a harrowing repetition, over and over and over again, running around in circles in one's brain, until one is not able to escape it. A video loop of a pigeon bobbing its head over subway rail tracks over and over again expresses this, as well as the potential eternity that one could walk on the path of the labyrinth in a loop, if one misses an exit.

I imagined her thoughts of suicide as entities biding their time, building a safe haven of play, survival and control, and so I built the labyrinthine structure around a nucleus 'command centre' that was inspired by an isolation cell. Within this cell the floors were padded with white square foam tiles. On the floor a thin white mattress lay on the ground against a wall made of foam that was hanging by many threads from the ceiling. For me, the threads represented the invisible connections that hold reality together. This centre was a cave-like room, from which it was possible to monitor whoever entered via a security camera. I imagined that, as a consequence of her altered state of consciousness, she retreated into a world that felt safe, a world from which reality may be observed, hence the isolation nucleus as a control centre, and hence the 'peepholes' in several walls and windows.

Suicide Pigeon, as a labyrinth-like structure, had an airy atmosphere. This imaginary world held for me a sense of protection, similar to how a child feels safe in a structure made from blankets, yet it is a false sense of protection, as the fragile walls could be broken at any moment. *Suicide Pigeon* was not so much an investigation into what she might have been seeing or hearing, it was an investigation into whether she did see or hear things, how that made her feel, and how these feelings alienated her from the world. The work was an attempt to create a space in which a meeting could take place between minds.

An interesting challenge presented itself when a local high school

teacher asked to visit the labyrinth with a large group of students, as psychosis usually hits young people between the ages of 15 and 25. Having over 250 high school students visit the work provided an opportunity to raise awareness within that demographic. This is when I realised the potential educational importance of my work. During my conversations with the public, I discovered that there were many others who, like me, were in the dark about what a person experiences in psychosis. As I learned that there was a greater need to understand the subjective experience of psychosis, my motivation as an artist shifted towards wanting not just to better understand the epistemological relation of my work in relation to my sister-in-law, and to a visitor, but also wanting to understand it in relation to developments surrounding the scientific communication of psychosis. The importance of this labyrinth, in relation to my research, became embedded in understanding how the work, how walking the path of the labyrinth, and spending time in the 'in-between' world of the labyrinth that was created, could function as a form of knowledge production that could foster better understanding of the subjective experience of psychosis. In particular, my interest was in the role that an audience would play in such a process. Would people understand what the work was about? If yes, what did they carry away with them and what would they find that was valuable to them? Would it help them to better understand the psychosis, or was this just an idiosyncratic ideal? Could one capture something from the cloud of their associations? And if so, could those associations be retraced to subjective experiences of psychosis? In order to investigate this, video footage was taken while visitors walked through the labyrinth, and visitors were requested to fill in a form as part of the artistic experience in the hope of capturing any effect that the work might have on contributing to a better understanding of the subjective experience of psychosis. The responses were processed through a free online Tag cloud software site that highlights the words that are most commonly used by means of a range of blue colour and varying font size.¹²

¹² Each Tag cloud was made using the standard function to discard common words such as 'the', in situations where the word 'yes' or 'no' was important in the reaction, this function was turned off and the discarded words were mentioned separately. Please see appendix for the results of the questionnaires.

2.1.2 ROOMFORTHOUGHTS - INTRUDER

Intruder formed the second case study labyrinth. The opportunity to make this work presented itself as a result of an invitation from the *Brainspotting* festival, a three-day festival in 2006 that focused on art and science that studied the brain. As I learned more about psychosis, I learned that there is often much fear or terror involved. My sister-in-law did not seem to experience this terror (at least during the times that I met her, or she was very good at hiding it), therefore, I felt that the atmosphere of *Suicide Pigeon* was not dark enough to function in an educational context, so for the next labyrinth I wanted to create a darker experience, in a literal sense, by diminishing the amount of light with a more claustrophobic experience that would disorient a person by forcing them to walk as long as possible in a small space. This was achieved by creating a small double spiral labyrinth that was set in a wooden construction in which the walls were placed 8 centimetres apart, creating a darkened path of approximately 80 metres long, which could be experienced in 12 m².¹³ The walls did not reach the ground.¹⁴ The half-length walls formed a visual contrast by having an open light and transparent bottom half of the structure, and a dense darker top¹⁵. The density of the walls allowed for a darker, more claustrophobic, mental landscape than *Suicide Pigeon*. The walls themselves were made of white frilly curtains in combination with the leftover white paper walls collected from the dismantling of *Suicide Pigeon*. For me these materials, together, in their form, represented a 'being under mother's skirts' sensation, in combination with a sense of tainted purity. The path of the double spiral labyrinth carried various media from *Suicide Pigeon*, the security camera, the photographs of my sister-in-law and the medical leaflets. What was new in this work is that each visitor was asked to write a text on the walls, in a location of their choosing, which described their greatest fear. I wanted to create an unpredictable element in the work. Where visitors to *Suicide Pigeon* became performers, visitors to *Intruder*

¹³ This was the size because, initially, I was offered the space of an actual sea container.

¹⁴ The main reason for this is that if the walls touched the ground, being only 8 centimetres apart, the general public would physically not be able to move through the labyrinth.

¹⁵ An indirect motivation for this design relates to my desire to create an experience through which a person in a wheelchair could wander. In *Suicide Pigeon* I was confronted with a young student in a wheelchair, and I was delighted that the walls were large enough for him to pass through. I wanted, if possible, to take such issues into consideration when making other labyrinths. The open structure would allow for a wheelchair to pass through, or so I hoped. Sadly, I miscalculated the size of the front entrance, so, in theory, it is possible to wander, but one would have to be creative in actually getting a person into the structure, by having a chair that would fit through the small door.

became participants who generated content. The shape and form of *Suicide Pigeon* and *Intruder* came together in *Intruder 2.0*.

2.1.3 ROOMFORTHOUGHTS - INTRUDER 2.0

The opportunity to build case study three, *Intruder 2.0*, came from a five-month artist-residency at the Museum of Psychiatry, *Het Dolhuys*, in Haarlem, (2007-2008), during which the work was presented and built publicly. The addition of '2.0' to the title 'Intruder' is a reference to the social web 2.0 being generated by the public, as the labyrinth was created in collaboration with members of the public visiting the museum as a social experience. Each week visitors to the museum would be able to see the labyrinth grow, engage in conversation and participate in the build. Before they were allowed to participate, they had to enrol on a list at the reception desk and dedicate a minimum of 30 minutes to experiencing the labyrinth and participating in what one might describe as an artistic workshop. In the workshop they helped build the walls and helped with the generation of content on those walls. They contributed with text, their thoughts, voice recordings as well as images. This elaborated on the visitor's participatory potential, which began with the public being asked to leave their fear behind in the walls of *Intruder*, making the visitor even more involved than in *Suicide Pigeon*. The walls of *Intruder 2.0* were about 4 metres high, hanging from a metal wire grid, reaching down to the floor. The walls of the single pathway to the centre were about 20 cm wide and swirled from left to right in atmospheric patterns of light and darkness (see image for the layout). As with *Intruder*, a visitor had to move the walls with their hands in order to walk through. The walls were made from brown, red and white paper, with a segment made from transparent plastic. It was not possible to reuse all the material from the previous two case study labyrinths, due to the deterioration of the material, but the small raised box of 'Intruder' now formed the centre of *Intruder 2.0*.

Being located in a museum of psychiatry, which also describes itself as a 'museum of madness', attracted a public who knew more about psychosis than the average person. Visitors were often professional health care workers, family members of people diagnosed with psychosis, or people with actual experience. Their contributions, the stories they shared, taught me a lot about the subjective aspects of their experiences, and their reactions to the labyrinth taught me

which elements sparked which reaction. During this residency I learned a lot about what affects a visitor, to the point where people began having powerful experiences of fear, coming out shaking, talking out loud without realising it later, or ripping walls apart to get out in a hurry, which made me contemplate the ethical consequences of simulating certain aspects of psychosis. Yet, it is notable that everyone I met was very enthusiastic that I was attempting to find a way to design and transfer the subjective experiences of psychosis. It taught me again that there was a strong need for such an endeavour, but also for an artistic approach. Talking about psychosis in an artistic environment got people talking and sharing experiences with me and others, people opened up after not talking to anyone for decades about their experiences with family members, and I realised the potential for a therapeutic effect, but I also learned that the art experience itself, the reason why people opened up, is that it provided a realm for professionals, family members and experiences to discover and discuss, outside of the paradigms of their social positions.

Now that the reader has a brief idea of the work I created, where to position this work?

2.1.4 OTHER ARTISTS

It may seem obvious to compare my work to other artists who create labyrinths, or to artists who create works to deal with family traumas, or to artists who do both, such as the artist Motoi Yamamoto, who creates labyrinth-like structures with salt to express his feelings in relation to the death of his sister from brain cancer (Breyer, 2012). Although these are all very interesting paths, as an artist creating works that examine aspects of psychotic experiences, a more logical place to position my research may be considered the field of art that deals with madness or psychosis; yet this immediately poses a problem, as this body of work is immense. There are countless plays, films, paintings, drawings and photographs that deal with the subject of madness. How to limit the field in which my research positions itself in relation to an artistic knowledge contribution?

To do so in a context of artistic research, I may limit the field to artists who have inspired my own practice, such as the installation artist Eija-Liisa Ahtila, whose work often expresses women going through traumatic

experiences with installation videos. Her work *The Wind* portrays a character with psychosis, describing it as:

It's that rebellious spirit that you do not accept reality as it is, and that's where the 'it' begins, that, like, paradigm, and then you have to start smashing that reality yourself. And then you really live when you are in psychosis, and then you do things to the full, you feel, like: I do what I want, the rest do what they can...(Ahtila, 2004, 6.58 min).¹⁶

Ahtila's works provided me with a more nuanced emotional perspective on psychosis that reflected the literature of those with lived experience. Her work also provided me with insight as to what role art in general could play in order to better understand psychosis. During my research I was pointed towards the works of other artists such as Janet Cardiff and George Bures Miller, whose collaborative pieces successfully experiment with tricking the public's senses by using particular technologies to generate discrepancies between pre-recorded reality and the real, providing a real sense of doubt about what is real or not; think about the work *Paradise Institute* (2001), or «Alter Bahnhof video walk» and «*Forest (for a thousand years...)*».¹⁷ This inspired me to investigate technology and integrate it in my labyrinths. Although these works hold deep aspirations for me, the works that have predominantly inspired my thesis were actually the artistic expressions made by people diagnosed with mental illness, often labelled as outsider art, in particular the works from the Prinzhorn Collection.

2.1.4.1 OUTSIDER ART

'Outsider Art' is a term often used to refer to works that were created by people who function outside the influences of the institutional art world. The Prinzhorn Collection consists of works from people at psychiatric institutions that were assembled throughout Europe between 1918 and 1921, in part by Karl Wilmans, who was director of the Heidelberg University psychiatric clinic, and his assistant Dr. Hans Prinzhorn, who was an art historian and psychiatrist who

¹⁶ I first saw this work in the publication *The Cinematic Works of Eija-Liisa Ahtila*, 'Love is a Treasure, Wind', and later viewed it in person at the Sao Paulo Bienal of 2008. The time reference refers to an online link to the film (see references).

¹⁷ I do not have personal experience of the Paradise Institute, for this I rely on the experience of my art historian friends and their descriptions, but I did experience the works «Alter Bahnhof video walk» and «*Forest (for a thousand years...)*», presented at Documenta 2012 in Kassel.

later became director of the collection. Prinzhorn published the collection in the book *Bildneri Der Geisteskranken* in 1922 (*Artistry of the Mentally Ill*). Works from the Prinzhorn Collection have inspired many artists, among the first being Paul Klee, Oskar Schlemmer, Max Ernst and Jean Dubuffet (Brand-Claussen, 1997, pp.6-7). Later on, it has influenced contemporary artists such as the Quay Brothers, whose animated film *In Absentia* (IMD, 2000) was inspired by a letter from Emma Hauck to her husband, entitled *Herzensschatzi komm, (Briefe an die Eheman)*, 1909, (*Sweetheart come, (Letter to my Husband)*), in which she writes the same text in pencil in a layered repetition so that the letter becomes illegible. The animated movie provides an impressive atmosphere representing the obsession that is encapsulated in the repetitive nature of the letter.¹⁸ In essence the film by the Quay brothers forms an elaboration on what is already an important emulation of what psychosis is like, through the knowledge embedded in the artistic expression of the letter by Hauck, which is the reason why the collection was created in the first place.

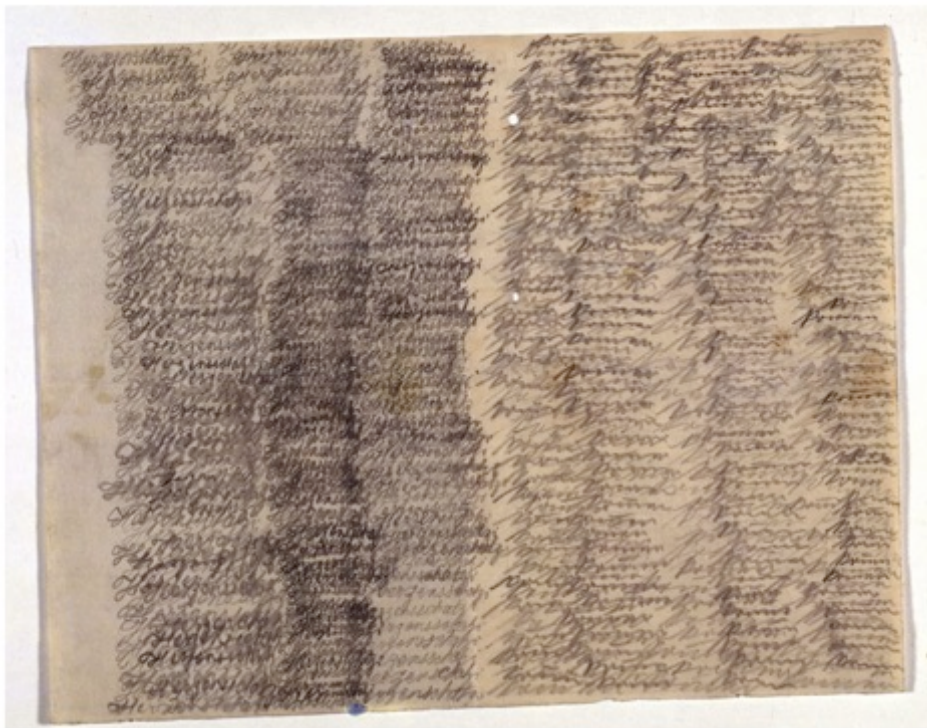


IMAGE 4 – Emma Hauck, 1909, pencil on paper. Prinzhorn Collection. Published with permission.

With the collection, Dr. Prinzhorn attempted to create a psychology of artistic creation in which he was interested in empathetic ‘essential insight’ as an

¹⁸ Additional knowledge about the inspiration of this film comes from Museum Het Dolhuys organising a viewing of this film in combination with a presentation of my work.

epistemological method: 'Only in this "pure culture" is the genesis of art visible: only thus is "authentic" art ever made' (Brand-Claussen, 1997, p.13). Dr. Wilmans described the works as 'productions of pictorial art by mental patients, which are not simply copies of existing images or memories of their days of health, but intended as expressions of their personal experience' (Ibid, p.7) In other words, the expressions manifested in the works could be considered simulations of psychotic experiences, meaning one is thought to be able to learn about experiences of psychosis just by looking at the artistic expressions of people who have been diagnosed with psychosis. The outsider art in the 1997 book *Beyond Reason: Art and Psychosis Works from the Prinzhorn Collection*, by Busine et al., had a great influence on my understanding, yet the problem with this understanding is that I was not able to speak to the makers in person, I had to rely on my own interpretations.

The residency at the museum *Het Dolhuys* changed this, as it allowed me to meet with people who have experience with psychosis and ask them about their experiences. Talking to them gave me valuable insight in regards to the labyrinth's design and content. As a result, a more structural collaboration began. One of them was with the artist Jannemiek Tukker. Tukker, whose work I very much admire, helped me to look at various works of art to help understand elements of the subjective experience of psychosis. She has been an invaluable advisor during my research process. I refer the reader to Appendix VIII for insight into the works she referred me to.

2.1.5 SIMULATING PSYCHOSIS IN AN ART CONTEXT AND WHAT IT MEANS FOR A PSYCHOSIS SIMULATION PRACTICE

From studying the representations of madness embedded within artistic forms such as animations, objects, and drawings, I learned a lot about the subjective experiences. I never knew that in psychosis one can feel like one is dissolving in space, or that one may feel connected to the universe with every fibre of one's body. I was also not aware of how psychosis could also be experienced as a dark fairy tale. This provided me with a better understanding of how art may contribute to an understanding of the subjective experience of psychosis. In relation to an art-context, I have neglected to mention literature. In a very true sense, Wouter Kusters linguistic descriptions are also a type of simulation. This

manifests in the game narrative script for *The Wearable*. Both Kusters and Tukker use auto-ethnographic methods to help another person better understand their experiences of psychosis. In this I must also make reference to Bobby Bakers drawings of her experiences. Their method of self-observation inspired me to reflect on what could be considered as my own inner madness and find a method to translate this into my installations. During my investigations into how experiences were expressed in artistic manifestations, I also encountered adaptations of playwright Sarah Kane's (1971-1999) *Psychosis 4.48* (2000), this inspired me to explore the phenomena of 'acting mad'.

2.2 ACTING MAD

Acting mad is perhaps the most basic form of psychosis simulation¹⁹. The use of artistic method to mimic, express, represent or imitate a person experiencing psychotic phenomena, or madness, is as ancient as the Greek tragedies, and has been a constant influence in Western culture. Think about Euripides, who depicted madness in *Madness of Herakles*, or Shakespeare, who explored madness in *Hamlet* and *Macbeth*. These dramas are thought to have been created to enlighten a path of resolution, showing the overcoming of agony as a way of gaining a higher wisdom, experienced as a collective catharsis by the public (Porter, 2003, p.15). Actors today are hired to portray characters with various forms of madness. Jake Gyllenhaal played the part of a mentally troubled teenager in *Donnie Darko* (IMDB, Richard Kelly, 2001), and Russell Crowe played a similar role in *A Beautiful Mind* (IMDB, Ron Howard, 2001), which was based on the life of Nobel-Prize-winning mathematician John Nash, who was diagnosed with schizophrenia. The stated motivation for such movies might be to raise public awareness about mental illness, but in essence they are usually designed to be box-office entertainment. Apart from providing entertainment, acting mad can also be liberating for the individual concerned.

¹⁹ With regards to this investigation into forms of psychosis simulation, it is important to remember that what is considered madness today is not what was considered madness in the past. For the purpose of this chapter, simulation of madness is acknowledged for its general purpose, but any differences are left within the respective time period.

Through the ages there have been many celebratory traditions in which acting mad is explored as a means of escape from the responsibilities of everyday life. The artist Pieter Brueghel depicts such a celebration in the work *Het Feest Der Sottebollen* (1559) (van Huisseling, 2007, p.1). The tradition of such celebrations may be seen to continue today in the form of *Carnival*, which is celebrated in Brazil, as well as in Germany and The Netherlands, with people dressing up, drinking and dancing for a couple of days. The number that represents 'madness' in The Netherlands is the number 11; hence the preparations for Carnival commence exactly at 11 minutes past 11 on the 11th day of the 11th month (a similar custom can be found in parts of Germany). One motivation for acting mad is usually considered to be that of harmless fun, but other motivations are not so innocent.

In the Middle Ages people feigned mental impairment in pursuit of alms, food, shelter and protection from monasteries (Stockman, 2000, p.26). In this case, survival is the motivation. The people who acted mad often formed a mutually beneficial relationship with these institutions. One would first pretend to be mad and then pretend to suddenly be 'cured'. Such pilgrimage sites are said to have profited from these acts, as the 'miraculous' cures generated good press and many donations, bringing in more pilgrims (van Huisseling, 2007, p.2). This type of acting mad for financial gain also took place in street performances by 'quacks', in which a person would pretend to have symptoms that were then also suddenly 'cured', emptying the pockets of gullible families seeking help for their loved ones who did suffer from madness (Stockman, 2000, p.36). Severe fraudulent simulation of madness today is known as *malingering*:

Malingering is conceptualized in contemporary clinical practice as a condition requiring clinical attention. The malingering of psychiatric disorders is perhaps more prevalent than previously thought and is associated with considerable cost to the society. [...] Malingering is defined in DSM-IVTR as the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives such as avoiding military duty, avoiding work, obtaining principal compensation, evading criminal prosecution or obtaining drugs (Singh et al., 2007, p.126).

Malingering is depicted in the movie *One Flew Over The Cuckoo's Nest* (IMDB, Milos Forman, 1975) by the character McMurphy, played by Jack Nicholson: 'To

escape labour duties in prison, McMurphy pleads insanity and is sent to a ward for the mentally unstable'. In 1903, the criminal psychiatrist Jose Ingenieros published the book *La Simulacion En La Lucha Por La Vida - The Simulation of Madness*, which was the product of the author's observations of inmates in a Buenos Aires penitentiary. The book categorised the different forms of how madness could be simulated. Its notion was basically that sane people sometimes simulated madness as a survival mechanism. Criminological experts were responsible for distinguish the frauds from the mentally ill (Lakoff, 2005, p.848).

Acting mad for political gain is perhaps the most peculiar phenomenon. Considering the stigma that surrounds madness, one might think that being associated with madness would be the end of one's (political) career (think about the presidential candidate Senator Thomas Eagleton, who stepped down as soon as it became known he was being treated in a psychiatric ward with electroshock therapy), yet in certain situations simulating madness might actually enhance one's career. Italian philosopher Niccolò Machiavelli (1496-1527) sanctioned the simulation of madness as a political tool in his *Discourses on Livy* (book 3, chapter 2), titled as: 'How at Times it is a Very Wise Thing to Simulate Madness':

No one was ever so prudent, or was esteemed so wise for any singular deed of his, as Junius Brutus merited to be esteemed for his simulation of foolishness. And although Titus Livius did not mention but one reason that had induced him to such simulation, which was that he might be able to live in greater security and maintain his patrimony, none the less, considering his method of proceeding, it can be believed that he had simulated this also in order to be less observed and to have greater opportunity to attack the Kings, and liberate his country whenever he should be given the occasion (Machiavelli, 1531).

President Nixon used this strategy:

I call it the Madman Theory, Bob. I want the North Vietnamese to believe that I've reached the point that I might do anything to stop the war. We'll just slip the word to them that 'for God's sake, you know Nixon is obsessed about Communism. We can't restrain him when he is angry—and he has his hand on the nuclear button'—and Ho Chi Minh himself will be in Paris in two days begging for peace (Haldeman quoting Nixon, as cited in Sagan and Suri, 2003, p.156)

This tactic is known as 'Uncertain Retaliation': 'Because policymakers cannot credibly threaten to take actions that would be suicidal, they must resort to making what American economist and professor of national security Thomas Schelling called 'the threat that leaves something to chance' (as cited in Sagan and Suri, 2003, p.153).

Some research suggests that malingering of madness is possibly in itself a prodromal phase of schizophrenia. as referenced in (Singh, Avasthi, Grover, 2007, p.127, in reference to Hay, 1983).

[...] the simulation of schizophrenia is the prodromal phase of genuine illness, and that this diagnosis should be made with great caution. This phenomenon has also been referred to as "pseudo-malingering" i.e. it is a temporary ego supporting device. In keeping with the pathogenic concept, it was opined that malingering concerns arrest of development at an early phase and it reflects an ineffectual attempt to keep other symptoms under control. Some studies also showed that those malingering an illness actually turned out to be ill, when followed over a course of time (ibid. in reference to Waschpress et al, 1953)

This suggests that people who simulate psychosis, are at risk of actually becoming mad, but when studied more closely the issue does not seem to be valid:

Moreover, most of these subjects miraculously recover from their symptoms after termination of litigation. So, currently malingering is not considered to be either a disease or indicative of a disease. However, an overlap between psychopathology and malingering may still occur, and is important to identify (Ibid, in reference to Pollock, 1998).

Acting mad as a possible psychological condition is known as 'Factitious Disorder':

Factitious disorder (FD) is a unique and challenging phenomenon in clinical practice. It has been known for many centuries and has been mentioned in both the professional and lay literature. It involves efforts to garner gratification intrinsic to the sick role through the simulation, exaggeration, aggravation or induction of physical or psychological signs and symptoms (Grover, et al., 2005).

In their article 'Factitious Schizophrenia', the Indian psychiatrist Sandeep Grover and his co-authors describe a particular case in which schizophrenia was found to be simulated by a young man who reported symptoms of

psychosis, such as hearing voices, as it helped him gain the attention of his parents who were having relationship issues. His fraud went undetected for two years and was only revealed when he confessed during a therapy session (Ibid).

That psychiatric diagnosis is vulnerable to falsification was also exposed by an experiment conducted and described by the American psychologist David L. Rosenhan (1929 – 2012) in the essay 'On being Sane in Insane Places' (1980). For this experiment Rosenhan and his team investigated the following question: 'Do the salient characteristics that lead to diagnoses reside in the patients themselves or in the environments and contexts in which observers find them' (Rosenhan, 1980, p.118)? In other words, their main question was: Are the sane distinguishable from the insane? In order to investigate this question they selected a group of people who did not experience symptoms of mental illness, and had them admitted to a mental hospital waiting to see if they would be discovered as being sane. After contacting the hospitals an appointment would be made, in which one would complain about hearing voices. The voices would appear to be saying 'empty', 'hollow' and 'thud'. Personal relationships would be described as they were, as well as existing emotions and name. Vocation and employment would be falsified but everything else would be real. Eight designated pseudo-patients gained admission to twelve different hospitals in five different states in America. Upon entering the institution, all simulation would cease and medication was given, but not taken. In the beginning the experiment's participants would show mild forms of anxiety and nervousness, as none of the participating pseudo-patients were expecting to be admitted so easily, and so there was genuine concern as to what would happen to them (Ibid, pp.117-144). The ease with which the participants were admitted at a range of locations, and were not discovered by any professional, revealed just how problematic a psychiatric diagnosis is. It is worth mentioning, however, that the pseudo-patients were recognised as not being mad by the real patients.

2.2.1 ACTING MAD AND WHAT IT MEANS FOR A PSYCHOSIS SIMULATION PRACTICE

The summary above on acting mad as a method to simulate psychosis showed me that people are motivated to do so for various reasons; for public

awareness, for the purposes of entertainment, for financial gain, for survival, for attention, for political strategy, and also to evade military service or criminal charges. By investigating how and why people have acted mad, I became aware of several things. One aspect that caught my attention is the potential ethical consequences of providing knowledge on *how* to act mad. I realised that as a practice that aims to learn how to simulate psychosis for educational purposes, I would simultaneously be providing information to those who seek to abuse such information. Was it unethical to do so?

Another ethical consequence I considered resided in the method of acting and how it might inform actors in their profession to act as real as possible, as acting involves a process of empathy in which one attempts to understand what another experiences. In order to enhance performance many actors resort to what is known as method acting. Method acting involves the use of several techniques with which an actor aspires to create a complete emotional identification with a part, making the performances as lifelike as possible. The origins of method acting are linked to the Greek philosopher Aristotle (384-322 BC):

[...] to accomplish what audiences experienced as a moving performance; And this 'moving' was in fact the (re)experiencing of life by the actor within the fiction of the story as if it were true and happening now. Aristotle said that the secret to moving the passions in others is to be moved oneself, and that moving oneself is made possible by bringing to the fore "visions" of experiences from life that are no longer present. In essence, Aristotle was stating the core principle of The Method—the creative play of the affective memory in the actor's imagination as the foundation for (re)experiencing on stage (Lee Strasberg Institute)

Method acting involves the belief that the more real one feels on stage, the more convincing the emotions become, and so the more one is able to transfer emotion and move the audience. Some consider this as a problematic practice when some actors are believed to go too far in their aim to get under the skin of a character. The actor Heath Ledger's (1979-2008) death was rumoured to have been the result of getting too much into the dark character of 'The Joker' in *The Dark Knight* (IMDB, 2008). The actor Nicholas Cage is said to have observed: 'There is a fine line between the method actor and the schizophrenic' (Beautifulquotes). And Strasberg is said to have described method acting as follows: 'The ability to interrupt the automatic functioning of the nerves and

muscles in order to create an object's presence for oneself [...] is part of the process of creating reality rather than imitating it' (Sagepub). Does this mean one is able to act oneself into madness? The French philosopher Jean Baudrillard (1929-2007) in *Simulation and Simulacra* refers to Littré: 'Whoever fakes an illness can simply stay in bed and make everyone believe he is ill. Whoever simulates an illness produces in himself some of the symptoms' (Littré as cited in Baudrillard, 1994 [1981], p.3). This might shed light on why people are reluctant about a psychosis simulation. Are they afraid they will become psychotic through simulation? Further investigation seems to point towards such a danger when investigating the German philosopher Friedrich Nietzsche (1844-1900), who stated in *Beyond Good and Evil* (1886): 'He who fights with monsters should be careful lest he thereby become a monster himself. And if thou gaze long into an abyss, the abyss will also gaze into thee' (Nietzsche, (1886). Apocryphal or not, should a fear of entering psychosis by simulating psychosis stop me from my endeavour?

In any case it means that in creating experiences that would enable a person to act mad in a realistic way, underlying cultural beliefs (be there truth to them or not) would influence a willingness to experience the simulation. A reluctance to try an experience diminishes educational aims. I had to learn how, and be prepared to deal with a fear of psychosis *stimulation* instead of *simulation* and adjust my creation accordingly, which some might find unethical from an artistic perspective.

One thing was inspiring to me, which was the consideration of integrating the method of acting into the simulation experience: in other words, requiring a person who undergoes a simulation to act mad as part of the experience. This raised for me the same ethical consideration regarding professional actors. If my work teaches how to simulate psychosis, is there a danger of teaching people to do it so well that they might begin to show some real symptoms? After years of simulating the phenomena, would I not be at greatest peril of entering psychosis?

People often mention that the misrepresentation of psychosis in the media is a contributing factor to the stigmatisation of psychosis. Many stories lead people to equate psychosis with the false notion of having a split mind, or having multiple personalities, or being dangerous and violent, as if they were a psychopath in a movie, when, in fact, a person in a psychotic state has nothing

to do with multiple personalities or a split mind, and, as mentioned before, is actually more likely to become a victim of violence than be the cause of it. Bringing awareness to how to simulate psychosis has the potential to improve how madness is portrayed in cinema by writers, producers and their entourage. In that context, I realised it to be more unethical *not* to attempt to simulate psychosis for educational purposes.

When studying how others have simulated psychosis, I learned that there are other, more invasive, ways to simulate psychotic phenomena that do not involve any acting. Experimentation has taken place on both animals and humans, which move from simulating psychosis on the surface, to simulating psychosis from deep within, so much so that I realised that sometimes simulation may cross over the boundaries of the really real.

2.3 PSYCHOSIS SIMULATION – ANIMAL AND HUMAN EXPERIMENTATION

2.3.1 ANIMALS

Modelling psychosis in animals began as soon as animals were used in psychological investigations in an attempt to understand the underlying factors of the cause of psychotic experiences (Willner, 1998, p.207). One example of a tentative model of schizophrenia within animals is the model of High Pressure Neurological Syndrome (HPNS). HPNS is a neurological condition that can cause psychotic symptoms in humans when coming up too fast from diving in deep waters. In the experiments, rats were subjected to pressure of 61 bar, which was diminished at different time intervals, causing oxygen shortages that led either to the animal's death or minimal changes to its nervous system. The resulting behaviour led the researchers to suggest consideration of this model as a model of human psychosis (Stumm, et al., 2001, p.45). Many animal experiments involved the deregulation of dopamine levels in animals. This was done by using amphetamine intoxication and ketamine, in which the use of these elements altered dopamine levels in a way that resulted in behaviours similar to psychosis, such as paranoia (Ellison and Eison, 1983, Becker et al, 2003). As schizophrenia research has also been linked to structural lesions in

the hippocampus, a research team devised a system to control-release the polymer phencyclidine (PCP) in rats, as it not only affects dopamine levels but also structural lesions in the limbic system such as the hippocampus, leading to a conclusion, due to the appearance of hyperlocomotion and altered emotionality with pulsatile PCP, that: ' [...] PCP, when given continuously via polymer implants, provides a valuable tool for the simulation of psychosis-like symptoms in rats'. (Schroeder et al, 1998, p.66). In this they refer to symptoms such as loss of inhibition, fearlessness and hyperactive motoric movement (Ibid., p.59). Chemical alternation experiments have been conducted in humans as well.

2.3.2 HUMANS

As mentioned in the introduction chapter, in the past doctors would take substances like LSD in order to experience hallucinatory symptoms so that they could better understand their patients. Wouter Kusters observes that if one wants to know what it is like to experience psychosis, one should take soft drugs, or, even better, LSD, mescaline or xtc (Kusters, 2014, p.19). Today, of course, this is a taboo. In order to understand how to simulate an LSD trip, one might consider reading the work of the artist Henri Michaux (1899-1984), who describes his experiences of taking LSD in *The Major Ordeals of The Mind and the Countless Minor Ones* (...), or one might read the work of English philosopher Aldous Huxley (1894-1963), who describes his experiences with mescaline in *The Doors of Perception* (1954). LSD has long been advocated as a liability that may trigger psychosis, but recent research suggests otherwise (Cormier, 2015). Yet, taking substances might still be considered by many as an extreme or risk-involving way to better understand psychotic phenomena, so the question would be whether there are alternatives. In fact, there are other methods that do not require the taking of psychoactive drugs, but might be considered even more invasive.

One example of such experimentation was performed in the 1960s with sleep deprivation, in order to deliberately induce psychotic symptoms:

Many clinical psychotic episodes are preceded by prolonged insomnia. Their nature can be predicted by careful personality study. The point of psychosis occurs after about 100-120 hours of sleeplessness. Initially, there is progressively increasing drowsiness with brief lapses of

awareness. Fine movement is replaced by gross tremor. Sensory disturbance creates illusions. Vigilance decreases; oral activity and prepsychotic phenomena increase. A full-blown psychosis appears and may be ended by 12-15 hours sleep with much dreaming. Impairment of some functions may last up to 10 days (West et al., 1962, p.66).

Psychological alterations, such as inattention, apathy, illusions and hallucinations, start to emerge after 36 to 50 hours of wakefulness as reported in the following experiment:

All subjects experienced some visual distortions, ranging from minor disturbances to hallucinations. During the early morning of the third day, one subject felt that the men's room seemed larger and the floor higher. The dark squares of the floor tile seemed to pulsate and would become darker, as well as larger, with every pulsation. A little later, he reported that the floor of the laboratory "seemed to be covered by a layer of shimmering water. I knew the hallway doors should be familiar but they looked strange." It looked as though the room were on a second story, and it appeared to him that it was necessary to climb a step to get to it from the hall. He commented that late the second evening "as I walked down the hall, I thought I saw an old lady sticking her head out from the room. She seemed to have grey hair, which was rather 'frizzy.' I stopped to look again. She still had her head showing, and it did not move. It wasn't until about 10 yards from her that I realized it was a fire alarm box." He also saw a fine smoke coming from the linoleum floor cover as he was finishing his breakfast. The smoke then began to rise from the floor in a very fine stream. This became misty and faded into a fine spray of water, so that as he stared at the floor more closely, fine jets of water appeared to be rising (Bliss, Clark and West, 1959, p.103)²⁰

The descriptions from participants in sleep deprivation experiments seem to be very similar to phenomena of psychosis, but sleep deprivation is highly unethical as an educational method, as sleep deprivation is painfully unpleasant; it is a well-known tool of torture in 'police states' (Ibid, p.107). From an educational perspective, sleep deprivation is an unlikely tool to teach what it would be like to be in psychosis, but there are some lessons to be learned.

2.3.3 ANIMAL AND HUMAN EXPERIMENTATION AND WHAT IT MEANS TO A PSYCHOSIS SIMULATION PRACTICE

Motivated by academic and medical advancement, these human and animal experimentations iterate that humanity was and is prepared to go to great

²⁰ In this same study, experimentations with insomnia and LSD were also analysed.

lengths to unravel the mystery of psychosis, to the cost of animals and humans alike. How did this influence my practice of psychosis simulation? When I view this from an artistic perspective, I might be inspired by the dedication and willingness to spar with ethical frontiers. How far should I go in attempting to make psychosis simulation as real as possible? Psychosis is often compared to a waking dream. This challenges one to think about an artistic design that could compare to that of a dream-like or drug induced state. For me, learning about this made it inspiring to think of a way to create a digital form of simulation, 'digital LSD' or a form of digital sleep deprivation that would be considered more ethical than actual LSD. And this did eventually lead to The Wearable. Yet, using computers to simulate psychosis is not new; there are other forms in which computers have been used to simulate the experience of psychotic phenomena.

2.4 SIMULATING PSYCHOSIS WITH COMPUTER MODELLING

An early example of psychosis simulation using computers involved a computer programme designed to simulate comprehensive human communication. Psychiatrist Kenneth Colby wrote the programme in 1971. It was later nicknamed PARRY. PARRY was designed to simulate the speech of a period diagnosed as paranoid schizophrenic, with the aim of testing whether the results would be able to pass the so-called 'Turing Test', as described by computer scientist Alan Turing (1912-1954) in his paper 'Computing Machinery and Intelligence' (1950). The test was designed to see if the system could fool a human into thinking they were communicating with another human. The researchers evaluated the success of their experiment based on the consensus of expert judgments by psychiatrists who interview PARRY (Colby, Weber, Hilf, 1971, p.2). Colby was interested in whether linguistic interactions could alter the system, making it less paranoid, and whether these mechanisms could then be applied to human patients (Ibid, p.23). The motivation here lies in developing a linguistic strategy as a form of therapy. But this is not the only way that computers have been involved in simulating psychosis.

The development of computers provided a tool for a new form of psychosis simulation. As computer science developed, it began to attempt to

simulate normal and pathological brain function in computer models (Pickering, 2010, p.8). Results from the above mention how animal models of psychosis influenced computer models of psychosis. As anti-psychotic medication affects dopamine, which is a part of the reward system in the brain, researchers began to investigate how to disrupt reward-based systems of computer learning by using temporal difference algorithms (Smith et al., 2007, p.54). In their article 'Neural Network Models of Schizophrenia', researchers Ralph Hoffman and Thomas McGlashan show that there is considerable neurobiological evidence that point toward schizophrenia as being related to reduced corticocortical connectivity. This meant that, instead of simulating localised reward systems, they investigated the notion that the disorder arises from reductions in connectivity between brain regions. They were able to develop the simulation of a neural network allowing the system to hallucinate and to experience delusions and cognitive disorganisation, as well as impairments in narrative speech (Hoffman and McGlashan, 2001, p.441). How did this influence my practice?

2.4.1 COMPUTER MODELLING AND WHAT IT MEANS TO A PRACTICE OF PSYCHOSIS SIMULATION

An initial thought was: not much. Advances made in computer science on brain simulation are very interesting for researchers studying artificial intelligence, but would seem of little interest to a psychosis simulation practice that is designed to foster and stimulate empathy, until I realised that, if it was possible to better understand the subjective experience of psychosis using computer systems, then it might one day be possible to contribute to the field of artificial intelligence, under the presumption that there is no subjective or 'lived' quality in the machine, without a bit of irrationality or creativity that may come from a bit of 'madness' in the machine; that madness perhaps being the addition of a form of inhibition, or associative change of an algorithm pathway- randomly allowing a jump from one code line to the next. I contemplated if it would be possible to simulate a subjective experience into a computer intelligence system. And I wondered: if so, how easily would that system pass a Turing test? Although an interesting thought experiment, my thesis does not, of course, pursue any such knowledge contribution. But there was another interesting consideration for me. When creating *The Wearable* design I was inspired by the concept of the disruption of reward systems, but in particular by the disruption of connectivity

and how to do so. I wondered if it was possible to create an experience that would indirectly affect a person's functioning by disrupting reward or connectivity in another manner? I wondered if that would generate any analogous experiences, and if these experiences would be able to fool therapists.

What is most interesting to me about computer modelling is the technology itself, the computer that is able to carry software that can be designed to do many things.

2.5 SIMULATING PSYCHOSIS WITH MULTIMEDIA IN AN EXPOSURE THERAPY CONTEXT

2.5.1 PSYCHOSIS CAFÉ

An interesting psychosis simulation research, designated for exposure therapy, is a project initiated by mental health care group Parnassia in collaboration with the University of Technology in Delft. Led by psychiatrist Wim Veling, the project sought to simulate environments that are specifically stressful to someone suffering from paranoia. Two pilots were conducted in which a busy pub was simulated. By wearing VR glasses one could manoeuvre through this virtual pub with a joystick, controlling the density of the amount of people in the pub as well as the noise levels. Skin galvanisation and heartbeat are measured, and software is used to collect the data and analyse it against stress reaction patterns. This research provides a scenario that can be recorded and discussed with a therapist (The Virtual Pub, 2011 and NOS, 2011). Earlier projects were created in which computers were used for an educational potential. Results were considered very promising; an example may be found in a project developed by Queensland University.

2.5.2 PATIENT C1

Researchers at Queensland University (QU) developed a virtual environment that simulates the experiences described by a patient who is referred to as C1. Much like Queensland University's Virtual Hallucinations project on Second Life, this project is also set in a hospital ward. The project had three aims first, to

successfully artificially model the experience of psychosis as an interactive learning environment for students. Second, to use it to enhance understanding and support from family and friends, as well as educate communities in general. Third, develop the VR software so that patients can use the experience, in conjunction with their therapist, to re-create their experiences, in relation to cognitive behavioural therapy as well as exposure therapy (Banks, et al., 2003, p.870). According to the QU research team the use of VR has the potential to provide students with first-hand knowledge of what hallucinations 'feel' like. In this they refer to a term called 'presence', as described in mental health research on cyber psychology by Schuemie, meaning when a virtual experience evokes the same reactions and emotions as a real experience (Tichon et al., 2003). The development of the virtual simulations is expected to enhance the experiential learning outcomes of medical students by enabling them to experience the inner world of a patient with psychosis (Banks et al., 2004, p.8). A conversation that took place between Dr Peter Yellowlees and patient C1 revealed some interesting information (Fernandez, 2002, p.71). It exposed for instance patient C1's disbelief that anyone would want to learn about her experiences, and Dr. Yellowlees seeing it as an sensational educational tool (Ibid, p.71). It also exposed her criticism of simulation as being less visceral. But what was most interesting to learn from the conversation for me was, first, that understanding what it is like to be another, to be able to listen and interpret what they say, is considered by patient C1 as an art form that should be continued, and second, the research team decided to hire an artist to help with the visceral affect of visual hallucinations, which pointed to me that there is a role for me to play as an artist, which I felt could be more than better special effects.

2.5.3 MULTIMEDIA IN AN EXPOSURE THERAPY CONTEXT AND WHAT IT MEANS FOR A PSYCHOSIS SIMULATION PRACTICE

From what I have noted above, the first thing is that I understand and appreciate the importance of attempting to understand another person's experience, which, in support of this thesis, suggests that psychosis simulation is both important and to be valued. Second, I may also deduce that, as an artist, I might make a valuable contribution. Being able to understand the subjective experience of one's own inner life, and finding a medium through which to

translate it in a way that a third person understands in a more visceral manner, is what an artist does naturally. An artist is trained in an art school to enhance this skill. For me, applying this skill to an educational context to help a doctor to understand his patient is, therefore, a possibility. In this endeavour I might make a valuable contribution as a 'second person empathic resonator', as described in the introduction chapter. I realised that technology might be integrated to create the experience, but also that it could be used to understand how the person is experiencing it. For instance, one may use a biofeedback sensor, like a skin galvanisation sensor that measures a body's stress reaction as caused by differences in the skin's electrical conductivity due to skin perspiration. By recording an experience and placing it next to the biofeedback data, it is possible to follow in real time, or revisit an experience and discuss with a therapist, why at a particular moment a stress reaction was registered. This brought me to the next aspect to consider, which is another therapeutic function of a psychosis simulation project. A simulation may go beyond its exposure therapy function, and be used to educate people on what it is like to experience psychotic phenomena, helping people deal with and understand what loved ones are going through. All the more important to develop a simulation as consciously as possible. By learning about these exposure therapy projects I realised that, if it were considered ethical to expose a person who has experience with psychotic phenomena to simulations of these experiences, it holds a sufficient indication for me that it is not as problematic as one might initially think to expose a person with no experience for educational purposes. I learned that exposing people to simulations for educational purposes exists on a non-technical level.

2.6 SIMULATING PSYCHOSIS NON-TECHNICALLY IN AN EDUCATIONAL CONTEXT

A basic method to simulate the phenomena of hearing voices has been developed by Ron Coleman. He is a voice hearer and was national coordinator of *The Hearing Voices Network* in the UK 1991-1994. He developed a simple four-step system to simulate what it is like to hear voices on a regular basis. His method involves three people, of whom one person plays the role of 'the voice'

and the second plays the role of 'the voice hearer'. With the third person, the voice hearer will hold a conversation:

For two minutes the 'voice' talks to the voice hearer whilst at the same time the voice hearer conducts a conversation with the third person. The "voice" is instructed to make personal and belittling remarks to the hearer in a clear voice and to try to engage the attention of the voice hearer. At the end of two minutes the three switch roles until everyone has experienced being a voice hearer (Intervoice, 2011)

The next step involves sharing and reflecting on the experience and then as a last step analysing the experiences against descriptions by actual voice hearers:

At the end of the exercise the threesomes are brought together and are asked to describe what it felt like to hear voices (i.e. confusion, frustration, annoyance, anger, depression, weariness) how it effected their ability to hold a conversation (i.e. loss of attention and concentration) what strategies they employed to reduce the intrusion of the voice (i.e. trying to ignore it, answering back, changing physical position). Other questions include asking what they would feel and do if the voice was permanent? (depression, suicidal feelings, a desire to avoid people, to hide away, to talk to the voice more). Conversely also ask what they thought about trying to conduct a conversation with someone who is hearing a voice (and being a voice!) (Ibid).

The design of the experiment, as simple as it may seem, allows for a very real experience of what it might feel like to battle with different realities going on at the same time, allowing a participant to actually feel how hard it is to focus on a conversation, while being distracted by other presences, illustrating the difficulties one might face when functioning in a job, or at school.

2.6.1 SIMULATING PSYCHOSIS NON-TECHNICALLY IN AN EDUCATIONAL CONTEXT AND WHAT IT MEANS TO A PSYCHOSIS SIMULATION PRACTICE

From this I learned that it is possible to create a very effective educational exercise to understand what it feels like to experience voice hearing with very little means. The benefits of such a non-technological form of simulation are that you need very little to actualise the experiment. A drawback in this exercise

exists in its limitation on simulating other potential psychotic phenomena, such as visual hallucinations. To achieve a level of more complexity, the use of media may provide a valuable tool.

2.7 SIMULATING PSYCHOSIS WITH MULTI-MEDIA IN AN EDUCATIONAL CONTEXT

In recent years, there have been several technological psychosis simulation projects that have been developed in an educational context as teaching and awareness tools for mental health workers, police, students and family members, to understand psychotic phenomena. These multimedia projects aim to help better understand what a person in psychosis is going through. The simulations form a compilation of sensory experiences that are based on the experience of actual people. A reader may view online footage of these experiences in the links provided in the text. As this thesis will go deeper into the design of these projects in each chapter as well, this chapter will limit the descriptions of these simulation projects to a basic summary. Please view Appendix III for the video links to these simulations.

2.7.1 INTRODUCTION OF MINDSTORM

The first project to introduce is *Mindstorm*, which was developed by an American branch of Janssen Pharmaceuticals and presented to the public in 2007. The cinematic project is presented in an IMAX-like theatre installation that seats 11 people. The simulation shows various aspects of a daily routine, such as making coffee and brushing one's teeth, as a 'before and after' situation, first through what one might describe as a 'normal' or neutral perspective and then later viewing the same scenes while experiencing psychotic phenomena. The simulation project employs various interactive effects, such as smells that are released at key moments during the experience (Janssen Inc, 2014, *Mindstorm*, and Tabar, 2007).

2.7.2 INTRODUCTION OF PAVED WITH FEAR

The second psychosis simulation project to introduce is *Paved with Fear*, which was presented to professionals in 2001 by the Belgian branch of Janssen Pharmaceuticals. The simulation, which was also a multimedia interactive cinematic experience, is situated in a truck, which is currently still visiting health care institutions throughout Europe. When a visitor enters the truck, he is greeted by a staff member who tells them that, in order to experience the simulation, which are embedded in two elevator-like cubicles, they first need to answer a couple of questions at a computer station; simple questions such as 'What is your name?' After the questions, the computer station shows a short video of a 'normal' trip to a bakery. Just as with *Mindstorm*, one experiences a 'before and after' situation, viewing that same trip to the bakery from the perspective of a person experiencing psychotic phenomena. The simulation is also an interactive experience that employs a range of cinematic techniques to achieve particular effects. For instance, it uses the data that a visitor leaves at the computer station in a feedback experience and the floor vibrates at certain moments during the experience. (Youtube, Labyrinth Psychotica, 2013)

2.7.3 INTRODUCTION OF VIRTUAL HALLUCINATIONS

The third project was formed in collaboration between Queensland University and UC Davis, in which they developed a virtual reality experience on *Second Life* named *Virtual Hallucinations* (2004). The experience, like the others, is also aimed at simulating psychosis for the purpose of education, showing visitors what it is like to undergo psychotic phenomena. In *Virtual Hallucinations* it is possible for one's *Second Life* avatar to become subject to visual and audio hallucinations by putting on software 'voice badges'. There is a male and female voice badge. The simulation consists of a walk through the hallways of a small virtual hospital. In each room one may experience different phenomena (Yellowlees, 2008 [2004], and UC Davis).²¹

²¹ The year 2004 is based on the note card provided to explain the experience (YouTube, Yellowlees, 2008).

2.7.4 INTRODUCTION OF LIVING WITH SCHIZOPHRENIA

Another educational multimedia simulation project to introduce consists of a series of Virtual Reality experiences that were designed for a pair of handheld goggles with embedded headphones to simulate the experience of hearing voices, and seeing things in different everyday situations, summarized in this thesis as *Living with Schizophrenia*.²² Please visit the website <http://www.schizophrenia24x7.ca/patient-experience-videos> to view the documentation video's discussed in this chapter.²³ The device may be held in front of one's face and is worn for between five and ten minutes. In one of the experiences a wearer is 'At the Doctor', where they visit an animated psychiatrist in a virtual world. In another experience, 'At the Pharmacy', a caseworker takes the wearer to a grocery store with a pharmacy at the back so that they can refill their medical prescriptions. The experience of the grocery pharmacy does not contain animated people; the recordings are made with actual people. The final experience is called 'On the Bus', which forms a combination of the two experiences above, part animated and part filmed with real actors. In this experience the wearer is on their way to a pharmacy. Due to the practical issue of word count, I will focus only on 'At the Doctor' and 'At The Pharmacy' within this thesis. Video documentation of these experiences may be found online, as along with transcripts (Janssen Inc, 2014, At the Doctor, On the Bus, At the Pharmacy). So what can one learn from examining these simulation projects?

2.7.5 MULTIMEDIA SIMULATIONS AND WHAT THEY MEAN TO A PSYCHOSIS SIMULATION PRACTICE?

One of the first realisations from investigating these simulations is, again, that it is already being done. This helped me to learn a great deal. One inspiring aspect of the design of both *Mindstorm* and *Paved with Fear* is the manner in which they both utilise a before and after scenario. This provides the opportunity for a person engaging with a simulation to see the same situation through different eyes. The *Second Life* project *Virtual Hallucinations* also has

²² Whilst investigating it was unclear as to the actual project name of the simulations, in one of the documentations 'Living with Schizophrenia' was one of them.

²³ During the preparation of this thesis for electronic publication, the site mentalwellness.ca has been updated and changed in name. The video's moved to a different page than indicated in the reference list. The old address does forward to the new site.

this aspect, but differentiates itself in the sense that the before and after changes happen in real time. One moment, one's avatar is looking at a 'normal' floor, the next moment that floor looks like a sea of clouds. When designing a simulation, one may take into account a method that would allow an understanding of a different perspective on the same situation.

Another interesting aspect is how all the simulations use a first-person perspective, apart from the avatar in Second Life, which also allows a user to switch from a first-person to a third-person perspective, which is a considerably different experience when viewing the clouds under one's feet. Therefore, when designing a simulation of psychosis, I think it is important to consider an interplay between first-person and third-person perspective.

Another significant point of observation is that *Mindstorm*, *Paved with Fear*, and *Living with Schizophrenia* all come with a disclaimer. This disclaimer is to inform viewers that the experiences form a compilation of possible experiences during a psychotic episode, and as such warns that no two experiences of psychosis are the same, a critical consideration when used in an educational context. A simulation practice should consider implementing a disclaimer, in particular if the experience is engineered specifically to affect a person's subjective experience.

With regards to the ethical issues regarding the simulations mentioned above, as some were commissioned by pharmaceutical companies, the medical model occupies a dominant position within the narratives of visiting a hospital, a pharmacy, or a psychiatrist. From an educational perspective, this forms a limited perspective on the existence of alternative views regarding what psychosis is considered to be, and how it should be treated as viewed within different cultures. A better understanding of these various views will help us understand the subjective experience of the medical model and its effect on treatments.

Another influential aspect to consider is how various technologies are capable of interactively playing with and manipulating different realities, adding smells, sounds and movements that correspond with the image on a screen; virtual reality, film, interaction design, mixed realities. I could not help but think about how new developments in technology, such as augmented reality, might contribute to further development of these designs. It is within the developments of multimedia projects, such as *Paved with Fear* or *Mindstorm*, that this thesis

finds a place to position itself, and aims to make a valuable knowledge contribution.

As argued in the introduction chapter, it is important to be critical about simulations, especially when they are used in an educational context. How might the existing simulation projects be improved? This will be the subject of my exploration in the chapters that follow. This is where I position my research.

2.8 SUMMARY

In this chapter I have attempted to map the terrain in which my artworks and my thesis position themselves. I have investigated who has simulated psychosis, why they have done it, and to a certain extent how they have done it. Be it criminals, politicians, the poor, the general public, actors, scientists, computer engineers, people have simulated psychosis, or madness, for very diverse reasons, ranging from survival, escape and political strategy, to social awareness, entertainment, medical advancement, therapy and education. The methods used to do so range from the art of acting, bluffing, human experimentation and taking substances, to computer models, fine art and multimedia technology.

Furthermore, in this chapter I explored how the various methods and motivations behind psychosis simulation may influence a psychosis simulation practice and highlight areas of concern that should be considered. I realised that, when a practice aims to learn how to simulate psychosis for educational purposes, one must be aware that one simultaneously provides information for those who seek to abuse such information, as well provide information to those who may diminish stigmatisation. From first-hand experience I know that some people are afraid of participating in a simulation, which made me, as an artist, contemplate how to take this into consideration. How deeply and how realistically should I aim to simulate psychosis, and when does it become unethical? From this investigation I learned that researchers have been prepared to go to great lengths to unravel the mystery of psychosis; either by taking psychoactive substances, through human experimentation with sleep deprivation, as well as experiments on animals, making my own ethical contemplations seemingly minor. It was interesting for me to consider the involvement of acting as a method within the simulation, as well as thinking

about creating dream-like or drug-induced-like realities using various technologies. With the establishment of this preliminary summary, I have gained an understanding of where my thesis and the art projects I have developed might make a valuable knowledge contribution, as well as an understanding of potential ethical implications when developing knowledge on how to simulate psychosis.

3 SIMULATING HALLUCINATIONS

Stupid, stupid, pointless, worthless, stupid, stupid. You are so stupid, look at you, stupid, stupid. Dirty, dirty disgusting. You touch them and they know. Hello. Pointless... Hello Worthless, stupid. But you touch that I'll kill you. (Lybio.net)

Once more my playmate became strangely transformed and, with an excited laugh, once more I cried out, 'Stop, Alice, I'm afraid of you; you're a lion!' – Renee (Sechehaye, 1994 [1951], p.23)

Although not all people experience them, hallucinations are considered a preeminent experience of psychosis. Thus, incorporating the design of hallucinations into a simulation is a justifiable idea, especially if used in an educational context that aims to show the diversity of possible experiences. In order to develop an efficient psychosis simulation methodology, not only did I need to study existing psychosis simulation methods, and their motivations, I also needed to engage in a more detailed mapping of what I should consider, in order to be able to design a meaningful simulation. What does one actually experience? How real does it seem? More importantly, how does it feel? One of the problems in understanding psychosis is that, in spite of having many shared traits, every experience is unique. If one wants to use a simulation in an educational context, one should attempt to create a flexible and malleable pallet, one that preferably does not contain falsehoods, misleading information or contribute to any stigma. Achieving this may seem impossible, yet it is important to try. In order to arrive at an approximation of a simulation that may be used as an educational tool, one needs a method to analyse and assess the educational quality of the simulation. How does one do so?

In essence, the function of a simulation is to aid a process of learning, to enhance professional skills in an efficient, pliable and cost-effective manner. One may judge the quality of a simulation based on function and effectiveness, depending on what one sets out to achieve; a simulation does not need to be one-hundred-per-cent accurate, it simply needs to be sufficiently representative in a way that fulfils and achieves its designated purpose. This is particularly challenging, as one is attempting to simulate a subjective experience that

relates to the complexity of simulation itself, namely the interplay between that which is considered real and that which is not. The relationship between the realism of a simulation, its effect on subjective experience and its function is complex. How real or emotionally effective something is considered to be depends on a set of ever-changing parameters. What these qualities are might be different for each person. In the simulation discourse, one should carefully decide which elements to take into account when creating and judging a simulation, in particular when attempting to simulate something as elusive as the subjective experience of psychosis. So how does one know which elements to consider in order to be able to judge accuracy, efficiency and function? How to analyse the design of a psychosis simulation project on its educational qualities?

To begin to answer these questions, this chapter first investigates what hallucinations are considered to be, and contemplates if it is even possible to simulate their subjective experience. It then narrows the investigation to visual and audio hallucinations. What are hallucinations and is it actually possible to simulate them? This chapter then investigates how hallucinations are simulated in the projects *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, and explores if there is room for improvement, by creating tools of analysis. This chapter then analyses the two artistic case studies *Suicide Pigeon* and *Intruder*, and compares them with the other simulations using the same tools, steering towards the question of how these works might contribute to a better understanding of the subjective experience of psychosis.

3.1 WHAT ARE HALLUCINATIONS?

To understand what a hallucination is, I took a brief look at the development of the definition. In the past, hallucinations have been described as *a(l)lucinatio*, *alusia*, *fallacia*, *idolum*, *phantasma*, Latin for to 'wander mentally or to be absent-minded' (Blom, 2010, p.219). The Swiss theologian Ludwig Laveter (1527-1586) describes: 'Ghostes and spirites walking by nyght, and strange noyses, cracks and sundry forwarnynges [...]' (quoted in Blom, 2010, p.219). In the sixteenth century the word hallucination first came into use to denote a

wandering mind (Sacks, 2012, p.ix). I learned that it was not until the late eighteenth century that hallucinations were added to English medical terminology as a symptom of mental illness (van den Bosch, 1993, p.56, Blom, 2010, p.219). In 1838 the French alienist Etienne Dominique Esquirol (1772-1840) described hallucinations in a way that is close to our modern-day description, as:

A person is said to labour under a hallucination, *or to be a visionary*, who has a thorough conviction of the perception of a sensation, when no external object, suited to excite this sensation, has impressed the senses (Esquirol, as cited by Blom, 2010, pp.219-220).

But what does this mean in actuality? I found it interesting to discover that hallucinations may be experienced in relation to any of a person's sensory organs, such as taste and smell, as one person describes:

The water had a horrible obnoxiously sweet taste, even though it looked clear as usual, it had an oily structure and it smelled as if it came from some dark, moist cellar, full of rotting corpses of people who died of a horrible disease. (Davidson, 1912, cited in van de Bosch, 1993, p.32, free translation)

And another person describes: 'All feeling seemed to have left my fingers. All materials felt the same. The sensitivity to making immediate distinctions was missing' (Wiley, 1955, cited by van den Bosch, 1993, p.141, free translation). In psychosis one might experience the sensation of insects crawling all over one body, or one might experience pain. Hallucinatory pain is experienced as actual pain, as one person describes:

To the person who experiences hallucinatory pains, the pains feel identical with actual pains. There is no difference between the sensation of hallucinatory and the sensation of actual pain. The person who experiences it can distinguish it only by its lack of normal cause and its interrelations with other hallucinatory phenomena. The person who feels it undergoes real suffering (Torrey, 2006, p.37).

Hallucinations today are described in the *Diagnostic and Statistical Manual of Mental Disorders* the (DSM-IV) as '[a] sensory perception that has the compelling sense of reality of a true perception, but that occurs without external

stimulation of the relevant sensory organ' (as cited by Bentall, 2004, p.350)²⁴. In reaction to the DSM-IV, clinical psychologists Richard Bentall and Peter Slade formulated a more nuanced definition of a hallucination:

Any percept-like experience which (a) occurs in the absence of an appropriate stimulus, (b) has the full force or impact of the corresponding actual (real) perception, and (c) is not amenable to direct and voluntary control by the experiencer (Ibid).

Taking this description into account I had to ask, for myself: is it even possible to simulate hallucinations? Although this might be considered a naïve question, for me it was important to ask so that I might become better aware of any damaging perceptions created with simulations meant for educational purposes.

3.2 IS IT POSSIBLE TO SIMULATE HALLUCINATIONS?

On the one hand, I could state a priori that every representative (art)work expressing madness is a simulation of madness, and as such it is always possible to simulate psychosis, but that does not mean they are efficient, functional or accurate enough to be used in an educational context. To provide efficient and beneficial health care, it is important that the state of psychosis is understood as well as possible. Determining if it is possible to simulate a hallucination or other psychotic phenomena becomes important when one wants to be able to judge and / or analyse a simulation on its applicability for educational purposes. For instance, a poor example of psychosis simulation is the film *Me, Myself & Irene* (IMDB, Farrelly Brothers, 2000). The film, even though it simulates a person diagnosed with schizophrenia, demonstrates gross misgivings about what psychosis or schizophrenia actually is. Not only is the portrayal of the simulation fundamentally inaccurate, it is hurtful for many, with far-reaching negative consequences:

In the US, Canada and Australia there have been widespread protests at the way *Me, Myself and Irene* misleadingly portrays schizophrenia as a

²⁴ The DSM is a tool designed by the *American Psychiatric Association* and used by a majority of psychiatrists to form a diagnosis, The DSM-V was published in May 2013.

Jekyll and Hyde, split personality disorder - and "Hank" as a violent threat to society - when schizophrenics are far more likely to be the victims than the perpetrators of violence. Mental health campaigners have accused the film's distributors, 20th Century Fox, of feeding all the worst prejudices about severe mental illness, whilst targeting 15 to 24 year olds, a group particularly vulnerable to the onset of schizophrenia (TheGuardian, Judy Hirst, 2000).

Misrepresentations like these are not easily disregarded in a society once they become embedded. So if one is able to simulate psychosis, one needs to attempt to be as accurate as possible, or at least not contribute to stigma.

From the aforementioned description by Bentall and Slade, I might on the other hand conclude, a priori, that it is not possible to simulate hallucinations, because in the case of a simulation a) there is an appropriate stimulus present (in a simulation this is a mediated stimulus which is often technological) and b) it does not have the full force presence of an actual perception, as one is aware that the phenomena is generated (by that technology). And with c) one might say that, even if a simulation is not directly controlled by the experiencer, it would most likely be voluntary. Any attempt at a simulation then seems futile, until I took a more critical look at the definition.

When examining their description of hallucination against literature, some interesting things arose: first of all, the notion that there is no appropriate stimulus. If I analyse this closely, I quickly realised that this is problematic, as I might argue that there is always an appropriate stimulus, namely the brain of the experiencer. Many studies investigate the neuro-anatomy of the brain during audio hallucinations with varying conclusions all pointing towards brain activity when experiencing hallucinations (Gaser et al., 2004). In that sense the source is real, a person reacts to something that is not only experienced as real, there is real activity in the brain that is related to the hearing of sounds, it's just that others do not have access to the same source. This conclusion implies that the statement 'there is no appropriate stimulus' becomes suspect.

Another problematic issue concerns the myth that a person who is experiencing hallucinations does not have the ability to distinguish the hallucination from the real and unreal. Ivan Leudar and Philip Thomas, authors of *Voices of Reason, Voices of Insanity*, describe how psychiatry and psychology consider voices as auditory hallucinations resulting from failures of reality testing, which typically involves confusing what is objective and what is

subjective, real and imagined, seen and remembered, or psychological errors. From a diagnostic stance, voices indicate mental pathology, but the problem is that, as they explain, voice hearers do not often confuse hearing voices and hearing people who are talking. They know perfectly well that nobody else is speaking (Leudar and Thomas 2009 [2000] p.1). From this I started to wonder: if a person is aware that a hallucination is not real, then how could it be regarded as having a full impact?

This provided a window of opportunity for me to argue that a simulation of a voice, in spite of a person knowing it is not from a real person, may be used to simulate what it is like to hear a voice, because, in fact, in both situations the voices are not from a real-life person, yet are very real experiences. What is difficult is the emotional impact of such an experience: in spite of objectively knowing that something is not real, a hallucination has a very real subjective impact on the individual. The challenges lie in the design and creation of this effect. That it is possible to create an emotional impact, in spite of a person knowing it is not real, we know to be true from films. Even when one knows that the main character in an action film is not real, one might become so entranced that real emotions arise.

And last but just as importantly, how powerless is a person in psychosis? Does a person really have no control? According to the Dutch philosopher and experiencer of psychosis Wouter Kusters, psychosis 'is not an external force, which one can distinguish from the person who has a psychosis from the psychosis itself. The person *is* the psychoses, and as such plays an active role in the creation of experiences (Kusters, 2004, p.26, free translation)

If I take another look at the definition of hallucination by Bentall and Slade, I could say that they have taken three elements into account: (1) the internal vs. the external, 2) the impact, and (3) the control. The first element relates to the location of an appropriate stimulus, as one may also hear voices coming out of a wall, simulating voices in the head in relation to simulating voices coming outside of one's head. The second element, the impact of a hallucination, I would say, involves how powerful the reality of the experience is and whether one can distinguish this *subjective* reality from an *objective* reality. The third element is then the control of the experience. How much of it can one control, or is one completely powerless against it? Using these parameters was

useful when determining the success of the simulation of a hallucination, in particular with regards to its subjectivity.

To answer the question of whether it is possible to simulate psychosis, one will answer in the affirmative, as concluded in chapter two: it is simply already being done, and has been done for many years. What should a psychosis simulation practice take into account when used for educational purposes? How does one simulate the experience of a stimulus that is there but not there? How does one design the subjective impact of a simulation? And how does one simulate the experience of control and non-control? If one is *able* to simulate psychotic phenomena, it is important to map the detailed aspects about such experiences, which in turn may help determine *how* to simulate them for educational purposes, in the best possible way. In order to answer these questions, I had to dive deeper into the experiences themselves, beginning with visual hallucinations.

3.3 VISUAL HALLUCINATIONS

Visual hallucinations do not occur in the context of mental illness as often as audio hallucinations do, but they occur often enough to be of significant interest to consider for psychosis simulation practice. If one sees things, what *does* one actually see? Is it transparent? Does it move? And if yes, does it move from left to right, up or down, diagonal or horizontal? For how long does it move? Does it flash into existence? Is it always there? Does one see colour or monochromatically? Does it take over one's whole view, or just in the corner of one's eye? What types of visual hallucinations are there?

I learned from Blom's *Dictionary of Hallucinations* (2010), that visual hallucinations are categorised by their complexity. There are 'elementary hallucinations' ('simple hallucinations'), 'geometric hallucinations' and 'complex visual hallucinations'. Hallucinations that replace the entire sensory environment are referred to as 'scenic' hallucinations or 'panoramic' hallucinations. Hallucinations that are experienced as having a compelling sense of objectivity are referred to as having a high level of 'xenopathy', meaning that any mental representation that enters a person's conscious mind may be experienced as an object of external reality. Hallucinations are further

classified by their shape as being 'formed' (or organised), known as 'morphosia', and 'unformed', referred to as 'photopsia', and by their size, as being 'macroptic' or 'microptic'. When hallucinations feature faithful images of an individual, they are referred to as 'autosopic' hallucinations. When less faithful images are featured, they are referred to as 'heautosopic' hallucinations. Hallucinations that contain animals are referred to as 'zoopsia', and those containing ghosts are referred to as 'apparitions'. When a deceased loved one is depicted, the hallucinations are referred to as 'bereavement', 'post-bereavement' and 'grief' hallucinations. Visual hallucinations that occur simultaneously with other sensory input are referred to as 'synesthesia'. Hallucinations that are perceived outside of the visual field, such as from the back of the head, like audio hallucinations, are referred to as 'extracampine' hallucinations. When visual hallucinations are accompanied with other sensory modalities, they are referred to as compound hallucinations (Blom, 2010, p.535, p.547). There is also a phenomenon known as pseudo-hallucination, this is when hallucinations are 'not projected into external space but are seen, so to speak, on the inside of one's eyelids' (Sacks, 2012, p.x). There seems to be a limitless number of variations in visual hallucination experience. Yet, these descriptions say nothing about what it feels like to experience hallucinations. This is where a psychosis simulation becomes a valuable educational tool.

3.4 AUDIO HALLUCINATIONS

The most common hallucinations are auditory. As hearing voices is so prevalent, I consider it mandatory to incorporate them into the design of hallucinations in a psychosis simulation, in particular when used in an educational context. So what are audio hallucinations?

As with visual hallucinations, audio hallucinations are divided into subtypes of complexity. A simple 'non-verbal audio hallucination' is referred to as 'akoasm', which may be the sound of a doorbell ringing, but could also be rustling or buzzing noises (Blom, p.46, p.473). Some more complex hallucinations may contain music. As described by one person: 'there was music everywhere and rhythm and beauty. [...] I heard what seemed to be a choir of angels. I thought it the most beautiful music I had ever heard' (Torrey, 2006, p.34). Hallucinations

that include music are referred to as 'musical hallucinations' (Blom, 2010, p.46). The most common audio hallucinations are voices, also referred to as 'verbal hallucinations' (van de Bosch, 1993, p.31, Blom, 2010, p.48). An audio hallucination may consist of a single voice that repeats itself continuously, as another person describes: 'Thus for years I have heard daily in hundredfold repetition incoherent words spoken into my nerves without any context, such as: 'Why not?' 'Why, if?' 'Why, because I', 'Be it' and 'With respect to him' (Torrey, 2006, p.34). Experiences may also consist of several voices saying more complex things in full sentences, with which a voice experimenter might have a full conversation. Voices may be experienced as coming from various locations, as one person describes: 'The voices kept coming from somewhere else: in my head, behind me, in front of me' (van de Bosch, 1993, p.32). And another person describes: 'Only a short time before I was confined to my bed I began to hear voices, at first close to my ear, afterwards in my head, or as if one was whispering in my ear, - or in various parts of the room' (Frith and Johnstone, 2003, p.6). When auditory hallucinations are heard by another part of the body, like the eyes, they are referred to as 'extracampine' hallucinations. *Gedankenlautwerden* are voices that repeat or echo a person's conscious thoughts. Depending on their location, they are labelled as 'internal hallucinations' or 'external hallucinations' (Blom, 2010, p.46).

By learning that audio hallucinations are not necessarily experienced in one's head, but may also be experienced as coming from walls, objects or body parts, and even media, I obtained a certain freedom to simulate the experience in alternative forms, using media, as I feel that a psychosis simulation practice may consider the possibilities of media, and sound technology in particular, when it comes to audio hallucinations. So what does one take into account, and how do multimedia simulations fare when it comes to the simulation of audio hallucinations?

3.5 THE SIMULATION OF HALLUCINATIONS IN EXISTING SIMULATION PROJECTS

As introduced in chapter two there have been several psychosis simulators that have been developed in an educational context as teaching and awareness

tools for mental health workers, police, students and family members to understand psychotic phenomena. The simulations form a compilation of sensory experiences that are based on the experience of actual people. As these projects are used in educational contexts, it is particularly important that there is a way to assess them, as they will have a significant impact on healthcare standards. When simulating psychosis in an educational context, one must take into account the variability of an experience, or one risks providing a limited, perhaps even damaging, perspective, and, in doing so, actually contribute to the stigma one is aiming to reduce. In assessing a simulation, one may investigate how much it respects this variability. In other words, is it possible to assess the educational depth of the potential hallucinatory experiences of psychosis in these simulations?

Any educational simulation of psychosis that takes audio or visual hallucinations into account should consider that almost anything related to the sensory capacity of seeing or hearing may be experienced as hallucination, including the simple and the complex. Do they portray a sufficient insight into the spectrum of potential tactile experiences? Is there room for improvement? So how do the projects *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia* fare when it comes to the educational potential of hallucinations, with regards to diversity?

3.5.1 HALLUCINATIONS IN MINDSTORM

Visual alterations in *Mindstorm* are relatively few. The ones that are present consist of a cup of coffee that suddenly bubbles profusely, and a pizza that is delivered to a house first labelled as 'pizza' and then later as 'poisson' on the box. When the box opens, the cheese on the pizza, like the coffee, suddenly begins to bubble. There is also a weatherman who directs himself to the viewer and begins to speak to him, a newspaper that has changed a text from 'Man wins Lucky Lotto' to 'Don't leave the House', and an image changing from a man smiling to a man frowning. The experiences are simulated in a realistic environment, which could be described as a high level of *autoscopy* and *morphosia*.

With regards to audio hallucinations, *Mindstorm* simulates both male and female voices. The voices refer to themselves as 'I' and 'We' and talk about the experiencer as 'you' and 'him': 'oh, the phone woke him up now. Don't answer.

They'll know who you are.' Voices speak in full sentences that are derogatory as well as repetitive: 'Stupid, so stupid. Worthless. We hate you' and 'You're a waste of space', as well as speaking and repeating one word: 'worthless'. The content of the voices is paranoid, and when the pizza is brought to the door they say: 'THIS is for you. He's working with them. He's part of the plot! This is for you. Shut the door! Shut it! Don't eat it. Poison. You're stupid to open it. I hate you. We hate you.' With regards to non-verbal sounds (akoasms), there are metaphorical sounds of thunder at pivotal moments (while it is sunny outside). There are also sounds that appear to be more like special effects; a bubbling sound is played when the pizza is viewed as bubbling, as well as the cup of coffee. Background sounds such as breathing, footsteps and a clock ticking are made louder, making them sound more significant. There is some background music, but this does not appear to function as a musical hallucination, it is used more to determine an atmosphere for a viewer. On TV the news reporter directly speaks to the experiencer: 'You hear that worthless? The weather's coming to get you'. The other voices are simulated as disembodied, there are no sounds coming from body parts or objects. How does *Mindstorm* relate to other forms of hallucinations?

Mindstorm simulates hallucinations of touch, as wind blows from behind the Imax theatre chairs, and of smell, as the air coming from the chairs carries the smell of coffee and pizza (Tabar, 2007, Janssen Inc, 2014).

3.5.2 HALLUCINATIONS IN PAVED WITH FEAR

There is a minimum of visual hallucinations simulated in *Paved with Fear*, at least not in the literal sense, as with *Mindstorm*. There is a moment in which the images of a newspaper and news report both contain a superimposed image of the visitor. This is done with software that triggers a camera to take a picture while a person is in the simulation. This picture is then uploaded and portrayed in the film, real-time, while that person is watching. There are visual alterations with regards to cinematic effects, such as slowed-down and sped-up frame rate, making eyes appear to stare at a visitor much longer with an embedded intent. *Paved with Fear* simulates audio hallucinations less frequently than *Mindstorm*.

The voices that are present contain both female and male voices. The voices refer to themselves as 'I' and refer directly to the experiencer as 'you', they do not talk about the experiencer as 'him' or 'her', but they do talk about

other people as 'they': 'I warned you didn't I?' and 'you don't know which direction'. Voices speak in full sentences that are derogatory as well as repetitive: 'It's because of you, you are guilty', 'They think that you are guilty', as well as speaking and repeating short words: 'not safe'. The comments are commands: 'Grab your keys and go outside NOW!' as well as paranoid and undermining. *Paved with Fear* uses akoasms such as laughter and, much like *Mindstorm*, it brings everyday background noises to the foreground; traffic sounds are made louder, footsteps echo, a door squeaks. More than *Mindstorm*, *Paved with Fear* uses special sound effects to enhance the atmosphere of the experience. The voices are predominantly simulated as disembodied: in one instance, the lips of a man on the phone are synced to an interpretation of the experiencer as commenting on the newspaper. There are no sounds coming from body parts, but there are sounds linked to objects, for instance when zooming in on a wooden staircase statue, a ghostly horror sound can be heard (YouTube, Labyrinth Psychotica, 2013 [2007]). How does *Paved with Fear* relate to other forms of hallucinations?

Paved with Fear has within its design a floor that vibrates at certain intervals; one could interpret this as simulating hallucinations of touch. How does the *Virtual Hallucinations* project compare?

3.5.3 HALLUCINATIONS IN THE VIRTUAL HALLUCINATIONS PROJECT

Unlike *Paved with Fear*, the *Virtual Hallucinations* project embeds several visual hallucinatory experiences. When one enters the hospital, computer laptops at the reception desk open and close repeatedly. When passing a poster on the wall, the words 'Partnerships for Recovery' read as 'shitface' in between the words, much like the word 'pizza' changed to 'poizzon' in *Mindstorm*. When looking in a mirror, one sees the face of a man slowly thinning, and then bleeding from the eyes. When one walks down the hallway, the floor tiles are replaced with stepping-stones that hover above a blue sky with white clouds. The books all have fascist titles. The *Virtual Hallucinations* project frequently simulates voices. When one enters the experience, one is able to choose to hear the experience of two patients, a male and a female patient. The male patient hears multiple male voices. They speak as 'I': 'I warned you didn't I?' and speak directly to the experiencer as 'you': 'you're worthless. A male voice speaks as 'us': 'Join us in the world of the dead'. Voices speak in full, coherent

sentences: 'You are a worthless human being', as well as single words: 'dead'. The voices are often repetitive: 'you're dead', 'you're dead', 'you're dead'. The comments are commands: 'Kill yourself, kill yourself now', 'get the gun' and taunting: 'do it, do it now'. *Virtual Hallucinations* does not simulate akoasms. And it does not contain voices commenting on what the experiencer is doing. The *Virtual Hallucinations* project does not promote everyday background noises to the foreground. It does contain footsteps, but these sounds are standard for the avatars in *Second Life*. *Virtual Hallucinations* does not make use of special sound effects to enhance the atmosphere of the experience. There is the sound of wind blowing, but this too is standard in 'Second Life'. The voices are predominantly simulated as disembodied. A voice from a TV news presenter addresses the viewer/experiencer directly. There are no apparent sounds coming from body parts or objects. The *Virtual Hallucinations* project does not simulate other forms of sensory hallucinations (YouTube, Yellowlees, 2008 [2004]).²⁵ How does *Living with Schizophrenia* compare?

3.5.4 HALLUCINATIONS IN LIVING WITH SCHIZOPHRENIA

3.5.4.1 AT THE DOCTOR

As one sits in an office, waiting for the psychiatrist to appear, the psychiatrist suddenly does so, materialising in front of one by transitioning from invisibility to visibility and apologising for being late (as he had to take a phone call). He continues to shimmer in and out of visibility (Janssen Inc, 2014). Suddenly the room turns dark, as one's head shifts. In a 2000 edition of ABC News 20/20, Dr. Timothy Johnson, medical editor, reports on his experience of the simulation project (YouTube, TheMentallight 2010b). In the report, one can see Dr. Johnson trying on the goggles, and then see what he sees. The animated psychiatrist, sometimes moving, sometimes a still image, asks him: 'Are you are okay? You seem distracted.' The psychiatrist asks if you have been seeing anything unusual, after which the animation of the psychiatrist leans forward and exposes a third eye in the forehead and a deformed mouth. While the image deforms, voices say: 'what's wrong with you', 'you can't do anything'. When the psychiatrist makes reference to sleeping rhythms, evil laughter can

²⁵ This experience is based on personal presence with an avatar. In the video link provided, the experience of the computers experience does not occur.

be heard, while the psychiatrist's face turns demonic, as it is highlighted with the colour red and adopts a malicious expression.

During his experience, Dr. Johnson notes how distracting the experience is, and imagines that, were he hearing and seeing such things for real, he would have a hard time concentrating on what the doctor would be saying to him.

In continuing my view of the version provided by Janssen Inc (2014), one looks back at the psychiatrist, and he is suddenly surrounded by darkness. Out of the corner of one's eye, one can see a spider jump up, and as one follows it, a blackbird flies by, and then bugs crawl over the desk. When one turns one's head, the face on a poster suddenly begins to talk, and transforms into a shadowed silhouette. During this sequence the psychiatrist disappears again, but this time only a silhouette chalk line is left, as if he has become a drawing. This drawing then fades in and out. The face of the psychiatrist leans forward, his face distorts and morphs into distorted features, while a red light glows behind him. When looking at the digital clock, it reads 'run now' and later it reads 'loser'. Then a white light glows from the psychiatrist's back. Suddenly one transforms in height, and one is standing in front of the desk, whilst not being able to view the top. The psychiatrist leans over, looking angry. 'At the Doctor' is rich in visual and audio hallucinations.

3.5.4.2 AT THE PHARMACY

In October 2002, NPR radio aired a report called 'The Sights and Sounds of Schizophrenia', made by Joanne Silberner, in which she shared her experience of a visit to the pharmacy. The experience is different from the visit to the doctor, as the virtual reality world uses film as a medium in which real people act, instead of an animated character (NPR, 2002). In this particular situation, a caseworker takes you, the wearer, to a grocery store with a pharmacy at the back, so that they can refill your prescription. The case worker can be heard saying: 'It's no big deal, everything is going to be ok, just tell them that you lost your pills and you get a refill. I'm going to grab some milk. I'll be back in, like, five minutes. As your caseworker leaves you, you are on your own. On the way to the pharmacy at the back of the store, you pass through the grocery aisles. A mother appears to protect her child when you pass by. As your journey

continues, more people seem to be looking at you. A male voice comments: 'they are watching you'.

Compared to 'At the Doctor', 'At the Pharmacy' contains few visual hallucinations. There is a TV presenter who addresses himself to the viewer. There is one customer in 'At the Pharmacy' who shimmers in and out of existence, like the psychiatrist in 'At the Doctor'. This person switches between a male customer and a female customer. When the pharmacist hands over a bottle of medication, it reads "poison", with the image of a skull and crossbones in an orange triangle. While the person waits at the window, a security camera pops in and out of view. In other versions I found online, a dark ink-like cloud seeps through a ventilation shaft. While the man waits, he looks to the side, and a visual hallucination is simulated in the form of a shape looking like a dark ink-cloud coming from the ventilation shaft in the ceiling. In the meantime, the person hears the voice of the boss saying 'He's out of control again. We should give him the strong stuff. That will take care of him for good. What a loser! Can't even keep track of his medicine.' All the while, the voices are relentless.

A male voice stands out saying: 'she's going to get the poison!'. Another one says 'now' in a malignant manner. Then there's a woman's laugh, which starts out as reasonably normal but transforms into an evil cackle. The boss explains that there is a week left on the prescription, and that they are unsure if the insurance company will allow for a refill yet. The boss comes back and reports that the insurance company will not approve the refill for today (are they working against him?), he needs a prescription from his doctor. The boss says: 'I can call your doctor and see what he can do. Do you have a number where I can reach him?'. In the meantime voices say: don't let him do it!' 'No!, Oh, no, no, no! Don't let him do it!' (Janssen Inc, 2014, and YouTube, Postcardsky, 2009).

Silberner says in her report that 'in the pharmacy, voices jump around you; they're in front and behind and to your left, now on your right. They're persistent, impossible to ignore or filter out.' She also reports: 'From a TV monitor, a man in a commercial yells directly at you: 'yeah you, what are you looking at? You'll never be free!' To describe the difference between textbook descriptions and the experiences, Silberner uses the example of actually 'walking a tightrope 100 feet up, instead of hearing someone describe it.' In the report, Silberner also interviews psychiatrist Sam Keith from the University of

New Mexico, who was medical advisor on the project. He describes his experience as:

For me it was so real that, even though I knew what to expect, I knew from having had thousands of patients describe it to me just what, er, I would be, er, experiencing, when it's real, it's different, it's very frightening, it's very scary, and it was very authentic (NPR, 2002).

By studying the case study simulations, one may attest that great care and consideration went into their designs. The fact that they are highly sought after experiences, functioning for years, shows just how great the need is for better understanding of subjective experiences of psychosis. This popularity also underlines the importance of further developing psychosis simulations and beginning to create a psychosis simulation discourse in which the simulations themselves receive critical analyses. How, then, to analyse the educational quality of the audio simulations? The first method of evaluation is to compare the simulations to the criteria as outlined above. After a general analysis, one may say that the educational quality, with regards to these criteria, is more than adequate, but how to understand if there is room for improvement?

3.6 THE SIMULATION OF HALLUCINATIONS - IS THERE ROOM FOR IMPROVEMENT?

3.6.1 ANALYSIS OF VISUAL HALLUCINATIONS

In the design of *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations*, and *Living with Schizophrenia*, there are various visually hallucinatory experiences. Some contain more than others, but, overall, they form admirable educational tools. Remembering the Queensland University project, Patient C1, on whose hallucinations the project was based, was enthusiastic about the educational potential of the simulation of her experiences with virtual reality, yet she saw much room for improvement concerning the more visceral aspects of the visuals. As an artist who has experienced *Paved with Fear* and *Virtual Hallucinations* at first hand, and has viewed *Mindstorm* and *Living with Schizophrenia* several times, I feel, like C1, that there is room for improvement

in all of the simulations, when it comes to the transference of the subjective experience, or the visceral aspect of the visuals, in an educational context. This can be achieved partly through the use of better actors, better camera technicians, etc. The quality of a simulation, and its subjective transference, is of course, a matter of largely subjective opinion, yet one may illustrate innate differences by referring to a more advanced simulation, such as a scene from the film *Pi* (IMDB, 1998) by Darren Aronofsky (YouTube, ppan2234, 2009). Yet this too is but a subjective perspective. Another way to analyse the quality of a simulation, when it comes to the subjective experience of the simulations, could be to see how the simulations perform in relation to the 'internal vs. external', 'impact' and 'control', by examining the visual narratives of the experiences themselves.

When returning to the question of whether it is possible to simulate the subjective experience of psychotic phenomena, one could question the authenticity of a simulation's ability to transfer emotional experience using visual media, because viewers in a simulation are fully aware that what they see is a fictional and/or artificial world. Before I elaborate on the 'external vs. the internal', or the 'control', I first want to focus on the 'impact'. The impact of any visual experience depends a great deal on the design of its visual narrative. Film theorist Ed Tan explains in his book, *Emotion and the Structure of Narrative Film: Film as an Emotion Machine*, that, according to some emotion theorists, the feeling evoked by an artefact – an image – (or sound) can never give rise to a genuine emotion. Yet, as Tan describes:

Cinema audiences smile condescendingly, titter nervously, and burst out laughing. One and the same film can produce tears of joy or tears of frustration. And then there is that subtle emotion that is a combination of contradictory feelings, like hope and fear, embarrassment and mirth, or pity and gloating (Tan, 2011 [1996], p.2)

Filmgoers experience emotions, even if they know it is not real. How does this work?

According to some film theorists, such as Tan, it is narrative that allows a person to experience emotion. Tan points out that filmgoers do not passively experience the stream of sounds and images reaching them; they single out those aspects that appeal to them. Yet, in any film there are certain events that are more significant than others, and the average audience will probably be of

one mind about which these are. The rationale, he elaborates, is that the film, to the extent that it is seen as a narrative, systematically manipulates fictional situations and aspects of those situations in such a way that they fulfil the requirements for the creation, maintenance and modulation of emotions. 'To narrate is to produce emotion' (Ibid, p.4). But exactly *how* is this created?

A visual narrative may be born much in the way that *Paved with Fear* shows a succession of eyes, from paintings, humans and mannequins, in combination with cameras flashing. How viscerally this narrative is experienced depends on the viewer's interpretation and expectation. A viewer's interpretation may be influenced by artistic interventions. This is the art of transference.²⁶ The quality of transference and the quality of a viewer's interpretation may be influenced by the standard tools of an artist. Think about the work of the Japanese conceptual artist Yayoi Kusama, who transforms a simple circle into plains of highly creative landscapes (Kusama, 2015). Her work is not only made strong by repeating thousands of polka dots in a single installation, but also through other artistry, such as enlargement, very big circles, or contrast (hot and cold colours, complementary colours, or big and small circles). Such tools are used in film as well. Contrasting soundscapes can make an audience jump. Film theorist Greg M. Smith explains in his book, *Film Structure and the Emotion System*, that film achieves emotional effects by creating what is called an array of 'mood-cues' or 'emotion-cues'. Because every person in an audience reacts differently to emotion-cues, filmmakers use an array of cues with the aim of increasing the chance of nudging the audience to a desired emotional experience (Smith, 2003, pp.42-43). A narrative can unfold from a first-, second- or third-person perspective, or several all at once. Emotional tension is often created from playing with these three perspectives. The play between characters determines, to a certain extent, the relative 'impact' of an experience. It is here where I think further development is required, to better portray and transfer the subjective experience of hallucinations. Let me elaborate.

In all of the simulations mentioned above, the camera is positioned where the eyes of the viewer are, filmed solely from a first-person perspective. One would think that a more accurate visual perspective would allow for more

²⁶ Transference, in this context, refers to the empathic transfer of emotions to another person, and not the psychoanalytic term related to 'substitution' and or 'redirection' of childhood emotions towards a therapist.

empathy, but, in order to create more empathy, a contrast is needed between different perspectives. Just looking at the ground from a first-person perspective is not enough to induce emotion; a viewer needs a variety of contexts as to *why* they are looking at the ground. The narrative would need to be enhanced with knowledge about the experiencer in which the viewer is positioned, for a person to connect to the experiencer. To make the connection to the experiencer's perspective more empathic, there would need to be a more skilled play with possible perspectives informing that narrative. The narrative contributes to the strength of the 'internal vs. external'. This may be illustrated by looking again at the case-study simulations. Although 'At the Pharmacy' utilises few visual hallucinations, a pivotal moment is when a mother pulls her child away from the experiencer/viewer. From the expression on the mother's face, one gains a sense of emotional transference of how the experiencer feels, and as such this is transferred to the viewer. As with the voices, without context, seeing a pizza bubble will not have a meaningful impression. Without meaningful context, we the viewer see the pizza bubbling as well, so it is difficult to understand the subjective experience of delusion, unless a second character is present who expresses confusion, and fear that their friend sees things they do not. *Paved with Fear* creates a strong visual narrative by slowing down the frame rate of the camera as it focuses on faces, opening up a single moment of feeling intensely judged. It does not mean that a first-person filmed simulation such as *Mindstorm* does not hold visual clues about how the person feels, these may also be felt by the fast shakes of the camera. Yet, in spite of this, the visceral quality of these visuals still leaves room for improvement.

I would like to argue that the 'internal vs. the external' is strengthened, by using both first-person and second-person camera views, and that as a result of skilled 'emotion-cues', camera work and high-level special effects (like real blood, as patient C1 suggests), one identifies with the movie's first-person character. This strengthens the 'impact' of how real the experience feels. Together they influence the last element, that of 'control'. The nature of cinema allows for minimal control, in the sense that, although deciding to watch a movie is a voluntary act, the way that the narrative is divulged can feel very out of control. One is powerless against the bombardment of images; once engaged in the process of watching, one is completely at the mercy of the film's director. Yet, when the camera does not play with the narrative, for example, constantly

showing the perspective of the viewer/experiencer as first person, an experience can become boring, as it becomes predictable, and, as such, provides a sense of control to the experiencer/viewer. Which of course, for educational purposes, need not necessarily be a bad thing, but when an experience, such as psychosis, is very intense, there is always the danger of misrepresenting it by virtue of the simulation lacking intensity. For instance, a person might think: 'Well that's not so bad', and, as a result: 'Why are they not able to function?', when, in reality, a person's experiences might be so intense that they are paralysed with fear.

3.6.2 ANALYSIS OF AUDIO HALLUCINATIONS PART ONE

Affecting the visceral experience is much easier when it comes to audio than when it comes to a visual experience, as audio affects a person's sensory organ directly, where as the visual is mediated by a screen. Patient C1 was very enthusiastic about the visceral quality of the voices in her simulation. As she observes, they are much easier to simulate than a visual experience of blood. The impact of the audio is, of course, a subjective experience. However, one may judge the impact of a design by collecting the subjective experiences, as others describe them. With regards to 'Living with Schizophrenia', one may revisit the subjective experience of the psychiatrist Sam Keith:

For me it was so real that, even though I knew what to expect, I knew from having had thousands of patients describe it to me just what, er, I would be, er, experiencing, when it's real, it's different, it's very frightening, it's very scary, and it was very authentic.

And of the journalist Silberner, who describes her experience as:

[...] in the pharmacy voices jump around you; they're in front and behind and to your left, now on your right. They're persistent, impossible to ignore or filter out.... 'From a TV monitor, a man in a commercial yells directly at you: 'yeah you, what are you looking at? You'll never be free!'

From this I could conclude that, for these two people at least, the experience had a considerable impact. Even the 'control', or how powerless one is against the experience, may be derived from Silberner's experience: 'impossible to ignore or filter out'. Asking people about their experiences of the simulation is a

very good way to capture the subjective impact. Yet, as an artist I do feel there is still room for improvement when it comes to the visceral. Learning about the significance of audio hallucinations in the experience of psychosis, sound design plays a vital role in any competent psychosis simulation practice. It is therefore important to be critical about the design of audio hallucinations. It is not so much the content, what a voice says, that may be improved, but the *execution* of that content, how it is said, in other words the visceral element. It is, of course, not productive of me simply to claim this. I also have to argue for room for improvement based on facts.

The visceral experience of the audio hallucinations may be improved in much the same way as the visual narratives, by playing with, and combining first-person, second-person and third-person narratives. When thinking about how to simulate voices, I realised that a simulation should not only think about the location of a voice, how often a voice speaks and how many voices there are, if they are male or female, and what they say, but that a simulation should also think about the context and identity of the simulated voices, as that will influence the tactile quality of the subjective experience. How do the voices say something and why do they say it? For instance, voices are often experienced as orders that need to be followed. An example is that of Revered Mr George Trosse, c1690:

At length, standing up before the *Window*, I either *heard a Voice*, which bid me, or *had a strong Impulse*, which excited me, to *cut off my Hair*; to which I reply'd, *I have no Scissors*. It was then hinted, that a *Knife would do it*; but I answer'd, *I have none*. Had I had one, I verily believe, this *Voice* would have gone from my *Hair* to my *Throat*, and commanded me to cut it (as cited in Frith and Johnston, 2003, p.3)

These are referred to as 'command hallucinations' or 'imperative hallucinations' (Blom, 2010, p.46). But in order to understand the subjective experience, one needs to investigate the more tactile aspects. What type of 'command' do these voices have? Are they like a stern parent? Are they militaristic? What guidelines are there to decide how to simulate such things?

In her essay 'Myriad Voices, Myriad Meanings, Review of the Research into Subjective Experience of Hearing Voices', the Australian clinical psychologist Vanessa Beavan defines six themes that have been identified with voice-experiencers. These six themes are useful when considering the context

and content of the design of the voices, as well as an aid to analysing the quality of a simulation.

The first theme she describes is that the content of voices is meaningfully connected to a person's life experiences: '[A] sexual assault victim hearing sexually toned insults or a widow being comforted by her recently deceased husband' (Beavan, 2012, p.147). In the design of the voices, it is important to think about how their content refers to life experiences that are based on the context of life events.

Second, Beavan observes that most voice-experiencers are able to identify their voices. The voices are significant to a voice-experiencer and are often experienced as spiritual, as benevolent guiding spirits or God, or as an enemy or evil demon. When one designs a voice, one could develop the design as a recognisable, iconic and or mystical identity.

Third, Beavan notes that there is a relationship between voice-experiencers and voices that, in a sense, mimics the function of 'real-world' relations. Voices may function in a protecting way, alerting people to danger, or in a soothing way, but also as a punisher or perpetrator. In the design of voices, one must think about a relational function that simulates the functions of real-life relationships.

Fourth, voices have an immediate emotional impact, which might induce anger or frustration, confusion or helplessness, or shame when they interfere with one's work or relationship. In simulating voices, one needs to think about the emotional impact in the design of the voices.

As a fifth theme, Beavan refers to the experience of the voices as being real, with real qualities such as loudness, vividness and acoustic clarity, with typical qualities such as gender, age, tone and accent, with the sensation of being heard by one's own ears. One factor contributing to the sense of reality, Beavan says, is the sensation of the voices being heard against one's own will. One often feels like a victim. When one simulates a voice, one will need to take these qualities of loudness and audible clarity into account. Does a voice whisper as in the example mentioned above, or does a voice yell? And how real are the qualities of the voices to a listening audience?

The sixth and final theme is the development of explanatory models, in which almost every voice-experiencer engages: the reason cited by someone to explain why they are hearing voices. These are often based on spiritual and or

psychological meaning as opposed to being explained as having a biological origin. Voice-experiencers, she says, explain their voices either as the result of the effects of interpersonal trauma, abnormal cognitive processes and disassociated parts of one's self, as well as being connected to God, having psychic gifts, or being in a culturally normal contact with one's ancestors. When voice-experiencers refer to biological models of explanation, they speak about brain dysfunction and the effects of prescribed or recreational drugs (Beavan, 2012, pp.146-152). So, to recap the categories: 1) life-event content 2) identification significance, 3) relational function, 4) emotional impact, 5) tactile qualities and 6) explanatory model. How then do existing simulations, those used in an educational context, perform against these pre-defined benchmarks?

3.6.2.1 ANALYSIS OF AUDIO HALLUCINATIONS IN MINDSTORM

How does 'Mindstorm' perform against the six points made by Beavan? 1) The video shows no direct meaningful references to any apparent life event, meaning that no connection is made between the content of the voices and the experiencer's life story. 2) The video does not present a significant identity to the experiencer, meaning it is unclear if the voices are from the experiencer's mother or father or any other identifiable person. 3) 'Mindstorm' pays significant attention to point three, a functional relation that mimics real-life relations. The voices are protectors and punishers, not soothers. 4) With regards to point four, the emotional impact of the voices, the experience provides emotional impact by using camera movement that mimics the movement of the experiencer. When the weather reporter speaks directly to the person, the camera steps back as if the experiencer is scared, and then moves forward as if the experiencer is curious. 5) With regards to the tactile qualities of the voices, there are some slight variations of whisper and raised voices, but, overall, the voices sound predominantly monotone, as if they are being read from a piece of paper, in a first draft recording. Towards the end of the video, the tactile quality improves.²⁷ 6) There is no apparent focus in how the experiencer places the voices in an explanatory model. The simulation is filmed in such a way that the viewer is the experiencer, but none of the experiencer's thoughts are shared, meaning that, when it comes to points 1, 2, and 6, it is left to the imagination of

²⁷ The quality of tactile design is subject to the subjective experience of the author, and in this the author asks the reader to rely on the author's authority as an artist.

the viewer. No information is given about the experiencer's personal background. A viewer will have to decide if there is a meaningful relation to one's own life events in what the voices are saying; a viewer will have to impart any significant identity to the voice themselves (for instance as being the experiencer's mother), and the viewer will have to generate their own explanatory model of why the voices are heard and how to deal with them. This will determine the subjective emotional impact on a viewer. From this description I would like to assess that *Mindstorm* shows enough diversity to spark educational discussions, but, when it comes to understanding the subjective experiences, there is significant room for improvement.

3.6.2.2 ANALYSIS OF AUDIO HALLUCINATIONS IN PAVED WITH FEAR

How does 'Paved with Fear' perform against the six points made by Beavan? 1) *Paved with Fear*, like *Mindstorm*, does not show any direct meaningful references to an apparent life event, meaning that no connection is made between the content of the voices and the experiencer's life story. One could, however, narrow the focus to the phone call, or the delivery of the pizza, as moments in a life, but that is not what Beavan is referring to. 2) The video does not divulge a significant identity to the experiencer, meaning, as with *Mindstorm*, that it is unclear if the voices are from an identifiable person for the experiencer. 3) Like *Mindstorm*, 'Paved with Fear' also pays significant attention to point three, a functional relation that mimics real-life relations. The voices hold identities that mimic real life relations as protectors and punishers, not soothers. 4) With regard to point four, the emotional impact of the voice. In the video of 'Paved with Fear', one gets a stronger sense of how the experiencer is affected by the voices, by the chaotic way the camera view moves around, which could be interpreted as simulating confusion and/or fear. One also gets a sense of closing oneself off from the world, as the camera is pointed staring at the ground. 5) With regards to the tactile qualities of the voices, the voices sound much less monotonous than in *Mindstorm*, and show more diversity in whispering or in their sense of urgency. 6) There is no apparent focus in how the experiencer places the voices in an explanatory model. Like *Mindstorm*, the experience of 'Paved with Fear' is filmed as if the viewer is the experiencer. As in *Mindstorm* there are no clear references to the personality of the experiencer, meaning that, again, when it comes to point 1, 2, and 6, it is left to the

imagination of the viewer. A viewer will have to decide if there is a meaningful relation between one's own life events and what the voices are saying; a viewer is left to attribute any significant identity of the voice (for instance, as being the experiencer's mother), and the viewer will have to generate their own explanatory model of why the voices are heard and how to deal with them. This will determine the subjective emotional impact on a viewer.

3.6.2.3 ANALYSIS OF AUDIO HALLUCINATIONS IN VIRTUAL HALLUCINATIONS

1) 'Virtual Hallucinations', in keeping with the other projects, does not show any direct meaningful references to an apparent life event, meaning that no direct connection is made between the content of the voices and the experiencer's life story. 2) During the experience of 'Virtual Hallucinations', a voice calls out: 'Join us in the world of the dead'. This could suggest an iconic type of identifiable character for the experiencer, such as 'Death'. 3) 'Virtual Hallucinations' also pays significant attention to point three, a functional relation that mimics real-life relations. The voices hold identities that mimic real-life relations as tormenters, not soothers. 4) With regards to point four, the emotional impact of the voice. As the viewer is responsible for the camera movement, no assessment can be made of any emotional impact on the experiencer. 5) With regards to the emotive qualities of the voices, of all the projects mentioned above, these voices show a strong range of emotive qualities in whispering or their sense of urgency. 6) There is no apparent focus in how the experiencer places the voices in an explanatory model. None of the experiencer's are shared, meaning that when it comes to point 1 and 6, it is left solely to the imagination of the viewer. The viewer will have to decide if there is a meaningful relation between one's own life events and what the voices are saying; and the viewer will have to generate their own explanatory model of why the voices are heard and how to deal with them.

3.6.2.4 ANALYSIS OF AUDIO HALLUCINATIONS IN LIVING WITH SCHIZOPHRENIA

When studying 'At the Doctor' and 'At the Pharmacy', and comparing them to the six points brought forward by Beavan, I can say that with regards to point 1),

much like the other simulation projects, no meaningful life event is referenced, other than the moment of going to a pharmacy or to a doctor. With regards to point 2), there does not seem to be any iconic identifiable character in either of the two experiences. Taking a look at point 3), the two experiences do well on the real-life relations of the voices. In 'At the Pharmacy', there are only severely punishing voices. In 'At the Doctor', voices are predominantly protective and paranoid. With regards to point 4), one gains an idea of the emotional impact brought about by the constant moving of the camera view, as confusion, as disorientation. As the psychiatrist comments, 'you seem distracted'. With regards to point 5) both do well when it comes to 'range of qualities'. as one finds classical music, as well as haunting and eerie akoasms of wind, laughter and radio transmission. All experiences carry multiple voices that are both male and female. The voices range from cautioning, taunting and being repetitive, to being fearful, desolate and paranoid. They range in intensity from hushed whispers to loud yelling. They include random commenting, as well as commenting on what a person is doing. With regards to point 6), I found it hard to discern if the hearer places the voices in any explanatory model. It is, of course, entirely possible that the creators have deliberately left out any information, with the aim that a wearer has to create this for oneself, and, to a certain extent, this can be argued for, but the experience of a wearer does benefit from cues from background narratives. By studying Beavans' six points, a more elaborate method is created to analyse areas for improvement within audio hallucinations.

3.6.3 ANALYSIS OF AUDIO HALLUCINATIONS PART TWO

Another method that I used to analyse the quality of a simulation was by investigating how experiencers describe their experience. When people describe their experiences as 'intense', or feeling 'over stimulated', one relies on one's own imaginative skills. But imagining what it feels like to hear voices is challenging, as one relies on one's own ideas of what 'intense' 'over stimulation' actually means. In order to consider the visceral accuracy of the simulations, I turned to descriptions by Elyn Saks of her personal experiences of psychosis in her autobiography:

Imagine yourself sitting in a room, then turn on the stereo, the television, a loud video game simultaneously, then invite a bunch of ice-cream-eating toddlers, then turn up all electrical appliances and take away the ice cream from the children, and then imagine that this would continue day and night (Saks, 2007, p.249, free translation).

This describes a very intense experience that for me went beyond what I first imagined. Another way I investigated how audio hallucinations feel like was to study simulations made by those with lived experiences. To understand just how tense that experience sounds like, I searched YouTube, 'what does it feel like to hear voices?', and I came across some interesting videos made by those who have experience with voices. One example I'd like to mention is *Schizophrenic Simulation* from *Crap*, who comments under his self-made video: 'What my voices sound like when I am without medication for a week or so' (YouTube, Crap, 2010). Another example I found in a video *What's it like to hear voices?* by Katy Gray (Youtube, Katy Gray, 2012). By comparing the audio of these self-made simulations and Saks' description, one may ask: do the existing simulations reach that quality of experience, that same intensity?

The answer to the question above, I would venture, is equally 'yes' and 'no'. The sounds in the simulations were at times chaotic and intrusive, but in most of the simulations, the sounds were edited one after the other with only a few moments with overlapping sound layers, hardly giving the impression of senses being overwhelmed as described by Saks, or simulated by Gray. This does not mean that the simulations are not inaccurate. Some voice hearers will hear only a monotone, singular voice, but when used in an educational context, that takes the range of possible subjective experiences into account, meaning a simulation of psychosis should take into account all levels of intensity.

3.7 ROOMFORTHOUGHTS AND THE SIMULATION OF HALLUCINATIONS

Before I learned about the projects *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, I had created the first two case studies based on my interactions with my sister-in-law and the information I found in the first publications I read. Both the *Suicide Pigeon* and *Intruder* art installations were created in the first three months of the first year that I began

this thesis. After learning about the psychosis simulation projects, I created *Intruder 2.0*. How do my own simulations compare?

3.7.1 HALLUCINATIONS IN SUICIDE PIGEON

Suicide Pigeon did not embed any hallucinatory visual experiences in the sense of a pizza bubbling, or a third eye appearing in a face. In that sense one could immediately brand it a failure. However, as stated above, a simulation does not need to be an accurate copy, and, in this particular investigation, I have been much more interested in simulating the subjective experience, investigating what it feels like to hear or see things that others do not. One of the reasons for making the walls of *Suicide Pigeon* out of thin tracing paper was for the rustling sound, amplified as a visitor walked by, moving air, moving several walls at once. I was curious about what the associations of the visitors were with regard to the sounds and the materials of the paper. Would they consider them as whispers or voices?

N= 111 (N = amount of questionnaires)


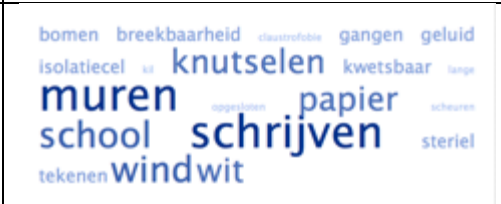
ASSOCIATION WITH THE SOUND	ASSOCIATION WITH THE PAPER
 <p>A word cloud showing associations with the sound. The most prominent words are 'wind' and 'zee' in large blue font. Other words include 'bomen', 'muziek', 'regen', 'stille', 'storm', 'hard', 'eng', 'geeluiden', 'plastic', 'papier', 'hoofd', 'lucht', 'achtervolging', 'angst', 'bladeren', 'eenzaamheid', 'rust', and 'storm'.</p>	 <p>A word cloud showing associations with the paper. The most prominent words are 'muren', 'schrijven', 'papier', and 'windwit' in large blue font. Other words include 'bomen', 'breekbaarheid', 'gangen', 'geluid', 'knutselen', 'kwetsbaar', 'school', 'steriel', 'tekenen', 'isolatiecel', 'lange', 'scheuren', 'opgeblazen', and 'stief'.</p>
Wind, sea, trees, rain, silence, storm, rain, music, scary, hard, loneliness, chased, fear, leaves, air, etc.	Walls, writing, paper, white, school, wind, crafts, isolation cell, vulnerable, breakable, trees, etc.
Standard Deduction 'on'	Standard Deduction 'on'

TABLE 1

The feedback from experiencer/users/audiences and visitors was important to me as it helped me learn if the subjective experiences that I aimed to create

were actually being interpreted, or transferred as such. The paper material made it to the top 20 of associations as being vulnerable, and breakable, so that aspect of my intention was successful. The aesthetic of the isolation cell was transferred to the visitor as well, but when asked what the visitor associated with the sounds, most would relate the sounds to the sea, rain, or the wind rustling through leaves, while others would describe the sounds related to a uterus (No. 13) or to wrapping a present (No. 56). Not a single person associated it with voices or whispers, but somehow they did seem to grasp why I used the sound.

The visitors were asked why they thought the artist used this sound in the work. One visitor said it was because it is a 'strange noise' (No. 43) or a 'lonely noise' (No. 44) or because it is a 'mysterious noise, you hear it everywhere and it drives you mad' (No. 55). One person described it as: 'crackling in your head, like a thought that walks around in your head' (No. 22), a description that for me (an artist searching for the physics of thought), was a precious gift. Others answered: 'to create an experience as if one is surrounded' (No. 4), another answered to create: 'a sensation of being watched' (No. 9), 'that you are not alone, and again as if you are being chased' (No. 83). And: 'As something mysterious, being somewhere, where you are not' (No. 90) to 'being lonely' (No. 14, 50, 65 and 64) to create a 'creepy effect' (No. 46), 'full of fear' (No. 50, 72, 75 and 96) and 'tension' (No. 101).

The value of the experience of *Suicide Pigeon*, in relation to what it feels like to be in psychosis, became apparent to me when I investigated the emotional transfer of the sounds. Some associated the sounds to feeling: 'as if something dangerous was approaching' (No. 2), or 'being chased, having no freedom' (No. 4 and No. 90) or 'a haunted house, as if someone was with you' (No. 5), 'that there are others' (No. 7), 'approaching you' (No. 47 and 98), which people associated with: 'a sense of loneliness' (No. 50, 60 and 64) 'escape' (No. 103) or 'paranoia' (104). Even if not a single person related it to whispers or voices, from their associations I learned that, at least for some, the experiences showed a close connection to feelings that are quite particular to psychosis, such as feeling haunted, or paranoid, or pursued. For the next work, I wanted to create a work in which the sound was more intense. I wanted to see if that would make a difference.

3.7.2 HALLUCINATIONS IN INTRUDER

Like *Suicide Pigeon*, *Intruder* contained no audio or visual hallucinations. When creating *Intruder* I attempted to make the sound of the paper more prominent. That I was successful in this is something I might deduce from how the visitors reacted. When asked what stuck with the visitor the most, the top two words in their answers were ‘sound’ and ‘paper’.

N=232

WHAT STUCK WITH YOU THE MOST?	DID YOU EXPERIENCE FEAR?
	
<p>paper, sound, white, spiral, photos, hallways, feeling, rustling, maze, small, people, beautiful, narrow, space, made experience, light, white, TV, smell</p>	<p>no, not, fear, yes, a little, etc.</p>
<p>Standard Deduction ‘on’</p>	<p>Deducted words: dat de door doordat een en er het hoe ik in je maar omdat op te van was</p>

TABLE 2

As I created a much darker experience, I wondered what the effect would be. When asking the visitors if they experienced fear, the dominant answer was ‘no’ or ‘not’, but there were some people that actually did experience fear-related emotions: ‘Panicky, a kind of attack that could be subdued, warm and suffocating’ (No. 14), ‘Panic, where am I, how long will this take’ (No. 50). ‘Not fear, but something suffocating, like the beginning of panic’ (No. 65), horrible terror (No. 71), yes, a type of infinite feeling of paper, which I found very scary’ (No. 73). ‘At the moment I felt someone, but could not see them’. (No. 199).

N=232

ASSOCIATION IN ROND	ASSOCIATION WITH THE COLOUR WHITE
Curious, curiosity, fun, a little suffocated, exciting, surprised	Clean, snow, light, sterile, paper, purity, rest, clouds, hospital, bright
Standard Deduction 'on'	Deducted words: dat de door doordat een en er geen het hoe ik in je maar omdat op te van was

TABLE 3

When I asked about associations with the colour white, the most common answers were: 'light', 'clean', 'snow', 'sterile', 'purity', which from a Western cultural perspective is not surprising. When the visitors were asked what their associations were while walking around in the structure, the top answers were: 'curious', 'curiosity', 'exciting', 'suffocated', but also 'fun', 'funny', and 'surprised'.



I could still rightly criticise *Suicide Pigeon* for not simulating hallucinations, such as voices, but, in essence, I thought, from an educational perspective, there is the opportunity to hear voices, due to the fact that when other visitors walk around in the labyrinth, they talk to each other. As such, one hears unpredictable voices - being there, but not there - and, as such, this may contribute to the experience of a simulation of disembodied voices. Along similar lines, I could argue that the transparency of the paper allowed for a sensation of other people in the work being perceived as phantoms, which fit early descriptions of hallucinations as 'ghosts in the night'. In video documentation of *Suicide Pigeon*, one can see a person walking past at 3.21 mins (Jennifer Kanary, 2010 [2006]).

This makes it problematic to assess my first two case studies and their simulation of the phenomenon of hallucinations, as there are simply no

deliberate simulations of hallucinations present. In an attempt to analyse the works using the methodology mentioned above, I could first look at the internal-external and conclude that the sound of the paper may be considered, in some instances, to be an appropriate external stimulus, and perhaps even as an internal stimulus. Even if it does not simulate voices, one person did describe it as 'crackling in your head, like a thought that walks around in your head' (No. 22), which brings me to the 'impact', or the subjective experience and how powerful or real it seems. This is difficult to discern, as I did not ask the visitor appropriate questions to determine this, with regards to 'control'. I feel that, given the very nature of the structure of a labyrinth, one can have a sense of loss of control. I could also look at the sound intensity and or how it might affect one's concentration, and in this it would not score well, nor would it score well on the play of narratives. How does the work hold up against the six points made by Beavan?

Even if there are no voices, I could make an attempt to briefly analyse the work against her six points. With regards to point 1), a meaningful life event, I feel there are two elements that point to this. The first is the pigeon in relation to a potential suicide attempt, which is embedded in the title of the work as well, and the second relates to the video loop of the hallway. Together, they direct us towards a dark life event, one that the very structure somehow could be seen to encapsulate and protect from. With regards to point 2), I'm not sure one would be able to link it to any iconic identity, other than, for instance, Mother Nature, with all the natural sound associations. With regards to point 3), it is just as unclear, unless one would consider the images of my sister-in-law and her mother within the work. Does an association with Mother Nature form a functional relation? With regards to point 4), the emotional impact, I did attempt to capture the associations of the visitor as they were walking in the labyrinth, as well as when they came out.

N=232

ASSOCIATION WHILE WALKING AROUND	ASSOCIATION AFTER COMING OUT
	
curious, weird, funny, tense, exciting, fear, fearful, feeling, lost, confused, creepy, go	relieved, fun, funny, weird, happy, good, found, exit
Standard Deduction 'on'	Standard Deduction 'on'

TABEL 4

There seemed to be a strange mix of emotions, ranging from curious, weird, and funny to scary, while visitors were in the work, and above all they were relieved to be out, although others came out reporting a fun experience. With regards to point 5), the work is pretty unsuccessful as there is no range of tactile male and female voices, unless one considers the voices of other visitors as sufficient diversity. With regards to point six, or how an experiencer places the voices in an explanatory model, this is difficult to answer. From that perspective, perhaps the very structure of the labyrinth forms an explanatory model in itself. After this analysis, is there anything embedded within this work that might contribute to the improvement of existing simulation practice?

When taking a closer look at the reactions of the visitors, they were asked: 'What does this sound remind you of?' The reactions come closer to what I imagine it can feel like to be in psychosis than I initially thought. From studying the existing simulations, from reading biographical texts, from speaking to those who have experiences, I learned one more aspect that needs to be taken into account when simulating hallucinations. Lacking in *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, it lies in the contrasting experiences for the visitors, of being fun or scary.

When simulating psychosis in an educational context, I learned that it is misleading when one only focuses on the elements of fear, such as describing

a simulation like *Paved with Fear*, as many people have very positive experiences in psychosis, as one person recalls:

Suddenly my whole being was filled with light and loveliness and with an upsurge of deeply moving feeling from within myself to meet and reciprocate the influence that flowed into me. I was in a state of the most vivid awareness and illumination (Torrey, 2006 [1983] p.11).

And another person explains:

I was in a higher and higher state of exhilaration and awareness. Things people said had hidden meaning. They said things that applied to life. Everything that was real seemed to make sense. I had a great awareness of life, truth, and God. I went to church and suddenly all parts of the service made sense. My senses were sharpened. I became fascinated by the little insignificant things around me....I could see more deeply into problems that other people had and would go directly into a deeper subject with a person. I had the feeling I loved everybody in the world (ibid).

I learnt from talking to many people that the state of psychosis may often begin in a very pleasant manner. Is that why it is so hard to recognise? I never knew it could be pleasant.

In his book *Psychose Zonder Psychiatrie* (2000) (free translation: *Psychoses without Psychiatry*, the psychologist Thomas Bock suggests that the reason why fear and terror are considered the dominating emotions in psychosis is because people with these experiences tend to end up in the psychiatric system. Bock suspects that about 50% of people experiencing psychosis do not end up in the psychiatric system, and that this is in part due to chance and avoidance, but predominantly due to positive experiences. If you are not suffering, you do not seek help. *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia* all focus solely on the negative experiences, and, while there is no doubt about how experiences can be absolutely terrifying, if one wants to provide accurate education, it is problematic to focus only on negative experiences, as this provides a distorted view on what psychosis can be. In order to understand better the experience of psychosis, one would have to create an experience that has the potential to hold both spectra of Fear and Ecstasy. It is here where I began to feel that my research could make a contribution to fostering a better understanding of the subjective experience of psychosis. The fairy-tale-like complexity of beauty and

fear that I found expressed in the drawings that Jannemieke Tukker introduced to me inspired my next case study, *Intruder 2.0* in which I began to investigate how to simulate a delusion.

3.8 SUMMARY

In this chapter I have attempted to understand if it is even possible to simulate hallucinations, and, if so, what needs to be taken into account, and, further, how to analyse the quality. With regard to visual hallucinations I explored the evolution of various general definitions, and put together a brief taxonomy of visual hallucinations. I used the definition from Bentall and Slade to explore the 'internal vs. the external' (appropriate stimuli), the 'impact' and 'control' of the subjective experiences. I summarised visual hallucinations present in the case study simulations, analysed their educational value and made suggestions for areas for further development in connection with visual narratives, and enhancing the educational quality of the visceral experience of visual hallucinations.

With regards to audio hallucinations, I learned that voices may have a static or dynamic design, that they may or may not be inextricably linked to the position of a listener, and that they may be perceived as being located in one's body, emanating from one's head, or from other body parts; and may be perceived as being outside of one's body, emanating from objects, walls, ceilings, as well as from media such as the radio. Voices may be female, male, and alien, from someone one knows, or from a stranger. I also learned that when simulating audio hallucinations I should consider a design that will both facilitate and direct how the voices are experienced, taking into account: 1) how a voice contains a meaningful connection to an experiencer's life events; 2) how a voice conveys a significant identity to an experience; 3) how a voice forms a functional relation; 4) the emotional impact of a voice on an experience; 5) the range of tactile qualities of voices and, finally; 6) how an experiencer places the voices in an explanatory model. I learned that when a simulation is used in an educational context, it is important that it is qualitative in its potential diversity, meaning that if a simulation only holds a single voice repeating one word, the

simulation provides a limited educational view on what it can be like to hear voices.

With the creation of my installations, I learned that they are capable of generating contrasting emotions in the visitor. I learned that my work generates a broad spectrum of subjective experiences, which may aid in understanding that psychosis can be about beautiful and frightening experiences at the same time. I learned that sound forms a powerful tool in atmospheric interpretation, which is not surprising in the sense that film also relies heavily on soundtracks to set a mood, but surprising in the sense that people would interpret the simple sounds of rustling paper with such diversity or intensity. I learned that when it comes to the simulation of hallucinations, there was much to be improved in my work, yet the first case studies were more successful than I thought.

4 SIMULATING DELUSIONS - THE TV IS TALKING TO ME!

If God manifested himself to us, he would do so in the form of a product advertised on TV – Philip K. Dick (YouTube, NDA, BBC, 2014, 5.17 mins)

Every sound summons up within me the impression of a human voice, so that I often have the feeling that lifeless things are talking to me. Torquato Tasso (as cited in van den Bosch, 1993, p.53, free translation)

As with hallucinations, delusions are considered a ‘first-rank symptom’ of psychosis (Frith and Johnstone, 2003, p.34, p.37). But what exactly *is* a delusion? And is it possible to simulate one? This chapter investigates what delusions are considered to be, and how they are formed. As with the chapter on the understanding of hallucinations, I will begin by investigating how a delusion is defined and how it is categorised. I will then explore the delusional experiences of a boy named John, in search of clues that could inspire further development of the design of a simulated delusion. I will then analyse how delusions are simulated in the existing simulation projects *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, by looking closely at how the ‘classic’ delusion of receiving messages via popular media such as newspapers and television is simulated. I will then touch upon the relationship between creativity and psychosis, which forms the basis of a tool to analyse the existing simulations. This chapter then continues by introducing how, on the one hand, I began to simulate hallucinations using technology, as well as making an attempt to simulate delusions with the work *Intruder 2.0*. The chapter continues with a thought experiment that I designed, based on what I learned about how delusions function, to accompany my workshops, which also aid in the understanding of the experience of a space through the perspective of the mental state of psychosis.

4.1 WHAT ARE DELUSIONS?

Delusions are usually described as having idiosyncratic beliefs that are maintained despite being contradicted by reality or rational argument. Over the years, delusions have been categorised in different ways. Initially they were categorised by having shared content, an example being the belief that one had been transformed into a wolf; this was labelled a 'delusion of lycanthropy' (Radden, 2010, p. 17, Kindle version loc 548 of 3102). Delusional beliefs may be unwavering in one individual, and have gradients of conviction in another (Torrey, 2006, p.32). Delusions have therefore been categorised in relation to the 'tenacity with which delusions are held in face of countervailing evidence', as well as according to degree of believability, 'untrue, implausible or impossible' (Radden, 2010, p.17). As such, delusions have been categorised as being 'bizarre' and or 'non-bizarre' by the DSM-IV:

A non-bizarre delusion may involve situations that in principle could occur in real life but are thought (by the psychiatrist) to be highly improbable and therefore potentially falsifiable; a bizarre or fantastic belief, however, is considered impossible and therefore assumed to be one not normally held by others in the culture or society (as cited in Bell et al, 2003, p.2).

Besides having a similar culturally related content, delusions are also categorised by shared themes. For instance, there are hypochondriac delusions, and there are delusions involving jealousy and delusions involving the self (Radden, 2010, p.17). A prominent delusion involves narrative that is related to one's thinking, one example being the belief in 'thought insertion': either that others can insert thoughts into your brain, or that you have the ability to insert thoughts into the brains of others (Frinth and Johnstone, 2003, p.36). One example may be found in the following description:

I like talking to a person but not in audible words. I try to force my thoughts into someone. I concentrate in my head. It's thought you're passing over. I send the messages by visual indication. Sometimes the shoulder, sometimes my whole body (Torrey, 2006, p.30).

Another person explains:

I was really upset the other night because the people on the news were saying what my thoughts were. I know this is true because they sent me messages on what they were doing. I hate it when they can tell my thoughts to everyone who is watching them. I also hate it when people can hear my thoughts and know everything about me (Torrey, 2006 [1983], p.31).

Perhaps the most famous delusions are 'paranoid delusions'. These may involve a conviction that one is being watched, followed, persecuted and/or attacked (Torrey, 2006 [1983], p.28). There is often the fear of being poisoned (Frith and Johnstone, in reference to Doody, 2003, p.9). One man recalls:

It became my fixed conviction that in some way I have been receiving harmful material that must be pushing these symptoms of illness forward. Suddenly it became my one and only conviction that I was being poisoned (van den Bosch, 1993, p.92, citing Lijten, 1887, free translation).

Many paranoid delusions revolve around being controlled, often involving scientific themes related to electricity (Frith and Johnstone, 2003, in reference to Doody, p.8). Delusions about being wired or controlled by radio occur relatively frequently (Torrey, 2006 [1983], pp.27-28). One person explains:

It was as if I had telephone lines running from my chest. In the beginning I was sometimes even foolish enough to check my shirt to see where it was coming from, to check if there was a microphone or something (van de Bosch, 1993, p.32, free translation).

The sensation of wires running through ones chest, is perhaps best illustrated in a work by the outsider artist Jakob Mohr:

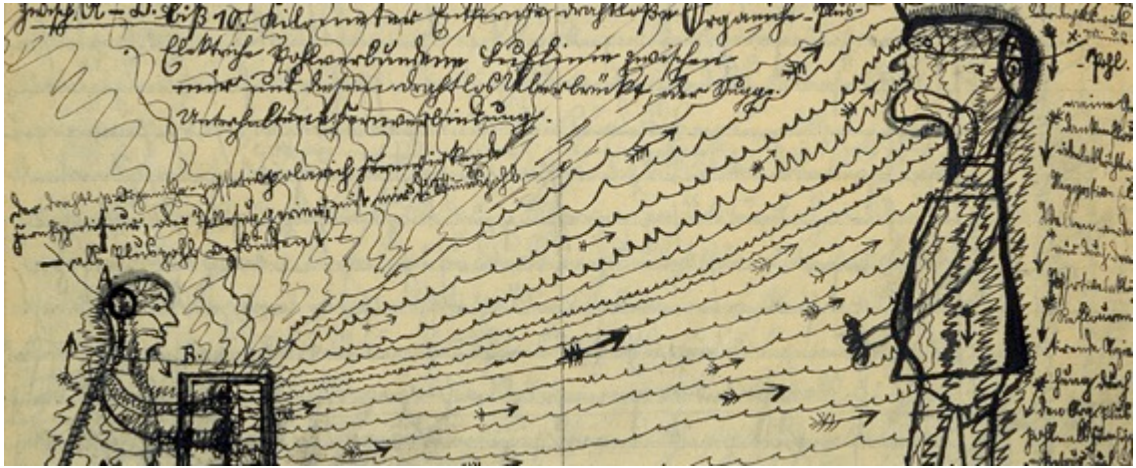


IMAGE 5 – Jakob Mohr, *Beweisse* (1910), Prinzhorn Collection (Busine et al., 1996, p.146) . Prinzhorn collection. Published with permission.

Art invites a personal interpretation. For me the drawing not only illustrates a literal experience of wires running through ones chest, but it also illustrates for me how I sometimes feel entrapped in my actions with others, as if I am a puppet to invisible strings of outside influences, in the sense that I cannot escape the influences of things my friends say. I link these threads to my own illustrations of how thoughts behave and connect in my work 'Entangled'.

In 1903 the German judge Daniel Paul Schreber (1842-1911) described being in contact with God through his nervous system, and thus connected to all other souls:

With my mind's eye I see the radiation, which at the same time carries the voices and the corpse poison that must be poured over my body, as lengthy elongated threads that run from some kind of distant location on the horizon towards my head (as cited in van den Bosch, 1993, pp.41-42, free translation).

At first such concepts seem impossible to understand, until I realize that there is perhaps truth to such statements, in particular if I view the concepts as poetic representations, I can imagine that to be a human soul is to be free, but to be a physical human body requires oscillating particles or substance (which could be considered as poisonous), that pours into the human form to sustain it, in this case directly from God. Torrey says that 'in evaluating delusions, it is very important to keep in mind that their content is culture-bound' (2006, [1983], p.31). Meaning that person born in a religious monotheistic culture will much sooner have a God related delusion, but also that a delusion is often bound to

the zeitgeist, scientific knowledge or technological developments. This can be found in delusions that are described as 'delusions of grandeur', in which a person might attribute special powers, as one person elaborates:

I felt that I had the power to determine the weather, which responded to my inner moods, and even to control the movement of the sun in relation to other astronomical bodies (Torrey, 2006 [1983], p.29).

A person may also ascribe a certain importance to themselves:

I once believed that I was in the process of making a gigantic film of which I was the star. Everywhere I went in London there was a hidden camera and microphone and everything that I said and did was being recorded (Torrey, 2006 [1983], p.29).

Delusions of grandeur often revolve around the belief of being someone important, such as the resident of The United States or a biblical figure like Jesus or the Virgin Mary (Torrey, 2006 [1983], p.29). Delusions of grandeur often involve convictions of being a hero or messiah (Perceval, 2004, [1840], p.133, Muntjewerf, 2011, p.21, Frith and Johnstone, 2003, p.8). Delusions of grand importance may often lead to 'delusions of guilt' (Randal, 2012, p. 59, Perceval 2004, [1840], p.133). Pamela Spiro writes about her experiences in the book *Divided Minds*:

Then I understand: the whispering people, the bits of music, the sound of footsteps, and President Kennedy, shot dead, dead, dead! It's obvious isn't it? / killed him! I'm to blame! Isn't that what it's all about? Isn't that what they are saying, the whisperers? (P. Spiro and C. Spiro, 2005, p. 32):

The descriptions mentioned above provide much inspiration for the content and context of a delusion, but they reveal little about how a delusion takes form or is maintained, other than that there is a cultural connection, this is something one needs to understand better in order possibly to be able to simulate it. How do such notions arise? Answers to these questions may be found by reading autobiographical descriptions. One example is the story of John Wraphire.

4.2 THE STORY OF A DELUSION

Delusions do not usually happen overnight. In many cases delusional thinking might take a long time to form. The development of psychotic phenomena often manifests in the years of adolescence. Such was the case with John Wraphire. John describes his experiences in an autobiographical essay called 'Deluded Loner' (Wraphire, 2012, pp.157-164). When John was 18, he began to follow religious teachings. After about six months, he was inspired by one of the Bible's verses (Luke 12: 32-33):

Have no fear...because your Father has approved of giving you the kingdom. Sell all the things that belong to you...Make a never-failing treasure in the heavens (as cited in Wraphire, 2012, p.160).

This is when he decided to erase all the data on his computer and discard most of his possessions and childhood memorabilia. He erased the past, as it were, moving forward with only a backpack, two sets of clothes, and the Bible. This could seem like a healthy liberating act of an adolescent becoming aware of his own material footprints, which could be admired, were it not for the fact that John then began to live in his cupboard. Why did he do this, and how did this begin?

The reason why he crawled into a cupboard was because he wanted to erase the chance that the noises he made might be carried through the walls. John lived in the cupboard for three months, only coming out to eat and to go to the bathroom. At the time, John was living with his mother, but a few weeks after his 19th birthday, following arguments with her about his lifestyle, John moved out. In his new place he arranged everything to minimise the making of sounds. He would, for instance, put his mattress against the wall. Why was he afraid that his noises would carry through the walls? In his essay, John describes the beginning of his delusions:

In my case, I interpreted [...] subtle human actions as messages, such as the sound of a person moving a chair, a person moving a body part in my direction, a brief glance at me, a cough, or even the sound of swallowing (Wraphire, 2012, p.159).

Noises began to play an important role in his system of interpretation. He associated external sounds with ways of comparing himself to others; he

associated the chirping of birds with attractiveness, cars passing and keys jangling with financial wealth, and the sound of a train passing with employment status. John calls these sounds 'third party sounds', which for him formed a level of communication that was judgmental in nature. He thought that everybody communicated like this:

[...] I thought it reminded us both of attractiveness and I thought we were both comparing our attractiveness against each other. [...] I thought all socially aware people made these associations. I thought everyone thought the same way I did (Ibid, p.160).

John elaborates on how he interpreted these actions as suggestions of 'I'm better than you', which he now relates to his past sense of inferiority and difficulty making friends. When sounds stood out as irregular, they became meaningful, that is why he endeavoured to keep his own sounds at a constant level, to minimise the chances of them being interpreted as messages. John refers to these sounds as 'suggestive actions'. As sounds were always present, and people always somewhere nearby, communication occurred almost continually for John:

People were constantly comparing themselves against me. People's thoughts were no longer private. People often revealed the cruel things they were thinking about me. I had been communicating with people in this way for around three years. I knew if I couldn't hear or see people then I couldn't receive their messages. I contemplated damaging my hearing and sight to achieve this, though I never did (Ibid, pp.161-162).

This is why John searched for ways to hide the sounds he made at home. He was afraid of offending his neighbour. His neighbour was African, and John was convinced that if he made a sound (a suggestive action), at the same time as a car passing or a toilet flushing (third party sounds), it triggered the association that 'Caucasians have been technically advanced', and thus would carry the message 'Whites have been more technically advanced than you' (Ibid, p.160). To feel at peace, John would turn on his TV to the loudest white noise, wear earmuffs and wrap a blanket around his head (Ibid p.162).

John has a clear notion of what his delusions were, what caused them and how they were treated. In his essay he describes that he had a rough childhood in which contact with his parents was minimal. They moved around a lot, making it hard for him to make friends, leaving him awkward and afraid to

talk to people. John thinks that if he had spent more time with his family, he would have developed the social skills needed to make friends. John is convinced that if he had learned to communicate better as a child, his ideas would not have remained so inaccurate and unverified for so long (Ibid p.164).

Whether the content of a delusion is bizarre or non-bizarre, a delusion might seem impossible to simulate. How, then, to simulate a belief? The difficulty of understanding delusions is that they are closely linked to hallucinations. To begin to understand how a delusion may be simulated, I again investigated the simulation projects *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, with a particular focus on delusions that involve media.

4.3 THE TV IS TALKING TO ME!

The fundamental function of media, such as newspapers, radio and TV, is to send viewers messages. These mechanisms are designed with this sole aim in mind and created in such a way as to perform this function as efficiently as possible. Using programmes and advertisements, messages are sent either to persuade you to buy products or inform you of the state of the world. In psychosis, however, the messaging somehow takes on 'a life of its own'. It becomes an experience in which it feels as if media are communicating to you directly. One person describes this experience:

There was something not right with newspapers, they were printed especially for me. The radio was not broadcasting the right programmes, but ones that were meant especially for me. It was the same with the television (Wing, 1975, as cited by van den Bosch, 1993, p.76).

Such an experience may be very troubling, as another person, Ken Steel, describes. When he was fourteen years old, he came home from school one day and began to hear voices on the radio speaking directly to him and about him. The voices on the radio commanded him to hurt himself, they were predicting his death and telling him how he could electrocute himself, burn himself or make himself explode (YouTube, TheMentallight, 2010a, 2.04 mins). Apparently, experiences of feeling that one is being spoken to or controlled by radio occur relatively frequently (Torrey, 2006 [1983], pp. 27-28). 'Occasionally

such individuals call or go to the radio or television station and ask them to stop broadcasting their thoughts. A 1999 study of radio and television stations reported that such contacts are relatively common' (Ibid, p.31). Psychotic experiences, in general, often seem to revolve around themes related to (electrical) media (Frith and Johnstone, 2003, p.8). How do the existing simulation projects simulate this phenomenon?

4.3.1 MEDIA DELUSION IN PAVED WITH FEAR

Paved with Fear simulates a 'the TV and newspaper are talking to me' experience by using software to trigger a camera to take a picture of a person while they are in the simulation. This picture is then repositioned within the film, in the shot of a newspaper carrying the headline 'Police arrest suspect in family horror drama', and in a news report about this drama. It is left to one's imagination that one is guilty of the family horror drama. As an artist I began to wonder: do people who are in psychosis literally see pictures of themselves in the paper or in the news? Or is something more subtle occurring?

4.3.2 MEDIA DELUSION IN MINDSTORM

Mindstorm simulates media as communicating to a person by showing a newspaper with the headline 'Man wins Lucky Lotto', which later reads 'Don't Leave the House' and 'renew prescriptions'. A man's portrait is first printed as laughing, and is later printed as looking serious. When the TV reporter delivers a weather report, the actor turns to the main character and addresses him or her directly as worthless. Again, after seeing this representation of the experience, I again asked myself: do people in psychosis see completely different headlines switching at different moments? Do people literally see a TV reporter turning to them to address them directly? Such narratives belong more in the realm of horror movies! Such an experience is indeed hard to empathise with.

4.3.3 MEDIA DELUSION IN VIRTUAL HALLUCINATIONS

The *Virtual Hallucinations* project on *Second Life* simulates 'media talking' with an animation of a folded newspaper lying on a table in one of the rooms in the hospital. As an avatar approaches the table, one first sees the newspaper as

'normal', with the headline 'Reagan Death Shakes Nation', then everything in the newspaper fades, only the word 'Death' remaining. In the room with the gun and library, there is a TV; as an avatar approaches the TV, a male voice accuses the avatar of being the most worthless person in the world and insists that he will not have one contaminating his society. The voices then tell the avatar to: 'shoot yourself'.

There is a subtle, yet important difference in the way that the messages in the newspaper are simulated. In this case, the word really exists; it just becomes more meaningful as all the rest disappears. But yet again I asked myself: do people literally see words disappear in a newspaper, leaving only one word? And do people really hear such direct voices coming from the TV, or again, is something more complex happening?

4.3.4 MEDIA DELUSION IN LIVING WITH SCHIZOPHRENIA

In *Living with Schizophrenia*, attention is paid at certain intervals to this particular experience as well. In 'At the Doctor's', while the person sits at the desk, the clock radio communicates 'GO NOW!' and 'LOSER'. In 'At the pharmacist', a TV reporter directly communicates from a TV:

Buddy. Ya you. What are you looking at? You'll never be free. They're going to put you away for good. You're a waste of oxygen, man. I mean, who are you trying to fool? Look at you. They knew you're a parasite. They know you're not serious about getting better (Janssen Inc, 2014).

A security TV tells you to look up. Whereas I can imagine the numbers of a clock radio being misinterpreted as text, I wonder how literally a person turns to you and begins to speak in such full sentences, or is there something more going on that would make a person interpret the media in this manner? In any case, I began to understand the complex relationship that hallucinations have with the formation of a delusion.

4.4 THE SIMULATION OF DELUSIONS - IS THERE ROOM FOR IMPROVEMENT?

4.4.1 LITERAL VS METAPHORICAL

One of the reasons I found it important to ask these questions and look at the accuracy of how these simulations simulate the sensation of media communicating with you is because I found the diary of a girl named Renee, published in English in 1951. In *Autobiography of a Schizophrenic Girl*, Renee explains how, in early childhood, her friend suddenly appeared like a lion: ‘Once more my playmate became strangely transformed and, with an excited laugh, once more I cried out, ‘Stop, Alice, I’m afraid of you; you’re a lion!’ (Sechehaye, 1994 [1951], p.23). If one views and simulates this from a literal perspective, then one must simulate Renee’s friend literally as a lion, and as such Renee would be considered to be having hallucinations, and being delusional for being convinced her friend is a lion. But, as Renee later explains, she did not really see these things literally: ‘But actually, I didn’t see a lion at all; it was only an attempt to describe the enlarging image of my friend and the fact that I didn’t recognize her’.²⁸ Renee was actually using a metaphor; it was the best way in which she felt she could express her subjective experience. Thinking in metaphors, and using them to express how you feel, is something that an artist does. From this I began to wonder if, when a person describes the TV talking to them, it is literal, a metaphor, or something else completely.

Another situation described by Renee, provides more background against which to evaluate the design of the delusion simulations. As described in the introduction chapter, communication is difficult, and this is partly due to the fact that communication may become completely non-verbal and rather creative, as John’s thought patterns. Renee describes an attempt to communicate to her therapist, Marguerite Sechehaye, what she was feeling: ‘One day, after tying together all the shoes I could find, I hung them on the key of the wardrobe, and on the key I balanced a pair of scissors, the sharp points up.’ Renee later explains how the shoes signified for her ‘departure’ and the way they were in disarray represented her ‘anger’. The strings signified for her the tension of ‘unreality’; and the scissors represented ‘aggression’. It was a

²⁸ Renee’s experiences are often cited in medical literature due to the intricate vividness with which she is able to describe them.

request to her therapist to help find a place for the anger to help her cut the tension. But her therapist did not understand and took the small installation apart with the remark that the composition was too dangerous (Ibid p.23, p.114). Communicating with objects and materials through metaphor is something I know from my own artistic practice, but I also know it as part of my youth, where tables would become space ships, and a blanket over two chairs a mountain. Such play and fantasy are important to child development, as it allows us: '[...] to find a 'middle ground' between our inner world and the real world (Cullberg, 2006 [2000], pp.4-5). It is thought that psychosis in part, is a return to this method of dealing with the world:

It is thought that creative disconnected narratives in psychosis may serve as a 'protective function' and that '[...] personal narrative, or the meaning persons make of their lives in a storied manner, may stand as a unique dimension of recovery. It is as if the 'tools' we use in childhood, to digest everyday life, become significant again (Roe and Lysaker, 2012, pp.10-11).

In that sense a delusion becomes prosthetic in dealing with a reality (van den Bosch, 1993, p.195).

The relationship between creativity and psychosis is of such a complex nature that there is simply insufficient space to explore it fully in this thesis, but Tukker offers us these words: 'When you are psychotic, you are capable of inventing a whole new language. You make new words, create new images. You are all creation' (Muis, 2011, p.37, free translation). Kusters goes as far to say that the psychotic person is the artist in 'extrema forma', a performance artist who does not know that the performance has ended (Kusters, 2004, p.16, p.37, free translation). This made me think of how much the description of media talking to you might be part of a complex creative narrative that somehow is experienced as a real reality, making it actually crucial that creativity becomes part of the simulation. In other words, from Renee's description of miscommunication between her and her therapist, and her explanation that she did not literally see lions, but that she meant it as a metaphor, one may feel that a literal simulation of a metaphor becomes problematic, as, with metaphors, and other creative acts, there is a danger of them being misinterpreted and thus seen as facts (van den Bosch, 1993, p.21). Considering both the importance of and need for psychosis simulation, it is

crucial to remain alert and ensure that psychosis is not being misrepresented in a potentially misleading way. A literal simulation could unwittingly portray a person's experience as very different from 'normal' experiences, when it might not be, with potentially alienating and damaging consequences. This is when I began to realise that psychosis simulation should contain a 'do-it-yourself' component. Feeling empathy for someone who sees a lion (as was thought of Renee's experience because she called her friend a lion), seems an impossible gap, but feeling empathy with someone who experiences a shift in visual perspective and describes that as related to traits of a lion (as Renee later described how her use of the term lion was a metaphor), is a gap that can be bridged when one activates one's own imagination on how they might experience such an alteration of the senses..

4.4.2 CREATIVITY AND ALTERED SENSES

The birth of this metaphorical thinking seems to be related to dealing with alteration of sensory data. In his chapter 'The Inner World of Madness' in *Surviving Schizophrenia*, Torrey begins with what he describes as one of the most prominent features in the onset of psychosis, which can be found in almost two thirds of all patients: the alteration of the sensory experience in which senses are felt to be enhanced, blunted and/or flooded (2006 [1983], pp.4-6). One person explains a heightened sense of colour:

Colours seem to be brighter now, almost as if they are luminous painting. I'm not sure if things are solid until I touch them. I seem to be noticing colours more than before, although I am not artistically minded (...) Not only the colour of things fascinates me but all sorts of little things, like markings in the surface, pick up my attention too (Ibid, p.5).

Another person experiences a heightened sense of hearing:

During the last while back I have noticed that noises all seem to be louder to me than they were before. It's as if someone has turned up the volume....I notice it most with background noises – you know what I mean, noises that are always around but you don't notice them. Now they seem to be just as loud and sometimes louder than the main noises that are going on...It's a bit alarming at times because it makes it difficult to keep your mind on something when there's so much going on that you can't help listening to (Ibid).

Learning that psychosis is often related to a state of heightened senses helped me to understand and imagine what that would feel like, as it breaks it down into something to which I could relate. It made me wonder how much the hearing of media talking to you is related to the experience of heightened senses.

Psychologist John Cohen writes: '(...) nothing is so alien to the human mind as the idea of randomness' (Cohen, 1960). When bombarded with an array of stimuli, one wants to make sense of them:

In the beginning I had to prick my ears up to hear or understand them. They sounded soft and they worked with damned hard codes to unravel. Snap-crackle-pop, the sound of the wind with blinking lights and car horns as punctuations. I unravelled the code and made myself so accustomed to them that in the end it seemed as if I was hearing normal words. In the beginning it seemed mostly nonsense, but gradually they gained in meaning. When you start to hear voices, you realise that they have always been there. It is just a matter of the right frequency (Vonnegut, 1975, as cited by van den Bosch, 1993, pp.35-36).

This suggests that voices, audio hallucinations, might, at least in part, be born out of experiences that are similar to our ability to see shapes in clouds, or see faces where there are none (pareidolia) and hear full sentences in random 'white noise' (Electronic Voice Phenomenon). A similar description may also be found in the 16th century, courtesy of the painter Torquato Tasso: 'Within me every sound associates with a human voice, so that I often feel that lifeless things are talking to me'. It is here that I thought I began to see a pattern that could influence the design of a psychosis simulation to pay attention to suggestive elements that a brain might further develop into a narrative as voice and delusion.

Through the various avenues of thought and areas of investigation contained within this thesis, it is becoming apparent to me that a common misconception that can hinder understanding of psychotic experiences is the idea that these experiences are somehow disconnected from or external to 'normal' everyday experiences. I learned that I could better describe psychotic experiences as 'enlargements' of everyday experiences, as Prof Aaron Beck describes: '(...) [t]he apparently mysterious, incomprehensible symptoms of the mentally ill are actually extensions of what many of us experience every day' (Bentall, 2004, p.xi). These enlargements seem to come from an alteration in

how data from one's senses is processed. This concept is illustrated in the following story:

I would sometimes get a fright whilst listening to music that I know well, as there would be sentences or sounds that I had never heard before. Looking back I think it also has to do with heightened senses and not actually hearing something that wasn't there. I think I heard layers within the actual music that I had never noticed before and some sentences sprung out which I had never noticed, also parts of the percussion or backing music were more prevalent than at other times. I think my perceptions were affected: not that I heard things that weren't there, however my experience in these moments was very much as if I was hearing things that weren't normally there (anonymous)²⁹

What is fascinating about this is that in the moment, the experience is very real, but in hindsight it seems more that the experience begins with alterations in the data towards one's senses, things jump out as meaningful. So how does this relate to the design of the simulations mentioned above?

Mindstorm and *Virtual Hallucinations* both simulate the reporter in the news addressing the character or avatar directly. One may wonder if, when a person experiences a TV reporter turning towards them, or looking directly at them, it might actually be a reaction based on an enlarged sensory experience, like that of John Wraphire's experience of a glance, a cough, a chair moving, as a form of communication.

If one simulates voices coming from a TV and talking to you in a literal sense, yes, you simulate the reality of a momentary conclusion of a person in psychosis, but it does leave out the sensorial steps of the experience that might be crucial to understanding when using simulations for educational purposes. Perhaps the method in how the TV is felt to communicate is much more creative, in relation to a person's own associations and metaphorical language. From Wouter Kusters I learned that colours play an important role in psychosis. From filmmaker Bas Labruyere, and his film *Verloren Jaren*, I learned how patterns of colours may also be experienced as code.

²⁹ This is cited with permission from a personal e-mail correspondence with an individual with experience of psychosis.



IMAGE 6 – *Verloren Jaren*, (2010), screenshot 21.12 mins, <<http://www.verlorenjaren.nl/>>, [16 March 2015], Used with permission.

In his lectures he explains how, if three people at the bus stop were wearing the same colour, he knew that they were actors hired by the film academy to check up on his progress. It was a form of code so that they would recognise each other. This sense of code we also find in John Wraphires story, surrounding the sound of birds.

In that sense, the simulation of the *Virtual Hallucinations* project is less alienating, as it does not shift the actuality of the newspaper text completely, but illustrates how one word ‘jumps out’, which could be interpreted as code. Hearing, or interpreting, the word ‘death’ from chaos arising from the mixture of background and foreground noises, and seeing the word ‘death’ in news headlines, perhaps combined with an inner sense of worthlessness, the mind could be seen to link these experiences together in a creative narrative that builds a sensation of media ‘talking to you’. It tells you that it would be better if you were dead, and indicates how to kill yourself. In simulating the ‘TV talking to you’ in my next work, I wanted, therefore, to consider simulating it in a way that allowed for a more open interpretation, using layers that allow for an experience of enlarged metaphor. Or, in other words, to find a way to create sound and voice, not so much as literal and concise, but as born from potential associations, and manipulate sound by allowing words and sentences to surf them, which is much more like the homemade simulation from YouTube’s ‘Crap’

(2010). I found it important to do so, due to the nature of how our brains are inclined to 'filtering' and generating patterns in associative interpretations from sensorial data.

4.4.3 CREATIVITY AND ASSOCIATIVE INTERPRETATION

Humans develop narratives to help organise and make sense of their experiences (Roe and Lysaker, 2012, p.8). Where the 'normal' person is capable of filtering signification of the mass array of stimuli and events of everyday life, a person in psychosis tends to interpret significance in everything (Torrey, 2006 [1983], p.27, Kusters, 2004, p.83) Changes in sensorial input change the meaning that is given.

Occasionally during subsequent periods there was some distortion of vision and some degree of hallucination. On several occasions my eyes became markedly oversensitive to light. Ordinary colors appeared to be much too bright, and sunlight seemed dazzling in intensity. When this happened, ordinary reading was impossible, and print seemed excessively black (Torrey, 2006 [1983], p.7).

This is perhaps one of the reasons why the experience of psychosis is so often described as a filter being 'broken'. When one experiences a peculiar intensity of sensorial data, one will attempt to explain it. It is as if in order to do so, one reaches into an inner archive of more iconic and symbolic meaning. One finds more such sensations of connectedness in a nurse's description of her first psychotic episode:

Every single thing 'means' something. This kind of symbolic thinking is exhausting. [...] I have a sense that everything is more vivid and important; the incoming stimuli are almost more than I can bear. There is a connection to everything that happens – no coincidences. I feel tremendously creative (Brundage, 1983, p.584).

When one begins to lose common filters, the narratives one creates to explain the experiences might become intricate and increasingly bizarre. This is related to the sensorial changes, as patient Norma MacDonald wrote in 1960:

The walk of a stranger on the street could be a sign to me, which I must interpret. Every face in the windows of a passing streetcar would be engraved on my mind, all of them concentrating on me and trying to pass

me some sort of message. Every face in the windows of a passing streetcar would be engraved on my mind, all of them concentrating on me and trying to pass me some sort of message. [...] What happened to me in Toronto was a breakdown in the filter, and a hodge-podge of unrelated stimuli were distracting me from things, which should have had my undivided attention (Torrey, 2006 [1983], p.13).

It is as if the mechanism in the brain that filters such information is indeed 'broken', and one finds oneself involuntarily paying attention to details that the brain would normally filter out:

Everything seems to grip my attention although I am not particularly interested in anything. I am speaking to you just now, but I can hear noises going on next door and in the corridor. I find it difficult to shut these out, and it makes it more difficult for me to concentrate on what I am saying to you. Often the silliest little things that are going on seem to interest me. That's not even true: they don't interest me, but I find myself attending to them and wasting a lot of time this way (Ibid, p.7).

In a sense, the brakes are off; the inner world goes haywire and too much meaning is attributed to the outside world (van den Bosch, 1993, p.35). It is a form of creative over-interpretation. Pamela Spiro Wager, an accomplished writer who lives with a diagnosis of schizophrenia, describes this process as follows:

Now I understand – it is an undertow beneath the ocean of other understandings – everything is connected, even the sharpness of my senses, all is part of what is happening. These things mean something, even though I am not sure what. [...] We turn the corner into a glow of light coming from the doors at the far end of the hall. I know suddenly that this is the Light of Truth that will make all things clear because it is made up entirely of shadows (Spiro and Spiro, 2005, p.30).

In medical terms, this is described as *apophenia* or *apophany*, 'an "unmotivated seeing of connections" accompanied by a "specific experience of an abnormal meaningfulness"'. It is a spontaneous perception of connections and meaningfulness of otherwise unrelated phenomena (Blom, 2010, pp.32-33, Brugger, p.13, both citing Conrad, 1958, p.46).

Such experiences seem to begin because humans rely so much on their senses; people are used to depending upon the efficient organisation and schematic processing of the information relayed to their brain. But in psychosis,

the automated routines that filter this information begin somehow to deteriorate, causing a person to misinterpret data without realising it, a feature known as *anosognosia* (van den Bosch, 1993, p.23, p.35). Anosognosia describes differences in the ways in which a person interprets their environment. An illustrative example of this may be found in the museum of psychiatry, *Het Dolhuys*, in Haarlem, which displays the story of Pieter Overduin, who was diagnosed with bipolar disorder. Overduin experienced a psychosis, in which he thought he was Gandhi reborn, based on the common traits they shared. Both were bald, both were skinny, and both had little round glasses. This was enough evidence for Pieter to make these conclusions and to begin organising a trip to India, so that Indians could rejoice at his return. In medical terms, it is placed under the header of 'delusions of reference': when things in the environment seem to appear to be directly related to a person, even though they are not.³⁰

A famous example of how natural this process can feel is summarised in the answer to a question posed to mathematician John Nash, diagnosed with schizophrenia, in the book *A Beautiful Mind*: 'How could you, a mathematician, believe that extra terrestrials were sending you messages?' To which Nash replied: 'Because the ideas I had about supernatural beings came to me the same way my mathematical ideas did, so I took them seriously' (Nasar, 2001 [1998], back cover). The question, then, becomes how to simulate this much more general, in fact, almost unlimited phenomenon of seeing meaning in everything, in a way that feels natural, and allows for a person to create narrative. How to simulate the experience of one's surrounding as being pregnant with meaning that is there especially for you?

4.5 ROOMFORTHOUGHTS AND THE SIMULATION OF DELUSIONS

4.5.1 INSTALLATION ART

In a sense, the spontaneous perception of connections is what the process of creativity is about. To understand psychosis, and relate it to oneself in order to create a metaphorical bridge of empathy, one might want to think of psychosis

³⁰ Based on personal visits to the museum, Pieter's story has been part of the Museum's main exhibition for many years, based on personal conversations with Pieter.

as a state of extreme creativity. Creative individuals and individuals diagnosed with schizophrenia do share many cognitive traits (Torrey, 2006 [1983], p.389). According to neuropsychologist Peter Brugger:

The propensity to see connections between seemingly unrelated objects or ideas most closely links psychosis to creativity. Indeed, with respect to the detection of subjectively meaningful patterns, apophenia and creativity may even be conceived of as two sides of the same coin. One must keep in mind, however, that the term 'detection' as used here does not refer to a process of mere identification, to finding the solution to a perceptual puzzle. Rather, the assumption of 'meaningfulness' in randomness always involves a subjective interpretation of spatial or temporal configurations (Brugger).³¹

This aspect, that of creative connections, could significantly enhance a simulation of psychosis, in which the aim would be to support and illustrate the phenomenon of *apophenia*, by constructing an environment that allows for the experience to occur in a temporal or spatial configuration, that communicates the feeling, that all meaning within the experience is there especially *for you*. In the simulations mentioned above, there is little to no room for the experience of a creative process. This is where one may think that installation art might be an appropriate tool for understanding this aspect, as stated in the introduction chapter:

To do this, one would have to look at installation art as an intricate system of experiences that is analogue to psychosis (a system being a set of connected things that form a complex whole). I consider this a possibility as installation art combines concepts, space and media to immerse the viewer in a sensorial and contextual network in order to create a physical as well as mental experience (Kanary, 2008, p.162).

In this I make a distinction between two types of installation and the way an installation may simulate a delusion. On the one hand, one could take the literal path. I found an example of this in the work of the artist Rod Dickinson. In 2006 the Prinzhorn Collection organised an exhibition and publication called *The Air Loom and other dangerous influencing machines*. One of the exhibition pieces that inspired the title was based on the experiences of James Tilly Mathews of the *Air Loom* (+/- 1800). According to Mr Mathews, the *Air Loom* was a secret weapon cutting-edge technology used to emit a death ray that could influence,

³¹ The full quote comes from the word doc 'Haunted Brain', an unpublished version of his later publication: 'From Haunted Brain To Haunted Science: A Cognitive Neuroscience View Of Paranormal And Pseudoscientific Thought', sent to me via e-mail by the author.

take control over or even terminate a person's life. Mr Mathews was convinced that many of these machines were situated in London and were being used by French Revolutionaries to control him, but also to control important members of the British government. Mr Mathews spent many years making detailed drawings of the inner workings of the machine (p.7, p. 69, *Air Loom*). Dickinson gave form to one of these expressions and built a life-sized version of *Air Loom* inspired by the drawings by Mr Mathews.



IMAGE 7 - *Air Loom*, 2002, by Rod Dickinson, as installed in the Laing Gallery, Prinzhorn publication. Published with permission.

This type of installation may provide insight into the power of the creative mind, and it's ability to translate something that is imagined as a real reality. Meaning that I could imagine that to stand next to the installation, which is an artistic manifestation of James Tilly Mathews Air Loom delusion, might help me feel the impact of his experiences as a real reality, in other words, the artistic contraption may help me imagine how James Tilly Mathews might have felt. For instance I imagine it generating a sense of insignificance, or powerlessness in him due to the sheer size. This could invoke several experiences that help us better understand emotions, perhaps that of insignificance, but there is another type of installation which I think is more useful in aiding an understanding,

although much more difficult to manifest, namely 'immersive installation', which does not consider an installed object in a space, but the very experience of that space.

When one designs a space as intricate as an immersive installation, everything in that space is there for a reason. What is there specifically for the visitor to create meaning with, needs to feel 'natural' or intuitive in the way expected when, for instance, visiting or viewing an artwork. It is possible that what could be simulated with installation art is what I like to call the 'emotional logic' of psychosis, which would embody the inner logic of one's associations and the emotions one has with them³². Henk Driessen, diagnosed with schizophrenia, explains that people with schizophrenia have their own logic. When you take the effort to follow their thought paths you can see it is very logical (Muis, 2011, p.25). The logic in psychosis tends to be related to a symbolic realm that disrupts how the meaning of communication is interpreted. Laing describes this aspect:

It is not uncommon for depersonalized patients, whether or not they are schizophrenic, to speak of having murdered their selves and also of having lost or been robbed of their selves. Such statements are usually called delusions, but if they are delusions, they are delusions, which contain existential truth. They are to be understood as statements that are literally true within the terms of reference of the individual who makes them (Laing, 1990 [1959], p.149).

During the delusional event there is also often a 'double-awareness phase', when a person is capable of questioning the validity of their delusion, yet at the same time believing in the delusion (Radden, 2010, p.17). This is mentioned by clinical psychologist Louis A. Sass in his book *The Paradoxes of Delusion* (1995):

What seems distinctive about such 'delusional worlds' - and what needs to be explained - is in fact the strange tendency of such patients to accord great importance to their delusions while nevertheless seeming to experience these same delusions as being, in some sense, irrelevant or unreal (Sass, 1995, p.5).

When placing materials in an installation, it is my hope that a visitor's own

³² 'Emotional logic' is a term I use to describe subjective logic influenced by one's emotions and inner symbolic associations.

network of associations may become an enlarged experience similar to that of delusion, essentially triggering the pattern-seeking function of a visitor's brain in a way that actively involves them in processes of unravelling their own inner complex narratives. This is the second aspect, the activation of the visitor's creativity, which I consider to contribute to an understanding of the subjective experience of being in psychosis that is different from the simulations discussed above. In considering the simulation of delusions, one has a range of topics from which to draw inspiration, but, much like the content of hallucinations, delusions may have their own identities and characteristics. They become extensions of the explanatory models that attempt to make sense of one's experiences. This means that, in the design of a delusion, the underlying aspects that build up such elaborate narratives need to retain certain logic to them, as evidenced from John's story. So how have I attempted to simulate delusions?

4.5.2 SIMULATING DELUSIONS - INTRUDER 2.0

With *Intruder 2.0*, I attempted to simulate the experience of what it feels like to be in a space full of meaning, inspired by Jannemieke's Horror Vaccui drawings. I wanted this labyrinth to be dense with meaning, as well as to be able to capture the enlarged emotional experience of 'the newspaper is communicating with me' by creating a literal space of chaos, a world in which one traverses the walls of the labyrinth as if they are the pages of the newspaper, expressing for me the sensation of getting lost in all the information. I also invited visitors into a process of 'self-publishing', in which I asked them to leave stories on the walls about their emotional reaction to the labyrinth, as well as their own personal stories with psychosis, providing real messages with different handwriting and content. I hoped it would contribute to a more visceral experience of deformed explosive media, chaotic content, information overload, in which each visitor would see, and could make their own personal narrative, while walking the labyrinth. In the whole installation I used real newspapers, as well as a real TV that played 'white noise'. When the visitor reached the centre, I did small workshops on how to 'see things in the noise'.

4.5.2.1 APPLE PSYCHOSIS

In creating *Intruder 2.0*, I wanted to use a pivotal symbol that could play a role in a fictional psychotic narrative. I wanted to enlarge and make understandable to a visitor how a person in psychosis could, for instance, automatically derive evidence, after seeing an apple in the media, that they are being told they were guilty of 9/11. I wanted a visitor to be able to follow that logic, without dominating or taking away his or her own contribution to a narrative. In order to do so, I designed an open narrative around a '(green) apple psychosis'. To create this, I placed as many references to (green) apples as I could throughout the labyrinth, which, I imagined, could help build a narrative of 'emotional logic' (a network of associations), assigning a visitor to allow it to become enlarged and experienced as a real reality. 'An apple a day keeps the doctor away' (apples are important), Newton's apple (apples carry messages), Snow White's poisoned apple (apples are dangerous), Adam and Eve's apple (guilt), William Tell's apple (a shooter), New York (the Big Apple) etc. In this I hoped to create an experience that would aid a sensation of apples being suspect carriers of meaning or messages. I wanted in part to guide a visitor in the associations related to an apple psychosis. I aimed to do this by adding voices to the sounds of the paper, using media. In the labyrinth *Intruder 2.0*, I placed a set of surround sound speakers connected to a computer from which, while the visitor was walking in the labyrinth, I would slowly build up a soundscape, like a 'DJ'. I wanted to play sounds that reacted in real time to the actions of the visitor. The sounds consisted of whispers, random music and several versions of pre-recorded sounds of the crackling of the paper of a previous person walking through the labyrinth. I would play with the amount of layers of sounds and silences - the closer a person got to the centre, the more intense I would make it.

I hoped in this way that it would feel like the experience of the installation was 'communicating' with the visitor. In order to collect sounds that were related to the concept of the 'apple psychosis', I asked visitors to whisper their associations with apples, while recording them. I used the recordings by playing them back in small Apple iPods that were attached to fake apples (the ear buds formed the ears of the apples), and placed at different locations in the labyrinth. These whispers could be heard as layers over the already present crackling of the paper. In addition, fake Granny Smith apples carried some of these

whispers with Apple mini iPods on their 'back'. The two earplugs connected to the iPod were used and placed to form eyes on the apples. Whether or not I was successful in my attempt to simulate this aspect of psychosis is hard to say, but I hope it clarifies why I feel that simulating psychosis in a literal way might be problematic, and why I think that using installation art could contribute to addressing these issues.

4.5.2.2 THE WALLS HAVE EYES

Another delusional element embedded in *Intruder 2.0* relates to the sensation of being watched, something that might be better placed in the chapter on hallucinations. This began in the other installations in the form of 'peepholes' that were present in all three of the case study labyrinths. During my correspondence with the artist Jannemiek Tukker, she referred to the work of Marc Lamy as an example that expresses aspects of what it is like to be in psychosis. She refers to his use of eyes in his drawings that, for her, expresses the paranoid sensation of eyes following you. It is the sensation of being watched, as if the eyes have walls. Tukker uses this in her own work as well. I used one of her works as inspiration for eyes in *Intruder 2.0*.

In order to create this, visitors were asked to pose for the camera, after which the images of their eyes were printed and embedded within the walls of the labyrinth's structure. One eye was projected on a loop via a computer screen. Peepholes were placed throughout the structure so that visitors could look through. The actual looking through the holes - or encounters with others looking through the holes - may contribute to a sensation of being watched.

4.6 DO-IT-YOURSELF PSYCHOSIS

After studying the existing simulations, talking to people with lived experiences, and studying literature, I felt that a do-it-yourself aspect was an important element that my installations contribute to as opposed to *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, which, I felt, contributes to better understanding the subjective experience of psychosis. I found that my role as a viewer of the simulations was very passive. Yet, I learned that in psychosis one may also be considered to be very active.

According to Kusters, in the experience of psychosis one does not distinguish between experience that is created by the illness and 'normal' experiences. He says that: 'Psychosis is not an external force, which one can distinguish from the person who has a psychosis from the psychosis itself. The person *is* the psychosis' (Kusters, 2004, p.26, free translation). This controversially implies that a person in psychosis holds an active role in the creation of the experience, contributing to the content of hallucinations, and or delusions, either as a conscious maker or an unconscious victim. This active role needs to be considered when simulating psychosis.

It inspired the notion that perhaps, in relation to the creativity, one becomes so creative that what one initially experiences and describes as a metaphor suddenly switches and becomes experienced as a real reality. When simulating hallucinations and delusions, a play between the literal and the metaphorical seems to ensue, and thus it becomes important to integrate both literal and metaphorical elements in a simulation. I found the need for this play confirmed in Eleanor Longden's TED Talk (Youtube, 2013, TED). Eleanor Longden who was diagnosed with schizophrenia, and later went on to acquire a BSc and MSc in psychology at Leeds University, who describes in her talk (7.40 min):

[...] a vital first step was learning to separate metaphorical meaning from what I'd previously interpreted to be a literal truth. So for example, voices which threatened to attack my home I learned to interpret as my own sense of fear and security in the world, rather than an actual, objective danger.

It is her conviction that psychosis is 'a sane reaction to insane circumstances' and that:

[...] in fact, the psychic phenomenon is a "creative and ingenious survival strategy" that should be seen "not as an abstract symptom of illness to be endured, but as complex, significant, and meaningful experience to be explored" [...] (www.ted.com).

It is perhaps why Renee's psychoanalyst Marguerite A. Sechehaye (1887-1964) use of metaphors in her 'symbolic realization' therapy was so successful in Renee's path to recovery (which was considered impossible at the time). Was it because of her ability to not only listen to Renee's metaphorical world, but also act upon it by generating her own metaphorical narrative? For the

interested reader I refer to the book by Sechehaye that accompanied Renee's diary: *Symbolic Realization: A New Method Of Psychotherapy Applied To A Case Of Schizophrenia* (1951).

My insights into psychosis as a mental state of metaphorical thinking and acting, that was initially born from reading biographical literature and conversations, led me to understand the potential importance of my artistic DIY approach, by letting a workshop participant walk the path of the labyrinth, as if they were walking an enlarged metaphorical path of a delusion, and by giving the assignment to a participant to imagine as if it were real, I feel, helps to understand how and why thought and behaviour in psychosis can seem so incomprehensible. What I am saying is that to be able to understand psychosis, one needs to understand metaphors in general, but in particular, ones own inner metaphors. Let me elaborate on how I mean this.

First of all let's clarify how I approach the concept of metaphor. A metaphor is described as 'a figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable' or 'a thing regarded as representative or symbolic of something else' (MacBook dictionary). This is generally done for a rhetoric effect, for instance to enhance a particular physical or mental trait.³³ But more importantly for me, a metaphor can be used to trigger the imagination. As an artist I am interested in the metaphor for its ability to be open, to leave room for interpretation. Training the imagination when attempting to understand psychosis is imperative, as imagination seems to play a pivotal role in all narratives of psychosis, in particular when it is viewed as an altered state of consciousness related to a state of waking-dreaming.

When I equate the experience of psychosis to the metaphorical experience of my artistic labyrinth as such a dream-like state, I hope that it can be used for providing an opportunity for a DIY play with the literal and the metaphorical for the workshop participant. For instance, when I ask a participant to imagine taking their walk in the labyrinth to a walk in the street, it becomes an exercise

³³ When I say that: 'It's raining trolls!' I don't mean that the fantasy figures, known as trolls, have suddenly become part of earths weather system. What I do mean is dependent of context. In the age of commentary interactions, 'trolls' are otherwise known as people who leave negative derogatory remarks on the Internet. How I say it, determines if I am complaining of an irritating experience of negative comments, or if I am joyfully boasting, as it could be seen as part of a success measurement to 'going viral'. Metaphor's are time based and can alter our language. For instance, the word 'troll' might have first been used as a metaphor to describe the experience of a derogative commenter, perhaps used due to associations of a creature lurking in a dark cave causing mischief, but in time has actually become a fixed metonym. A 'troll' is now equal to a derogative commentator.

in empathy because they can compare their experience. If a person felt anxious in my labyrinth, they can imagine feeling anxious while walking on the street. If they felt as if they were in a magical world, they can imagine taking this world to that walk on the street. If a person felt disoriented, they can imagine feeling disoriented while walking on the street. If they imagine how they were staring at the security camera in the labyrinth, or physically flaying their arms about to move forward, they could then imagine how the world would react to them if they stared at a security camera with the same intensity, or as they flay their arms about on the street. In other words the experience of the artwork allows for a participant to conflate his or her own experiences to that of what it might feel like to be in psychosis, in the sense that it activates a viewer/visitor to contribute to a personal narrative based on their own imaginative associations.

In essence, the power of using my labyrinth as metaphor of psychosis, allows for insight to a participants own interpretations, which for one person may be a metaphorical feeling, while for another it is a literal physical act that is compared. The intermediate space of metaphors in general, and art experiences as metaphors in particular, may bridge understanding. In that sense metaphorical space becomes a prism, in which psychosis or madness can be explored (Elran, 2012, p.60). Metaphors are very handy tools to help the imagination, but, as described earlier in this text, they become dangerous when they are taken only as literal or become self-referential. Think about the metaphor of the computer in relation to the brain, in which madness is considered as a computer, in need of a 're-boot', opening a pathway to the suffering of compulsory electro-shock therapy.

When one of the visitors of the first labyrinth *Suicide Pigeon*, equated her experience as an assault-course-meets-scientific-experiment, a subconscious move towards 'play' or 'game' as metaphor for the experience of psychosis was born. In the world of game theory the relation between metaphor and simulation is explored, as metaphors and simulations are considered to be on the same spectrum in relation to the literal and non-literal mimicking of what is 'real', simulation being more related to the literal and physical aspects of a reality, and metaphor to the non-literal emotional or fantastical (Möring, 2012). The main argument of my thesis (in its questioning of where an art project might make a valuable epistemological contribution), therefor moves its focus towards declaring that the existing psychosis simulations are too focused on the

simulation of literal descriptions; and that there is little to no room for the experience of metaphorical play as described by so many. The existing simulations lack in the creative aspect that is needed to understand psychosis from within oneself, to be activated in the interpretation of hidden code, in a world experienced as pregnant with meaning. To better understand how this might function, and how to 'teach' a visitor to look at the path of the labyrinth through the metaphorical lens that is psychosis, I created a thought experiment.

4.6.1 A THOUGHT EXPERIMENT

The experiment I designed is very simple, but can give a profound insight into the issues I am dealing with, revealing the general lack of attention for subjective experience that is generally present in our Western society. To illustrate this, at the beginning of a workshop, I have asked participants to describe the space to me. This usually began with a description of objective aspects: walls, floors, doors, windows, etc. I attempted to make them aware that what they are describing are objective things, and ask them to look again to see if there is anything they might be forgetting in their descriptions. This is when they began to describe materials like metal, and also colours. Once an inventory is made, I hoped that they were beginning to wonder why I am asking this. That is when I asked them to describe what their associations were with certain colours, shapes and or materials.

This is when I began to see some of the faces change. I reminded them that, in psychosis, the world may be experienced as being pregnant with meaning, that every gesture, every thought, has meaning, a message that is there especially for them. When they have the association that black is the colour of evil, green the colour of safety, or red the colour of danger, I ask them how they think they would experience space differently. Slowly, new narratives began to arise. I asked them to look at the floor, what colour it was, and what their associations with that colour were. If the floor was blue, some would say sky, some would say water. Based on Tukkers' description that in psychosis you become pure creation, I imagined that a thought may become enlarged into a real reality, and that the association I might normally have on a subconscious level might suddenly be experienced as a real reality that requires real-world reactions. This inspired me to think about the role of unconscious associations and the creation of alternate realities. Every thought, every association, may be

experienced as a real reality, meaning that an association between the colour blue of the floor and water could transform the association with water as being experienced as real. As the rest of the environment is often full of other 'signs', such as that of a simple fire exit sign, the additional associations may contribute to the subjective experience of the water being dangerous and or beautiful. I would ask the participants to create narratives and think about behaviours based on their personal associations. The participants were usually in their own environment, but they began to view it from a different perspective. The focus was on looking at the environment as if it is pregnant with meaning. For instance, when you focus on the colour yellow, suddenly you might see that it is everywhere and significant. What is the meaning? What are the yellow objects telling you to do? It is an exercise in looking at one's surroundings through a psychotic lens. It helps to gain insight into narratives that at first might seem bizarre, that on the surface might seem meaningless, but with a different understanding, starts to make more sense, as was the case with Renee's gestures to her therapist. By designing fictional narratives and integrating them into workshop tasks, the participant is being trained to have an open mind towards the materials, colours and forms that have the potential to generate meaning and personal narratives.

Many people do not realise that in psychosis thoughts may feel as if they are seeping up, racing so fast that it is difficult to communicate, coming out only in bits as illogical 'word salad'. By practising how fast a network of associations can go, one may get an idea of how differently the world may be experienced, linking to the existing notions of psychosis as a regression into childhood, a dream state and/or the maelstrom of the muse; the controversial link to creativity. At the end of the exercise, I aim for people to be able to develop skills that activate their own imagination, the beginning of a path run wild, hence the concept of 'do-it-yourself-psychosis'.³⁴

³⁴ As further context for 'do-it-yourself-psychosis', I experimented with the format of another workshop. I was interested in getting people involved in thinking about psychosis, by asking them to design their own voice-hearing narratives. On May 24th 2011 I ran a workshop with 14 participants, they were of diverse backgrounds, some worked in the healthcare sector and some worked in the art, science and technology sector. Tilly Gerritsma, one of my advisors and a representative of the Dutch 'Hearing Voices Network', was also one of the participants. I began the workshop by giving a general presentation about voice-hearing in relation to psychosis, and then challenged them to delve deep into their selves and investigate what their own psychosis might be about. For this I asked them to imagine that psychosis is 'mad mind-space' that resides in us all, and that the entrance to this space can be opened with a dimmer switch, a switch that acts like a filter to our environment and inner world. I asked them to mentally open

4.7 SUMMARY

In this chapter I have explored the concept of delusion, how it is defined and how it is simulated. To do this, I used the example of how the experience 'The TV is talking to me!' has been simulated in the different case study simulations, and how I have attempted to simulate the same experience. In doing so I have shown why I feel that when simulating a delusion it is important to consider the relationship between creativity and the experience of psychosis, with regards to how a belief is formed, particularly regarding psychosis as an experience of the world full of meaning, there especially for a person to decode and share. In this chapter I proposed the use of immersive installation art as a tool for exploring the simulation of the potential role creativity plays in the simulation of delusions, as it forms a space pregnant with meaning, a space that is there especially for the visitor to interpret. Furthermore I have elaborated on the need to provide a play between literal and metaphorical experiences, as this seems to be the core of how delusions are born. In the next chapter I will divulge why installation art in the form of a labyrinth is particularly interesting, when simulating other aspects of the subjective experience of psychosis.

this switch and see what might come out. When people are actively engaged in designing the content of hallucinations and delusions in a fictional character, they have to find answers to questions: s the person male or female? How old? What is their profession? Decisions have to be made about how many voices the person is hearing, what the voices say, and why. The participants wrote down several narratives within a specific scenario. The participants were then guided in a recording process, with the help of Tilly Gerritsma, in which each participant played the role of one or several voices (YouTube, LabyrinthPsychotica, 2011).

5 SIMULATING THE LAND OF UNREALITY, ALTERED SPEECH, ALTERED THOUGHT, ALTERED BEHAVIOUR AND THE LOSS OF SELF

Row, row, row your boat gently down the stream, merrily, merrily, merrily,
life is but a dream.

If we don't get lost, we'll never find a new route – Joan Littlewood

In his essay 'The Land Of Unreality: On The Phenomenology Of The Schizophrenic Break', Louis A. Sass describes a phenomenon he calls the 'truth-taking-stare'.

[...] the patient will stare transfixed at an alienated perceptual world that may have one or more of several anomalous characteristics. The world may seem strangely unreal; objects may seem fragmented, or devoid of standard pragmatic meanings and manifesting instead their sheer existence; or objects and events may seem imbued with a tantalizing but ineffable quality of significance (Sass, 1988, pp.223-224).

He describes four categories that define this phenomenon. The first, 'Unreality', represents the experience of a world devoid of feeling and authenticity. The second he describes as 'Mere Being', which he explains is when the fact of existence defies speech and understanding. The third he describes as 'Fragmentation', which, he elaborates, is when details, or parts, overwhelm the synthetic whole (Sass, 1988, pp.230-231). As the fourth category, he refers to the phenomenon of 'Apophenia', as mentioned in the chapter on simulating delusions, which is the propensity of humans to seek patterns where there are none. These four categories present a rich source of inspiration to a psychosis simulation practice, but mentioning them alone is not enough for us to understand exactly *how* to construct a simulation. This chapter, therefore, explores how to simulate the experience of 'The Land of Unreality' and how it affects speech, thought and behaviour, as well as how going there and back may result in a loss and a rebirth of the self. As in the other segments of this thesis, this chapter also performs comparative analyses of the case study simulations *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with*

Schizophrenia against these aspects, but I will do so more fluently in reaction to the sub-elements directly. I will also touch upon the artistic case studies, but, later in the chapter, will more thoroughly divulge details on how a practice of installation art, in particular of an immersive labyrinthine form in general, may be able to contribute to the simulation of these experiences, again making suggestions for further development and improvement of psychosis simulation practice.

5.1 THE LAND OF UNREALITY

Sass describes how, in psychosis, reality gradually seems to ‘unveil’ itself in subtle ‘transformations’, altering one’s surroundings into ‘eerie’ and ‘peculiar’, ‘weirdly beautiful’ and sometimes ‘-horrifying’ ways:

To judge from what patients do say, everything appears to be, in some sense, perfectly normal. The patients experience neither hallucinations nor delusions; their thinking does not seem to be formally disordered in any gross fashion, yet everything is completely and uncannily transformed. In this experience that involves a kind of anti-epiphany, there is often a contradictory sense of meaningfulness and meaninglessness. Somehow, the familiar has turned strange and the unfamiliar familiar (Sass, 1988, p.223, p.224).

As a person may gradually experience, understand, and perceive reality very differently from before, this often leads to problems of adjustment in relation to one’s environment; hence psychosis is also referred to as a ‘reality disorder’. Yet, Louis Sass explains that:

Rather than mistaking the imaginary for the real, they [the psychotics] often seem to live in two parallel but separate worlds; consensual reality and the realm of their hallucinations and delusions (Sass, 1995, p.21).

Pamela Spiro Wagner describes this as: ‘I feel as if I’m straddling several universes without fully belonging to any one of them’ (Spiro and Spiro, 2005 p.75). Fiona Jong describes her experience as: ‘In my psychosis I live in two worlds: the real and unreal world. It is very tiring because I am more part of the

unreal world, in which everything stands still' (as cited in Kusters, 2008, p.4).³⁵

Perhaps the most famous description of this 'other worldliness' is by Renee:

People turn weirdly about, they make gestures, movements without sense; they are phantoms whirling on an infinite plain, crushed by the pitiless electric light. And I – I am lost in it, isolated, cold, stripped, purposeless under the light. [...] This was it; this was madness, the Enlightenment was the perception of Unreality. Madness was finding oneself permanently in an all-embracing Unreality. (Sechehaye [1951] 1994, p.1)

John Nash once said: 'Insanity, when you are really in it, it is like a dream, which you can't wake up' (YouTube, Infallible, 2012, 0.20 mins). Dreaming is often used as an analogy for psychosis, because the worlds of dream and psychosis are both rife with odd topology, chronology, and a disorienting sense of reality (Kusters 2004 pp.98-99). Kusters describes that a person in psychosis may live in their own fairy-tale stories filled with strange fairy-tale figures, alien creatures and science-fiction-like powers, such as telepathy and telekinesis (Kusters 2004 p.115). One person says that:

The strange feeling of enhanced perception (...) was now constantly there. (...) She realised that up until now she had no clue as to what it meant to live. (...) The most everyday words and things seemed laden with extraordinary meaning, as if she was living in a fairy tale in which everything had its own language and exuberated its own secret meaning (van den Bosch, 1993, p.171, free translation).

Yet, a beautiful dream can also turn into a nightmare, and as such the same metaphor applies (Cullberg, 2006 [2000], p.34). This all suggests that any viable and meaningful psychosis simulation practice will need to take into account these experiences of unreality, including fairy-tale-like worlds, as well as the complexity of emotion, as concluded in the chapter on the simulation of hallucinations.

In order to understand how to simulate this experience, I first needed to investigate how this sense of unreality is born. I had to consider how to create an experience that feels like it unveils itself in subtle transformations, morphing one's surroundings into the eerie and peculiar, both weirdly beautiful, and sometimes horrifying in a way that could still be used ethically in an educational

³⁵ Unpublished paper sent by Kusters to author by e-mail, dated as saved in 2008, and presented at UvH

setting. I learned that the experience of unreality may be directly linked to how senses are altered, and as such affect a person's experience of reality. Not only are audio or visual senses altered, but also the sense of one's physical and mental self, as well as one's sense of perspective, time, and space.

With regards to the simulation case studies, *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, and how they relate to the 'Truth Taking Stare', I would say that the use of a screen-based experience in all their designs provides a conceptual and contextual entry point to discuss Unreality in its own right by the use of the screen. As a cinematic experience requires a viewer to stare 'transfixed' at a world that may be seen as 'eerie' and 'peculiar', 'weirdly beautiful', sometimes 'horrifying', so film itself carries a strong potential to provide a dreamlike experience. However, how dreamlike an experience is, and how transfixed a person becomes, depends on the audio and visual narratives employed, and, as concluded in the chapter on hallucinations, there is room for improvement. In particular in relation to the psychological profile of a simulated experience and the aesthetic range of the spectrum between fear and ecstasy in psychosis, as well as the symbolic experience of a world pregnant with meaning. In that sense I would say that *Paved with Fear* does well with the zooming in on the wooden statue, and the focus on eyes; that *Virtual Hallucinations* is adequate with the computers opening and closing as mouths, and the floor suddenly becoming a sky, and that *Living with Schizophrenia* does well with regards to the bird, and the spider and the third eye of the psychiatrist, but that these elements are minimal in *Mindstorm*. With regards to my artistic case studies, I can take the symbol of the green exit sign as an example of how a symbol becomes transformed in meaning and function in *Suicide Pigeon*, as it no longer functioned as a symbol of safety, when it is repeated and placed in areas that are contradicting.

5.1.1 ALTERED SENSES

As I learned that senses are altered in psychosis, I began to contemplate how other senses might be affected as well. This is when I encountered the work of eco-psychologist Dr. Michael J. Cohen (Ph.D), who argues that humans may have as many as 53 senses. His book *Reconnecting with Nature* (2007 [1995]) elaborates on workshops he designed to help re-connect with some of these senses and experience their use in the natural world. On his website Cohen explains that his work is inspired by Guy Murchie's investigation of humans having over 80 sensibilities, categorised as 31 senses in his 1978 book *The Seven Mysteries of Life*. Examples of these additional senses he describes include: a sense of colour, a sense of time, a sense of proximity, or a sense of motion, but also a sense of touch, differentiating between when one is being touched by a leaf or the wind (ecopsych.com). This got me thinking about altered senses in psychosis, and brought me to the sense of proprioception, as well as sense of time, sense of perspective, and even sense of self.

5.1.1.1 SENSE OF BODY

Proprioception is described as a sense that allows one to know where one's body parts are at all times. It is the sense that is tested when a police officer asks a person to touch their nose with the eyes closed to see if a person is intoxicated. I imagined that this sense could be affected as well, as one person describes distortions in bodily perceptions similar to visual alterations:

My body has the same forms of distortions as my vision and these are manifested throughout my anatomy. My body feels like there are indentations, ridges, and agonizing disfigurements all over. Strands of hair falling down my forehead feel much larger, heavier, and more noticeable [...]. Hands, arms, legs sometimes feel an inch to the side of where they really are at. Fingers at times feel and look longer or shorter than usual. My face can feel twice as long as it is (Torrey, 2006, p.38).

Another person explains:

I had the feeling that all my arms and legs had been thrown into a bag. I knew that they acted in coordination with my will, but they were somehow displaced from their normal position. It seemed as if my arm was sticking out of my chest. My mouth was where my hair should have been. And the two lobes of my brain kept spinning around: maybe crossing each

other, it seemed as if they had turned over (van den Bosch, 1993, p.139, citing Cutter, 1990, free translation).

Normally one is aware of the boundaries of one's body, but due to the alteration of the senses these borders seem to become diffuse (Torrey, 2006 p.38). As one person observes:

A young man was frequently confused in a conversation, being unable to distinguish between himself and his interlocutor. He tended to lose the sense of whose thoughts originated in whom, and felt "as if" his interlocutor somehow "invaded him," an experience that shattered his identity and was intensely anxiety provoking. When walking on the street, he scrupulously avoided glancing at his mirror image in the windowpanes of the shops, because he felt uncertain on which side he really was (Torrey, 2006, p.37).

As a consequence of this, a psychosis simulation practice should consider how a person's senses could be altered in such a way as to induce one to lose, or at least distort, one's sense of proprioception and / or bodily perception. I imagine the subjective concept 'we are all connected' (literally by six degrees of separation) coming to be experienced as an objective reality.

The case study simulations do not appear to address this aspect of the psychotic experience, although, at one point, the perspective of the experiencer in *Living with Schizophrenia's* 'At the Doctor' shifts towards the floor, which may be used as a discursive entry point to address the altered sense of body through one's head being transported to the floor. One could also imagine that a cinematic experience, in which one constantly views the world in first person, could make one temporarily feel that one is that person, even after leaving the cinema. In my own works, I think that the sense of bodily perception might be enhanced by the close proximity of the labyrinth walls while traversing the path, as well as by the darkness within certain sections, but more about this later.

5.1.1.2 SENSE OF PERSPECTIVE

Sensations of 'unreality' are also considered to develop from a failing integration of spatial impressions, leading to an alienation and disorientation of a person's world (van den Bosch, 1993, p.159). In her diary Renee recalls: 'I noticed a complete loss of the sense of perspective. [...] I could not orient

myself spatially' (Sechehaye, 1994 [1951] p.88, van den Bosch, 1993, p.159).

Whilst another person reports:

With every change I see things as if they were a flat surface. That is why I do not like to move. It is as if there is a wall that I would run into. There is no depth, but when I take the time to look at things, I can make out the pieces as if they were a puzzle, then I know what the wall is made of (van den Bosch, 1993, p.159, citing Chapman, 1966).

Sass says that Renee's experience of 'The Unreality' comes not so much from 'the quality of the illuminated emptiness or strangeness', but from the 'falseness and flimsiness' of a world which is experienced as 'stage accessories' or a 'pasteboard scenery', in which people seem to be 'puppets', 'manikins', 'automatons' or 'somehow in disguise' (Sass, 1988, p.229). Others describe this experience as well:

The thought of a parallel world in which I was surrounded by people who in their appearance looked like people (...), who by a quality that they all had could not be ordinary people, formed itself after relentless experiences, that in the end could no longer be put into question (van den Bosch, 1993, p.86).

At the height of his illness, Daniel Paul Schreber believed himself to be the only man on a planet in which everything is but décor, a still image, or a world full of cardboard cut-outs (Van der Ploeg, 2004, p.279). And in *I Never Promised You a Rose Garden*, the fictional story based on her life experiences, Joanne Greenberg recalls:

The people in the next room were supposedly her parents. Very well. But that was part of a shadowy world that was dissolving and now she was being flung unencumbered into a new one in which she had not the slightest concern (Greenberg, 2009 [1964], p.4).

Any simulation of psychosis interested in recreating or addressing the experience of unreality should consider perspective distortions as a method to contribute to that experience, a design in which others seem like they are actors on a stage, not real, flat and 2D, in order to help understand the experience of unreality.

The case study simulations *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia* do not appear to address this

particular experience, unless one thinks of the use of cinema itself, in which a person may be considered a two-dimensional character, an actor on a stage. In *Living with Schizophrenia's* 'At the Doctor', the doctor does take on a paper-like quality when transforming into an outlined drawing, along with the earlier mentioned transparency of the psychiatrist and/or the other customers in 'At the Pharmacy'.

The loss of perspective, in the literal sense, is not present in my labyrinths, but I could argue that the subjective experience of people 'lost on a plain', or as 'actors on a stage', could be present, or used in an educational context.

5.1.1.3 SENSE OF TIME

The sense of unreality may also be born out of temporal distortions. Time seems to stand still, as Fiona Jong observes: 'Time has come to a standstill. The days of the week also stand still. I do not even know anymore what day it is, or what time it is' (as cited in Kusters, 2008, p.4). Another person also describes how time seemed to be suspended:

Nearby trees bent threateningly toward me, and tumbleweeds chased me. I became very frightened and began to run. However, though I knew I was running, I was making no progress. I seemed suspended in time (Torrey, 2006 [1983] p.10).

In that sense, past experimentation with psychoactive drugs, such as LSD, may have contributed to a better understanding of this altered experience of time in psychosis:

As this was happening, I lost the sense of the passing of time. An overwhelming feeling of timelessness had taken hold. However, if a wisp of cigarette smoke began to flutter in a draught of air, then time could 'start up' for a short while' (Cullberg, 2006 [2000], p.19).

As taking drugs is taboo, I think it is important to consider how a simulation could alter a person's experience of time.

Both *Paved with Fear* and *Living with Schizophrenia* engage with the issue of simulating an altered experience of time, and in both cases the use of cinematic effects does this. In *Paved with Fear* the frame rate speeds up, while zooming in on the wooden statue, and slowing down, so that a face seems to

be staring for a very long time. The same fast zoom is used in *Living with Schizophrenia* in both 'At the Doctor', as well as 'At the Pharmacy'. In the case of labyrinths I think time almost automatically becomes distorted due to the very nature of the structure, but more about this later.

5.1.2 FRAGMENTATION

Another contributing factor to the experience of unreality is fragmentation, in other words, the world disintegrating into parts (Sass, 1988, p.231). Renee explains:

I looked at 'Mama' [referring to her therapist, Dr. Sechehaye]. But I perceived a statue, a figure of ice, which smiled at me. And this smile, showing her white teeth, frightened me. For I saw the individual features of her face, separated from each other: the teeth, then the nose, then the cheeks, then one eye and the other. Perhaps it was this independence of each part that inspired such fear and prevented my recognizing her even though I knew who she was (Sechehaye, 1994 [1951], p.51).

It is as if physical and conceptual aspects disappear into other dimensions, and one needs to 'forcefully' pull it back together: 'Everything is fragmented. You build the image piece by piece in your head. It is like a photograph that has been torn in pieces and is put back together again. You have to rebuild it' (van den Bosch, 1993, p.157, citing from McGhie and Chapman, 1961, free translation). And another describes a more extreme form of fragmentation:

In fact everything on which I did not focus my undivided attention just seemed not to exist. There was a peculiar kind of contradiction in the way that my eyes functioned. Instead of the ability to focus on one object, and to maintain a visual awareness of the fact that I was in a room, a visual awareness of the different things and people in the room, all that existed were the things that were directly within my range of vision. My other senses were also affected in that sense, I no longer heard or smelt what was not in front of me (Ibid, p.158, citing from Peters, 1949, free translation).

It is as if everything becomes warped:

And then everything is sometimes stretched, when it belongs together. In the garden a bird sings. I hear the bird and I know that it sings, but that it is a bird and that its sings are so far removed from one another that a

large gap exists. [...] It is as if the bird and the singing have nothing to do with each other (Ibid p.159, citing from Fisher, 1929, free translation).

A simulation of psychosis should consider how to simulate the experience of fragmentation in such a way that reality feels stretched, full of gaps, and create an environment in which it is only possible to focus on one thing.

Paved with Fear performs extremely well in the simulation of reality fragmentation. It achieves this through techniques such as the fast changing of scenes that additionally do not form a cohesive whole, and further by blurring out portions of the field of vision, for instance when zooming in on the keys. It is notable that the other simulations do not seem to take fragmentation into account. The other simulations do not seem to simulate this at all. My own case study labyrinths might be considered able to do this, in the sense that space may be experienced as fragmented, but that is perhaps stretching it.

5.1.3 MERE BEING

The 'Mere Being' of Renee's experiences created a sense of amazement and influenced her greatly. Sass describes this happening as: '[...] was not so much that the objects lacked their normal emotional resonance, authenticity, or sense of function (i.e., the vision of unreality) as the very fact that these objects existed at all'. To explain further, Sass cites Renee:

When I protested, 'Things are tricking me; I am afraid,' and people asked specifically, 'Do you see the jug and the chair as alive?' I answered, 'Yes, they are alive.' And they, the doctors, too, thought I saw these things as humans whom I heard speak. But it was not that. Their life consisted uniquely in the fact that they were there, in their existence itself (Sass, 1988, p.229).

So, there was a bewilderment of existence itself that created an environment in which Renee could only describe them as being 'alive' even when that is not specifically what she meant. Sass says that 'in the worlds of unreality [...] objects have lost the normal dynamism and texture of human life but they nevertheless appear as coherent and unified forms' (Sass, 1988, pp.229-230). Renee further describes her experiences of objects as follows:

When, for example, I looked at a chair or a jug, I thought not of their use or function - a jug not as something to hold water and milk, a chair not as

something to sit in - but as having lost their names, their functions and meanings; they became “things” and began to take on life, to exist. [...] I attempted to escape their hold by calling out their names. I said, ‘chair, jug, table, it is a chair.’ But the word echoed hollowly, deprived of all meaning; it had left the object, was divorced from it, so much so that on one hand it was a living, mocking thing, on the other, a name, robbed of sense, an envelope emptied of content. Nor was I able to bring the two together, but stood rooted there before them, filled with fear and impotence (Sechehaye, 1994 [1951], pp.55-56).

Renee’s doctors asked her if she saw the objects as being alive, and her reply was affirmative, but it was not so much that the objects became like human anime talking to her, it was more that they were ‘simply there’ (Sechehaye, 1994 [1951], p.56). A psychosis simulation practice should take into account how to simulate this experience of ‘mere being’ in objects, feeling that objects have a living quality, a quality that resides in their mere existence.

This particular aspect is of course, like the rest, very subjective. Some might experience a lived quality in the zoomed-in wooden statue of *Paved with Fear*, but perhaps the best example of a sense of lived quality is the shaking of the breadknife machine at the very end, which may be experienced as very threatening. The other simulations do not seem to present any object in such a way that it may be experienced as having a lived quality, unless one counts the bubbling of the coffee and the pizza in *Mindstorm* and the alarm clock showing texts.

5.2 ALTERED THOUGHT, SPEECH, AND BEHAVIOUR

Another aspect that is altered, apart from one’s senses, is thinking itself, often born out of necessity in dealing with the sensory changes. As such, psychosis is often described as a thought disorder (Blatt and Ritzler, 1974, p.370). As one’s senses become heightened, more information seems to come in. One might experience an overload of thoughts:

My trouble is that I’ve got too many thoughts. You might think about something, let’s say that ashtray, and just think, oh! Yes, that’s for putting my cigarette in, but I would think of it and then I would think of a dozen different things connected with it at the same time (Torrey, 2006 [1983], p.9).

Another person observes: 'I am so ambivalent that my mind can divide on a subject, and those two parts subdivide over and over until my mind feels like it is in pieces and I am totally disorganized.' (Ibid, p.24) One could suggest that this is possibly an expression of the link between creativity and psychosis discussed earlier, as it is addressed in the chapter on simulating delusions, creativity being an ability to see connections where others do not. As a consequence of one's ability to associate, one may imagine that one's thoughts may seem to go so fast that one cannot communicate properly - in a sense what comes out seems to an outsider to be a jumble of words:

My hands have burst, cutting does not hurt, the skin is too small. Nothing fits well, don't exaggerate, nothing exaggerated. Watch count your words if you feel something that does not promise something good, you must not promise belief. Sometimes you know too well that has to go that bothers you that makes your head big. You must restrain yourself, you must hold your own hands. When you feel it coming you better bite your hand then stick it out. Your fingers burn. Lick your fingers. I like cutting my fingers. Better cutting than no feeling in the fingertips, a pair of scissors. Swollen tentacles feel nothing I think except when you put them in an electrical socket then you feel light with a long afterglow. (van den Bosch, 1993, p.111, citing Vogelaar, 1983, free translation).

This may feel like a train of thought going too fast, which might be easily derailed. When so much information is there to be processed, one might get very easily distracted, thus making it hard to concentrate.

My concentration is very poor. I jump from one thing to another. If I am talking to someone they only need to cross their legs or scratch their heads and I am distracted and forget what I was saying. I think I could concentrate better with my eyes shut (Torrey, 2006 [1983], p.9).

One might be thinking of many things at the same time, as described by this person:

Half the time I am talking about one thing and thinking about half a dozen other things at the same time. It must look queer to people when I laugh about something that has got nothing to do with what I am talking about, but they don't know what's going on inside and how much of it is running round in my head. You see I might be talking about something quite serious to you and other things come into my head at the same time that

are funny and this makes me laugh. If I could only concentrate on the one thing at a time I wouldn't look half so silly (Ibid, p.42)

In the introductory chapter, altered thought, speech and behaviour are described as separate symptoms, but I began to view them as natural consequences of altered senses. When one's sensory circumstances change, movement becomes more risky, as, when one moves, the environment changes and so one needs to constantly rebuild that reality with caution (van den Bosch, 1993, p.141). If one's sensory data are altered, thoughts might become deliberate and slow. As described below:

If I do something like going for a drink of water, I've got to go over each detail - find cup, walk over, turn tap, fill cup, turn tap off, drink it. I keep building up a picture. I have to change the picture each time. I've got to make the old picture move. I can't concentrate. I can't hold things. Something else comes in, various things. It's easier if I stay still (Torrey, 2006 [1983], p.18).

This is also described by another person. His world seems to change in speed, going very fast:

Things happen too fast. There is much too much to take in and I try to take it all in. Things happen, but I don't react. If something unexpected happens, I am stunned as if in shock. I simply cannot continue. I have to be prepared for such things. If one moves fast, without thinking, coordination becomes difficult and everything becomes mechanical. I like to plan actions in advance before I do something, then I slowly get up and do them (van den Bosch, 1993, p.141, citing Chapman & McGhie, 1961, free translation)

Another person describes it as movement in a film, making the fast zooming a very appropriate simulation:

Moving is like a film. When you move, the image in front of you changes. The speed with which the image changes depends on the speed of walking. When you run you receive the signals at a higher tempo. The image that I see is literally made up of hundreds of pieces (Ibid, p.158, citing Chapman, 1966, free translation).

As such, thoughts seem to come to a standstill, highly focused or enlarged:

And what about thinking. Well (...) there is no lack of power, but (...) it is in a moment concentrated on one point. And that point of thought takes over my whole existence, from there the confusion arises in actions, because at that moment I am nothing but that thought or plan (van den Bosch, 1993, p.170, free translation).

The effects of the experience of unreality, also described as *Stimmung*, have a strong influence on a person's behaviour, which contributes to why psychosis is one of the most difficult things to both understand and empathise with. Externally, a person seems like they are acting really strangely. Renee elaborates on how this affected her actions:

[...] I asked a friend to play or talk to me. But despite the play and the conversation, I could not get back to reality. Everything looked artificial. Mechanical, electric. To get rid of it I tried to rouse myself. I laughed, I jumped, I pushed things around, shook them to make them come to life. They were horribly painful moments (Sechehaye, 1994 [1951], p.31).

This contradictory behaviour, laughing at something while talking about something serious, is described as inappropriate emotion and is seen as 'impairment in the process of empathy with other people', also described as part of the process of the 'blunting of emotions' or 'flat affect' (Torrey, 2006 [1983], p.42). A simulation of psychosis should consider how to simulate the experience of thoughts going too fast or too slow, and as such how one's speech and/or behaviour might be affected. In addition, one could aim to simulate psychosis in a way that would help us understand how most behaviour in psychosis remains relatively harmless to others, such as only going outside if wearing goggles and rubber gloves, which leaves a person vulnerable to ridicule. Yet there are more perilous situations that might arise while in delusion that are harmful to the experiencer, in particular in situations when a person is convinced they are able to fly or other special abilities while jumping in front of traffic, going as far as the extreme cases of child murder.

How do the case study simulations deal with altered speech, altered thought, and altered behaviour? With regards to altered speech, none of the simulation designs seem to allow for any educational understanding of altered speech. This is almost certainly due to the fact that all the simulations are simulated from a first-person perspective that does not, therefore, engage in any narratives. No voice is heard from the experiencer. With regard to altered

thought, the simulations give a reasonable amount of attention to this important facet, especially if one regards the 'visual thinking' of possible delusions, as discussed in the chapter 'Simulating Delusions'. With regards to altered behaviour, one may have a sense of altered behaviour, created by rapid camera, which embodies fearful behaviour through jittering, trembling or otherwise unpredictable movements. In general, though, one may say that to understand what it *feels* like, there is definitely room for improvement. In that sense, the non-technological simulation of the *Hearing Voices Network* (in which one person plays a voice hearer, one person plays a voice and another person plays a therapist), provides a better educational tool for understanding altered speech, altered thought and altered behaviour. As when one attempts to engage in a conversation, while hearing voices, one feels how tiresome this can be, but also how distracting, one may stop mid-sentence, due to distractions caused by the voices, causing an outsider to experience a voice hearer as displaying altered behaviour in the form of altered speech or thought. It may well prove very challenging for a psychosis simulation to address this particular aspect.

5.3 PSYCHOSES AND THE REBIRTH OF THE SELF

Perhaps one of the most debilitating experiences of psychosis is a deteriorating of the self, described by one person as follows:

What lies behind the symptoms is a tormented self, a highly personal experience unchangeable and irreplaceable by any physical treatment. Despite the 'usual' voices, alien thoughts and paranoia, what scared me most was a sense that I had lost myself, a constant feeling that my self no longer belonged to me. This had nothing to do with the suspicious thoughts or voices; it is purely a distorted state of being. The clinical symptoms come and go, but this nothingness of self is permanently there...what scared me most was a sense that I had lost myself, a constant feeling that my self no longer belonged to me...what he [the mental health professional] chose to see was nothing but the symptoms alone. I feel that my real self has left me, seeping through the fog toward a separate reality, which engulfs and dissolves this self...the real 'me' is not here anymore. I am disconnected, disintegrated, diminished...Schizophrenia is ultimately a disorder of the self, a disturbance of one's subjective self-experience and the external or objective reality' (Roe and Lysaker, 2012, p.7 citing Kean, 2009).

From this description one learns that the deterioration of the self is on the one hand caused by all the phenomena associated with the psychosis itself, and on the other hand exacerbated by the experience of mental health care protocols that are designed to maintain a professional distance. This slow seeping into another reality is considered by many as a means for the human psyche to deal with life events, inner turmoil or other circumstance, which seems almost impossible to escape once initiated:

It would appear that once precipitated into psychosis the patient has a course to run. He is as it were, embarked upon a voyage of discovery which is only completed by his return to the normal world, to which he comes back with insights different from those inhabitants who never embarked on such a voyage. Once begun, a schizophrenic episode would appear to have as definite a course as an initiation ceremony - a death and rebirth - into which the novice may have been precipitated by his family life or by adventurous circumstance, but which in its course is largely steered by endogenous process (Pickering, 2010, p.178).

This is confirmed by Kusters' own experience with a second psychotic episode; already an acclaimed thinker and publisher on psychosis at the time, he recalls:

One of the strange things I experienced in 2007 was that the nurses, as well as the psychiatrist, already knew me by my publications. Some of them even asked for my autograph. What was even stranger to me, was even though I knew exactly what psychosis was, and was in the middle of a psychotic episode, I still could not escape it. The psychosis revealed itself as an inescapable truth and reality (Kusters, 2014, p.22).

Meaning even if one knows what psychosis is, once it begins to run its course, there is difficulty escaping it. This hazardous journey is viewed as an alternative form of suicide, a killing of an old self, creating the potential for developing a new self (Cullberg, 2006 [2000], p.22). An extreme form of self-therapy:

Beth commented on her period of psychosis as having been the most difficult time in her life but she was not sorry that she had undergone it. [...] 'It is strange that I have had to have a psychotic episode in order to break through that emotional shell which I had built up over the years' (Ibid, p.15)

John Nash compared the experience of psychosis to a dream. Bock describes how psychotic symptoms even seem to function in the same way as dreams, as a means to help deal with life, and he suggests bad experiences should be

equated to having a bad dream, interfering in a waking state, making psychosis just another state of human consciousness, like a fever of the imagination attempting to heal the human psyche (Bock, 2000, pp.363-364). Psychosis and a dream state are very similar:

Mental illness is made up of the same stuff as the rest of our mind - of fears, and passions, desires, and hates - of the same stuff as our dreams are made. Dreams are the temporary insanity of everyday life, when the control of reason slumbers and our fantasy runs wild (Alexander and Selesnick, 1995, [1966], p.115).

Elyn Saks describes in her 2012 TED talk 'Imagine having a nightmare, while you are awake' (Youtube, TED, 3.31 min). So, a psychosis simulation practice should take into account the subjective experience of a diminishing of the self, holding both negative and positive facets; as well as an experience of a deterioration of the self in order to create a new self, a destructive yet healing process, and somehow with a dreamlike quality. How do the existing case study simulations engage with and therefore offer education on this particular aspect of the subjective experience of psychosis? The simple answer is that they do not really, and it is here, that a new development of a psychosis simulation would be most challenged in its design.

5.4 LABYRINTHINE INSTALLATION ART IN A PSYCHOSIS SIMULATION PRACTICE

As I have been interested in using labyrinthine installation art to simulate psychotic phenomena in an educational context, I have to provide sufficient evidence that this is potentially possible in the first place. This chapter explores aspects that could be potentially simulated by walking the path of multimedia labyrinthine installation art, as an analogous, metaphorical experience of psychosis.

In order to understand what it is like to be in psychosis, one needs bridges of understanding; and metaphors can act as these bridges (Kusters, 2004, p.31). Metaphors are a form of simulation, and a labyrinthine installation art experience, as a metaphor, may be ideal due to its potential for many

metaphors. Dr. Lauren Artress, author of the book *Walking a Sacred Path, Rediscovering the Labyrinth as a Spiritual Practice* describes:

The metaphors within the labyrinth are endless because they are shaped by our creative imaginations. Most immediate are the journey to our centre of being and the creation of order from chaos. Completion, competition, emptying, turning our back on the centre, distrusting our judgement - whatever our psyches need to deal with becomes the spiritual lesson of the labyrinth. (Artress, 2006 [1995], pp.96-97)

When learning how psychosis is compared to a 'voyage of discovery', 'a course to run', or described as a disconnection from objective reality and initiation or ceremony of death and rebirth, I may begin to argue for the use of a labyrinthine form to better understand experiences of psychosis. The first metaphor that connects psychosis and the labyrinth is perhaps the most obvious; the metaphor of the dream, and entering other worlds. Kusters describes his first time out of the isolation cell as that of entering a fairy-tale world:

This is new territory for me. The hallway disappears to the left and right. The amount of possibilities makes me dizzy. Behind the bends, the corners and doors I suspect a network of corridors filled with muttered sounds, wondrous images and ordeals. The thought of the fullness and abundance overwhelms me and makes me stagger. I look for comfort and lean against the wall (Kusters, 2004, pp.51-52).

When one thinks of psychosis as a return to the protective narratives we weave as children, as referred to by Roe and Lysaker in the chapter on simulating delusions, one can imagine why the world seems to be revisited as a magical place.

5.4.1 LABYRINTHINE INSTALLATION ART AS A DREAM METAPHOR

In this chapter I learned about the association of psychosis to a dreamlike world. Upon entering a labyrinth there is, for me personally, the association of entering a dreamlike world of magical creatures, of adventures on the one hand and unspeakable dangers on the other. Contributing to my associations are films like *Labyrinth* (1986) by Jim Henson with David Bowie, and *Pan's Labyrinth* (2006) from Guillermo del Toro. Both labyrinths contained hidden portholes to other worlds full of magical creatures. There are also movies such as *The Shining* (1980) by Stanley Kubrick with Jack Nicholson, whose character

Jack Torrance chased his wife through a large maze in a hair-raising final scene, and movies such as *Harry Potter and the Goblet of Fire* (2005) by Mike Newell, based on the book by J.K Rowling, in which the hero Harry Potter must enter an enchanted maze.³⁶ How does this relate to installation art?

According to the art critic Claire Bishop, who specialises in installation art, dreaming is actually the closest analogy to one's experience of a particular type of installation art. To explain this she employs a psychoanalytical model of the viewing subject, and, consequently, according to her, the experience of this type of installation art may share the quality of psychological absorption similar to that experienced in dreams, prompting conscious and unconscious associations in the beholder (Bishop, 2005, pp.15-16). This might be considered similar to 'The Truth Taking Stare' as described by Sass. From personal experience, installation art can create an environment in which it may seem that one enters a dreamlike situation, creating the disorientating experience of travelling down a rabbit hole into a beautiful but disturbing wonderland where one can be made to believe one has certain magical abilities. This contributes to the construction of an argument that posits installation art as capable of providing a situation that simulates the dreamlike aspects of psychotic experiences. So how do my own installations fare when it comes to dreaming?

A reference to 'dream' was used by five different people in *Suicide Pigeon*. When a visitor was asked why the artist used a security camera, the reply was: 'To monitor people because it looks like you are trapped in your own type of fantasy or dream of the one who is ill' (23). When another visitor was asked why the artist used the sound of the paper, they answered: to create a dreamlike atmosphere (No.60). When asked why there was a mattress in the centre, and how it made them feel, or think, one person answered: 'Environment of someone who lives here, a type of dream world' (No.64). When another visitor was asked why the artist used the form of a labyrinth, the reply was: 'Endless dream, trapped, and not able to get out, feeling of the psychosis (No.54)' That same person, when asked what they think they learned about what it feels like to be in psychosis, answered that it was 'a dream world from which you cannot escape [...]' (No.54). Another person, asked the same

³⁶ An association with *The Shining* was also made by visitors of *Suicide Pigeon* (Jennifer Kanary, *Suicide Pigeon*, 2010 [2006]).

question about what they felt they had learned, said: 'not living in reality, a dream world [...] (No.94).

The reactions to *Intruder* include seven individual mentions of the word 'dream'. When asked what their association was with the paper, one visitor replied: crafts, a haunted house, a dream (No.44), while another replied: mist, maze, dream world (No.228). When asked what the associations were with the colour white, one person replied: 'mist, dream' (No.67). When asked what the associations were with the peeping portholes, one person replies: 'travel, harbour, dream, boats, first thought' (No.168). The image on the TV screen reminded one person of: 'Like I see things in my dreams, Japanese film' (No.75). When asked what part of the work stuck the most with the visitor, one person answered: 'beautiful dream' (No.231). When asked what, if the information about psychosis in this work consists of the language of sound, colour, text, material, light and form, they think they learned about psychosis (even if you do not know what it is), one person replies: 'I would think that psychosis was a dream-like state' (No.105).

Intruder 2.0 visitors make no mention of the word 'dream'. Another metaphor lies within the labyrinth as being seen as representative of a rebirth of the self.

5.4.2 LABYRINTHINE INSTALLATION ART AS A METAPHOR FOR THE REBIRTH OF THE SELF

When thinking of a labyrinth as a metaphor, one might be inclined to think that a labyrinth represents the nightmarish experiences of psychosis, a path of torture, not being able find one's way; but in doing so, one is confusing the labyrinth with the structure of the maze. Although in common language the labyrinth is intertwined and closely associated with the maze, there are subtle but important differences that may be discerned. These differences are advocated, among others, by the art historian and curator Hermann Kern, who laid the groundwork for much of the knowledge we have today on labyrinths:

In a labyrinth, there is a single, undeviating path to the centre. The walker is not confronted with problems of orientation and can instead direct his or her attention inwardly, concentrating on the significance of the journey. By contrast, the path to the centre of a maze is determined by the choices the walker makes at intersections, which can be done

only by concentrating on externals. The centre of a maze can be found only if the walker takes the initiative, by constantly working to orient and redirect himself or herself toward the goal. In a labyrinth success is a natural consequence of the path's design; the walker is guided to the centre by the existing framework. Both structures serve as entirely different exercises, offering different types of experience (Kern, 2000 [1982] p.316).

If one only used maze-like structures, one would be underestimating and potentially misrepresenting how psychosis is experienced as a positive, life-changing experience. A labyrinth holds both positive and negative experiences. Artress describes her first experience of walking through a labyrinth:

I was hardly prepared for the force of my own reaction. As soon as I set foot into the labyrinth I was overcome with an almost violent anxiety. Some part of me seemed to know that in this ancient and mysterious archetype, I was encountering something that would change my life. [...]. Walking, running, moving the winding pathways as my instincts dictated, I felt joyous one minute, burdened the next. I seemed to step beyond time to where each moment stood triumphant in its own right (Artress, 2006, [1995], p.2)

Completing a walk along a path in a labyrinth means going all the way to the centre, and then returning on that same path. A labyrinth is believed to have consciousness-altering qualities, symbolising the letting go of an old self and the creating of a new one, which occurs in the three stages. As such, one may metaphorically correlate this to similar experiences of psychosis. This may be emphasised by comparing the three stages of a labyrinth walk, the three stages of psychosis, as described by medical science and by Wouter Kusters.

Medical science describes the first stage of psychosis as *prodromal*, which involves subtle changes of thought and behaviour. Kusters describes the three stages of psychosis in his own way, stating that the stages manifest themselves at interchangeable intervals. The first stage of psychosis he describes as *disruption*. According to Kusters, a psychosis begins with a general disruption of a growing distance from one's immediate surroundings and from one's usual interests and behaviours. For instance, music that one once loved becomes meaningless. This is when fundamental conventions disappear, symbols become undone and the differences between the past and the future are being erased. The concept of doubt, a philosopher's thought experiment, becomes a lived reality. The rules that govern space in different

zones, like the public and the private, start to dissipate, and hierarchies are overturned. It is psychosis that is not yet visible from the outside. The first stage of the walk of a labyrinth is called: *Purgation* ~ a releasing, a letting go of the details of your life, letting go of thoughts, and concerns. The second stage of psychosis is described by medical science as the *acute* stage, or *active* stage. The second stage of psychosis Kusters calls *ecstasy*. It is the psychotic in their most extreme state of ecstasy. He is in an all-consuming present, in a state of 'the child', 'the animal' or 'irrationality'. Those who do not acknowledge conventions arrive in an unstructured world. Things are no longer held in place by rules. This provides a sense of mobility, unlimited freedom and a boundless fluid world in which to act ecstatically beside oneself. Kusters describes how, in this phase, he wanted to break down the barriers between himself and his environment. This is the phase in which the search for the ultimate now begins, the unlocking of the mysteries in which people become preoccupied with mystical religion and the paranormal. The 'doors of perception' are opened and behind those gates is the world. This is when psychosis becomes increasingly apparent to loved ones and close friends, typically interfering with one's everyday functioning. The second stage of the labyrinth walk is called: *Illumination* ~ receiving. Usually related to the centre of the Labyrinth as being a place of meditation and prayer. Receive what is there for you to receive. Medical science refers to the third phase as *recovery*. It is when phenomena such as hallucinations and delusions begin to dissolve. The third stage of psychosis, Kusters also calls *Recovery*. In phase 3, 'the psychotic creates a new world on the debris of the old world.' The third stage of a labyrinth walk is called: *Union* ~ *Returning*. You leave, following the same path out of the centre as you came in, which, according to Grace Cathedral, is joining your Higher Power, or the healing forces at work in the world. (Schindle, 2008, pp.28-29, Gracecathedral.org, Eppic.org, Kusters, 2004, pp.13, 49, 127, free translation).

The rebirth of The Self is represented in the case study labyrinths, by the very nature of their structure as going to the centre and back, but are there any indications from the reactions of the visitors that this is experienced as such? When asked 'why a labyrinth', one visitor spoke of 'losing one's way' (No.2), and '[...] where you can get lost and have to find the right way' (No.7), as well as '[...] losing yourself in your own mind [...]' (No.41) or: 'a path full of twists to get better [...]' (No.59). When asked what you think you learned about

psychosis, the same No.59 answered: 'A long difficult path with yourself, fearful, seeing yourself in a different light [...].'

5.4.3 LABYRINTHINE INSTALLATION ART AS A METAPHOR FOR THE LAND OF UNREALITY

In this chapter I learnt that alteration of the senses plays a considerable role in experiencing the sense of Unreality. Any simulation of psychosis must therefore engage with the alteration of senses, as it is another key aspect of psychosis. It is this over-acuteness of the senses and abundance of triggered thoughts and meanings in psychosis that makes installation art such an appropriate medium to experiment with. I began to understand this by investigating the book 'Installation Art' (2005) by Claire Bishop. As she explains: '[...] installation art presupposes an *embodied* viewer whose senses of, touch, smell and sound are as heightened as their sense of vision' (Bishop, 2005, p.6). A certain type of installation may aim to provide a complete immersive experience that affects not only senses, such as audio and visual, but also thoughts and memories, and even the loss of personal boundaries.

The experience of blurred borders between body and space, so often reported in psychosis, have been ascribed to installation pieces that work with dark space, light space and mirrored space. Claire Bishop describes one of her experiences of stepping in to a pitch-black installation as one of the few chances a person may get to experience total, consuming darkness:

Entering such rooms can make one aware of one's body, but as a loss: one does not sense one's boundaries, which are dispersed in the darkness, and one begins to coincide with the space (Ibid, p.82).

What is interesting is that she refers to the French psychiatrist Eugène Minowski's (1933) case study of schizophrenia, and his suggestion that the patient's sense of being 'penetrated' by and dissolved in space may well be the overriding characteristic of human experience of darkness in general:

[dark space] does not spread out before me but touches me directly, envelops me, embraces me, even penetrates me completely, passes

through me, so that one could almost say that while the ego is permeable by darkness it is not permeable by light. The ego does not affirm itself in relation to darkness but becomes confused with it, becomes one with it (Minowski, 1933, p.428, p. 405 as cited in Bishop, 2005 p.84).

Examples of diffusion between body and object, as well as a distorted sense of time, might be also found in the work of the artist James Turrell. Bishop describes her experience as:

Rather than grounding the viewer's perception in the here and now, Turrell's installations are spaces of withdrawal that suspend time and orphan us from the world. Although the installations contain light, and materialise this as a tactile presence, they also eliminate all that we could call an 'object' situated as distinct from ourselves (Bishop, 2005, p.85)

Bishop quotes the art historian Craig Adcock from his book *James Turrell; The Art of Light And Space work*:

[...] without form for the eye to latch on to, visitors fell over, disoriented, and were unable to keep their balance; many had to crawl through the exhibition on their hands and knees in order to prevent themselves from 'being lost in the light' (Adcock, 1990, as cited in Bishop p.87)

As an installation artist I may aim to create particular experiences by consciously placing elements in a space, which in the broadest sense can be literally anything, an object, a material, a directed light, colour, etc. In this an attempt can be made to create a landscape in which a visitor may walk a trajectory during which they may have certain experiences that are triggered by the carefully placed elements: deciphering meaning, opening narrative portholes into which one may fall. In a sense, objects in installation art are suspect and could be seen as 'stage traps' that capture the mind, or the mind may fall through and disappear into their meaning; as a result, a visitor to an installation may show a particular behaviour, a type of standing still, that one could compare, in a phenomenological sense, with behaviour that is considered typical of psychosis, that of 'The Truth Taking Stare'. Bishop explains how 'installation', in part, means: '[...] any arrangement of objects in any given space

[...]. {...} Instead of *representing* objects through paint on canvas, installation artists employ objects in the world *directly* (Bishop, 2005, p.23) Bishop further describes how objects in installation art have: '[...] a desire to heighten the viewer's awareness of how objects are positioned (installed) in a space, and our bodily response to this' (Ibid, p.6). The purpose of installation art, according to Bishop, is: '[...] to thrust into question our sense of stability in and mastery over the world, and to reveal the "true" nature of our subjectivity as fragmented and decentred' (Ibid, p.133). As such, one finds a connection to the experience of fragmentation in psychosis, and the loss of a centred self. So how do my case study labyrinths attempt to simulate this phenomenon?

Again I could say that the very nature of the structure of a labyrinth carries the potential to provide the sensation of entering another world, one that isolates. When a person walks within an installation, it is, for me, very much like moving in a film. In *Suicide Pigeon*, others may pass you by, while walking their own path, and the other, in that sense, is literally a shadow figure due to the transparency of the paper walls and the way the walls allow light to pass through.

In this work I altered the surveillance position of the camera. Instead of watching who were coming into the labyrinth, the camera now watched who was in the labyrinth. This allowed the visitor to see a half-image of legs sticking out from underneath the walls on the screen. Only by moving their own legs, or recognising their own feet from behind, were visitors able to discover that the image was of their own legs in real time. The play with the TV security camera also represented an awareness of the importance of simulating an experience that is logical from the inside. In a sense they could see from the position of the visitor outside still waiting to get in. It also refers to an awakening of 'being watched' with a potential of paranoid thoughts rising from that experience. The view on the TV screen of halved bodies moving around in circles may be said to look a bit mad from the outside, but is logical from the perspective of the person in the labyrinth, as they are following a particular path. A considerably large number of people become disoriented.³⁷

³⁷ With this artwork I made the mistake of wanting the questionnaire to be part of the experience again. Little did I know that 232 visitors would come in the span of the festival, this left me with an awkward amount of data.

N = 232

DID YOU BECOME DISORIENTED?
Yes, No, a little, not
20 words - deducted: dat de door doordat een en het ik in je maar omdat op te was

TABLE 5

Kusters once told me that disorientation plays a pivotal role in many experiences of psychosis. My labyrinths were not completely of a singular path to a centre. There were crevices that could be seen as diversions, which I think distracted a person enough to forget from which way they came. To learn of the general ability of labyrinths to generate such experiences and how my own structures were able to create disorientation inspired me to explore this potential in a new design.

When learning about all of the above experiences, and how my own work related to them, I was challenged to think of a final design that combines a simulation of not just what it feels like to be disoriented, fragmented or experience a transformation of the self, but also what it feels like to straddle different realities going on at the same time. A land of unreality, in which others seem like actors on a stage, in which one's experience of time and space is warped, fragmented to the point that one doubts the position of one's body. A design that involves feelings of disconnection, of feeling that one is located simultaneously in multiple places and feeling that one is lagging behind, with a resultant feeling of an exhausting struggle to function. I felt challenged to design an experience that affects one's senses to the extent that speech and thought seem altered, as well as one's behaviour. These experiences, in turn, invite the creation of coping systems to deal with the experiences, which often leads to odd behaviour. Is it possible to simulate this using installation art?

5.5 QUESTIONS

When looking at the structure that generated Dr Atress's first encounter with the labyrinth, an experience that both caused her joy and burden, it might be surprising to know that it consisted of nothing more than a 44-foot circular pattern of tape on the floor. What would happen if I built on her experience? What if I were to rethink the labyrinth in terms of augmented reality? By combining the torturous structure of the maze with the meditative nature of the labyrinth, might I create an interactive labyrinthine multimedia installation that could allow a visitor to enter an alternative reality, namely the reality of the artwork in which I, the artist, would create my own little universe, with its own set of rules that is completely different from what a 'normal' person is used to. In this little world, might there be the potential of experiencing fear as well as ecstasy? Could this depend on a choreographed symphony of light and dark, of disturbing and wondrous smells, objects, colours, materials and sounds? If the path that the visitor follows in this world has walls that twist and turn around corners, would it literally disturb the person's sense of time and space as they lose all points of reference they are accustomed to using? What if the walls started talking to a visitor, reacting to the visitor as if they knew or could anticipate their every move? What if they started giving you tasks? Could such a structure help me go beyond an illustration of the experience of psychosis? Could it help me move away from simulation or representation, literally bringing a visitor to their own grey border between the 'mad' and the 'normal'?

5.6 SUMMARY

In the first part of this chapter I have explored the concept of 'The Land of Unreality', focussing on the differentiations made by Luis Sass: 'Unreality', 'Mere Being', 'Fragmentation', and 'Apophenia' that inform an understanding of the subjective experience of psychosis. I have made analyses of how the existing simulations relate to these experiences. I focus on the experience of altered senses related to these experiences. In the second part of this chapter I have investigated how the above relates to the arising of altered thought, speech, and behaviour. In the third part I study the experience of psychosis as a re-birth of the Self. In the last section of this chapter I relate these to the potential ability of the structure of a labyrinthine installation art to simulate such an experience within a visitor/participant.

6 LABYRINTH PSYCHOTICA –THE LABYRINTH

It's like, 200 hundred channels of television all on at once and you can't turn them off, nothing but unwanted noise and thoughts – (Grahammarch.com)

Through out my artistic career, artists told me that I am not an artist, but a scientist, and scientists told me that I am not a scientist, but an academic. At first this thrust me into an 'identity crisis', what am I? An artist, or an academic? Later, I learned to transform perceived weakness into strength; I am both. A personal challenge was to balance an artistic poetic autonomy with an experience that could be understood and used by others in an educational context. Meaning, on the one hand provide an aesthetic experience, while at the same time, have an educational function. It became important to navigate the fuzziness of my own autonomy and the functionality of an education-design practice. This led me to search for an artistic language of material, form and light, and establish a method that complemented my own artistic desires and aesthetics, as well as meet educational requirements that respectfully related to experiences of psychosis. This in itself generated its own aesthetic quality leading to works that are part experiment, part documentation and part exhibition. To achieve this I established I designed parameters, and then let go of what happens within the parameters. An example of this may be seen in the use of collaboration as a method, in which I provided an educational presentation to other artists (what are experiences of psychosis), but then allowed them to come up with their own concepts and contributions. To guide this process, and direct the parts into a whole, I used methods of curating. I provided concepts, a space, as well as materials that would bind the works together. As such, *Labyrinth Psychotica* began to develop its own autonomous identity, which became the working title of the artistic research into the simulation of the experience of psychosis and the title of this thesis.

The project *Labyrinth Psychotica* consists of two interactive platforms, *The Labyrinth* and *The Wearable*, which, as visitors undergo the experiences, transform their sensorial and mental perceptions into a simulation of an array of subjective experiences of psychosis. *Labyrinth Psychotica* introduced the two

projects during PhD 7, an event related to artistic research PhDs, in collaboration with the Waag Society, to a small audience. After that, we spent a year pilot-testing within 20 mental health care institutions, to see how the work stood up, and to see where adjustments needed to be made. The two projects were both officially launched to the general public on September 27th in The Netherlands. *The Labyrinth* was launched at *Today'sArt* festival 2013 in The Hague, *The Wearable* at the Discovery 2013 festival at Transnatural in Amsterdam. *The Labyrinth* and *The Wearable* were created with the aim of allowing a person to learn, in a creative and engaged manner, how the experience of psychotic phenomena such as hearing voices, or being in a land of unreality, may affect one's psychological and practical functioning. This chapter presents and analyses *The Labyrinth*.

6.1 THE LABYRINTH STRUCTURE

What was problematic with my case study labyrinths is that they were fragile and site-specific and not designed to be used elsewhere, making its public reach too exclusive to use in a practical educational context with any significant reach. Inspired by *Paved with Fear*, I wanted the final labyrinth to be flexible in its mobility. Therefore, the floor was constructed with 25 recycled rubber tiles.³⁸ The dimensions of *The Labyrinth* are 5.50 (l) x 5.50 (w) x 2.20 (h)³⁹. On top of the tiles, the pattern of the labyrinths path is positioned using aluminium strips attached by screws, making it like a giant puzzle and sturdy enough to be walked upon again and again. The Reims Cathedral labyrinth inspired the design of the path of *The Labyrinth*, in the sense that it too holds five crevices. The tiles hold slots that encapsulate aluminium poles that support an aluminium ceiling. The ceiling consists of eight large panels, one middle panel and three small side panels. Attached to the underside of the ceiling panels is the same labyrinth pattern, marked out by metal rings holding steel wire. These steel wires form the support structure for the curtains that form *The Labyrinth's* walls. There are four corner tiles that hold four poles to barricades and reinforce the

³⁸ The tiles are of a very sturdy material; they are usually used in horse stables. The use of sustainable materials constituted a significantly different approach in my artistic method, as my previous work had predominantly been ephemeral.

³⁹ The best dimensions to present *The Labyrinth* are 6 x 6 meters.

structure to form a safe whole that is not able to collapse. The curtains are made in various lengths, with white, black and grey colours that hold an array of varying thickness and transparency. All curtains are made of fire-safety-approved materials that are used in professional theatres.⁴⁰ Various fabrics are used for the curtains that form the walls. There are three curtains that hold hardware and software for sound and light, triggered by sensors. The ceiling holds the technological equipment embedded in the structure. Dismantled, *The Labyrinth* is able to 'rest' in seven flight-cases.

6.2 REQUIREMENTS FOR PRESENTING AND EXPERIENCING THE LABYRINTH

With a skilled team of four (two of them trained), it takes approximately six hours to build and two-and-a-half hours to break it down. For a location to accommodate the project, it needs an appropriately sized space that is accessible for the transport vehicle, as well as for the flight-cases' dimensions and weights. It also requires a room that can be placed in relative darkness and can be experienced in silence, meaning that, for optimal effect, the project is not suitable to be presented with any other activity in the same space. The structure is plug-and-play, so the room must contain one electrical socket that is unplugged when not in use. Apart from technical requirements, there are other requirements to ensure an optimal experience.

Before a visitor enters, they are asked to adhere to certain 'rules'. It is preferable that a host communicates these to a visitor. Where this is not possible, an instruction video is available, as well as an accompanying booklet or laminated sheet. This is done to adhere to ethical guidelines.⁴¹ As the topic is sensitive, it is important that a visitor is aware that they are entering a simulation of psychosis. In addition, a visitor is warned that they are entering at their own risk with regards to sensitivity to flickering lights in relation to epilepsy and migraine. A person should experience the walk in silence and in relative solitude. To achieve this, a visitor is asked to wait approximately three minutes, or to wait until the visitor before them reaches a designated point in *The*

⁴⁰ A wise lesson learned during the build at *Museum Het Dolhuys*.

⁴¹ Several pilots were conducted during 2012 and 2013, before the official launch of the project in September 2013.

Labyrinth. In order to monitor how many people are in *The Labyrinth*, a visitor is asked to put on one of three white doctor's jackets. Furthermore, a visitor is asked to walk to the centre and back. If at any time they become afraid, or cannot handle the experience, they may leave the structure by crawling under the walls, or by calling for assistance.

6.3 SIMULATING HALLUCINATIONS IN THE LABYRINTH

The design of audio and visual hallucinations in *The Labyrinth* was inspired by the quote mentioned at the beginning of the chapter from Graham March, a musician who was diagnosed with schizophrenia, and who describes his experience of psychosis as follows: 'It's like, 200 hundred channels of television all on at once and you can't turn them off, nothing but unwanted noise and thoughts.' In that sense, the audio and visual design in *The Labyrinth* represents a dynamic landscape of alternating media channels.

6.3.1 SIMULATING VISUAL HALLUCINATIONS

When thinking about how to simulate visual hallucinations, or in particular the subjective experience of visual hallucinations, I imagined a sense of surprise, like 'did I just see that?', as well as a sense of bewilderment, or confusion 'what's going on and how to make sense of it all', which for me translates to an experience of searching. I also imagined a sense of frustration that may come with seeing something that another person does not, even when they are standing right next to you. I thought of it as an experience that may be experienced as special, but also lonely and even a bit frightening, as if in somewhere haunted. In order to simulate the tactile quality of visual hallucinations, inspired by the technology used in the case study simulations, I began to investigate the potential of new technologies.

When visiting the art and technology festival Ars Electronica in 2009, I came across a work by the artist Junji Watanabe that struck me as a possible method to simulate the experience of a visual hallucination. Watanabe's work involved a light pole suspended in mid-air, from which, for a brief moment, an eye would appear (YouTube, SalomaoNunes, 2009). Waiting for the eye to reappear does not work, people next to me would say: 'hey, an eye!'- and I would not see it. Only when I gave up and looked away did it suddenly appear.

Watanabe describes how the work may only be experienced through saccade movements (junji.org). Saccades are ‘quick, simultaneous movements of both eyes in the same direction’. A digital image is built up out of pixels; one pixel correlates to one LED light. The hardware in the poles fires one line of pixels of the image at a time, at the same time it takes the brain to build an image with a saccade movement. Meaning that when one is looking directly at the poles, one will see nothing but a strip of LED lights with a particular colour, but when one looks away at a certain speed, one will see an image appearing out of nowhere in the air. How these images are created in mid-air is similar to what happens when one sees an orange circle when one rotates a firework sparkler. The orange circle is there, but not there. The brain creates the pattern from the various locations of the light. For me the appearance of the eye in mid-air was as mysterious as firework circles, and as such it reminded me of how certain psychotic phenomena are described as magical, so I became curious about how I might integrate such technology in a new labyrinth in order to achieve a similar effect within a visitor.

In search of a way to recreate the effect in the work by Watanabe, I happened upon the hardware designer Rene Wassenburg from *Schrikdraad*, and software designer Simon de Bakker from *Simbits*, who had previously worked together on the creation of a work using the saccade effect. They were able to design their own advanced version of this phenomenon for *Labyrinth Psychotica*.⁴² *The Labyrinth* has six LED hallucination poles that are placed at various locations along the path, each containing a strip of LED lights, with each LED light able to become one of four colours, allowing for full colour HD images (YouTube, LabyrinthPsychotica, 2012c). It is the effect that allows one to see images in the air that are not there. Even when standing next to another person watching the lights, it is possible that one person is able to see the image, and the other is not. This for me represents the sensation of wonder and disbelief. Each pole has five images. There will be more about the content of the images, and their function within the whole experience, later in this chapter.

⁴² Wassenburg and de Bakker worked on a cruder version, for an advertising company ‘Everybody Like Penguins’, this company created a theatrical event for the Oeral Festival during which the general public could sign up for an apparition of The Virgin Mary, the LED pole was hidden in the woods (Flickr, EverybodyLovesPenguins, 2010)

6.3.2 SIMULATING AUDIO HALLUCINATIONS

When imagining what it feels like to hear voices, I imagined, as with visual hallucinations, what it would feel like if I heard voices that others could not. Would I feel special? Haunted? Confused? The visceral experience of this alone seemed daunting to me, perhaps even impossible to simulate. Yet, during my visit to Ars Electronica, I also visited an exhibition on the experience of sound at the Lentos Art Museum. There I encountered a work by the artist Laurie Anderson, titled *The Handphone Table* (1978). The work consists of a wooden table, on which I was to rest my elbows on designated indentations, after which I was to place the palms of my hands over my ears. In doing so, I was able to hear sounds in my head that no one else could hear. For me it was a profound experience that allowed me to imagine what it might be like to hear sounds that others could not. This phenomenon, known as bone conduction, is when mechanical vibrations stimulate a person's cochlea, where the vibrations become transformed into neural signals that travel to the brain and are then processed in the auditory cortex (Henry and Letowski, 2007, p.1).

After discussing Anderson's work with the sonologist Konstantin Leonenko, I learned that re-creating this experience was relatively simple, and within minutes Leonenko created a small system using two magnets, a small battery power source, and two electromagnetic coils that allowed me to hear sounds in my skull through vibrations. After my initial enthusiasm, regrettably, I learned that this could not be the way to simulate voices. The system threw up two issues. First, the system did not allow for much quality of sound. One could hear beats, but the system did not allow for any transfer of voices due to a limit in range, nor any substantial variation in quality of sound, which would leave little room to artistically influence the subjectivity of the experience. The second issue was of a different nature. Although the device would allow the simulation of beats, after wearing the contraption myself a couple of times, I was unsure if it was ethical to have people wear such powerful magnets on their heads, as I almost immediately experienced headaches each time I tried on the device. However, the device did point me in the direction of HMD technology, which led to the creation of *The Wearable*. My search for a technology to simulate the subjective experience of voices continued.

Via the BBC's Tomorrow's World programme, I encountered a sound technology described as audio spotlights (YouTube, HaroldMcAleer, 2007).

Audio spotlights are speakers that make use of the properties of ultrasonic sound to beam sound with the same precision as a flashlight, while the rest of the environment remains relatively quiet. I was interested if it was possible to have two people stand next to each other, and have one experience sound, and the other silence, in order to create a moment of disagreement between two realities. The art and technology organisation Waag Society in Amsterdam were kind enough to allow me to try out their audio spotlight. Sadly, in practice, I learned that it was not possible to create the desired effect due to sound reflections; the other was always able to hear the sound, albeit at a much lower intensity. However, this did not mean that the technology could not be used to simulate other aspects of psychotic experiences of audio hallucinations.

For this I thought about how the sound reflections could actually be used. In my experiments, I learned that the directional sound reflections are powerful, which could be used to cause various levels of confusion. When pointing the speaker to a person, the sound actually seems to come from their body. As learned in chapter two, audio hallucinations may involve sound sources other than one's head, sounds actually seem to come from various sources, such as one's own hands, walls, ceilings, etc., to the extent that people will start digging into a wall to get to a perceived sound source. The audio spotlight that I tested was too large to use in my labyrinth. In addition, in my personal opinion, the square design was not aesthetically acceptable in appearance. After an online investigation, I came across the Ljubljana-based audio engineer and sound artist Miha Ciglar, who hand-builds his own version of directional sound speakers, which he describes as Acospades. For me the circular design reminded me of an eye, and the many circular elements embedded in the speaker as insect eyes, making them much more suitable as elements to embed in a labyrinth. I ordered three of them.

Now that I had the speakers, sound design became a crucial element, and as I myself am not expert at sound, I was grateful to collaborate with several sound designers affiliated with the Hogeschool voor de Kunsten Utrecht⁴³. After providing a presentation about what I learned from psychosis simulation, I invited the designers to design a soundscape taking into account the possible range of audio experiences. One was given to Alina Sleebe, with a

⁴³ Tijs and Alina were students of the department of Interaction Design of the HKU at the time, the assignment *Labyrinth Psychotica* provided formed part of their education.

request to design an experience represents a constant changing of radio and TV channels that simulate the experience of not being in control of the soundscape in your mind. The two other Acouspades were given to Pinar Temiz, who was asked to design a sound dialogue between the speakers that would represent the tensions that may arise in content, when voices engage in conversation, contradicting each other, like having an angel and devil on one's shoulders, in which male and female voices would, for instance, alternate in saying: 'do it!' and 'don't do it!'

6.3.3 SIMULATING OTHER HALLUCINATIONS

The whole of the visual and sound design of hallucinations in *The Labyrinth* seeks to generate a subjective experience that represents psychological tension and loss of control. With regards to other hallucinations, for me as an artist, the various materials of the curtains already represent a powerful olfactory experience, which visitors have shared with me as significant to them as well, but I also understand if others do not pick up on this subtle infiltration. In future it would be interesting to experiment with more obvious smells, such as those that can be embedded and spread via oils. With regards to the sense of touch, I think what *The Labyrinth* is able to simulate, to a certain extent, is the subjective experience of surprise or haunted sensation of being touched without seeing anybody, or knowing who is touching you. One moment a visitor walks alone, and another moment a person brushes alongside you completely unexpectedly, with many a scream as a result. As with the other case-study labyrinths, I require from the visitor an element of 'do-it-yourself' psychosis.

6.4 SIMULATING DELUSIONS - DO-IT-YOURSELF PSYCHOSIS - ENTERING JAMIE'S MIND

Whereas the path of the labyrinth in the case study *Intruder 2.0* revolved around understanding how free associations with apples could lead to thinking one is guilty of 9/11, the path of *The Labyrinth* approaches the simulation of delusion that revolves around entering the mind of a fictional girl named Jamie and attempting to understand what she is experiencing. The themes involve

narratives that display a different approach and context. When studying the history of the care and treatment of madness, I learned that possession is a re-occurring subjective experience of psychosis. As such, I found it important that possession, as a theme, should be embedded in my design for its educational value. For the reader who is interested in a more complete understanding of the history of our understanding of psychosis, I would like to refer to the bonus chapter in Appendix I. Creating this fictional girl was important to me.

By creating her, I was able, on the one hand, to begin to create a distance from the experiences of my sister-in-law, while, on the other hand, embracing other people's experiences. Jamie was initially created within the design of *The Wearable*, but slowly I understood that when a visitor enters *The Labyrinth*, they also enter Jamie. Upon walking the path of *The Labyrinth*, one has the assignment of solving the issues underlying her delusions. Why is she experiencing the things she is experiencing? What is her inner narrative? What beliefs has she formed? What are they about? A visitor has the assignment of taking a deeper look at their own associations within the artwork (as was the case in all three of the artistic case studies), and enlarging them into an iconic narrative that relates to experiences of psychosis. I hoped to give a visitor more responsibility by letting them investigate their own associations, analyse what they are and link it to Jamie's potential experiences. In order to facilitate the play of a visitor, various clues are present. I hope that this path involves a visitor in a system of play that activates their belief system as prosthesis for their imagination.

Therefore, while walking the path, a visitor is asked to search for clues about her experiences; these clues are embedded in various elements within the structure. As with the Reims Cathedral labyrinth, there are five crevices, which contain small installations that represent several of Jamie's experiences. Four of the crevices of the path contain a single LED hallucination pole, whereas the central crevice contains two. Each pole contains five images that may be viewed with a saccade movement. The images point towards the potential content of delusional thought and emotion to which Jamie may have succumbed. Momentarily, the images contain graphics of a gun, a cross, an American flag, a safety pin, or a skull, but also photographic images of the likes of Marilyn Monroe and Audrey Hepburn. With the open-ended clues to her experiences, one may metaphorically emphasise a process of empathy to

understand delusion, through one's willingness to be 'thin-skinned', but also gently nod to a visitor's own delusional experience of the artwork, as there is no real Jamie, and one is not actually entering anybody's mind. If one walks and decides only to see curtains, one will only see curtains, hence the do-it-yourself aspect. One has to become the dramaturgical director of one's own experiences. The depth to which a belief in the delusion is formed lies in the hands of the visitor. When one engages in the world created by an artist, one has to be able to form a belief about that world, in a sense one has to enter a temporary delusion, which may be considered analogue to a delusional experience. It is up to the visitor to determine how real they allow that experience to become, but many participants found this difficult, it was as if they have forgotten how to use their imagination. The thought experiment stimulated this. I found that it helped workshop participants to view spaces from a perspective of play. By reminiscing about ones own creative associations as a child, it became easier for participants to view the labyrinth with a different associative perspective."

6.5 SIMULATING THE LAND OF UNREALITY

In order to describe how *The Labyrinth* attempts to simulate the subjective experience of the phenomena described in the chapter of 'The Land of Reality', I will attempt to take the reader on a more detailed journey through the labyrinth's path and expand my thoughts on the various elements, and how I perceive how they simulate 'unreality', 'mere being', 'fragmentation', and 'apophenia, taking a look at altered senses, the loss of the self, and psychosis as a spiritual journey, but also reflecting on altered thought, altered behaviour and altered speech. In order to do this, I would like to return to Renee's description of her experience of madness that inspired the design:

For me madness was definitely not a condition of illness; I did not believe that I was ill. It was rather a country, opposed to Reality, where reigned an implacable light, blinding, leaving no space for shadow; an immense space without boundary, limitless, flat; a mineral, lunar country, cold as the wastes of the North Pole. In this stretching emptiness, all is unchangeable, immobile, congealed, crystallized. Objects are stage trappings, placed here and there, geometric cubes without meaning.

People turn weirdly about, they make gestures, movements without sense; they are phantoms whirling on an infinite plain, crushed by the pitiless electric light. And I – I am lost in it, isolated, cold, stripped, purposeless under the light. [...] This was it; this was madness, the Enlightenment was the perception of Unreality. Madness was finding oneself permanently in an all-embracing Unreality. (Sechehaye, 1994 [1951], p.1)

The first inspiration is Renee's clear sense of not being ill. Therefore, for me, entering the installation should not relate to any association with illness, yet, as the Western world does associate the mental state as illness, I did want to make a reference to the discrepancy between illness and non-illness. Hence I ask the visitor, yet again, to don the doctor's jacket, which for me symbolises the attempt to either simply undergo, or analyse and even (self) diagnose Jamie's experiences.

Ideally the visitor encounters *The Labyrinth* in a room in complete darkness. From the belly of the curtains and the metallic ceiling, various lights shift colour, and soft atmospheric sounds come from its interior. The lights of the LED Hallucination poles are the sole light source within the labyrinth. I wonder if it resembles the cold electronic light described by Renee. The visitor enters *The Labyrinth* via a dark slit in the middle, between two curtains that hang approximately 15 cm from each other. Entering the structure is like being swallowed whole, it is very much like entering another world, like a mental landscape in which the path resembles the coiling of the brain, it is completely isolating. The path is so narrow that a visitor will often navigate by placing one's hand against the curtains, as was the case in the case study labyrinths. Therefore, I decided to use 18 different materials to form the walls. As psychosis is often described as having one's senses opened, I hoped that by the constant changes of materials one would slowly, but acutely, become aware of alternating sensations. The curtains consist of a range of white, black and grey materials providing a wide spectrum of variations. This for me represents the white noise of a TV, but enlarged to a giant pixelated landscape.

As the visitor moves past the curtains they encounter the first crevice. The first crevice represents the sensation of Jamie feeling she is being watched, and that she is in some kind of danger. On the right side of the LED hallucination pole, a security camera hangs from the ceiling, positioned towards the visitor. Within the camera is a red LED light that blinks slowly and ominously

'on and off', simulating actual recording, resembling for me an all-seeing insect-like eye. When the visitor turns from this crevice, it all begins to go wrong. I would say about 8 out of 10 people continue on the labyrinth's path only to end up at the entrance again. How is this possible?

What happens is that, even though the path of a labyrinth is only one way, as soon as one's senses are distracted by the crevice, one becomes disoriented, and may end up either forgetting, or simply not recognising that one is moving backwards on the path from which they came. It also happens that one is not able to find how the path continues, leaving a visitor thinking that this was the whole experience. We may send them back three times, and they still will not believe us that the path continues, until another visitor goes ahead of them, and they do not come back. The materials of the curtains support this disorientation. They are either so thick that, when the walls are folded it seems as if there is no opening, or they are so thin that the same effect occurs, thinking one has reached a dead end. When they do manage to beat the disorientation around the first crevice, the path takes them past three technological curtains, which were made by the interactive textile design artist Meg Grant.⁴⁴ When a visitor passes these curtains, a sensor is triggered and the embedded technology in the curtain reacts.

The reactions consist of sound and light. The three elements represent, for me, Jamie's experiences of psychosis as a psychological alteration of the self. The first curtain is made from a soft grey material, representing Jamie's life as neat and tidy, everything under control, a mask to the outside world, and yet something is amiss. When a visitor passes this curtain, a series of tiny speakers produce a single electronic sound in a sequence that moves from behind the visitor to in front. As it is very subtle, I hope that it creates a sensation for the visitor of 'did I just hear that?' As there is a delay to the sensor, it will only happen once: a visitor is not able to recreate the sound, unless they wait. The first curtain holds no light.

The second interactive curtain is made from white cotton; it is much messier in its design, there is no sound, only a red light blinking. The red light may be seen as a repetition of the red blinking light in the camera, and as such may use it to stimulate apophenia, that it is not a coincidence, that there is

⁴⁴ The materials of the curtains are of the same fireproof materials as the rest of the labyrinth. The description of the psychological 'rebirth of the self' is a personal interpretation of the design which was born during Grant's design process.

meaning to these two lights. When a visitor passes this curtain, a text says 'hello', then it says 'hell', and then it says 'help'. In this one may find evidence that *The Labyrinth*, or Jamie, is attempting to communicate with you. The messy style, the white colour as reference to innocence, the simple 'hello' that turns to 'hell' and 'help', represent, for me, Jamie's childhood. Something bad has happened to her during childhood. It is lingering in her subconscious, in a sense, asking for the visitor's attention, but will they pick up on it?

The third curtain is made from black cotton; it is tight, it looks military. A series of polished squares form a sequence of sounds, and digital numbers begin that mimic the countdown of an explosive device. When a visitor passes the sensor, it is a warning to the visitor that Jamie's underlying psychological tensions are at a breaking point. This curtain represents the unhealthy need for control. Having complete control is like a form of decay of what life is about. It is the moment in which conventions will start to break.

As the visitor's journey continues, they encounter the next crevice. Within this second crevice, a pair of headphones is hanging, from which a neutral voice resonates 'Please put on the headphones' in an endless repetition. The sound designer Tijs Ham created this element, which is a sensor-based experience that integrates a binaural recording. When a visitor puts on the headphones, a light-sensitive sensor switches the voice to a binaural recording. With binaural recording, recordings are made by placing small microphones in the position of one's ears. If one records a person whispering behind one's back, then when that recording is played back, it sounds as if there really is someone behind you whispering. As such it simulates human hearing, making the experience of the sound very realistic. The Canadian artist Janet Cardiff, who often works in collaboration with George Bures Miller, has built works using binaural recording. Alanna Heiss, founder of the art gallery that became MoMA PS1, wrote the following about Cardiff's works:

Her pre-recorded sounds and whispered words wrap us in a haunting sensory environment, straddling reality and dream, fact and fiction, public and private realms. To experience Cardiff's walks and installations can be frightening, enchanting, sometimes wonderfully disorienting [...] (Christov-Bakargiev (ed.), 2001, p.11).

Heiss's description of Cardiff's binaural design covers several aspects of the

subjective experience of psychotic phenomena, such as the disorientation, the sense of straddling different realities, and dreamlike worlds, but also enchanting, yet frightful experiences, hence it is an important method, for me, to use in the simulation of the subjective experiences of psychosis. The recording in the headphones contains a slow build-up of people walking around in *The Labyrinth* surrounding the visitor. Because the recording is binaural, the sounds are very realistic. This leads to many people believing that there is nothing to hear (when the recording is playing back a person walking by), or they become convinced that a bunch of people are teasing them (when the recording contains several people walking by). When the visitor then takes off the headphones, the recording 'please put on the headphones' immediately resumes. This provides, on the one hand, a sense of doubt within the visitor: 'did I miss anything?' Some people will try again, conclude they missed nothing and move on (as the recording sounds so natural they think it is just the other people in the structure). Some will keep the headphones on a little while longer to see what happens. Of these, some will still be convinced they are hearing nothing. Some have actually believed that the headphones were broken (depending on the location of the recording). Those that listen a little longer will begin to become aware that something is not quite right. They will begin to look to the floor to seek the feet of the people walking around them, but there is no one there, which on the other hand provides a potential sense of haunting. Other experiences are also simulated. In one instance a person waited for almost 20 minutes for a voice to tell them to take off the headphones. This occurrence perhaps represents the need, and desire, to obey a voice, to do what one is told. If a voice has told you to put on the headphones, a voice might also tell you when to take them off again.

Onward to the next crevice; at first glance there is nothing to see but the LED hallucination pole, yet tucked away in the right-hand corner is a small bicycle mirror. For me this represents an eye that reflects the self that is searching for the self, being surprised by the self. For those who do not see the mirror, perhaps they feel some sort of loss or disappointment that there is nothing there. Would people who did not see the mirror on the way there see it on the way back, causing confusion?

The fourth crevice is very simple, albeit complex in what it represents. From the ceiling hangs a white cord; from the cord hangs a bell. It is a slightly

odd object to encounter. The cord invites the visitor to touch, to ring the bell, but the bell has no clapper inside. When one looks above, one realises it comes from a device often used to safeguard the electrical feed of a washing machine; the embedded red light is either on or off. The whole exercise for the visitor revolves around whether they dare to pull the rope or not. For me, this again represents the breakdown of conventions, which, as described by Kusters, occur in the first phase of psychosis. The visitor knows they are allowed to touch the walls, it is inevitable, but will they touch an object within the installation? The light goes on, or off, depending on how the previous visitor left the cord, when the visitor pulls, the light will therefore go on or off. What does a person think after they have pulled the cord? Do they begin to doubt if they did something? Do they wonder if they turned on a sound or a light? This represents for me the beginning of a delusion of reference, how far a person will go in linking the act to them, when all that happens is that a light switch goes on and off, nothing more, nothing less. To me the experience could also be linked to 'objects as stage trappings', as Renee describes. The rope is hanging there defying you to touch it, do something. By its very segregation, the bell that is not a bell provides within itself a life of its own, a 'mere being'.

The last crevice is the centre, within the centre resides an entity, embedded in the wall of the centre one encounters the protectors of that entity. The protectors consist of the same eyes that were embedded in *Intruder 2.0*. They have been assimilated by the style of the artist Linda Maissan, who has transferred them into ghostly eyes of textile, anchored by rows of tiny safety pins, making them resemble a poetic swarm of bees. The entity they protect is 'The Oracle'. 'The Oracle', also created by Maissan, consists of two faces. These two masks represent, not a split mind, but the sensation of being torn between different time zones.

Next to the crevices are several more indications of Jamie's delusional experiences of a land of unreality, related to the experience of time and space. The structure looks so small from the outside, but is, like the other labyrinths, much larger than one anticipates, as the path makes optimal use of the space. The path seems to stretch endlessly, and as a result one may feel truly lost. To emphasise a spatial journey, the sound design by Sleebe was designed in content not only to refer to the switching of TV channels, but also to create a sense of metaphorical time travel; the sounds constantly switch between

different flashbacks to the 1980s, the 1950s or the Second World War and the 1940s. Each time the sounds are suggestive in their content, either through atmosphere, tone or content, which a visitor may begin to connect to the visual hallucinations embedded in the LED poles.

I hope that by using the large surfaces of black, white and grey, one is given a sense of a space devoid of warmth and/or authenticity, in contrast to a more magical centre. I hope that the sounds and objects feel like taunting entities that overwhelm the synthetic whole, and that a visitor will interpret patterns and meaning where there are none.

6.6 SIMULATING ALTERED THOUGHT, SPEECH AND BEHAVIOUR

Visitors to *The Labyrinth*, although requested to walk the path in silence, may often be heard mumbling, voicing their bewilderment that a person who was first in front of them is suddenly behind them, or their frustration at not finding the way out. They may even be heard laughing or yelling when they suddenly encounter another person, but apart from these instances, there is little evidence of any simulation of altered thinking or speech. I might argue for the simulation of altered behaviour, in the sense of the 'truth taking stare', when considering the way that a visitor stares and shakes their head to see the messages in the light, or their searching movements as they attempt to find their way, or a sound source. I might also see altered behaviour as they wave their hands, or step cautiously to move forward.

If I return to Renee's description of her experience of madness, I might say that the installation *The Labyrinth* forms its own space in which elements are placed to generate a complete immersive experience, which may be considered as a world in its own right; a world that an artist has created especially for a visitor to experience. From the perspective of someone standing outside *The Labyrinth*, one may experience people turning weirdly about, not making sense, looking like phantoms whirling on an infinite plain, crushed by the electric light. One might view other visitors' structure becoming lost in it, isolated. When a person enters that world, they follow the rules of that world: from their perspective their behaviour is normal, from the perspective of the rest of the world, they are 'crazy'. I might imagine what it is like to function in the

reality of the everyday, while at the same time experiencing this other world; as it were, imagining the visitors are present within *The Labyrinth* as they attempt to function in the everyday world, which brings me to the need to create *The Wearable*.

6.7 SUMMARY

In this chapter I have introduced and analysed the work I call *The Labyrinth*. I have shared its technical requirements, and as best I could, have shared all the decisions made in the design and how I feel it relates to the simulation of psychotic phenomena, such as hallucinations and delusions, but also the land of unreality, as well as altered speech, thought and behaviour. I will have to leave it to the reader, and to visitors to determine for themselves the success of my simulation, based on for instance the points raised by Beavan in audio hallucinations, and decide if there is sufficient psychology to 'Jamie's mind'? For myself, I felt there was room for improvement, which warranted a new work, the reason being explained in the next chapter. I also felt that to achieve the next level of simulation, I needed to step out of my comfort zone as an installation artist, and enter the world of wearable technology, which in a sense due to its immersive qualities may perhaps also be seen as installation art, at least, that is how I have become to view it; as installing a mind onto the mind of another, or installing experiences into the brain as synaptic 'objects'.

Inspired by all the stories I read, for *The Labyrinth*, as well as *The Wearable*, I imagined the senses on a broader level, going beyond the five sense- sense of time, sense of perspective, sense of space - including senses like proprioception. I was curious to use this as a basis design principle for *The Wearable*, and see how it might simulate the experience of psychosis. In this I wondered, for instance, if sense of time is affected, if it may look as if a person is staring at you, a little longer than is conventional, causing a person in psychosis to stare back, causing the other to stare even longer, or look away, or look angry –in which the emotion of the face of the other hits home harder, as one is hyper sensitive - causing a loophole that feeds delusional thinking.

7 LABYRINTH PSYCHOTICA –THE WEARABLE

And those who were seen dancing were thought to be insane by those who could not hear the music. ~ Friedrich Nietzsche

7.1 THE WEARABLE DESIGN

The idea for *The Wearable* came from the problematic aspect of the labyrinth projects, which left a design challenge to address. During my research I realised that walking around in a labyrinth does not allow for an understanding of how the experience of certain phenomena affects a person in their actual everyday functioning. The question arose of how to create an experience that would allow one to retain the strength of the labyrinth experiences, in a way that would allow one to attempt to function in everyday life, while experiencing psychotic phenomena. The answer was sought by creating *The Wearable*.

The experience of *The Wearable* begins with the wearer mounting a pair of glasses on their head, also known as a VR HMD (Virtual Reality Head Mounted Display). The HMD contains two LED screens that are aligned in such a way that they provide the wearer with the experience of looking at a high-resolution wide-screen TV. A single camera is placed on the HMD, enabling the augmented reality aspects of the experience. The wearer is able to see and hear his or her everyday world through the camera, while it is simultaneously, in real time, manipulated as semantic information layers, and digital manipulations or special video and audio effects are added. The experience is interactive and multi-path, meaning that actions need to be taken to initiate scenes from the film, which are never the same. In order to achieve this effect, a Wii game controller is used. The sensors of the controller allow the system to 'know' if movement takes place and run a narrative that reacts according to movements and buttons pressed at key moments. The experience lasts about 12 minutes and includes several scenes and acts, in which eight characters are part of a story evolving towards a climax. *The Wearable* is a portable form of psychosis simulation. It consists of hardware and software that is worn as a rucksack, allowing a wearer to move freely around a space. *The Wearable* in its original

form uses a HMD of the brand Vuzix WRAP 1200VR, which is mounted with a Logitech C920D Pro Webcam (with microphone). Instead of using the embedded audio of the Vuzix, Koss PortaPro Headphones are used. This hardware is connected to a MacbookPro 15.4/2.3/8GB/25GB Flash, which is powered by an external Hyperjuice Battery 222KWH. To build the interactive experience of *The Wearable*, open-source sound design software Super Collider was used to build an original game engine. The game engine forms the backbone that drives a mixed reality experience, with the aid of the open-source video software Quartz Composer, including a face recognition patch. The game engine is steered by a Wii Game controller. The wearer is guided through the experience by a trained guide.

7.2 REQUIREMENTS FOR PRESENTING AND EXPERIENCING THE WEARABLE

There are very few requirements with regards to being able to present *The Wearable*. A table is sufficient. In essence all spaces are possible. However, most suitable are spaces that allow wearers to move about, with not too much noise from the surroundings. Preferably, *The Wearable* is experienced in places that are familiar, with the ability to interact, for example with colleagues, or to engage in an everyday activity, like getting coffee from a coffee machine.

Requirements for wearing the experience is that one must be guided in such a way that one is not able to hurt oneself. A trained guide, should, therefore, supervise the wearable experience. The trained guide is able to explain how the experience works, as well as interact at key moments, such as when face recognition is activated. A trained guide monitors a person's reaction and ability to cope with the experience; agreements are made with each wearer, on what to do to end the experience prematurely, they will be able to warn that the experience is at one's own risk, when it comes to epilepsy, migraine and potential dizziness or queasiness. In the case of a person wishing to experience the wearable, while having had experience with psychosis, a request is made to warn the guide in advance. As the experience is an artwork, a person who is interested in experiencing the wearable should be able to, but a trained guide may at all times refuse a person if they feel uncomfortable guiding them.

7.3 SERIOUS GAMING

In deciding to use a Wii control to navigate the interactive experience of *The Wearable*, it became important for me to reflect on the design of the experience in relation to gaming. In using a Wii control, did this mean the experience automatically became a game? If yes, what kind of game? And how does a game relate to psychosis? A game is a road map to 'reward and catharsis' (Dansky, 2007, p.13). In the experience of *The Wearable*, there are no points to be earned, yet there is a reward. The reward in the story of *The Wearable* comes from being given a creative tool to better understand the subjective experience of psychosis that relies on one's own engagement. The catharsis consists of feeling stronger about being able to better understand psychosis. In that sense one could say that the experience is therapeutic.

Another reason why I wanted to reflect on a game as a starting point is because I realised that psychosis often displays traits similar to that of a 'game'. Psychosis often starts out as an experience of 'game-like' play, people who begin to hear voices often think that people are playing a joke on them, or are testing them (Tellegen, Mous, Muntjewerf, 2011, p.23). Voices often have rules and tasks that one has to follow. From conversations with Wouter Kusters, I learned that the initial stage of psychosis often might be experienced as fun, and even beautiful. My aim was to capture how such an experience could switch between the range of fear and ecstasy, and play with real-world interaction.

A brief investigation into gaming taught me that when a game is designed with an alternative aim other than entertainment, in particular with an educational purpose, it is referred to as a 'serious game'. In his IEEE Computer Society article 'From Visual Simulation to Virtual Reality Games' (2005), Game expert Michael Zyda describes the difference between a 'game', 'video game' and 'serious game'. Generally he explains, a 'game' is described by a dictionary as: 'a physical or mental contest, played according to specific rules, with the goal of amusing or rewarding the participant'. His proposal for a definition of a 'video game' is: 'a mental contest, played with a computer according to certain rules for amusement, recreation, or winning a stake'. A 'serious game' he proposes is: 'a mental contest, played with a computer in accordance with specific rules that uses entertainment to further government or corporate

training, education, health, public policy, and strategic communication objectives' (Zyda, 2005, pp.25-26). In the same article Zyda describes how a video game consists of 'story, art and software', but a serious game will also deal with pedagogy. So next to a 'design team' for the story, the 'art team' for the art and a 'software team' for the programming, there is also a 'human performance engineering team'. In his opinion, pedagogy should be subordinate to story and entertainment.

I also learned from my conversations with those who have lived experience of psychosis that it may often lead to funny, even hilarious situations, and that from a certain perspective it could be considered very entertaining. I learned that humour is an important method for dealing with psychosis. As such, I felt that serious gaming might form a good starting point for the design of a simulation. I therefore developed the backbone of *The Wearable's* narrative design using elements of videogame narration.

7.4 SIMULATING PSYCHOTIC PHENOMENA USING A (VIDEO) GAME NARRATIVE STRATEGY

As the experience of *The Wearable* is of such complexity, instead of separating how it simulates psychotic phenomena by hallucinations, and delusions, in this chapter I will dissect the experience step by step by its various scenes and acts in its complete interactive multi-layer and multi-path game-like storyline design, and explain how, for me, these elements relate to psychosis. In doing so I rely heavily on authors of the book *Game Writing Narrative Skills for Videogames* by Chris Bateman (ed.), 2007).

7.4.1 THE POSSESSION OF JAMIE'S MIND - THE STORY AND ITS SETTING

In game design, the story describes what occurs, when it occurs, in what order it occurs, and with what end results; a story helps to create opportunities, effects, and moments of emotional intensity, that serve as a framework for gameplay (Dansky, 2007, p.13). In order to create a story, a setting is needed; a setting defines the world in which the story takes place (Dansky, 2007, p.3).

What kind of a world would be able to contain experience of psychosis in a way that is transferable to another person?

The story setting for *The Wearable* experience became embedded in the mind of a fictional girl named Jamie. Inspiration for the setting came from films such as *Being John Malkovich* (IMDB, 1999) by Spike Jonze, in which a puppeteer finds a portal into the mind of John Malkovich, and *The Cell* (IMDB, 2000) by Tarsem Singh, in which new experimental technology allows a social worker to enter the mind of a comatose patient. Much like in the film *The Cell*, a mind uplink is made with a patient using technology, and much like in the film *Being John Malkovich*, one is able to see the world through the eyes of Jamie, as if one is sitting inside Jamie's head. Jamie is experiencing psychotic phenomena in an extreme episode, which is making it almost impossible for her to communicate with her friends, family and therapist. They need the wearers' help. The new technology, which *The Wearable* represents, allows the wearer to upload their mind into her mind. It is the wearer's assignment to observe her experiences and report back any findings about her experiences that may be considered useful in understanding her experiences. Which information might be considered useful is for the wearer to determine.⁴⁵

7.4.2 SCENES, ACTS, ARC, PACE, PLOT, PREMISE, AND CHARACTERS

Every story has an arc. An arc is: 'the curve described by the intensity of the action'. It rises, grows in intensity moving towards a climax. The story arc is built with a plot, which was once defined by Aristotle as the 'arrangement of incidents' (Dansky, 2007, p.13, Jacobs, 2007, p.26). The plot is carried by the stories' premise. The main premise of *The Wearable* is that 'everybody is mad', which translates to my design as a simulation of alteration of one's senses, and realities battling for attention. The hypothesis in the design of *The Wearable* is that everybody will begin to act as if in psychosis, and show difficulty in functioning, a lack of concentration, difficulty in communicating, incoherent speech, and delusional thinking, when their senses are 'under attack'. In order to write the game narrative and steer the story arc, *The Wearable* experience is divided into 'scenes' and 'acts'. The scenes and acts form a collection of mini-games within the whole. The story of *The Wearable* has four scenes and 10

⁴⁵ In my design process I have described this futuristic method as 'cloud therapy'.

mini-games, each of these mini-games represents various experiences of psychosis. The Wii controller allows the wearer to determine the stories' pace.

Scene 1: 'The Introduction', Act 1) 'The Start', Act 2) 'The Heartbeats' and Act 3) 'The Movie Game'.

Scene 2: 'The Oracle', Act 1) 'The Meeting', Act 2 'The Colour Game', Act 3) 'Electronic Pregnancy'.

Scene 3: 'The Labyrinth', Act 1) 'Do Not Step on the Cracks', Act 2) 'Cartoon World', and Act 3) 'Breathing Walls'.

Scene 4: 'The Downfall', Act 1) 'The Downfall'

There are eight different characters residing in the fictional world of Jamie's mind: The Hero, Jamie herself, The Instructor, The Oracle, The Aunt, The Father, The Mysterious Man and The Electronic Man. Characters are designed for a reason (Dansky, 2007, p.2). By creating characters and thinking about their function, a psychological context can be formed surrounding Jamie's experiences.

7.4.2.1 SCENE 1 THE INTRODUCTION ACT 1) THE START

The wearer is helped to put on *The Wearable* HMD. Once the HMD is positioned, the wearer sees the environment in real time through the camera, overlapped with the *Labyrinth Psychotica* logo. Before the Wii controller is placed in one's hands, it is explained that the experience is do-it-yourself-psychosis for four reasons. 1) One may add voices by pressing the top cross-shaped button of the Wii; the more one presses, the more voices arise. 2) One may use the index finger on the Wii's trigger button to press start, to enter, to say yes, and as such determine the pace of the story, to take small breaks or to continue right away. 3) One is told that one is the camera and film director of one's own experience, one may directly engage in the creation of a delusional belief by observing the environment as a world pregnant with meaning that is there especially for the wearer, a world that needs to be decoded. The creation of a delusional narrative is supported when one adds voices at particular moments. 4) The fourth reason why it is do-it-yourself-psychosis relates to the involvement of bystanders and the trained guide. The bystanders are asked to react to the wearer as if the wearer is not wearing *The Wearable*. They may

engage in a form of improvisational theatre to enhance the confusion of the wearer. The wearer begins by pressing the trigger button. The wearer is then introduced to the story in a manner that also functions as a disclaimer, which forms a reference to the use of disclaimers by the case-study simulation projects.⁴⁶

The first character in the story is the wearer, who is a hero, about to set out on a mission into Jamie's mind. 'The Hero' is what is known as an archetype character. An archetype character has a job to do in the game (Jacobs, 2007, p.36). In most games, the hero is a 'protagonist'. A protagonist is the character that a player assumes in a game (Walsh, 2007, p.110). One sees the world of the game through the protagonist's eyes: '[...] it is the character with which the audience is asked to identify' (Walsh, 2007, p.110). 'The Hero' is an active character. Without the actions of the hero, the story does not progress. This refers to the phenomenon that in psychosis one often feels like a hero, a messiah with the ability to save the world. When the wearer presses start, one is immediately transferred into an experience of Jamie's mind.

Jamie is the second character. Jamie, the girl who is in psychosis, begins as what is known as a 'non-player', which could be a character that provides motivation for play, one who needs help (Walsh, 2007, p.116). Next to being a non-player character, she also functions as a 'supporting character', as she helps 'The Hero' to understand her mind and provides 'The Hero' with information to help the story along (Jacobs, 2007, p.35). As a supporting character she is designed to sound shy, self-conscious and scared, but also open and helpful. Her main function is to provide a fictional example of what it is like to be in psychosis: she provides 'The Hero' with the ability to move between different realities. As the main function of the wearer, as hero, is to investigate and think about what it is like to be in Jamie's mind, Jamie becomes the actual protagonist. With the narrative of possession I wanted to make reference to the

⁴⁶ Welcome to Labyrinth Psychotica. Labyrinth Psychotica was designed as a do-it-yourself-psychosis-kit' that will take you on a journey of 'Digital LSD'. For this experiment we will be linking your mind to the mind of a girl named Jamie. Jamie is currently located at a nearby hospital. By meandering into the labyrinth of her experiences you will be making a valuable contribution to her recovery. It is your assignment to observe the experiences that are revealed to you. You will have access to her memories and at the same time, some of those memories will be transferred to your real time experience. Remember, you are on a heroic mission to help Jamie's carers understand what she is going through. We are counting on you. By pressing start you will have agreed on participating in this groundbreaking experiment in understanding the subjective experience of psychosis.

phenomenon of feeling possessed, as is present so often in psychosis. So what is Jamie seeing?

Jamie is located in a nearby hospital, and the first act, as one begins to enter Jamie's mind, is therefore located in a hospital hallway. The camera position of the recorded hallway is positioned at eye height to match the position of the wearer, which provides a similar experience of looking at the ground as 'first person', as was used in the other simulation projects. The hospital was chosen as it refers to the probable experiences of being committed to hospital. To enhance this sensation of transference, a video effect is used, known as 'alpha', which determines transparency. The alpha is used to mesh the real-time video feed with the pre-recorded hallway. At the same time, on screen, the word 'processing...' appears, a little green heart blinks, and a sequence of numbers is shown. How does this relate to psychosis? This relates to psychosis as being in parallel universes, two worlds, a real world and an unreal world at the same time. So how does the experience continue?

The flickering between the different realities suddenly moves back to one's own reality, and a broken heart appears on screen. The screen reads 'action required' or 'inaction required'. Something has gone wrong. The computer voice that introduced the disclaimer lets the wearer know that to uplink one's mind to Jamie's, one's heartbeat has to be the same as hers. This is to bring about a sense of insecurity within the wearer, they did something wrong, they failed. It also brings about the question of whether one's heartbeat is really being measured. Many people have thought that the experiment, in that sense, was real.

7.4.2.2 SCENE 1 THE INTRODUCTION ACT 2) THE HEARTBEATS

The third character is 'The Instructor', who is represented by the computer voice already used in the disclaimer. 'The instructor' is a supporting archetype character known as the 'herald':

The *Herald* is the messenger that (according to the adage) we're not supposed to kill. The news may be good or bad, but whatever the Herald brings often sets the Hero down the road, or introduces a reversal or a plot point. The Herald may do their bit and leave [...] (Jacobs, 2007. p.36).

'The instructor' is in part an active character, depending on 'The Hero's' behaviour. If 'The Hero' is not performing a task that is required, 'The Instructor' will comment accordingly. 'The Instructor' informs the wearer that one's heartbeat is either too high or too low. If the heartbeat is too high, the wearer is given an assignment to meditate. In reality the wearer needs to hold the Wii very still. If the heartbeat is too low one is informed that one must exercise, which in reality means that the wearer needs to move the Wii. The sensor technology of the Wii remote controller allows the system to react in real time to the wearer's behaviour. When the wearer does not show the required behaviour, the system 'knows' this - it knows because of x,y,z motion tracking - and triggers an appropriate reaction; voices begin to harass the wearer, but if the wearer shows the required behaviour, voices reward the wearer. The system also knows when the wearer starts with good behaviour and then stops, and acts accordingly. The wearer is not able to enter the next scene without showing the correct behaviour. How does this relate to psychosis?

The exercise to match heartbeats emphasises the empathic aim of understanding Jamie, but it also provides a discussion point on experiences in psychosis. Being controlled by 'The System', as one learned in chapter Simulation Delusions, is a very common experience. It reflects what it is like to feel the desire to obey voices, but also what it feels like when voices react in a punishing sentient way. This also provides a reflection moment for inside and outside views. From the perspective of the wearer the behaviour is logical, from the perspective of the bystanders watching the wearers act so differently, one of them standing still, the other flapping arms, the behaviour seems a little bit 'crazy'. Thus a tension is re-created that happens in real life. When a person in psychosis follows the logic of the inner narrative of the psychosis, it is logical for the person in psychosis, but not logical for the outside world. Once the synchronization of heartbeats is achieved and the wearer's mind is transferred successfully, the wearer descends into Jamie's mind in full; one is now back travelling down the hospital hallway, without alpha transparency, only it is suddenly disrupted by a quick succession of white noise and randomly chosen scenes from a TV channel, each containing suggestive voice content, a type of 'preaching' quality about the nature of reality and or religion, left for the wearer to connect as a narrative. This refers to Graham March's description that psychosis is like having 200 TV channels playing in one's mind without any

control over the remote. It also refers to the sensation that the media are communicating something valuable directly to you. By leaving it to vague commentary, one may use this to generate one's own personal narrative, in particular when they deliberately add an extra voice by pressing a button on the Wii. So what happens next? Jamie begins to 'speak', by sharing a visual memory.

7.4.2.3 SCENE 1 THE INTRODUCTION ACT 3) THE MOVIE GAME

Jamie takes the wearer to a childhood memory. She is either riding an old tricycle in the same hospital, from an adult's perspective, or she is riding in the back of a car, from a child's perspective. This is when the character of 'The Father' is introduced. 'The Father' is a supporting archetype, perhaps best known as the 'shape shifter' or 'shadow', also known as the 'antagonist' (Jacobs, 2007, p.38, Walsh, 2007, p.114). 'The Father' is not a traditional antagonist of pure evil, known as a 'nemesis', as he loves his daughter, yet he has done something to her, and as such may be considered evil. Jamie lost her mother when she was just a toddler, and 'The Father' could not cope with this; he seeks his wife in Jamie, he wants to punish her for leaving. The type of child abuse is left to the imagination of the wearer. Wouter Kusters is adamant that one of the most neglected risk factors in psychotic experiences is that of difficulties and vulnerabilities that accompany the experience of love (Kusters, 2014, p.19). Quite often a person diagnosed with schizophrenia will have experience with the crossover of adult-child love relations. In her formative experiences the psychologist Patte Randal, who has lived experience with psychosis, describes her memories of the secret attention from her 37-year-old brother:

[...] stroking my eleven-year-old nipples and kissing me with his tongue, whispering 'I love you, I love you'; my mother saying, 'that couldn't have happened or if it did, it's because he's an artist', and dismissing my attempts to tell her of my confusion (Randal, 2012, p.57).

'The Father's voice may be heard saying things like: 'your teeth are so white', 'you have a beautiful belly', 'you're so beautiful', 'everything will be all right'. The system randomly selects from a database of pre-recorded sentences. 'The

Father' sounds either loving or creepy. Depending on the sentences selected, one will or will not get a sense of childhood abuse in her past. The scene fades to the real-time reality of the wearer. Jamie explains to the wearer how, when she was little, she used to play 'The Movie Game' when she was afraid. She tells how she would blink her eyes very fast, transforming the world into a view that reminded her of her father's old movie projector; it created a kind of distance for her, it made her feel safe. It is not made implicit what causes her fear. As Jamie speaks about her blinking game, the real-time view of the wearer also blinks, controlled by the software. An invitation is made by 'The Instructor' to play 'The Movie Game', the wearer accepts by pressing the index finger button. The screen turns pitch black, a text appears informing the wearer to press the button to open Jamie's eyes. To play the movie game, the wearer has to keep pressing the button, with every press the view is opened, but the more one seeks access to reality, the more layers of voices are added, until the level of voices may become overwhelming, forcing one to retreat. The layers of sound consist of fragments of Jamie's thoughts, in which she is trying to share with the wearer her contemplations of why she became psychotic. Jamie recently had a car accident, in which she literally experienced her life flashing before her eyes, and the flash reminded her of her blinking game. As she remembers it made her feel safe, she begins to play it again, but this is when the repressed aspects of her childhood experiences are awoken and she realises her game was not as innocent as it seemed.⁴⁷ The wearer plays the game until the world turns grey, and is taken over by TV interference again, ending with a real-time view of the wearer's world, but with a red filter and a white noise alpha overlay. So, for a moment the wearer might think they are still looking at a TV recording, but they are actually looking at their own reality through a 'fuzzy' red filter. To create a sense of threat, an electronic demonic soundscape is played. Jamie (or the wearer) hears a voice calling for 'help'. The voice asking for help comes from the character the 'Mysterious Man'. How does this relate to psychosis?

In this scene a reference is made to psychosis being caused by life events, and that new life events, combined with unexplored old life events, may accumulate into psychosis as a need to 're-set' the self, as discussed in chapter

⁴⁷ The blinking in 'The Movie Game' scene in *The Weaable* is inspired by the project 'Reverse Blinking', 2010, by Ief Spincemaille <<http://v2.nl/archive/works/reverse-blinking/view>>, after trying it on at ISEA2010

'The Land of Unreality'. This is represented by the voice calling for help. 'The Mysterious Man' forms a representation of what is good in men, what is good in her father, in spite of the abuse. Her father needs help, she needs help, did anything happen to her father when he was a child? The Instructor reminds Jamie that 'The Oracle' might help her.

7.4.2.4 SCENE 2 THE ORACLE ACT 1) THE MEETING

The wearer has to make the decision for Jamie to connect to 'The Oracle' by pressing the button. 'The Oracle' is the character in the story that holds all the wisdom; it is who Jamie turns to when in need of advice. 'The Oracle's voice has an angelic quality to it (YouTube, JayceeBernados, 2013, 0.26min). 'The Oracle' is an archetype character in a world of mysticism; it represents the magical world that is so often created in psychosis, as described in chapter 'The Land of Unreality'. Yet, The Oracle is also an archetype character known as a 'trickster': 'In mythology, the *Trickster* character is often a god or demi-god who could be on the side of good or evil, but is most often working for his own benefit' (Jacobs, 2007, p.37). 'The Oracle' is a personal metonym for Jamie's grandmother, her father's mother, whom she viewed as a mysterious iconic wise 'Alma Mater' of her life, as she replaced the role of her mother, yet she also feels tricked and betrayed by her as her grandmother never realised what her father was doing. Her grandmother passed to the other side when she was in her early teens, causing a double trauma of losing a maternal figure twice over. How does this relate to psychosis?

Apart from hinting at yet another life event, and the psychology that surrounds the trust that one has in a person to protect, and yet fails to protect, 'The Oracle's' visual presence is embedded in the 'dancing' colours projected on a staircase wall by a stained window. This signifies that the birth of hallucinations and delusions is not so much to be seen being based on literal experiences, but as being metaphorical experiences that are experienced as objective realities, as discussed in the chapter Simulating Delusions. The colours on the staircase are caused by a beam of sunlight passing through the stained glass; the 'dancing' is caused by the light moving through a tree that blows in the wind. If one imagines that the altered senses of background noises become as loud as foreground noises, one might imagine the sounds of the wind in the tree as whispers, the shifts of light may also be heard as a

whispered voice with angelic qualities, if one thinks of disrupted senses in the form of synaesthesia. Then there is, of course, the metaphorical association one might have with a beam of light, as a higher deity, in particular when colours become luminous due to sensory disruptions. As what one sees is subtly, yet profoundly altered, it is experienced as meaningful, as something deliberate. From there the delusion may grow. As the psychotic narrative thrives in a land of mythical unreality, 'The Oracle' offers the power of colour to Jamie.

7.4.2.5 SCENE 2 THE ORACLE ACT 2) THE COLOUR GAME

The wearer decides to take the power of colour by pressing the button. If the button is pressed the Wearer and Jamie have power over colours, and each deliberate movement (with the Wii) changes the colour of the world. At the same time, a face recognition system changes the face of each person in view in the wearer's real-time location, by adding colour to outlined features.

This scene again relates to the experience of heightened senses in psychosis, colours altering, becoming more luminous. And the playful aspect of the act represents the joy that may come from creating and entering mythical psychotic narratives. People often think that they have special powers, like thinking they can fly (YouTube, JayceeBernados, 2013, 0.28 min). While the wearer shakes the Wii, the changes in colour are met with the sound of chimes, yet with every shake the sound of the chimes becomes more 'corrupt'. Jamie slowly loses power over colour; in accordance, the world of the wearer begins to become black and white.

This represents psychosis as a potentially magical world in which a person might be convinced they have special powers. It also refers to an awareness of how colours may suddenly shift into a fearful experience, as well as of how what is perceived as metaphorical becomes an objective reality; the battle between good and evil being represented by the colours black and white. After that, Jamie's world is suddenly taken over by an electrical socket; she cannot take her eyes off it.

7.4.2.6 SCENE 2 THE ORACLE ACT 3) ELECTRONIC PREGNANCY

Within this act, Jamie becomes transfixed with the details of an electrical socket, a figure emerges in the shapes, and she becomes convinced that an

electronic man has made her pregnant. Her voice is clearly upset, calling: 'I want it out! 'get it out!'. How does this relate to psychosis?

The use of an electrical socket is inspired by descriptions of how someone may become enthralled by insignificant details, and how, in doing so, the pattern-seeking brain, the dominance of face recognition in patterns, emerges. Jamie associates the electrical socket, by its shape, with an evil entity, smiling maliciously. By chance I later found a simulation of experiences of schizophrenia that contained a zooming-in on an electrical socket (YouTube, RenéVernout, 2010, 1.31 min). The electrical socket introduces the character 'The Electronic Man'. Both 'The Mysterious Man' and 'The Electronic Man' represent Jamie's inability to deal with male relations. They are her fantasy of men, 'The Mysterious Man' being a supportive character of good, 'The Electronic Man' being a character of torment. The pregnancy represents her realisation of what could have happened if the abuse of her father went into more depth. She screams to 'get it out', the metaphorical child that incubates within her as memory. Her next aim is to get rid of the child: in order to do this, she will have to give birth. 'The Instructor' tells her that in order to give birth, she has to enter the labyrinth. This makes me wonder if Jamie might have had to have an abortion. It refers to a potential type of abuse from 'The Father'.

'The Aunt' is the final character to be introduced. She is the sister of 'The Father', she is a supporting archetype character that could best be described as 'the threshold guardian'; a character that must be bypassed in a Hero's journey 'so that 'The Hero' can enter into the other world and begin down the road of trials' (Jacobs, 2007, p.36). 'The Aunt' is heard talking to an unknown third party behind a door, she describes the odd behaviour that Jamie has engaged in, 'she keeps looking at the floor'. In the meantime, 'The Aunt' represents the outside view of Jamie's behaviour; she is simply not understood.

7.4.2.7 SCENE 3 THE ORACLE ACT 1) DO NOT STEP ON THE CRACKS

'The Instructor' confirms that Jamie is pregnant with technology and tells you to enter the labyrinth to give birth. The wearer decides to enter the labyrinth by pressing 'enter' on the Wii. The labyrinth scene contains real images of a person walking in *The Labyrinth*. 'The Oracle' can be heard telling you to walk around the room, but 'To Not Step on the Cracks!'. 'The Instructor' begins to

give instructions on how to navigate. At first, the instructions seem doable, then they slowly become impossible.

This aspect of *The Wearable's* experience simulates what I perceive as an underlying desire in humans to want to obey, to do what they are told, thus illustrating an urge to fulfil what the voices tell a person to do. For me this simulates how a person in psychosis reacts to that which is real in one's own world, making a person look to the outside world like they are acting 'crazy'. This is also the moment in the experience in which many wearers tell the guides to leave them alone, so that they can concentrate. I feel this helps to understand why one wants to be left alone, and why some even feel aggressive towards the outside world. The image jumps to white noise and 'The Instructor' tells the wearer they are successful in reaching the centre of the labyrinth. From white noise, the image switches to a world in which outlines are traced.

7.4.2.8 SCENE 3 THE ORACLE ACT 2) CARTOON WORLD

The visual quality is of an old school effect, embedded in most video effect software, but it is inspired by the simulation 'At the Doctor', in which the psychiatrist may be seen as an outlined figure, the difference being that now the outlined figures are real people from the wearer's world with whom one may interact. The scene begins with the effect of white with black lines, the sensitivity settings are set to make it so that one first only sees abstract lines, making it hard for the wearer to recognise any aspect as coming from the 'real world'. Suddenly the world begins to flicker, and the effect reverses. The sensitivity settings make it much clearer that the effect is embedded into one's environment. This emphasises the experience of an unreal world in which people are experienced as two-dimensional paper cutouts, as well as a literal experience of a battle between black and white, between good and evil.

7.4.2.9 SCENE 3 THE ORACLE ACT 3) BREATHING WALLS

This act forms a small pause before the psychotic phenomena take over. Everything seems normal to the wearer, it is as if the experience is over, but one slowly realises that everything that is white is suddenly engulfed by a grey tone, as if the walls are breathing. (YouTube, LabyrinthPsychotica, 2012b)

7.4.2.10 SCENE 4 ACT 1) THE DOWNFALL

This act represents the loss of perspective and experiencing the world not only as two-dimensional, but also as fragmented:

With every change I see things as if they were a flat surface. That is why I do not like to move. It is as if there is a wall that I would run into. There is no depth, but when I take the time to look at things, I can make out the pieces as if they were a puzzle, then I know what the wall is made of (van den Bosch, 1993, p.159, as cited from Chapman, 1966).

In 'The Downfall' scene, the visuals suddenly switch to a theatre-like setting, as if one is looking at the world by sitting in a theatre watching a screen. Then that screen moves toward the wearer, and takes over the whole vision. Everything seems normal again, until slowly people and objects start to vibrate, their shapes become deformed and their colours seep into the world. 'Feels like my head's exploding! Feels like my head's going into spontaneous combustion, man!' (YouTube, JayceeBernados, 2013, 0.30 min). The final visual effect begins with distortions that affect a person's outlines, often causing wearers to refer to others as magical beings, goblins, witches, or angels. The effect continues in its decomposition of reality, fragmenting the world in such a way that a person is only able to fixate on a single element such as an eye, or a person's mouth, as mentioned earlier in relation to Renee, whose world seemed to be taken over by her teacher's fragmented facial features (Sechehaye, 1994 [1951], p.51).

All other characters are archetypical non-players as well, helping to represent the struggles that the protagonist must endure, and helping to create tension in the story (Jacobs, 2007, p.36). By identifying with a hero who enters the mind of a person in psychosis, and later identifying with that person, in the end even perhaps becoming that person, I hope that the wearer begins to identify with a real-life person in psychosis as being a real-life hero as well. In effect, the wearer becomes Jamie. The sound intensity of 'The Downfall' is inspired by Elyn Saks' description, mentioned earlier, of setting up all electrical appliances, inviting ice-cream-eating toddlers and then taking away the ice cream.

7.5 MIXED REALITIES AUGMENTED REALITY – VIDEO GAME vs. THEATRE AND REAL LIFE

The Wearable is what one would call a mixed reality experience. On a visual level there is the virtual reality of pre-recorded video that represents Jamie's experiences; she is walking through a hallway, or she is remembering a moment from her childhood. There is the virtual reality of the real-time camera feed of the wearer: a guide is asking you about your profession. And there is the mixed reality that overlays real-time video with special effects; the guide looks like a drawing in a cartoon world. And there is the augmented reality that makes use of face recognition tracking, in which the guide's eyes or teeth have a strange colour, while the rest of the world seems 'normal'. Next to a mix of visual experiences, there is also a mix of audio experiences.

One is able to hear real-time sounds with one's ears, as the headphones are designed to be able to hear outside noises. A guide is speaking to the wearer. At the same time, the sound is picked up by the camera microphone, which is then manipulated and fed back to the wearer via the headphones. The wearer hears the voices as a slight echo, and, when the wearer replies, they hear their own voice as a recording played back to them. This affects the speed of one's speech. When people try to talk, it comes out in a deliberate and slow manner. The camera microphone is sensitive; it brings background noises to the foreground, making it hard to concentrate. As described earlier as a phenomenon of altered senses. It also causes spatial confusion, meaning that, when a person at the back of the room asks another person a question, in spite of the spatial difference, the wearer will feel inclined to answer. And then there are the pre-recorded voices of the system that are constantly interfering. To add an additional layer of confusion, in part the pre-recorded video and audio are from two guides that often guide the experience, meaning it is possible that the guide that is talking to the wearer is also talking to the wearer via a recording. How does this relate to psychosis?

The difficult part of experiencing psychosis is that the different realities compete with each other. As *The Wearable* is not only interactive within the virtual world of Jamie's mind, pressing a button to go further into the story, it is also interactive in the real world of the wearer, and there is a level of characters in the game that are hard to describe or predict. This is where *The Wearable*

moves away from the virtual world of video games and enters the world of improvisational theatre and augmented reality. Suddenly, real people become characters of the experience.

7.5.1 IMPROVISATIONAL THEATRE

After experimenting with *The Wearable* in the first pilot, I began to experiment with methods of improvisation. Improvisation is when an actor has to react in the moment; there is no designated script. I once attended a theatre project in Milan, Italy, in which the whole space was used as a setting. We would walk through backway hallways and see characters perform something as if they were ghosts who were unaware of our presence. It had a surreal sensation, but what was particularly unnerving is that at one point when we, the audience, entered a particular space, we were asked to move from the grounds of the theatre into the real world. Once there we were split into small groups that had to go in different directions without any guide. We were also told that we might be approached by actors undercover; the simple act of going out into the street with the knowledge that someone, anyone, could be an actor watching us, triggered a sense of paranoia. I was walking with a friend, when we were approached by a person with a bicycle who asked us for directions. The sensation of doubt was strong, was that person an actor, or was that person simply a passer-by who had asked us by chance? I asked theatre artist Lenne Konings to advise me on how to interact with the wearer at key intervals.⁴⁸ This provided me with some guidelines to enhance the wearer's experience.

By using such methods in the workshops, the opportunity arises to explore one's own boundaries. I think it helps to imagine the level of questioning that a person has when in psychosis, where suddenly the whole of one's reality feels like a conspiracy. As soon as reality is designated as a stage, it also helps to imagine the sensation described of people being puppets or actors on a stage. This setting required some reflection on how to integrate game play in the virtual experience in relation to the experience of the outside world. So, how does this relate to the people involved in the experience? What types of characters exist and with which guidelines may they act?

⁴⁸ Konings went on to develop a theatre piece based on the reactions of the wearer in the trailer film of *The Wearable*.

7.5.2 THE DESIGNATED GUIDE, AND THE PASSER-BY

The wearer shares the experience with a designated guide who becomes a character with many faces. Depending on the role the guide takes, they may become protector as well as tormentor, or 'trickster', as the designated guide has a choice in how to act. One moment they are real, the next they are phantoms. The passer-by might take on a similar role, as they are instructed to pretend that the wearer is not wearing the HMD. They begin to react to their colleague as if they indeed have gone temporarily insane. Some people will pass by and not be in on how the game is played, they will often have that look on their face of 'what is going on', as they are watched through a camera, they maintain an additional layer to experiencing the world as 'unreal', building within the wearer an additional layer of doubt, paranoia, potential shyness, or even braveness.

7.5.3 UNIQUE

One of the reasons why it is so hard to understand psychosis is that it manifests so differently in each person, making each psychosis unique. Yet, there are many similarities in the sense that people will often experience, for example, magical thinking. In order to simulate that aspect, *The Wearable* experience has key cinematic moments in the narrative that are identical, while differing slightly in every singular experience; this is achieved in several ways. On the one hand, the system makes use of what is described by data visualisation media specialist Lev Manovich as 'database cinema' or 'soft cinema', meaning that no two experiences are the same, as the software chooses the visuals from a database by random selection (softcinema.net). On the other hand, cinematic effects (such as alpha transparency, which layers a pre-recorded shot and overlays it with a real-time camera feed) make whatever environment the wearer is in a distinct part of the visual aesthetics. This turns the experience into a very individual one, despite the similarities. Another way in which variation is achieved is through the algorithms of the real-time special effects. Whatever is in your environment determines how the software reacts. Each environment influences the calculations that distort colour; face-recognition software might turn a person standing in front of you into a 'demon', but only *if* there is a person standing in front of you within a particular scene [cinema scene or real

environment?]. Finally, another aspect that makes each experience different is how it affects one's speech, thought process and behaviour.

7.6 SIMULATING ALTERED SPEECH, THOUGHT AND BEHAVIOUR

This is where *The Wearable* truly distinguishes itself from other simulations. By requiring a wearer to interact with reality while being in the reality of Jamie, he or she will both physically and mentally feel the impossibility of doing so in an 'appropriate' way, showing how complicated 'normal tasks' become while in this state. Either the wearer surrenders to the game-like aspects of the narrative, such as taking on the power of colour, causing them to move into the outsider's mysterious ways, or they stand and watch passively as if they are catatonic. In that sense it is the simulation of the 'truth-taking stare'. In the end, it is not Jamie's experience that counts, but how the wearer's senses are taken over by it, how the game aspects lure the wearer into behaving in certain ways. Speech can be affected:

I was slow moving, passive, and apparently flat in affect. But deep down, I was anxious and frightened. I was not tuned into what was happening. My speech was slow, but I thought I did an adequate job of answering concrete questions (Brundage, 1983, p.583).

By adding a stereo camera, the world becomes difficult to judge spatially, this causes a person wearing *The Wearable* to walk in a very wooden way. The wearer appears anxious and stiff due to the fact that images take over their ability to manoeuvre in a space, causing them to interact inappropriately - coming too close, or standing and talking to a plant, without being aware that no one is there. By playing back the wearer's own speech with a delay, the wearer tends to repeatedly break off their own speech, as they want to finish listening to the aspects of their world, as they get distracted by all the stimuli, their speech becomes incoherent, it also slows down a person's speech. Next to the instant altered speech, thought and behaviour, this also simulates important aspects considered to be symptoms of psychosis, loss of contact, loss of concentration, and loss of coherence, all occurring simply by playing with a person's sensorial experiences. When asked a simple question, a wearer would often not react, or later report that they did hear the guide, but felt unwilling to

react. People will often comment on how tiring their experience felt, some will even feel aggression or anger rise within themselves, as they want to be left alone.

7.7 DESIGN CHALLENGES

At the beginning of the design process for my final two projects, I presented my ideas to a group of advisors. From their reports I derived the following design challenges. The first point was that the works should aim to create an experience that fits different personality types. In order to achieve this, my first concept was to push a wearer into a design that reacts to certain personality traits, like a proactive personality, but also to physical traits, like having a low or high heartbeat due to initial tension or fear, and have the system react accordingly. I then realised that instead of trying to design a system that predicts certain personality types, it would be better to create a system that would be different every time, a system that would provide sufficient variety. So, in a sense, to create a system in which Jamie was having a different experience each time, and to leave it to chance how people would react. This is the core of the 'soft cinema' system. A person will get an atmospherically pleasant soundscape or a demonic soundscape. A person will have pleasant voices, or negative voices. What I like about this system is that it becomes unpredictable. Not only will a person not know what they will get, a guide will also be surprised every time, making it a pleasurable job.

The second point made was that the experiences should allow for a way to misinterpret what others are saying to you. I attempted to do this, by on the one hand creating the various layers of reality of sounds, pre-recorded, as well as direct interaction, and have those two intertwine with each other. I also created aspects of overstimulation, so that one would literally not be able to hear what a person was saying. I also attempted to create this effect in a visual sense, to allow for a person to misjudge what they were seeing, by playing with mixed reality.

Third, I was advised that the experience should allow for different locations of where voices are coming from. This was much more easily created within *The Labyrinth*, by using the directional sound technology as well as the binaural

recordings. To create this aspect in *The Wearable*, sound software was used to allow the sounds to come from different directions. For instance, the voice of 'The Oracle' dwindles around the wearer.

Fourth, I was told that the voices should interact with your thoughts. This is achieved to a certain extent through the guide's improvisational theatre, and the guide knowing where the wearer is in a scene. As the guide is able to pick up fragments of the experience, they are able to react intuitively to create a sensation, as if the wearer is hearing voices that know what he or she is doing. I also attempted to simulate this aspect by adding voices with universal psychological themes, such as insecurity.

Fifth, I was advised that the experiences should give you a sensation of being followed. The guide, who is able to come closer at certain moments, might be creating a sense of presence. Literally following a person from behind might generate this sensation.

Sixth, it should reflect on and work with sensory deprivation techniques. In the experiencing of *The Wearable*, one's sense of perspective is diminished by the mono view of the camera, which has the instant effect that a person is not able to judge space.

The seventh point was that it should aim to create an experience of telepathy. This is something that I had in mind to use Facebook for, to generate content based on Facebook posts. Due to practical reasons, this was not achievable.

The eighth point that was made was that it should be about the alteration of perception and thought. I hope that the way that the experience is set up, with a repeated focus on spatial design elements, such as a fire alarm, apple, or a fork, one will perceive these objects in a different manner, and through all the sensorial alterations, perception in general is altered. The way that thought may be altered is how it becomes fragmented by all the interventions. A person begins a sentence, and then is not only not able to answer, but also not able to remember what one wanted to say.

The ninth point made was that it should entail both positive and negative experience, and it should 'mess around' with one's mind. Well, in the design of the whole experience, I have tried to 'mess around' with the wearer's mind. The articulate moments are, for instance, the adding of film footage of the perspective of someone looking at the floor, at moments in which I could predict

that a person might look at the floor in the 'don't step on the cracks' moment of the game. The opportunity also exists to bring a wearer directly into a real hallway, which is present in most buildings, while the pre-recorded hallway shimmers in and out of existence; as such realities may begin to compete in an analogue way. From personal experience of being a guide, one learns that people sometimes truly think that the hallway they are seeing is their own hallway. I have done my best to make the experience produce beautiful images, such as the colourful oracle, as well as scary images, such as the hand on the window, to hold a spectrum of both emotions.

The tenth point was that the whole experience should focus on transformation and 'imagination'. I hope that the experience of being in Jamie's mind, only to later become Jamie, creates a sensation of transformation. And I hope that the do-it-yourself aspect is sufficient to trigger a wearer's imagination. If not, perhaps the creativity of the experience itself may be considered as a focus on the imagination.

The eleventh and last point made is that it should include a focus on experience that alters the sense of one's body in relation to space and the symbolic meaning of people's eyes. The most intense way to simulate a confusion of bodily senses may be induced by allowing a person to view the world through a Head Mounted Display (HMD) connected to a camera, and to have the camera positioned at the back of one's own head, causing a sensation of a 'mislocalized' body:

Humans normally experience the conscious self as localized within their bodily borders. This spatial unity may break down in certain neurological conditions such as out-of-body experiences, leading to a striking disturbance of bodily self-consciousness (Lenggenhager et al., 2007).

Such a simulated out-of-body experience might help us to understand some aspects of why and, more importantly, *how* the world may be perceived as a terrain of unreality. This is possible with the media version of *The Wearable*, as the camera can be detached from the HMD and be used to twist around the wearer's head. In spite of this being possible, I did not make use of this feature as the reactions were strong enough as it was. I did not want to push the boundaries without proper experimentation.

If I analyse the experience against Beavans' six points, (life-event content, identification significance, relational function, emotional impact, tactile quality, and the presence of an explanatory model), I do feel that life-event content is there in the context of the car accident, and the childhood movie game. I hoped wearers would make the association with childhood abuse, but when talking to one person, I learned that they thought that Jamie had almost drowned, which just goes to show how subjective experiences can be. With regards to identification significance, this is a much more difficult aspect to achieve. In the beginning, the voices are clearly identifiable as Jamie, speaking to the wearer. From the voices of 'The Father', it becomes clear that there is a loving relationship with Jamie, as he admires her teeth, her belly. Perhaps the iconic game characters themselves help to form a strong identification. 'The Oracle' also has clear relational functions as protector, as well as trickster. The emotional impact of the voices on the wearer becomes apparent on the faces of the wearers, something that may surprise a guide over and over again. With regards to the tactile quality, the voices are male and female, and speak in full sentences. As well as words, there are traffic sounds, as well as atmospheric chimes or growling demons. The voices speak about the wearer, and directly to the wearer. With regards to the explanatory model, this is embedded within Jamie's reflections on how the car accident triggered the flashes that reminded her of the movie game she played as a child.

With regards to the 'internal vs. the external', I feel that, in comparison, *The Wearable* experience does form an evolved 'appropriate stimulus', and, with regards to the control, I have attempted to simulate the experience both as passive victim and as having the ability to actively engage. The interaction with the guides makes a strong play in the battle for control. All things considered, I feel the serious gaming narrative contributes to the overall development of the impact, or how real the experience seems to wearers, as there are often reports of real doubt about what is real and what is not (YouTube, LabyrinthPsychotica, 2012a).

7.8 SUMMARY

In this final chapter I have introduced the work *The Wearable* and have shared, as best I can, all creative decisions made and how they relate to hallucinations, delusions, altered speech, behaviour and thought, as well as the land of

unreality. As with *The Labyrinth*, I must leave it to the visitor or reader to determine for themselves, the success of *The Wearable* and its attempt to simulate psychosis. For myself, I think that to a certain extent, my simulation may be considered successful, in particular when viewed from how it has embedded itself in educational settings. For this I refer to the conclusion and appendix V for more detailed information about the reach of and reactions to the project.

8 CONCLUSION

After reading this thesis, I hope that the reader feels that in sharing my journey, they have acquired a method to better understand psychosis in general, and, with or without experiencing my artworks, have gained a better understanding of the subjective experience of psychosis, or at least the means to improve empathic processes within their own mind. I also hope that if the reader desires to develop a psychosis simulation of their own, they feel empowered to use this thesis as a 'toolbox' to help improve existing psychosis simulation discourse. I hope that this tool will help families, friends, health care professionals and the general public to be more attuned to what it entails and not be afraid to talk about experiences.

The aim of this last chapter is to provide a conclusive statement on how this thesis and the projects of *Labyrinth Psychotica* contribute to a better understanding of the (subjective) experience of psychosis through simulation, laying a pathway towards a design discourse on psychosis simulation. In order to achieve this I will briefly recapture for the reader the content of this thesis, explain how I feel the existing simulations may be improved, and list, as best as I can, the elements I feel should be taken into account when simulating and attempting to understand the subjective experience of psychosis. I will conclude with a summary of the potential implications of this research as an aid to better help the subjective experience of psychosis, and as a tool of empathy. I will then elaborate on the limitations and delimitations of my research and make suggestions for further research

8.1 HOW TO SIMULATE PSYCHOSIS AND WHY?

In this thesis I have made several references to Nobel Prize winner John Nash, diagnosed with schizophrenia, on whose life Ron Howard's film *A Beautiful Mind* (2001) is based. After my thesis was submitted for defence, John and his wife passed away in a severe car accident. What many do not know is that they leave a son named John who shares his mathematical talents, as well as his diagnosis of schizophrenia. During an interview with John and his son (for a

small documentary on *The Discovery Channel* (the same in which John speaks of psychosis as a reference to dreaming), it becomes apparent that John was not aware that his son had visual hallucinations. During the interview his son is clearly upset that his father does not keep up with his experiences. When his father does ask, he explains that he sees ‘things in the air that are not there.’ A woman who is present during the interview asks what he sees in the air, and if he sees: ‘like ghostly figures?’ And he replies: ‘yeah, like ghosts’. And she asks, ‘Shadows?’ You see shadows? And he replies: ‘I see, you know, in the air’, she interrupts him, and states: ‘so, they must be shadows, right, what do you see in the air?’ The son reacts with: ‘I guess you could call them shadows’ (YouTube, Infallible, 2012, 5.28 min).

This small interview, captured in the archives of YouTube, illustrates several important points discussed in this thesis. Firstly, it shows how a father and son who have the same diagnosis, were not talking to each other about their experiences, in spite of the fact that a world-famous film was based on the father’s experiences, and that that film is used to help better understand the experiences of psychosis. As such, I might feel less burdened for not asking my sister-in-law about her experiences. But more importantly it highlights why it is important to develop psychosis simulations. For me, a simulation of psychosis provides a point of departure, first and foremost to get us talking about psychosis, and helping us to not be afraid to talk about it.

Secondly, the video reveals that the son has trouble explaining what he sees; it is as if language fails him. A simulation of psychosis provides for me a visceral ‘language’ of emotional and physical experiences to help understand what is so difficult to describe in words. A simulation of psychosis would have helped me break through my inner threshold and fear of asking questions.

Thirdly, the video shows how others are simply guessing at what he sees, without being able to understand. With regards to my sister-in-law, guessing is all that remains, but my investigations into psychosis simulation provided an opportunity to make any speculations I might make, much better informed. This intimate moment of the Nash family, illustrates the difficulties discussed in the introduction in activating one’s mind and consciously attempting to understand and share experiences, in particular when it involves one’s own family. The video not only emphasises the importance of psychosis simulation as forming an important starting point to facilitate conversations

about one's experiences, it also illustrates the need for a premise in which taking the stories of those with lived experience more seriously should be policy, whereas historically personal narratives have been brushed aside either as ramblings from a soul tormented by deities, bad blood, or the ramblings of a diseased brain, which, as a consequence, has caused people to endure much suffering. Please visit Appendix I for a summarized history of our understanding and treating of psychosis.

In this thesis I have studied how others have simulated psychosis, and how others have exposed the vulnerability of a modern-day diagnosis. I have collected the potential ethical consequences to simulating psychosis, either as a tool to understand how to fake psychosis for financial, political, and or criminal gain, as well as a tool that might have lasting psychological effects on a person, while at the same time pointing out the ethical deficiency of not simulating psychosis. In this thesis I have collected and mapped aspects of psychotic experiences that should be taken into account by anyone who is interested in simulating the subjective experience of psychosis for an educational context, and have used this collection to designate several areas of improvement within existing simulation practices.

I have shown that in simulating hallucinations, one should take into account the general alteration of sensory experiences of sight, sound, touch, taste and smell, with all their potential diversity and complexity, anything that one may imagine can happen. I have shown that the existing simulations score well on this from an educational perspective, yet may be improved in relation to the visceral quality, or emotional transfer, of the experiences, in particular as a play between first-, second- and third-person interaction, and the tactile quality of experiences in relation to the six points of context made by Beavan; 1) life-event content, 2) identification significance, 3) relational function, 4) emotional impact, 5) tactile quality, and 6) the presence of an explanatory model), but also with the technology used. As such I was able to analyse where my own labyrinths needed improvement, as well as where they may make an important contribution in understanding the complexity of emotions during psychosis. I learned that one should also take into account the full spectrum of emotion in psychosis, encouraging a simulation practice to focus not only on the negative or fearful aspects of psychosis, but also the positive, joyful aspects, and that these elements are present within my works.

In this thesis I have shown that in simulating delusions, in particular delusions involving experiences of the media communicating, one needs to take into account the problematic relationship between a literal experience and a metaphorical experience. I have emphasised the complicated role that imagination and creativity play within the state of psychosis and the active and passive role of a person in psychosis. I have shown that when simulating a delusion, one needs to take into account the experience of being in a world that is pregnant with meaning, and the desire and need to decode this world. I have introduced the need for 'do-it-yourself' aspects in a simulation of psychosis, in relation to the active role a person plays during psychosis. I have shown that it is here where the existing simulation practices may be improved and where an artwork may make a contribution by creating an environment that is deliberately coded, facilitating a play between the literal and the metaphorical, allowing a visitor to creatively interact, either by contributing to the simulation of a delusion with text image and sound, or conversation, and or activating the visitor's mind to engage in metaphorical thinking. This should take into account the phenomenon of 'apophenia', and psychosis as a state of waking-dreaming in which the level of creativity that is experienced affects methods of communication, which may translate to creative linguistics, creating thought, creative gesture, and performative behaviour, with enlarged metaphorical and iconic content.

I have shown that one should take into account the experience described as 'The Land of Unreality', by broadening the aspects and concepts of sensorial experience and state of creativity mentioned above, and adding those such as a sense of time, space, (perspective), proprioception, thought and memory. I have also shown the need to take into account, in a simulation, the experience of psychosis as a suicide of 'The Self', or the experience of psychosis as a reaction to a spiritual or personal crisis related to life-events that underlie a state of stress and sleep deprivation, or, in other words, the felt quality of psychosis as being an altered state of consciousness that facilitates the shedding of an old self, allowing for the creation of a new one, much like a dream might do. I have shown that these aspects are minimally present in the existing simulations, and that labyrinthine installation art may be used to do so.

In this thesis I have divulged how I have attempted to simulate psychosis taking the aspects mentioned above into account, not so much as literal, but as

a metaphorical analogy in a manner that guides a visitor down the rabbit hole of a psychotic narrative. In this I have aimed to simulate what it feels like to struggle with different realities, what it feels like to have one's senses altered, what it feels like to hear voices, what it feels like to want to obey them. I have elaborated on how an art installation may help understand what it might feel like when the everyday object becomes separated from its context and portrayed as meaningful. In my simulations I attempted to take a visitor on a path of emotional logic, a do-it-yourself delusion, by creating an interactive narrative in which one meets The Oracle (in both *The Labyrinth* as well as *The Wearable*). In *The Labyrinth* I have attempted to simulate what it feels like to search for a sound source and not be able to find it, to see things in the air that are there but not there, glimpses generated by the way our brain creates patterns in the world. In both *The Wearable* and *The Labyrinth* I have attempted to simulate what it feels like to be part of a system that reacts to your presence, and I have attempted to simulate how fragmentation might feel, in which reality is there but not there. In *The Labyrinth* I have attempted to simulate the opening of the senses, whereas in *The Wearable* I have attempted to simulate the overstimulation of the senses.

In doing so I show that a person is not lazy when they lie in bed all day, or that it is not personal when a person does not react, and that the loss of contact with reality occurs instantly as one struggles between several realities, to find the one that is called 'consensus'. With my simulations I show that from the perspective of the outside world a person may seem 'crazy', but from an inside perspective, one is simply reacting to the phenomena. As such a person begins to understand that the reactions, as Eleanor Longdon, and all others I have spoken to explain, are completely normal reactions to the world one is experiencing. And that when a person says they are not crazy, that it should be taken seriously. My work has also shown that how the outside world reacts determines the level of debilitation. The value of a listening ear, a gentle guiding hand is made apparent. With my creations I hope to have contributed to breaking through stigma, by showing that anyone who enters the state of psychosis shows similar behaviours, their mouths begin to twitch, they are no longer able to form a coherent thought, or move in a coherent way. They begin to react to things that, from an outside perspective, become incomprehensible, making a visceral contribution to understanding just how difficult everyday tasks

become, and how much energy it costs when the data of ones senses is altered.

The nature of this thesis is artistic; it forms a body of knowledge based on an informed imagination of what it is like to be in psychosis. This research has to base part of its evidence on how the resulting projects can function in a socio-economical setting and how certain questions may be answered: Would people use it? Would it be implemented? How to measure the success of my simulations? Answers to these questions may be derived from how the projects are actually received and incorporated into educational systems of mental health care, as well as other public platforms. Success may be measured to how people react. I would hear that the way the overall feeling, voices or colours were simulated was very accurate. Instance of such reactions have been documented with video as well as TV programs. In my workshops I would receive feedback that the way that time and space became distorted in the end of *The Wearable*, was uncannily similar, but I also heard instances in which my design was considered as not sufficiently fairy-tale-like, or that it was too much fairy-tale-like, but in all cases in which those with lived experience underwent the experience an opportunity was provided to begin a conversation in which a person with lived experience was able communicate to their loved ones how *The Wearable* or *The Labyrinth* diverted from their experiences. During one particular project week, a girl brought a few new family members every day, leaving us all emotional to the impact that the experiences of *Labyrinth Psychotica* had had on that family. My journey shed light on an understanding of the importance of shape and colour of a pill. One psychiatrist spoke of having lost a patient by the simple alteration of the serial number. Policy decisions that seem innocuous have very real consequences, which might influence the peddling of prices and a hospitals shopping for discounts.

A more functional measure of success of my simulations may be derided from its actual use. In 2014 we provided workshops for 31 mental health care institutes, in 2015 we reached 51. In addition, during those two years we provided 33 other institutes with workshops, often art related, but also educational institutions. We often we requested to return. Combining 2014 and 2015 we have done 167 days of workshops with *The Wearable*. And with *The Labyrinth* we did two major art exhibitions, and 15 project weeks. All in all over 10.000 people have now experienced *The Wearable*, and over 7500 people

have experienced *The Labyrinth*. I have reached these numbers by counting the workshop days, and number of participants. There are over 1500 handwritten reactions of praise left in our guest books, not including blogs and other forms of reactions. A selection of reactions may be found in Appendix V.

Another measure of success may be found in how we have reached the media; one video article by Motherboard VICE reaching over 775.000 views. A selection of our media reach may be found in Appendix V.

A final measure of success may be found in how I have become a sustainable business receiving new requests each week. It is my conviction that the success relies on the fact that the experiences are more congruent to the alternative methods of communication that so often arise during a psychosis. I hope that in this, I have managed to show that not only is it possible for an artistic research practice to make an epistemological contribution, but that this contribution may be considered valuable by society.

8.2 LIMITATIONS AND DELIMITATIONS

The biggest limitation of this research is also its strength. The fact that there has been limited investigation into the subjective experiences of psychosis in the past, and that there is a minimum of academic papers on the topic of interactive multi-media psychosis simulation, mean that there is no pre-existing or vast body of literature available in which this research may position itself. This also means, however, that this thesis contributes to an, as of yet, undefined field of psychosis simulation, forming an original contribution in both the constitution of the field as the contribution to that field. In this it also contributes to the pioneering field of artistic research, in which art, as a form of cognitive science of subjective experiences, produces knowledge that has epistemological value that is of interest to science.

Other limitations relate to knowledge that is developed in an artistic research context, that are only from a single person's perspective. First and foremost, the knowledge is subjective, and, as such, it is therefore difficult to measure in an objective way. However, the fact that the developed knowledge *can* and has been used for educational purposes may indirectly indicate the value and significance of the knowledge.

This research is constrained to practice-based artistic research. It is intended to inspire and generate new approaches, combining the strengths of various disciplines in a playful platform for experiencers and professionals. Due to time restrictions, this research did not investigate the field of (art)-therapy; nor does it study the therapeutic values of the projects in relation to exposure therapy – although this may be a most interesting topic for further research. This thesis also does not touch upon the offence's that may be born from the use of particular definitions. For practical reasons this thesis does not investigate the complex relationship between art representation and madness, nor does it investigate the complexity of simulation in relation to the context of fine art. This thesis does not take any stance in the debates of the causes of psychosis; whether psychosis is a brain disorder, a psychological disorder, a spiritual emergency, or all of the above. In that it is sufficient to point out to the reader that there is a particular extreme human condition, described by medical science as psychosis, and that a range of debates exist surrounding the cause and treatment of this condition.

8.3 SUGGESTIONS FOR FURTHER RESEARCH

The simulation case studies I looked at make use of interactive software and hardware, and these methods may continue to be explored and expanded upon as new technologies advance. One of the most powerful aspects of the simulation case studies is the interactive and immersive nature of their designs. The higher the level of interactivity, the higher the level of engagement, and thus, correspondingly, the more empathically activated a person becomes. It is in these design advancements where newly developed technology may play a role. HMDs that may portray Virtual Reality are often used for immersive play in video games. The sensors track one's head movements so that when one turns one's head to the left, one is able to turn the head of the game avatar in the virtual world of the game to the left as well, or Augmented Reality, which allows information to be overlaid onto a real-time view of the world. 'Google Glass' is one of the most recent examples of such an HMD that has come and gone. HMDs provide a selection of aesthetic and technological decisions to make about which system to use. Does one choose Virtual Reality, or Augmented Reality? For *Intruder 2.0* I used very low tech, due to a very low budget, but

new technologies may provide interesting developments to enhance the practice of psychosis simulation.⁴⁹ I have begun development of a new experience using the Samsung VR GEAR, which will provide a vast improvement in relation to practical travelling, as well as costs. Exciting things may also come from HTC's new product, or Microsoft's HoloLens. All can be used to simulate various aspects of psychosis.

Apart from hardware developments, there have been very interesting software developments that may aid in the simulation of powerful visual experiences for these HMDs. Thanks to software it has become possible to use a filter effect and render special effects in real time, meaning, for example, that the line drawing that the psychiatrist became in 'At the Doctor' became realised in real time, with real people in *The Wearable*. In *The Wearable* the use of face recognition software allows real-time localised manipulation. There are many more interesting developments to explore. A very nice example may be found on the Vimeo channel by Kyle McDonald, which shows a sequence of facial effects that were inspired by the 'Scramble Suit' in Philip K. Dicks 1977 novel *A Scanner Darkly* (Vimeo, KyleMcDonald, 2012). Or even in recent face-swap technology. Another powerful visual effect relates to the shimmering in and out of existence that occurs in several of the simulations. With a system described as 'diminished reality' by Jan Herling and Wolfgang Broll, developed at Ilmenau University of Technology (2010), this effect could be experienced with a very strong impact (YouTube, Herlingjan, 2010). Of course, one might also revisit technology invented in the 15th century, such as Pepper's Ghost, in which a visitor views a space with objects or people, which or who may magically transform before their eyes (YouTube, Mr Wizardstudios, 2013). There are other ways in which further developments are possible.

I have often been asked how and when my projects can be used for exposure therapy. That was not the aim of this thesis, but it would be very interesting to see how and or if the work could be used in such a setting.

⁴⁹ At one point there was an intention to collaborate with TU Delft using software that they were developing, known as PTAM Stereo, that would instantly transform a real-time location into a virtual one. Sadly, the decision was taken only to develop it for a Windows platform, so that we could not use their software. There was also the idea of working with object recognition and space/square recognition, but this was not possible either due to practical reasons. I was often asked why I am not using Oculus Rift: the simple answer is that, at the time of development, it did not yet exist. But with technology developing so fast, all that is *The Wearable*, may now be placed on to a phone.

8.4 ADDITIONAL STATEMENT

Labyrinth Psychotica's workshops with *The Labyrinth* and *The Wearable* have received critical acclaim from psychiatrists, psychologists, mental health care workers, social workers, policy makers, family members, police, and the art world, but most importantly of all: from those with lived experiences, as a tool that helps them to better understand their loved ones, their patients/clients, their responsibilities, and themselves. In a sense my journey into psychosis simulation has been cathartic in helping me deal with my sister-in-law's suicide. The projects that I have created seem to help enlighten other people's minds as well as my own, in dealing with the worries of being a family member of someone dealing with psychosis.

What I did not anticipate, in my use of simulation and metaphor as a method, was its profound relation to madness itself. As soon as I attempted to understand simulation in relation to 'reality'- I found myself entering the realm of madness, as madness is defined by the boundaries of what is considered real or not by a society, in which its physicists as well as philosophers are continuously questioning the nature of reality. What began as a metaphorical representation of what psychosis might feel like ended up becoming very close to the literal experience of a psychosis.⁵⁰

Next to being motivated by generating awareness about psychosis, the motivation of entertainment or 'box office success', I feel, does relate to my research and design. Without anticipating it, the project *Labyrinth Psychotica* has generated commercial success in the sense that I am able to support myself with artistic workshops reaching mental health care professionals, police, and students. I cannot exclude that a certain underlying factor of entertainment derived from experiencing particular special effects and seeing one's colleagues suddenly transform into a 'mad person' may contribute to this success. This means there is one very important aspect to contemplate when it comes to further research. This relates to Marshall McLuhan's Four Laws of Media, which hold a responsibility to ask crucial questions with the development of each new media: These are: 1) What will this thing enhance? 2) What will the tool make obsolete? (What normal ways are about to die out owing to the new

⁵⁰ According to those with experience of a diagnosis of psychosis who gave me feedback after experiencing my artworks.

invention), 3) What will this tool retrieve from all the things lost? 4) How will the tool backfire on you? (When it is pushed to its outer limit?). This entails that there is an ever-present danger that the tool created to help better understand psychosis will inadvertently take one's understanding further from the truth. To avoid this, one must remain vigilant of every advancement.

Jennifer Canary

9 APPENDIX – I A TURBULENT HISTORY OF UNDERSTANDING PSYCHOSIS (UNPUBLISHED)

The past is our definition. We may strive, with good reason, to escape it, or to escape what is bad in it, but we will escape it only by adding something better to it. ~Wendell Berry

Life can only be understood backwards, but it must be lived forwards - Kierkegaard

Anyone interested in understanding psychosis and how to simulate it should be aware that psychosis is a relatively recent term used to define ‘madness’, itself a significantly older concept that has been historically subject to tremendous change (Geekie, 2011, p.147). Historian Rene Stockman describes that throughout history the ‘madman’ has been referred to as the *deviatus* (one who deviates from the normal), the *insensatus* (one who has lost a medium to communicate), the *insipiens* (one who has lost steering and reason), the *idiotus* (the fool who does not understand what is being done or what is being said) the *garrulus* (the talker) the *barburrus* (the confused), the *solidus* (the cheeky one), the *fatuus* (the one who acts with shame and disgrace), the *rabienticus* (one who embarks on extreme measures, one who knows no discipline or self-control), the *maniacus* or *furiosus* (one who enters into ecstasy with the help of supernatural powers), the *fanaticus* (one who is led by cosmic powers), the *lunaticus* (whose madness is connected to the moon cycle), the *vesamus* (who becomes mad from drink or food poisoning), the *melancholicus* (whose body is riddled with evil fluids), the *obsessus* (who is possessed by demons or the devil), the *insani* (who received ‘nonsense’ through the womb’) (Stockman, 2000, pp.11-13, p.17). Taking a closer look at the history of how societies have understood madness reveals a complex and diverse range of views on causes and treatments that, as such, challenge a psychosis simulation practice in its design choices on how to make sense of and incorporate the various notions in a respectful manner.

To summarise the history of the understanding of psychosis, this chapter relies predominantly on three main bibliographical sources. The first is: *The*

History of Psychiatry: An Evaluation of Psychiatric Thought and Practice from Prehistoric Times to the Present by Frans G. Alexander and Sheldon T. Selesnick (1995 [1966]); while the second is: *Madness: A Brief History* by Roy Porter (2003 [2002]). These two sources are often referenced in professional literature. In addition, this chapter also relies on the publication *Van nar tot patient: Een geschiedenis van de zorg voor geesteszieken* (2000) by René Stockman for the Dr. Guislain Museum in Ghent, Belgium, a museum dedicated to the history of psychiatric treatment.⁵¹ Due to the complexity of the history involved, the historical data in this chapter is limited to the general history of Western Europe, with an emphasis on England, Germany and France, distinguishing cultural time periods into ‘The Ancients’, in which magic is the dominant influence, ‘The Middle Ages’, in which religion is the dominant influence, ‘Renaissance, Enlightenment and Romanticism’, in which reason is the dominant influence and ‘Industrial Revolution, Late-Modernity and Post-Modernity’, in which medical psychiatry and psychology are the dominant influences. It then takes a brief look at contemporary psychiatry and psychology, concluding with descriptions of madness from experiencers themselves. After each era, reflections are made, and points of which to be aware are collated, with emphasis placed upon those I feel a psychosis simulation practice should take into account when attempting to simulate the subjective experience of psychosis. Particular attention is drawn to these points when simulating for educational purposes.

In order to be able to summarise the complex history of madness in a comprehensive overview, many potentially interesting details must, due to restrictions of space, remain unmentioned – for these the interested reader is advised to pursue further reading.

⁵¹ [English: *From Jester to Patient: A History of Mental Health Care*] René is a leader of the Belgian Brothers of Charity, an organization long involved with the care of those deemed mentally ill. In 1824 Dr Guislain made the drawings for a hospital that would function with a new perspective on care for the mentally ill. He was one of the forerunners in Belgium whom viewed mental illness as a disease that could be treated. He is considered the founder of the insane asylum. Dr. Guislain participated in the creation of new legislation for the mentally ill in 1850. The build of The Guislain Asylum started in 1853 and was completed in 1876 http://www.museumdrguislain.be/index.php?option=com_content&view=article&id=163&Itemid=108&lang=en René is also chairman of the Belgian Brothers of Charity organization that until this day are very actively involved in care for the mentally ill. The Brothers of Charity have a significant history in taking care for the mentally ill. Their first project started in 1815.

9.1 THE ANCIENTS

In ancient times, madness was generally understood as the result of a struggle between good and evil forces (Alexander and Selesnick, 1995, pp.17-26). Many were believed to be tormented by spirits; demons were thought to inhabit the body, and animistic rituals, exorcisms as well as prayers were used to drive them out (Alexander and Selesnick, 1995, p.25)⁵². The predominant treatment for madness in ancient cultures was magic, often practised by a medicine man. The medicine man was believed to have special powers over the weather, make crops grow and predict the outcomes of war. Some magic was conducted utilising the physical properties (size, shape, form and colour) of intestines from sacrificial animals, which were used as auguries, signs or omens of the future, to make conclusions and or predictions for a person suffering from madness (Alexander and Selesnick, 1966 [1995], pp.17-19). Physical treatments applied directly to the body also existed. Unearthed skulls from 5000 B.C. suggest evidence of a practice called 'trepanation'. By drilling a small hole in the skull, it was thought to free a person from possession by a devil (Porter, 2003, p.10, p.12).

In ancient Greece, madness was seen as a form of punishment for offending the gods; treatment was sought with priests at temples. Some treatments involved a form of 'self-healing'. In the Aesculapius cult, treatment known as 'incubation sleep' was performed, in which a person was believed to receive dream inspirations that would reveal how he was to heal himself (Alexander and Selesnick, 1995, p.27). Hippocrates (460-377 B.C.) is considered one of the first to seek a physical cause. He viewed the root of madness as the result of an unbalance of four bodily humours (blood, phlegm, yellow bile and black bile) affecting the brain:

Men ought to know that from the brain and from the brain only arise our pleasures, joys, laughters and jests [...]. Those who are mad through phlegm are quiet, and neither shout nor make disturbance; those who are maddened through bile are noisy, evil-doers, and restless, always doing something inopportune (as cited in Porter, 2000 [2003], p.37, Alexander and Selesnick, 1995, p.31)

People who were considered 'sanguine', i.e. in which blood was the dominant

⁵² Animistic rituals are rituals that involve attribution of a soul to plants, inanimate objects and natural phenomena.

fluid, had a lively temperament. To diminish this overt liveliness the practice of bloodletting was applied (Stockman, 2000, p.14, Porter, 2003, p.40). Asclepiades viewed (mental) illness as the result of inadequate motility in clogged pores (Alexander and Selesnick 1996 pp.40-41). Themison (123-43 B.C), a student of Asclepiades, focused on the control of pores – to open pores one needed to heat them, to close them they needed to be chilled. Treatments also involved soothing psychological wellbeing. Buddhist culture prescribed meditation for mental ailments; its goal was to reach nirvana, a tranquil state, which is devoid of strife and passion (Alexander and Selesnick, 1995, p.25). The Greek physician Asclepiades (124-40 B.C.) regarded mental illness as a result of emotional disturbance. He treated the mad with baths, exercise and wine, along with music, massage and light airy rooms, emphasizing humane and dignified treatment. As early as 409 A.D., ancient Jerusalem had a hospital that provided for the mad. Rabbi Ami recommended diversion as a treatment for madness and advocated that a patient in trouble should speak freely about what ails him (Alexander and Selesnick, 1995, p.22 p.23). Some treatments were quite disturbing. The Roman Aurelius Cornelius Celsus (25 B.C.-A.D. 50), a writer on medical subjects, conceptualised the application of scare tactics to drive spirits out of the possessed body (Alexander and Selesnick, 1996, pp.41-42). He would suggest isolation in darkness and administer cathartics (a substance that would induce explosive diarrhoea) to scare them back into health (Porter, 2003, p.48).

The methods used to treat madness in ancient times were diverse, sometimes bizarre, and sometimes cruel, while some appear surprisingly modern. What can one take from this history to a psychosis simulation practice?

9.1.1 VIEWS OF THE ANCIENTS AND WHAT THEY MEAN TO A PSYCHOSIS SIMULATION PRACTICE

This first thing that one notices is that, in ancient times, there was a diversity of thinking about what madness was, and how to treat it; and that these notions still exist today, albeit at a different intensity. These notions are often closely related to both doxic and cultural beliefs. One may find evidence for this in the persistence of superstitious beliefs, such as the belief in the number thirteen, or a black cat crossing the street, as being unlucky; or in the popularity of shops that sell crystals with healing powers, or that the Catholic Church officially still

performs exorcisms. How does awareness of this influence a psychosis simulation practice?

When simulating the subjective experience of psychosis, it initially does not matter what causes the experience, or whether people from the outside world believe it is caused by emotional and / or physical disruption, by being possessed, tormented, and / or punished by benign or benevolent celestial forces. What is important is how it *feels*. By focusing on this, one takes the subjective experience of psychosis seriously. For instance, it is very easy to dismiss magical treatments as simply the methods of 'primitive' societies. However, when taking magical thinking seriously, it may be seen as a form of basic human communication (Stockman, 2000, p.34):

Magic is a dialogue between humans and their surrounding reality by word, gesture or rite that may involve the use of herbs, objects or dances. [...] It is an elusive tool to help deal with an elusive world. [...] With magic, one does not necessarily aim to influence the outside world, but one aims to influence how one experiences the world and is plagued by it.

Meaning, magical gestures and rituals are methods to alter one's own subjective experience of that world. Perhaps it is better to ask: why have people thought that psychosis is related to being possessed by demons, and why is this still thought as such today? Is this promulgated by religious beliefs, and by popular culture? Examples include the films *Requiem* by Hans-Christian Schmid (2006), and *The Exorcism of Emily Rose* by Scott Derrickson (2005), both of them based on the life story of Anneliese Michel (1952-1976), who was thought to be mentally ill, but who claimed she was possessed by demons. Although the influence of popular culture should not be taken lightly, a more fundamental answer may come from listening to descriptions of subjective experiences; one learns that it can actually feel like that (van den Bosch, 1993, pp.143-144):

When I was eating breakfast this morning I had the feeling that there was also a head of someone else and that they wanted to eat with me. I had the feeling as if other people wanted to put their head in my head. When I am chewing it seems as if another tongue comes to move the food. [...] Just as if someone else has stepped into me. [...] It seems as if they can place their head in your head, as if they are able to place their shoulders, their hands, their legs, in that of yours.

So, when one aims to design an artistic experience based on the subjective experience of psychotic phenomena, and one wants to use this in an educational context, what matters is that the experience is real for the person undergoing it, and, as such, should be taken into account in the design, because that is how it really feels. As a consequence, an artistic psychosis simulation practice should, for instance, take experiences of possession or magical thinking into account, in particular, as it is a recurring phenomenon in the subjective experience of psychosis, so much so that magical thinking is often considered today to be a *symptom* of psychosis (Wunderink, 2002, 1997, p.12). As experimenter Anton Boisen describes: 'The madman feel like they have been admitted into a scary and mysterious kingdom.' (as cited in Kusters, 2014, p.31). A simulation should therefore aim to emulate that kingdom. So how does the history of understanding madness continue?

During the Middle Ages, views on madness as possession, and or punishment by evil, continued, its treatment as magical thinking, rituals and gestures were assimilated by religion.

9.2 THE MIDDLE AGES

During the Middle Ages, the Roman Empire was in decline. Plague, in the form of the Black Death, was on the rise and there were many famines. Many regarded these events as a punishment by God. Like most illnesses, madness was seen as being a punishment in the sense that God would take his protection away and allow evil to influence a person: 'The Lord will smite thee with madness' (Deuteronomy (6:5) as quoted in Porter, 2002 [2003] p.10, Alexander and Selesnick, 1966 [1995] p.23). During the early Middle Ages, the church offered charitable comfort and support to the mad. Churches became sanctuaries for sufferers, and, as the numbers of people seeking sanctuary grew, more monasteries were built. Rural society was called upon to help care for the mad. Families would take in the mad, who were then made to work on farms in return. The seriously deranged were kept inside the family, and the ones deemed harmless were allowed to wander as the 'village idiot' or the 'village fool'. Yet, as they were still thought to carry evil spirits, they were also

feared and shunned (Porter, 2002 [2003], pp.89-90). The quality of care at home was extremely varied. Some poor families would dig a hole in the floor of their hut, just deep enough for a person to stand in. A person lived their whole life there; they would eat and eventually die there. There is reference to a case of a 16-year-old boy who was kept in a pigsty by his father. He finally lost his ability to use his limbs and could only lick his food from a bowl (Stockman, 2000, p.49). In the later medieval period, mental health care regressed almost entirely towards demonological exorcism (Alexander and Selesnick 1966 [1995], p.53). There was extreme peril to be found in being deemed mad. Sometimes, if one was afraid that a person might deny the existence of God in mad ramblings, it was considered merciful to suffocate a person with a pillow as a form of prevention to save that person's soul (Stockman, 2000, p.37). In cities, there was a shift in healthcare around 1200. The initial social responsibility towards taking care of the mad had begun to disappear (Stockman, 2000, p.56). The state would fund guesthouses for the ill, for orphans, the poor and the elderly. These small hospitals were not designed to treat a patient, rather, they were designed to isolate people and keep them away from society. Holding cells were designed for temporary confinement in cases of disorderly behaviour. These cells were moveable and could be placed at people's homes or at city gates. The mad were placed in these holding cells and put on hospital grounds. When brought to the hospital, the mad often came with a 'dowry' of chains, blocks, irons and cuffs (Ibid, pp.50-56). So how does taking a look at the Middle Ages influence a psychosis simulation practice?

9.2.1 VIEWS OF THE MIDDLE AGES AND WHAT THEY MEAN TO A PSYCHOSIS SIMULATION PRACTICE

From reading the above, one becomes aware of just how poor the position of the mad has been in society, to the extent that to be considered mad had detrimental and / or perilous consequences. One learns about human cruelty towards those who are vulnerable. And one also begins to realise that the notion of punishment from God is slowly transferred to punishment by society. From a simulation perspective, one may begin to contemplate what people said, or did to deserve such treatment. What did people say or do that would so endanger their lives? Further, what did they see or hear that would cause their

very lives to be so threatened? In other words, one needs to further investigate what hallucinations and delusions are and how they affect a person's thinking, speech and behaviour.

The second aspect that comes from studying The Middle Ages is that, yet again, one may be inclined to think that the notion of psychosis being related to an almighty figure is a primitive consequence of culturally dominant ideas, but, as stated above, a psychosis simulation practice that takes the subjective experience as a starting point simply listens and accepts that that is how it feels even today: 'I knew for sure that God existed, and nothing other than God' (Kusters, 2014, p.25). This is not surprising: 'Anyone familiar with the recurring themes of psychosis would recognise religious pre-occupations as commonplace' (Clarke, 2010 [2001], p.1). The themes of these religious pre-occupations are often related to guilt and punishment. Rituals performed by religious representatives soothe suffering. Medical historian Henry Sigerist observes (Alexander and Selesnick, 1966 [1995], p.19):

[...] The soul-searching of the patient who was convinced that he had suffered because he had sinned had a liberating effect; and the rites performed and the words spoken by the incantation priest had a profound suggestive power.

So, in a psychosis simulation practice that takes the subjective experience seriously, one should take into account themes of guilt and punishment, as feeling guilty is a common experience in psychosis. Often one feels guilty about worldly matters:

Please, Say Something! I silently beg Mrs. Rosen. Say everything is okay, say President Kennedy isn't hurt, say he'll be fine. I need to hear you say the magic words, No Pammy, it didn't happen, it's not the end of the world. [...] and in that instant I understand that my life will never be the same. I will never be just a child anymore, protected, happy, oblivious. Dark bubbles flood my brain. I am drowning, unable to get enough air before I go under. Countless times I struggle to the surface, before being pulled back down. [...] I'm shivering when I become aware-'out of the corner of my ear' - of muffled sounds, people whispering behind me, short snatches of music and conversation that echo in my head. (Spiro and Spiro, 2005, p.29)

Then I understand: the whispering people, the bits of music, the sound of footsteps, and President Kennedy, shot dead, dead, dead! It's obvious

isn't it? / killed him! I'm to blame! Isn't that what it's all about? Isn't that what they are saying, the whisperers? (Ibid, p.32)

One might begin to investigate what causes a person to have such revelations. One must try to understand what happens, that a person would have such certainties. In doing so, one is actually implementing a phenomenological method, as promulgated by Edmund Husserl, in which one does not make judgements about one's experiences, which is an excellent method for understanding madness (Kusters, 2014, p.34). As we will now see, notions of what causes madness, and how it is treated, took a slight turn for the better in the following centuries.

9.3 RENAISSANCE, ENLIGHTENMENT AND ROMANTICISM

During the Renaissance, a renewed interest in classical culture allowed for a return to Hippocrates and his school, which interchanged magical, mystical and religious explanations with more rational ones (Alexander and Selesnick, 1966 [1995], pp.48-49). More humanitarian solutions began to emerge. The first European central hospital was built in 1409 in Valencia, Spain (Alexander and Selesnick 1966 [1995] p.65, Stockman, 2000, p.52). A speech given at the opening of the hospital reveals how dire the circumstances were:

Unable to feed themselves, they sleep on the streets; they suffer from cold and hunger. They are taunted with insults and defamations, they are beaten and women are frequently assaulted. At the same time, they cause trouble and discomfort to those who live in the town (Stockman, 2000, p.53).

Yet, as much as things took a step forward in the 15th century, such hospitals were not yet designed to care, but merely to detain.

In the 16th century people were convinced that horses could go mad when stung by a hornet, and so they believed that a hornet might be trapped in a person's head. This later became a spider, a fly, a cockchafer beetle and even a rat that would turn to stone, so quacks either performed trepanations to let the insect out, or made small incisions on the forehead and behind the ear from where a stone would 'magically' drop into their hands (Stockman, 2000,

pp. 36). This provides an example of how one moved from initial ideas of spirits being trapped to a more 'rational' idea, while maintaining the same treatments. In the 17th century, materialist ideas again competed with religious notions.

Descartes was convinced that the mind or soul was connected to the body at the pineal gland, and mental disorder was speculated to be the result of disorder between mind and body (Porter, 2002 [2003], p.57). Thomas Hobbes believed that the universe was a material continuum devoid of spirit and considered all human action moved by external sense inputs. In this way, he dismissed religious beliefs in spirits and hence conceived of madness as a mere defect in the body's machinery (Porter, 2002 [2003], p.59). From this perspective, madness could no longer be considered diabolical or threatening to the immortal soul (Porter, 2002 [2003], p.58). Nevertheless, in a violent response to the advancing materialist views and rise of Enlightenment ideas about psychology, demonology reached a new height of popularity in the Renaissance (Alexander and Selesnick, 1966 [1995], pp.13-14). There was again much turmoil. Feudalism was being undermined by the invention of gunpowder, the invention of the printing press created opportunities for self-education through the availability of books, misconduct in the Church was being exposed by precursors of the Reformation, and on top of that the Plague returned with a vengeance, killing off almost 50 per cent of the European population. A scapegoat needed to be found, and it was found in the guise of witches said to be possessed by the devil, and those deemed mentally ill were all too often among them. Many were burned at the stake, before public opinion shifted and governments created new laws against manslaughter (Alexander and Selesnick, 1966 [1995], p.66).

As it was also called 'the Age of Reason', the Enlightenment brought about the view that the mad had lost their ability to reason; with the loss of rationality, the madman was to be 'pitied'. Influenced by the writings of John Locke, Spinoza and Étienne Bonnot de Condillac, madness came to be attributed to faulty associations in the processes in which sensory data were transformed into 'ideas' (Porter 2002 [2003], p.127, Alexander and Selesnick, 1966 [1995], p.97). New legislation considered the mentally ill not to be accountable for their actions. As a consequence those who committed suicide were allowed to have a normal burial. Previously, if a person who committed suicide was not deemed mentally ill, their properties would have been declared

forfeit, their bodies impaled, and they would have been refused a church burial. The new legislation freed families from such disgrace (Stockman, 2000, pp.56). Family members could make a request for admission to a hospital, with city councils deciding whether a person was a danger to himself and/or others. Over the years, institutionalisation became more embedded in society; however, the general situation in such hospitals was still abominable. The cells had neither fresh air nor light nor, during the winter, heat. Coercion took place through the withholding of food and the use of straightjackets and chains (Stockman, 2000, pp. 56-57)⁵³. One of the most infamous hospitals was the Bethlem in London, also known as Bedlam, which was a family business for four generations. It was known to be very corrupt, and its 'treatments' very cruel (Porter, 2002 [2003], p.97). For many years, a patient called James Norris was detained at Bedlam, and his experience is described as follows (Porter, 2000, p.107):

A stout iron ring was riveted round his neck, from which a short chain passed through a ring made to slide upwards and downwards on an upright massive iron bar, more than six feet high, inserted into the wall. Round his body a strong iron bar about two inches wide was riveted; on each side of the bar was a circular projection; which being fashioned to and enclosing each of his arms, pinioned them close to his sides.

Winters could be particularly bad in the cells of the *Salpêtrière*, a mental hospital built in Paris in 1656. The already unhealthy circumstances became worse when water levels rose in the Seine and rats were driven to cell levels and gnawed at the residents, many of them dying from lethal bites (Stockman, 2000, pp.56-57).

Throughout the ages, many contrasting approaches continued to exist simultaneously in the same era. For instance, in the United Kingdom, Robert Burton recommended music therapy in 1621, as he had found a fitting reference in the Bible. He included the quote in his *Anatomy of Melancholy*, which was an encyclopaedic work, mapping the history of remedies (Porter, 2003, p.52): 'And it came to pass, when the evil spirit from God was upon Saul, that David took the harp, and played with his hand: so Saul was refreshed, and was well, and the evil spirit departed from him' (Sam. 16:23, as quoted in Porter, 2003, p.53). Classical views were revived in the Renaissance; Greek

⁵³ According to Stockman, the straightjacket was invented by Bac Bride (Stockman p.83). Yet other sources attribute this to an upholsterer named Guilleret, for [Bicêtre Hospital](#).^[4] (Wikipedia)

mythology symbolised the mad as heroes punished by the gods. Plato spoke of a divine fury, and Aristotle depicted the profile of the mad as a melancholy genius. Humanist notions presented the madman as the only realist, who was allowed to unveil darker truths in the madness of the world without prosecution. So in the same period, the mad were often depicted in the theatre with the aforementioned stone growing out of their forehead, known as the 'stone of folly'. Inhabitants of the infamous Bedlam were included in London shows, where the public went to watch the mad as a form of entertainment, while officially they were only allowed to visit and gaze upon the mad as a form of education, which functioned as a warning about sin and passion. At the same time, the folly of the mad became synonymous with the truth; to declare a poet mad was to provide him with a compliment (Porter, 2003, pp.64-72).

It was not until the end of the 18th century that a movement emerged in Western Europe as well as the United States that aimed to improve care for the mad (Stockman, 2000, p.57, p.65, Porter, 2003, p.110). William Cullen, famous for coining the term 'neurosis', held the notion that madness was an excessive irritation to the nerves, or acute cerebral activity (Porter, 2003, p.127)⁵⁴. His treatments included a specific diet, physiotherapy, exercise, purging, blistering of the forehead, cold dousing, bloodletting as well as restraints, threats, and straightjackets (Alexander and Selesnick, 1966 [1995], p.111). In 1758, William Battie, founder of Saint Luke's Hospital in London, wrote the work *Treatise On Madness*, in which he argued for admission to hospital as a form of therapy to calm the nerves. He spoke of isolation as therapeutic and was the first to refer to moral management, which later grew into the term 'moral treatment', which involves methods of talk, (religious) discipline, and simple but honest work. He held the notion that madness was completely treatable, and that the mad did not deserve to be lumped with criminals and the unwanted of society, all held together for the sake of convenience (Stockman, 2000, p.66).

When the priest Francis Willis was confronted with the responsibility of caring for King George III in 1791, he was successful in treating the king without using force. Inspired by a case of maltreatment, the tea merchant William Tuke founded a private clinic, *The Retreat*, in York, at which moral treatment was applied: 'recovery was encouraged through praise and blame, rewards and

⁵⁴ Cullen's term for neurosis is not to be confused with Freud's term of neurosis (Porter, 2003, p. 128)

punishment, the goal being restoration of self control', which included the use of 'soft restraints', such as straightjackets and holding belts.⁵⁵ *The Retreat* was situated in a rural location and there were windows that allowed for plenty of light and air. Tuke prescribed tea conversations, garden parties and walks. He also developed a form of occupational therapy (Porter, 2003, p.104, Stockman, 2000, pp.66-67). His generally 'non-restraint' work policy was one of the practices that had a substantial influence on the practice of psychiatry. When Philippe Pinel became director of the *Salpêtrière*, he, too, like Tuke, abolished chains and restraints (Porter, 2003, p.104, Stockman, 2000, p.68). Slowly the professions of psychiatrist and psychologist grew.

In the 19th century, patients began to be categorised. The psychiatrist Johann Reil (1779 – 1813) argued for separation between those who could be cured and those who could not. He was known to take extreme measures for his patients, such as organising prostitutes for male patients, adding sex to a growing list of possible treatments for the mad (Stockman, 2000, p.71). Reil also differentiated between illnesses of the nerves, like epilepsy, and illnesses of the mind, related to passions and desires. He was the first to coin the term 'psychiatry' in 1808 (Stockman, 2000, pp.72-73, Porter, 2003, p.140). Thomas Arnold, a student of William Cullen, whom I mentioned earlier, distinguished between 'ideal insanity' (hallucinations) and 'notional insanity' (delusions). Rather than addressing the patient's body, he believed that a doctor had to address the patient's psyche, transforming the profession from 'minding the insane' into systemic psychological observation (Porter, 2003, pp.128-129). The development of categorisations stimulated the publishing of papers and the creation of a more public discourse.

During the age of Romanticism, intellectual interest shifted from the external world to the internal world (Alexander and Selesnick, 1995 [1966], p.133). After the fall of Napoleon, a strong police state emerged in France, intent on restoring absolutism, order and religion. The average individual retreated into the happiness of everyday life. As a result an exaggerated emphasis was placed on 'love affairs, passionate involvements, friendships, and personal intrigues' (Alexander and Selesnick, 1995 [1966], p.134). As a consequence, madness became romanticised. Jeanne Pierre Falret (1794-

⁵⁵ Porter describes *The Retreat* as having been opened in 1796, Stockman mentions it being opened in 1792.

1870) held the idea that negative connotations of terminology had an influence on the place of the mad in society, and started to refer to the mad as the mentally alienated (Alexander and Selesnick, 1995 [1966], p.138).

9.3.1 VIEWS OF RENAISSANCE, ENLIGHTENMENT AND ROMANTICISM AND WHAT THEY MEAN TO A PSYCHOSIS SIMULATION PRACTICE

After reading the various views of the periods of The Renaissance, Enlightenment and Romanticism, one may again observe differences between various belief systems in different ages about what madness is considered to be. Some see it as illness with symptoms as early as in the 16th century, when the Italian poet Torquato Tasso wrote (as cited in van den Bosch, 1993, p.52):

Since a number of years I am ill; what is wrong with me I cannot say, but I am convinced that it is an illness. [...] the symptoms are as follows; strong whizzing in the ear and in the head, as if there is a clock in it, continuous apparitions of various unpleasant things. These apparitions cause me much unrest, that I am not able to be mentally active for more than 5 minutes. [...] Every sound associates within me a human voice, so that I often feel that lifeless things are talking to me.

Meanwhile, an excerpt from the diary of the 17th-century painter Christoph Haizmann still reports religious rituals as a functional method to be used against apparitions (van den Bosch, 1993, p.54):

On January 13, as I was working on my painting, the Devil came and sat next to me at the table, after which I yelled to my sister, the Evil One was here. My sister came in with holy water and spread it around the room, after which everything at the table dispersed.

In this one might again consider the magical gesture as a way of altering one's subjective experiences. By investigating Renaissance, Enlightenment, and Romanticism, one is again confronted with the history of cruelty towards the vulnerable, and one sees how a social and cultural mindset can influence both political and religious policies. The altering views of madness, its treatments, and its function in society, transforming throughout the Renaissance, Enlightenment, and Modern Era, have been described in depth by Foucault in his 1961 *Madness and Civilization: A History of Insanity in the Age of Reason (Histoire de la folie à l'âge classique)*. But how does this relate to a psychosis

simulation practice?

In spite of taking a stance that it does not matter how an experience is viewed from the outside, that it matters how it is felt from the inside, one now becomes aware of the tensions that may exist between outside views and inside views. For instance, a person convinced they are possessed might have to deal with a doctor who claims it is but an imbalance in their inner fluids, whilst a person claiming they are ill might have to deal with a religious representative claiming that they are being punished by God. So, when simulating psychosis, one may attempt to take into account the tension that exists between outside and inside views. Subsequently, if one takes this a step further, these tensions may be reflected in a single person's individual experience. It could well be that one moment one may view one's inner experience as being caused by an illness, and the next moment one may be convinced that one is tormented by demons. In that sense, a simulation practice that aims to simulate the subjective experience should think about how to simulate how such tensions are felt, in particular when they range from one perspective, being considered a genius, as having an illness, to another, being considered a criminal beast, or a witch with magical powers.

In the following ages, the treatment of madness slowly became an economic interest, initially improving healthcare, until taking a turn for the worse again before it suddenly became 'big business'.

9.4 THE INDUSTRIAL REVOLUTION, LATE MODERNITY AND POSTMODERNITY

New manufacturing processes, the rise of capitalism and the transfer of power to the bourgeoisie brought on many changes in mental health care. At the beginning of the 19th century, most of 'the mad' in England resided in private asylums, as therapeutic admissions became a lucrative market known as 'the trade in lunacy' (Porter, 2002 [2003], p.95). In 1800 there were about 50 licensed asylums where the mad went as patients. Some of the asylums were very luxurious, costing per week what a servant earned in a year, often with no more than a dozen patients (Porter, 2002 [2003], pp.97-98). There are not many records of these institutes as families wished to avoid any public

exposure (Porter, 2002 [2003], p.95). Care for the mad became a booming business. Between 1880 and 1900, the number of patients in the United Kingdom grew from approximately 10,000 to 100,000. In Italy, there were approximately 8,000 patients in 1881, while, in 1907, there were about 40,000 (Porter, 2002 [2003], p.112). A policy of total non-restraint was introduced by Robert Gardener Hill in the 1830s. Since then, straightjackets as well as fabric cuffs have not been used in the United Kingdom. This trend was not, however, followed on the European mainland or in the United States (Porter, pp.114-116). Past notions on the causes of madness and the accompanied treatments were still influential. The belief still existed that manic patients had too much blood in their head. The 'Boot of Junod' was developed by the French doctor Victor Junod around 1850⁵⁶. When the boot was put on a patient's leg, it would be closed and made into a vacuum, to draw blood away from the head and bring it to the lower half of the body. Turning chairs were designed to turn a patient very fast so that it would change the blood in their brain (Stockman, 2000, p.84). In Ghent, the psychiatrist Joseph Guislain experimented with ancient scare tactics by building contraptions that would startle a patient, one of which was a bridge over a body of water. When a patient would walk over the middle part of the bridge, a lever could be pulled and the patient would fall into the water (Stockman, 2000, pp.84-85). Such tactics, barbaric as they may seem, are nothing compared to how treatments developed further, as the mad went from being neglected and tortured to being a set of evolutionary failures to labelled entities.

It was Charles Darwin who introduced the concept of natural selection by 'survival of the fittest', which provided a different view of the cause and/or purpose of human ailments. Together with the notion of stability (homeostasis) conceived by Theodor Fechner (1801-1887), Claude Bernard (1813-1878), and W. Cannon, (1871-1945), the theory was formed that an organism has '[...] a tendency to maintain within itself certain constant conditions necessary to perpetuate its life' (Alexander and Selesnick, 1995 [1966], p.11). As in the 19th century, the notion returned that humans were rational beings influenced by the laws of nature, organic machines functioning in the context of biological determinants. Superstition, religious and magical systems began to lose

⁵⁶ An example of this boot may be found in The Dutch Museum Of Psychiatry, Het Dolhuys, in Haarlem. Object 31 in their museum guide *'Dollen, Lijders en Cliënten, 700 jaar Krankzinnigenzorg in Nederland'*.

influence once again (Alexander and Selesnick, 1966 [1995], pp.3-4, p.32). This is when the profession of psychiatry really took off.

Classification systems began to form to differentiate between different types of madness (Stockman, 2000, pp.69-71). The observational diagnostics provided by all the asylums allowed for the building of psychiatric profiles that distinguished, for instance, epileptics from the insane (Porter, 2002 [2003], p.135). Precise clinical descriptions were made for 'hallucinations, cyclic insanity, monomania, idiocy, and hypnagogic and alcoholic hallucinations' (Alexander and Selesnick, 1995 [1966], p.161). The German psychiatrist Karl Kahlbaum (1828-1899) believed that all symptoms could be organised. He introduced new descriptions such as 'symptom complex' and 'catatonia' (Alexander and Selesnick, 1995 [1966], p.161). Etienne Dominique Esquirol wrote *Mental Maladies* (1838), in which he delineated conditions that are used today such as 'kleptomania', 'nymphomania' and 'pyromania' (Porter, 2002 [2003], p.134). In 1857, the French psychiatrist Bénédict-Augustin Morel developed the notion that madness was a hereditary disorder. He saw madness as a hereditary degenerative state and the madman as degenerative to the progress of society in general. He called the condition *décomence précoce*, a premature form of dementia (Alexander and Selesnick, 1995 [1966], p.162). Wilhelm Griesinger, considered the father of biological psychiatry, published an article in 1867 arguing again that mental illness was not an illness of the mind, but an illness of the nerves and the brain. Griesinger's position was shared by the neuro-pathologist Theodor Meynert (Stockman, 2000, p.90). Followers of these two scientists were usually convinced that mental illness was not treatable, focusing mostly on lab work, investigating brains. A schism arose between clinical psychiatry and biological psychiatry, of which the latter developed more prominently (Stockman, 2000, p.90). Influenced by Morel's approach, the notion 'degenerationism' was born, spawning the concept that mad people were to be locked away and not allowed to procreate (Stockman, 2000, pp.90-91). This is the point at which things took a decided turn for the worse.

Emil Kraepelin continued the trend and need for classifying and labelling conditions. He put forth Morel's view that young adults with hallucinations and delusions were suffering from *décomence précoce*, calling their condition 'dementia praecox'. He would categorise catatonic dementia praecox, if a

person was silent at times and violent at others. He would refer to 'hebephrenic' (symptoms being a loss of a train of thought, or spells of inexplicable laughter), when behavioural responses were inappropriate, and of 'paranoia', if a patient had delusions of persecution. Kraepelin differentiated between dementia praecox and psychosis – according to him, this came from manic-depressive illness, based on the prognosis of a patient. Receiving the diagnosis of dementia praecox meant that there was nothing to be done but to await complete deterioration. Kraepelin's work was very influential. On the one hand, his medical approach put an emphasis on observation, description and organisation, paving the way for psychiatry to become a specialised clinical discipline in medicine (Alexander and Selesnick, 1966 [1995], pp.162-165)⁵⁷. On the other hand, Kraepelin's as well as Morel's view of the mad as symptom-carriers influenced the eugenics movement that sought to improve human genetics, which in turn influenced political powers, leading to support for the sterilisation of the mad and the disabled, as well as homosexuals and Jews, under the Nazis. Being mad in World War Two eventually left one subject to experimentation and extermination. Eugenic ideas became an official policy of Nazi ideology (Stockman, 2000, pp.90-91, Porter, 2003 [2002], pp.184-186). Between January 1940 and September 1942, 70,723 mental patients were gassed, selected from a list made by psychiatrists and physicians of lives that were 'not worth living' (Porter, 2002 [2003], p.186). After the horrors of war, treatments refocused on psychological developments.

Towards the end of the 19th century, psychology became prominent once again (Alexander and Selesnick, 1966 [1995], p.173), and, with this shift, treatments became correspondingly more docile. The philosopher-psychologist Johann Herbart was a key figure in developing psychology as a separate empirical discipline. He introduced a quantitative factor into mental processes with his visualisation of 'a threshold of consciousness' beneath which psychological processes are not perceived, but take place 'unconsciously'. He described conscious mental content as 'apperception' (Alexander and Selesnick, 1966 [1995], p.166). Gustav Theodor Fechner is considered the first psychologist to investigate the complex relationship between external, physical stimulus and the resulting internal subjective sensations of seeing, hearing and

⁵⁷ The term catatonia was coined by Karl Kahlbaum (1828-1899) and the term hebephrenic by Hecker.

feeling (Alexander and Selesnick, 1966 [1995], p.166).

In the first half of the 20th century, the mad were still kept in mental health hospitals in which treatment would predominantly consist of prescribing (restrained) bed rest. It was thought that a horizontal position was the best position in which the body could heal. There was also a revival of hydrotherapy, in which patients would be placed in baths for two to three hours, and there was a revival of occupational therapy (Stockman, 2000, p.103). This was the time when psychoanalysis developed.

Sigmund Freud's psychoanalytic theory was probably one of the most important influences on how Western society deals with madness today. Freud held the idea that, in order to cure mental illness, one must understand the nature of the illness, by analysing phenomena through systematic observation. Although these ideas were not new, he was the first to develop a system that made the application of psychological causality operational, psychoanalysis being the valid method (Alexander and Selesnick, 1966 [1995], pp.181-183, Porter, 2003, p.188). Freud's 1924 paper on 'Neurosis and Psychosis' makes a clear distinction between these two conditions: 'Neurosis is the result of a conflict between the ego and its id, whereas psychosis is the analogous outcome of a similar disturbance in the relation between the ego and its environment (outer world)' (as quoted in Blom, 2010, p.435). Freud held the notion that neurosis was caused by early sexual trauma, which he termed 'seduction theory', but he later retracted this theory, as he no longer considered neurosis to be caused by the perverse deeds of adults, but by the erotic wishes of the child. On the one hand, this altered the notion that the parent is responsible for the madness of the child, which brought much relief to families. Yet, on the other hand, it dismissed the experience of the patient as being just pure fantasy (Porter, 2003, pp.190-191).

The Swiss psychiatrist Eugen Bleuler renamed dementia praecox as 'schizophrenia' (literally 'split mind') in 1908 (Stockman, 2000, p.92). Schizophrenia was accompanied by delusions, hallucinations and disordered thought. According to Bleuler, schizophrenics were 'strange, puzzling, inconceivable, uncanny, incapable of empathy, sinister' and 'frightening' (Porter, 2003, p.194). Empathy is in essence a person's ability to form a mental simulation of the experience of the other. In that sense it was actually Eugen Bleuler who was incapable of empathy.

Carl Jung developed, in contrast to Freud, a more idealistic rendering of the unconscious. Jung made clinical descriptions of hysteria, anorexia, amnesia and obsessional neuroses, for which he prescribed treatments such as hypnosis, suggestion, and other psychodynamic techniques. Jung saw emotional disorders as a result of conflict between what he calls the collective unconscious and the ego. His metaphysical and philosophical approach paved the way for phenomenological methods in psychiatry (Stockman, 2000, p.97). Psychotherapy finds its roots in the use of hypnosis as a therapeutic device (Alexander and Selesnick, 1966 [1995], p.166). With the rise of psychoanalysis, treatment of all sorts of mental illness moved into private practices, having a profound effect on the openness with which the general public began to speak about mental disorders (context). However Freud's methods proved ineffective with the more severely disabled patients in mental hospitals diagnosed with schizophrenia (Stockman, 2000, p.97, p.111).

In spite of the developments of these more compassionate approaches, treatments still took a turn for the worse. Stockman describes how the impotence of the existing treatments for madness sparked almost desperate experimentation. The Austrian physician and psychiatrist Julius Wagner-Jauregg (1857-1940) held the notion that insanity could be treated with fever. He discovered that if he injected patients with tuberculine, symptoms of neurosyphilis would diminish. In 1917, he injected a patient with blood from a person suffering from malaria, and then treated them with quinine. This provided stabilisation for the patient, so much so that they were able to go home. In 1927, Wagner-Jauregg received the Nobel Prize for medicine. This inspired experimentations with chlorine, apo-morphine and potassium bromide that proved effective for patients suffering from epilepsy. Other experimentations took place with 'sleep therapy'. Using barbiturates, a doctor would artificially put a patient to sleep for a long period. This was not without danger – when Somnifen was used, approximately 5 per cent would never regain consciousness and subsequently die. The Austrian neurophysicist and psychiatrist Manfred Sakel (1900-1957) published a paper in 1933, in which he suggested using insulin to treat schizophrenia. This involved injecting a patient with insulin, which would then put a patient to sleep and later into a coma. After 20 minutes, they would be injected with a sugar mixture after which they awoke. A neuropathologist from Budapest, Ladislav von Meduna (1896-1964),

discovered that symptoms of schizophrenia could be relieved by cramping a patient's body – this occurred when a patient was administered with cardiazol. This treatment is known as convulsion therapy. An account of the German psychiatrist Heinz Lehman (1911-1999), who fled to Montreal in 1937, is known for his experimentation with caffeine, sulphur, turpentine, and in particular chlorpromazine. In 1935, the Portuguese neurologist Egas Moniz (1874–1955) was curious to see if, by removing parts of the frontal lobes in humans, it would have an effect on symptoms. The neurosurgeon Almeida Lima (1903-1985) experimented on 20 patients between 1935 and 1936, by taking away parts of the frontal lobes. Seven were cured, seven showed some improvement and with six there was no change. In April 1938, the Italian neurologist Ugo Cerletti (1877 -1963) experimented on patients by briefly sending an electrical shock of 80-100 volts through the body. This diminished hallucinatory symptoms, and electroconvulsive therapy was born. In 1946, the American psychiatrist Walter Freeman (1895-1972) developed a method to operate via a patient's eye socket, and the infamous lobotomy was born. In 1949, the Australian psychiatrist John Cade discovered that lithium was effective in treating manic depression. In 1951, the French neurosurgeon Henri Laborit (1914-1995) invented an artificial antihistamine, which developed into chlorpromazine. It was unclear how the treatment affected a patient, but the effects were significant; reports from *Salpêtrière* reveal quiet hospital wings in which no restraints or hydrotherapy were being used (Stockman, p.98, p.101, p.104, pp.107-108). Such results were considered a great success by society, yet were of course significantly detrimental to patients. However, further developments eventually began to change patient's lives for the better.

The mainstream development of drugs, known as 'the chemical revolution', allowed for patients to begin a life outside of the asylum (Porter, 2002 [2003], p.204). Optimistic future scenarios stated that psychotropic drugs would eliminate madness by the year 2000 (Porter, 2002 [2003], p.206). In spite of the relative success, political and ethical questions were raised when one began to discover the harmful long-term effects of drugs, and the re-shaping of personalities, as well as the fact that they were manufactured and marketed by monopolistic multinationals (Porter, 2002 [2003], p.207).

In 1956, the Gregory Bateson group published a series of papers called 'Toward a Theory of Schizophrenia', in which Bateson showcased his notion of

the 'double bind' -- he understood schizophrenia to be the reaction to a contradictory situation: If a person had no normal way to react he had to create an abnormal one, such as 'withdrawal from communication, paranoid suspicion, an ability to take anything literally and mistaking inner voices for the outside world' (Bateson et al. 1956 as referred to in Pickering, 2010, p.175).⁵⁸ In the 1960s, a movement known as anti-psychiatry began to dominate public opinion, brought about by figures such as Ronald Laing, David Cooper, Franco Basaglia and Thomas Szasz. In his book *The Myth of Mental Illness* (1961), Szasz, professor of psychiatry at Syracuse University, New York, claimed that mental illness was a man-made myth (Porter, 2003, p.1):

[...] mental illness is not a disease, whose nature is being elucidated by science; it is rather a myth, fabricated by psychiatrists for reasons of professional advancement and endorsed by society because it sanctions easy solutions for problem people. Over the centuries, he alleges, medical men and their supporters have been involved in a self-serving 'manufacture of madness', by affixing psychiatric labels to people who are social pests, odd or challenging [...] 'mental illness' and the 'unconscious' are but metaphors, and misleading ones at that.

Szasz' work was a critique of 'compulsory psychiatry'. As such, mental illness was no longer seen as an objective behavioural or biochemical reality, but as a strategy for the world to survive madness. Psychosis was seen as a healing process that should not be interfered with (Porter, 2002 [2003], p. 210). Early anti-psychiatry of the 1960s presumed that the psychotic knew something or experienced something that was 'more real' than normal people experience, presuming that there is a more 'real' reality that hides behind our superficial reality, only reachable by a 'happy few' - be it artists, the mad or thinkers (Kusters pp. 18-19) It was, therefore, the way that society dealt with madness that was the true cause of the disease.

At the same time, Erving Goffman's book *Asylums* (1961) provided a critical history of the psychiatric institution, in which a psychiatric patient loses their personal identity as a human being. In his opinion it is institutionalisation itself that is at the root of the degenerative and chronic nature of schizophrenia (Stockman, 2000, p.115). And again, in 1961, Michel Foucault conveys, in *Madness and Civilization: A History of Insanity in the Age of Reason* (*Histoire*

⁵⁸ The Gregory Bateson Group consisted of Jay Haley, John Weakland, William Fry and Don Jackson (Pickering, p. 174).

de la folie à l'âge classique), that mental illness must be understood as a cultural construct and not a natural fact (Porter, 2003, p.3). 'Schizophrenia and recovery appear here as a sort of gymnastics of the soul, as Foucault might have said – a plunge beyond the modern self, precipitated by adaptations to double binds, with psychosis as a higher level of adaptation that returns to a transformed self' (Pickering, 2010, p.179). The way that psychiatric practice developed was considered to be counterproductive: 'hindering and even exacerbating circumstances during the progress of the psychosis' (Bateson 1961, pp.xvi, as cited in Pickering, 2010). The influence that these debates had on political left- and right-wing strife about the ethics and costs brought on the demise of the oversized isolated mental health institutions. In the United Kingdom, between 1950 and 1980, the number of institutionalised patients fell by four-fifths (Porter, 2002 [2003], p.211). What does this mean to a psychosis simulation practice?

9.4.1 VIEWS OF THE INDUSTRIAL REVOLUTION, LATE MODERNITY AND POSTMODERNITY AND WHAT THEY MEAN TO A PSYCHOSIS SIMULATION PRACTICE

After exploring the history of mental health care, one begins to realise just how bizarre the history of understanding madness is. One might even be overwhelmed by the diversity of what people thought caused madness and how people thought of treating it. It is as if madness itself is revealed through the madness present in the views on treatments and causes. Ironically, in psychosis it is the outside world that has revealed itself as mad, causing a gap between subjective experience and objective descriptions; understanding this gap is crucial to the treatment and processing of these experiences (Kusters, 2014, p.18). From this one becomes aware of the possible role an artistic practice of psychosis simulation might play, as art may offer the expertise of transference of subjective experiences, and as such help to bridge the gap that obstructs empathic understanding.

Another important aspect is that the way society deals with madness is politicised. Socrates, a well-known hearer of voices, was accused of listening to his daemon, which was not a recognised god (Leudar and Thomas, pp.17-18). Politics decided which voices, or which Gods, one was allowed to listen to. The

early priestly physicians jealously guarded the secret knowledge of divination (Alexander and Selesnick, 1966 [1995], p.19). With regards to a psychosis simulation practice, one could investigate the possible political or ethical implications of what one was attempting to achieve, an issue that is discussed in the next chapter.

The exposure of this history reveals a need and urgency to be vigilant about modern-day understandings of psychosis. Is there madness hidden in modern-day treatments?

9.5 CONTEMPORARY PSYCHIATRY AND PSYCHOLOGY

The human endeavour to understand the mystery of madness reflects the society's need to come to terms with the phenomenon of insanity as if it were the 'Holy Grail' (Geekie, Read (ed), [2004] 2011 p.148). Like any other medical specialism, psychiatry searches for factors that contribute to the development of this 'disease' by mapping the different behavioural and biological manifestations, and develops treatments (Kusters, p.15). In the materialism of modern-day psychiatry, the experience of psychosis is regarded as an abnormality of the brain or the result of a disease, which affects related regions of the brain, and treatment consists of controlling the symptoms (Fuller Torrey [1983] 2006: pp.356–57). It is a common conviction that even though science does not understand the mechanisms, in time, new technologies will uncover these abnormalities (Torrey 2006: pp.35–36). This is typical of a scientific discourse – the belief in the accumulation of knowledge that leads towards full control of man over nature. All things are considered 'knowable', given time and proper technology. As a consequence the tendency to describe and create taxonomies for mental disorders and their causes has grown exponentially.

The American Psychiatric Association regularly publishes a new version of *The Diagnostic and Statistical Manual (DSM)*, considered by many as the 'bible' of psychiatric diagnosis. It was first published in 1952, followed by DSM-II and DSM-III, with the DSM-IV-TR published in 2000 (Porter, 2002 [2003], pp.213-214). Where the DSM-II only contained 134 pages, the DSM-IV-TR contained 943 pages. The additions to the DSM-V, published in 2013, inspired organisations like the British Psychological Society to create a petition that

expressed concerns about labelling what they consider normal experiences of childhood and old age as mental disorders.⁵⁹ The petition was endorsed by the International Society for Ethical Psychology and Psychiatry (ISEPP), in the following statement:⁶⁰

It is the position of the International Society for Ethical Psychology and Psychiatry (ISEPP) that the Diagnostic and Statistical Manual for Mental Disorders (DSM), a publication of the American Psychiatric Association, is a political rather than scientific document, one which damages human beings. Despite the position of its authors that it is primarily descriptive, the DSM supports the perpetuation of myths about mental, emotional, and behavioral disturbances in individuals which favor pseudoscientific, biological explanations and disregard their lived context. The evolving editions of the DSM have been remarkable in expanding psychiatric labels for alleged "mental illnesses" with no scientifically substantiated biological etiologies.

The forthcoming DSM-V edition continues this process while attempting to deepen indoctrination of mental health providers, consumers, and third-party payers into the fallacy that problems in the living result from problems in biology. Adherents of biopsychiatric explanations and pharmaceutical manufacturers are the primary benefactors of public acceptance of this myth. Beyond research and technical studies which repeatedly demonstrate the inherent lack of validity and reliability of the DSM as a nosological system, psychiatric labeling has real consequences in discriminating against and oppressing the disadvantaged, creating unnecessary obstacles to employment, housing, and social acceptance, lending false credibility to the concept of psychiatric disability, assaulting self-worth and self-efficacy, and undermining reestablishment of positive life-striving by inducing "behaviors to label" among people who have been so labeled.

More than 15,000 people have signed the petition. Psychiatry has always had two goals, to scientifically understand mental illness and to heal it, but in the frenzy to be respected as a scientific discipline, the healing seems to have lost priority (Porter, 2003, p.183). Descriptive psychiatry is highly criticised by psychologists such as Louis Sass (Sass, 1995, p.x):

A great weakness of twentieth-century psychiatry and clinical psychology, at least in the United States, has been the tendency to neglect careful description and analysis of abnormal psychological phenomena in favor of a too-quick and too-exclusive focus on etiology or

⁵⁹ http://www.bps.org.uk/sites/default/files/documents/pr1923_attachment_-_final_bps_statement_on_dsm-5_12-12-2011.pdf

⁶⁰ <http://dsm5-reform.com/2012/07/international-society-for-ethical-psychology-and-psychiatry-lends-its-support-with-this-letter/>

causation. In practice this has meant that the nuances and complexities of psychopathological signs and symptoms tend to be ignored; too often we rely on the complacency and presumption of a misleading kind of “common sense,” an attitude that dismisses peculiar forms of action and experience as but inferior versions of the norm.

Along with other psychiatrists, professor and head of psychiatric service Manuel González De Chávez addresses the practice of traditional descriptive psychiatry critically by asking what it has offered for the last 200 years. He describes this as:

A triple pirouette of ignorance, that initially considered these persons as alienated, then as brain damaged, and finally it stopped listening to them. It redefined voices on an exclusively pathological basis as auditory hallucinations, a symptomatic paradigm of diagnostic labels, such as schizophrenia or psychosis, with the unquestioning presumption of a (still undemonstrated) underlying brain disorder. And what is even worse, it condemned these persons to silence, because it maintained a priori that the voices had no meaning, that they were noises from a damaged brain machinery that were not worth listening to. Therefore, the professionals of the traditional descriptive psychiatry did not listen to them (Romme and Escher, 2012, p.xiv).

The differences of opinion between disciplines and experiencers lead to strong debates. An example of discussions surrounding today’s issues, such as forced medication, may be found in the dialogue between E. Fuller Torrey and Judi Chamberlin, which is published [here](#).⁶¹ For an outsider attempting to understand psychosis, the discrepancies between the various models of understanding psychosis is confusing. In the Cambridge Medicine publication *The Diagnosis Of Psychosis* (2011) by Rudold N. Cardinal and Edward T. Bullmore, common causes of psychosis are listed, such as *Delirium, Dementia, Alzheimer’s, Parkinson’s* and *Huntington’s* disease, as well as *Down’s Syndrome, Epilepsy* and *Migraine* (eBook loc 537, 823, 842, 969, 1310 and 1417 of 14280). When one learns that dementia is seen as one of the biggest causes or risk factors of psychosis in the elderly, one begins to see the madness of today’s views.

⁶¹ <http://www.power2u.org/debate.html>

9.6 BEING AWARE OF THE PAST AND WHAT IT MEANS TO A PSYCHOSIS SIMULATION PRACTICE

From studying the various problematic attempts to understand, treat and deal with madness throughout the centuries, one becomes aware of the potential importance of what a psychosis simulation practice is attempting to achieve, as madness remains one of the greatest human mysteries. If any objection exists to the development of an artistic simulation to better understand what is now termed psychosis, one may argue that, from a historic perspective, it is no less mad than any other attempted method; and as such may be considered as valid. But more importantly, one learns by studying the past that the voices of experiencers need to be listened to.

For an outsider, trying to understand psychosis, how it is viewed, how it is caused, and how it is treated today, is difficult, yet, being part of society, there is a responsibility to understand it (Geekie et al, 2012, pp.1-2):

While the kinds of experiences we are talking about are by and large, private in nature, in that they are immediately accessible only to the individual who actually has the experience, making sense of and deciding how to relate to these experiences commonly takes place in the interpersonal and social domain. [...] We have a responsibility to search for truth, but at the same time we must be aware of the cost of that search as: 'The sense we make can have major consequences in people's lives'

It is important to realise that how one thinks about and understands psychosis influences how one deals with it, and thus how a person experiencing psychosis is treated. Any simulation of psychosis will contribute to this influence.

For those who attempt to understand psychosis, according to Kusters, reading modern-day psychiatric literature is not so interesting, as the majority of modern-day psychology and psychiatry, he says, are more focused on effectively destroying or subduing madness. He suggests that, by stating that psychosis is but a disruption in the brain's dopamine levels, one still does not know anything about how that makes a person experience the world. He also says that even the psychologists attempt to reduce madness to deformities in a person's personality, rather than opening themselves up to be challenged in their own assumptions about the nature of reality, which is, according to

Kusters, understandable in a practical everyday context, but is a pity for the imagination (Kusters 2014, pp.27-28). For the imagination of an artist to be inspired, one needs to take a closer look at how madness is described by those who have been diagnosed with it.

9.6.1 VIEWS FROM WITHIN

Robert van den Bosch points out the need to take the experience seriously: 'If we want to understand schizophrenia, while only looking at the outside, we miss the most important source of information. Schizophrenia 'is located' in the inner world' (van den Bosch, 1993, p.14). As most patient descriptions are often hidden through the requirements of professional confidentiality, one may turn instead to the public area of the Internet to find out more about people's descriptions. The website www.psychosis-bipolar.com has collected valuable information about what psychosis is considered to be by experiencers.

One learns from it that the general idea, as described in the introduction chapter, is that psychosis is a reaction to life events; a type of escape from difficult and or traumatic situations. This may be puberty, moving house, the transition from being a student to entering professional life, an event related to a love relationship, the birth of a child, the loss of a loved one. One learns that psychosis is unique to each individual, and that madness can happen to anyone, but in particular to those who are described as being 'thin-skinned'. One learns that psychosis is an altered form of processing reality, that it involves a particular 'waywardness' of body and mind, that the senses seem to 'go their own way', with images and voices developing that are no longer only influenced by the eye and the ear. One learns that this 'thin-skinnedness' relates to having one's internal life forcing its way out, in the form of hallucinations, for instance, and external events reaching inside unfiltered, risking paranoid processing, or delusions. One learns that it is like 'dreaming without the protection of sleep' and that this form of dreaming can be dangerous: 'dreaming that one is a bird is not dangerous but the same perception in psychosis can be risky'. One learns what it means to have access to unconscious experience, such as nightmares or wishful thinking. One learns that one's perceptions can be compared to a return to childhood, in which one relates everything to oneself, causing one to feel guilty even if

one has no influence over a situation, like a child feeling guilty over their parents' divorce. One learns that madness can be like a desperate struggle for autonomy, a retreat into a 'last stronghold of idiosyncrasy', in which one feels that no one can follow. And one learns that madness can mean a loss of self-image, every action requires effort, nothing happens by itself, as everything is significant. As a consequence, questions arise about physical and existential limits, as well as one's significance and responsibility towards others. Learning about what psychosis means is important to a psychosis simulation practice, but it is even more important to understand what madness feels like.

Madness can be an enticing siren, calling from many ragged shores with a promise of tranquillity hidden amongst the rocks; unfortunately, we are just as likely to find ourselves shattered and impaled on the rocks, as we are to find a safe and serene harbour. Once heard, though, those alluring siren calls are not easily forgotten and can be craved for, desired even, their duplicity forgotten amid the attraction of false rhapsody. I have succumbed to that charm many times, only later to witness my own demise fabricated in notions of grandeur, supremacy and bestowed mystical powers. It is hard to express the sensation of rising above the limitation of mortals to have within your grasp the intoxicating vigour of obtaining knowledge, all power, and all magic. This is the false rhapsody, this is the 'drug', this is the madness. (Lampshire, 2012, p.139 as found in experiencing psychosis).

Renee:

For me madness was definitely not a condition of illness; I did not believe that I was ill. It was rather a country, opposed to Reality, where reigned an implacable light, blinding, leaving no space for shadow; an immense space without boundary, limitless, flat; a mineral, lunar country, cold as the wastes of the North Pole. In this stretching emptiness, all is unchangeable, immobile, congealed, crystallized. Objects are stage trappings, placed here and there, geometric cubes without meaning. People turn weirdly about, they make gestures, movements without sense; they are phantoms whirling on an infinite plain, crushed by the pitiless electric light. And I – I am lost in it, isolated, cold, stripped, purposeless under the light. [...] This was it; this was madness, the Enlightenment was the perception of Unreality. Madness was finding oneself permanently in an all-embracing Unreality. (Sechehaye [1950] 1994, p.1)

Kusters:

In madness one is actually, in a rogue, associative, wild manner, busy with solving the most fundamental questions of existence. One wants to know what it is about, what good and evil is, what is the point to existence, the point of life. Such questions should not be denied, but lived (Kusters, 2014, p. 20)

These are the stories that should inspire the artistic practice of psychosis simulation. This is where the artist, the philosopher and the 'madman' meet in the same mental landscape.

9.6.2 EXTREME PSYCHOSIS

What makes psychosis such a difficult thing to deal with is the reality of its most extreme manifestations, which are often splashed across the pages of newspaper:⁶²

The scene was so gruesome investigators could barely speak: A 3 1/2-week-old boy lay dismembered in the bedroom of a single-storey house, three of his tiny toes chewed off, his face torn away, his head severed and his brains ripped out. [...] Otty Sanchez, sitting on the couch with a self-inflicted wound to her chest and her throat partially slashed, screaming "I killed my baby! I killed my baby!" police said. She told officers the devil made her do it, police said.

Sanchez, 33, apparently ate the child's brain and some other body parts before stabbing herself, McManus said. Sanchez's aunt, Gloria Sanchez, said her niece had been "in and out" of a psychiatric ward but did not say where she was treated or why. She said a hospital called several months ago to check up on her. "Otty didn't mean to do that. She was not in her right mind," a sobbing Gloria Sanchez told The Associated Press on Monday by phone. She said her family was devastated. Investigators are looking into Sanchez's mental health history to see if there was anything "significant," and whether postpartum difficulties could have factored into the attack, McManus said.

Postpartum depression and psychosis have been cited as contributing factors in several other cases in Texas in recent years in which mothers killed their children. Andrea Yates drowned her five children in her Houston-area home 2001, saying she believed Satan was inside her and trying to save them from hell. Her attorneys said she had been suffering from severe postpartum psychosis, and a jury found Yates not guilty by reason of insanity in 2006. In 2004, Dena Schlosser killed her 10-month-old in her Plano home by slicing off the baby's arms. She was found not

⁶² http://www.huffingtonpost.com/2009/07/27/otty-sanchez-woman-accuse_n_245627.html (last viewed May 16th, 2013)

guilty of reason by insanity, after testifying that she killed the baby because she wanted to give her to God.

If such bizarre examples of mothers dismembering their newborns, and eating from their brains, occurred throughout history, historical views may be seen in a different light, and one might form assumptions about why the mad were considered so dangerous, lacking empathy, or morality. One might think to understand why the mad were treated in the way that they were, locked up as criminal beasts. But what many people don't realise is that these violent cases are extremely rare, compared to the number of people who experience psychosis. In fact, a person in psychosis is more liable to become a victim of violence than to cause it. A simulation that is developed to better understand a highly stigmatised human experience should, ideally, not contribute to that stigma. This is particularly of importance when one looks at the most extreme examples of psychosis. A simulation would therefore need to find a way to balance the simulation psychotic phenomena, without falling into sensationalist traps of horror scenarios, contributing to stigma, yet also provide an understanding as to how such horror stories might happen in the first place. An attempt to do so may be found in the appendix VI of this thesis.

9.6.3 HISTORIC AND CONTEMPORARY VIEWS

9.6.3.1 IN MINDSTORM

The way that the pizza or the coffee bubbles could be interpreted as containing an energetic force, one that causes the molecules of the matter to expand. As such, this could be interpreted as being possessed. The same may be valid for the pizza. The TV reporter may also be interpreted as being possessed as he turns to the viewer. Is the TV haunted? This was explored more deeply in the chapter 'Simulating Delusions', under 'The TV is talking to Me!' One may ask how this would be related to a battle between 'good or evil', or 'punishment and guilt'. Perhaps one may interpret the coffee or pizza itself as comfort food that is no longer able to provide comfort; and the reference to poison, as a form of punishment? In order to draw any conclusions, one would have to compare the visuals to any audio hallucinations, which will be explored in the next chapter. In answer to the question 'Are there any spiritual or religious connotations to the

visuals?’ the answer is a resounding ‘No’. Generally speaking, from an artistic perspective, it does not seem that any particular attention was given to these themes, at least with regard to visual hallucinations. In that sense, one could say that although it is not impossible to spark discussion about these themes, there is certainly room for improvement when it comes to the visual design, which, if used in an educational context, would require discussion around these historic and subjective views of psychosis. Please read appendix VII.

9.6.3.2 IN *PAVED WITH FEAR*

When one views the visuals not as one continuous hallucination, but as a fragmented narrative, then the experience becomes rich with references to historical and subjective views that may inspire educational conversations. The sped-up frame rate of the camera’s view rests on a wooden statue of a lady that looks like a Maria icon. Is she watching the viewer? In another frame, the camera shifts to the eye of an iconographic figure in a painting. Is it an evil eye? The camera visuals continue throughout the experience. By slowing the frame rate, it looks as if people are watching, and judging a person, which supports a narrative of guilt. In that sense, *Paved with Fear* provides ample educational points of entry into discussion of historic and subjective views of psychosis.

9.6.3.3 IN *VIRTUAL HALLUCINATIONS*

Well, the computer laptops definitely act as if haunted or possessed, and the man in the mirror with the bleeding eyes could be related to the religious narrative of Jesus bleeding through the eyes, as so often depicted on crucifixes. The experience of floating above the clouds may relate to notions of being in heaven. The books relate to the evils of men. In a nutshell, the *Virtual Hallucinations* project also holds ample educational points of entry to historical views and subjective experiences.

9.6.3.4 IN *LIVING WITH SCHIZOPHRENIA*

‘At the Doctor’ scores highly in this department as well. Many of the effects are ghostly, magical, haunted and spiritual, whilst also being frightening. The shimmering of the psychiatrist in and out of existence, spiders, bugs, blackbirds, are all symbolically magical creatures. The distortions in the face of the

psychiatrist make him look very evil, in particular with the red light glowing behind him; a battle between good and evil may be interpreted from the switch to a glowing white light behind the psychiatrist, his face once again benevolent. When the third eye appears, one may associate wisdom with psychic power. The objects in the room seem possessed: the clock, the poster, are entities that are tormenting the experiencing viewer. One suddenly becomes a very small child, which could make one feel fear of punishment. All these elements may be used for educational discussions about the range of possible visual experiences.

References to historical and subjective views in the visual experiences are few in 'At the Pharmacy', as there are few visually hallucinatory experiences. The shimmering could be seen as magical; the dark ink-like cloud as evil, but when it comes to educating experiences of visual hallucinations, 'At the Pharmacy' provides a minimal basis to explore historical and subjective views of psychosis as a spiritual or religious journey.

9.7 SUMMARY

This chapter has investigated a history of predominantly Western cultural views on the causes and treatments of madness, in relation to what it means to a psychosis simulation practice. It has highlighted several aspects that a psychosis simulation practice might take into account when simulating psychosis. One is the very diversity of madness being regarded throughout history as either physical or emotional disorder, as well as torment by otherworldly beings, with recurring treatments related to magical and religious rites and gestures; and recurring themes, such as guilt and punishment. This underlines the need to take such experiences into account as being real for those experiencing psychosis. Another aspect that was revealed, is the need to contemplate simulating the tension that exists between outside views and inside views, as well as tension that might exist within one's own individual experience. By studying the history of views and treatments of madness, one realises the madness in the treatment of madness, and, as such, that one needs to be critical about modern-day views, as one learns that, in spite of the great progress made, psychosis remains a great mystery. One learns to realise

that, throughout the ages, madness has been politicised, and, as such, one should try to be aware of any political role in a simulation. One also learns that the voices of experiencers are considered important, yet, due to the nature of the developments, have not been taken seriously enough. One also realises that listening to the stories of those who have been diagnosed, in combination with using one's imagination, is the best method to understand psychosis. By studying madness, one learns about the extreme forms and dire consequences it may have in society. One also realises the role of the media in stigmatising madness. One becomes aware of the importance of a psychosis simulation practice, and of the importance of attempting to create an experience that will help people understand the nature of madness in a way that does not contribute to stigma, yet does allow for an understanding as to why the extreme cases exist.

And most importantly, by investigating the history of psychosis, one begins to better understand why anybody would want to simulate psychosis, let alone experience it. The chapter has further summarised visual hallucinations present in the case study simulations, and analysed their educational value with regards to historical and subjective views of psychosis as magical, religious, and spiritual, as well as a battle between good and evil, guilt and punishment. I leave it to the reader to unravel how historical views have been threaded into *Labyrinth Psychotica*.

10 APPENDIX - II LIST OF PUBLICATIONS, EXHIBITIONS AND PRESENTATIONS, CONFERENCES AND SYMPOSIA

10.1 LIST OF PUBLICATIONS (a selection)

Kanary J, 2008, 'Roomforthoughts: Creating and using Installation Art in order to Better Understand the Subjective Experience of Psychosis', *New Realities: Being Syncretic*, Ascott R, Bast G, Fiel W (eds.), conference proceedings of the 9th Consciousness Reframed Conference in Vienna, 3-5 July, pp.161-164 Springer, Wien New York

Kanary J, 2010, 'Hallucinations: An Existential Crisis?', *Making Reality Really Real*, Ascott, Gangvik, Jahrmann (eds.), conference proceedings of the 11th Consciousness Reframed Conference in Trondheim Norway, 4-6 November, pp.141-143, Teks publishing, Norway

Kanary J, 2011, 'Hallucinations: An Existential Crisis?', *Metaverse Creativity*, Vol 1, Issue 2, Intellect UK

Kanary J, 2012, 'Roomforthoughts: Labyrinth Psychotica, Understanding the Subjective Experience of Psychosis', *Madness in Con-Text: Historical, Poetic and Artistic Narratives*, pp. 141-157, G. Araoz (ed.), Inter-Disciplinary Press, Oxfordshire

Kanary J, 2013, 'The tv is talking to me!': Simulating Psychotic Phenomena, theme number 'Madness and Media', *Tijdschrift voor Mediageschiedenis*, Blom I, Lameris B, (eds.), vol 16, no 1, pp.81-91, online journal, Amsterdam, <<http://www.tmgonline.nl/index.php/tmg/article/view/64>>, [30 March 2015]

Kanary J, Dumitriu A, Lapointe FJ, Malina R, Menden-Deuer S, Rubin CB, Vita-More N, 2013, 'Towards a taxonomy of the challenges within typologies of collaborations between Art - Design- Engineering - Science – Humanities - a practical guide', for SEAD White papers, *Steps to an Ecology of Network Knowledge and Innovation: Enabling new forms of collaboration among sciences, engineering, arts, and design*, Vol I and II, <https://seadnetwork.files.wordpress.com/2012/11/nikolova_final.pdf>, [30 March 2015]

Unedited draft versions may be found at the end of this document.

10.2 EXHIBITIONS AND PRESENTATIONS

10.2.1 THE LABYRINTH

THE LABYRINTH	2015	Switzerland, Alpine, September
	2015	United Kingdom, Liverpool, FACT, Art Science Institute, March-April-May
	2014	Belgium, Kortenberg, Mental Health Care Hospital, November
	2014	Belgium, Gent, Dr. Guislain Museum, November
	2014	The Netherlands, Eindhoven, Mental Health Care Hospital, October
	2014	The Netherlands, Venray, Mental Health Care Hospital, October
	2014	The Netherlands, Tilburg, Janssen Pharmaceuticals, September
	2014	Belgium, Liege, Mental Health Care Hospital, June
	2014	Belgium, Manage, Mental Health Care Hospital, June
	2014	Eindhoven, Temporary Art Centre January-February
	2014	The Netherlands, Rotterdam, Mental Health Care Hospital, January
	2014	The Netherlands, Amsterdam, Brakke Grond, <i>Neurons Firing</i> , Curator Frank Theys
	2013	The Netherlands, Assen, Mental Health Care Hospital, November
	2013	The Netherlands, The Hague, Today's Art Festival, September- October
	2012	The Netherlands, Amsterdam, PhDO 7, December

10.2.2 THE WEARABLE

THE WEARABLE	2015	Mental health care exhibitions, events, hospitals
	October	Austria, Belgium
	September	Switzerland
	June	Finland (TSC), The Netherlands
	May	United Kingdom, Belgium, The Netherlands
	April	Austria, The Netherlands
	March	United Kingdom (Liverpool, FACT), Belgium, The Netherlands
	February	Sweden (Karolinska Institute), The Netherlands
January	The Netherlands (GGZ Beilen, Fontys Hogeschool Eindhoven)	
THE WEARABLE	2014	Mental health care professionals, exhibitions, events, hospitals, schools, police
	December	UAE, Bahrain, Kuwait, Qatar, The Netherlands (GGZ Raalte)
	November	Belgium (i-brain festival, Dr Guislain Museum), The Netherlands (GGZ Almelo)
	October	Germany (Berlin, ECNP Congress), The Netherlands (KNMP Congress, FIT Festival, GGZ Venray, GGZ Hoorn, GGZ Eindhoven, GGZ Doetinchem)
	September	The Netherlands (GGZ Kampen, GGZ Zwolle-Police, GGZ Schagen, GGZ Groningen, University of Maastricht)
	August	The Netherlands (Amsterdam Motherboard Vice)
	July	The Netherlands (GGZ Zwolle, GGZ Emmen)

	June	The Netherlands (Kop Festival Enschede, GGZ Deventer, GGZ Venray)
	May	The Netherlands (Zoetermeer, Police)
	April	Saudi Arabia (Jeddah), The Netherlands (NVVP Congress)
	March	Germany (Munich, EPA Congress), Belgium (GGZ Turnhout), The Netherlands (GGZ Groningen, GGZ Winschoten)
	February	The Netherlands (Eindhoven, Temporary Art Centre)
	January	The Netherlands (Amsterdam, Night of The Brain, Brakke Grond- GGZ Rotterdam)

10.2.3 MEDIA (see Appendix V for more details)

MEDIA	TV	VRT 19.00 News, Belgium, RTV Noord (2014), NPS documentary (2014), 'Je Zult het Maar Hebben' (2014), Studio Max Live (2013), SBS 6, Hart van Nederland (2013), NOS Journaal (2013), RTV Drenthe (2013)
	Newspapers	De Morgen (2014), De Pers (2014), Spits! (2013), TROUW (2013), AD Haagsche Courant (2013)
	Radio	Radio Brussel (2014), Radio BNN (2014), De Avonden (2013), KRO Goedemorgen (2013)
	Web	BNN Academy 101 (2013), Motherboard VICE (2013), Nrc.nl (2013)
	Magazines	YPSILON (2014), ANOIKSIS (2014), GGZ Eindhoven (2014), Psychologie Magazine (Febr 2014)

10.3 CONFERENCES AND SYMPOSIA

Lectures and presentations:	2014	University Leiden, Madness and Spirituality
	2014	University Maastricht, Creativity and Entrepreneurship
	2013	Hilversum, Symposium Madness and Media
	2013	Prague, Mutamorphosis, Prague
	2012	Amsterdam, PhDO 7
	2012	Amsterdam, Honours Programme Art&Research, University of Amsterdam and Rietveld Academy
	2012	Stockholm, Toward a Science of Consciousness conference
	2011	Delft, University of Technology Delft, Studium Generale, Art and Science
	2011	Oxford, England, Interdisciplinary Net, Oxford University, Probing The Boundaries - Making Sense of: Madness 4
	2011	Amsterdam, PhDO 1
	2011	Amsterdam, Honours Programme Art&Research, University of Amsterdam and Rietveld Academy
	2011	Amsterdam, presentation of project within Honours Programme Art&Research, University of Amsterdam and Rietveld Academy
	2010	Trondheim, Norway, TEKS, Making Reality Really Real Consciousness Reframed. 11th International Research Conference
	2010	Oxford, England, Oxford University, Global Conference on Madness 3
	2010	Dortmund, Germany, ISEA2010, LEAF education art and science panel
	2010	Troy, NY, USA, C:ADM, American Society of Cybernetics

2010	Lancaster, England, University of Cumbria, TRAHMA, Creativity and Madness
2009	München, Germany, MMHK, Macromedia Hochschule für Medien und Kommunikation, Consciousness Reframed 10th International Research Conference
2009	Oxford, England, Oxford University, Global Conference on Madness 2
2009	Hong Kong, China, Polytech University Hong Kong, Towards a Science of Consciousness Conference
2008	Sao Paulo, Brazil, SESC institute
2008	Vienna, Austria, University of Applied Arts, Consciousness Reframed 9th International Research Conference
2008	Haarlem, Intruder 2.0 Psychosis Simulator, Museum Het Dolhuys
2007	Prato, Italië, Contemporary Art Centre, Pecci Museum
2007	Amsterdam, Westergasfabriek Discovery 07, European Researchers Night, Partner event van Picnic 07
2007	Amsterdam, Bessensap, NEMO museum
2007	Montreal, Canada, Coeur des Sciences de L'UQAM
2006	Milaan, Italië, NABA academie
2006	Mexico City, Mexico, Kunsthistorisch Instituut

11 APPENDIX III - DOCUMENTATION

11.1 VIDEO LINKS ONLINE DOCUMENTATION

11.1.1 ONLINE VIDEO DOCUMENTATION SUICIDE PIGEON

https://www.youtube.com/watch?v=VshufuXPtvE&list=UULxx473_7nGEEoPLJ1iy3g

11.1.2 ONLINE VIDEO DOCUMENTATION INTRUDER

<https://www.youtube.com/watch?v=kUHcpfs522E&feature=youtu.be>

https://www.youtube.com/watch?v=4gLhG_QiEd8&feature=youtu.be

11.1.3 ONLINE VIDEO DOCUMENTATION INTRUDER 2.0

<https://www.youtube.com/watch?v=EAt7EkSxmyE&feature=youtu.be>

11.1.4 ONLINE VIDEO DOCUMENTATION THE LABYRINTH

<https://www.youtube.com/watch?v=uDt5UbyReQw>

11.1.5 ONLINE VIDEO DOCUMENTATION THE WEARABLE

https://www.youtube.com/watch?v=fMQuEgy0m_8

11.1.6 ONLINE VIDEO DOCUMENTATION HEARING VOICES WORKSHOP

https://www.youtube.com/watch?v=GX7HKQ-a_So

11.1.7 ONLINE VIDEO DOCUMENTATION PAVED WITH FEAR

https://www.youtube.com/watch?v=EVp_YIVBhCM

11.1.8 ONLINE VIDEO DOCUMENTATION MINDSTORM

Mindstorm, <<http://www.mentalwellness.ca/video-mindstorm>>

http://www.youtube.com/watch?feature=player_embedded&v=dkB2CGL769o

11.1.9 ONLINE VIDEO DOCUMENTATION VIRTUAL HALLUCINATIONS

<https://www.youtube.com/watch?v=s33Y5nl5Wbc>

11.1.10 ONLINE VIDEO DOCUMENTATION LIVING WITH
SCHIZOPHRENIA

At the Doctor, <<http://www.mentalwellness.ca/video-doctor>>

At the Pharmacy, <<http://www.mentalwellness.ca/video-pharma>>

http://www.youtube.com/watch?feature=player_embedded&v=dKB2CGL769o

12 APPENDIX IV

With regards to copyright of the images used in my thesis: in most cases the rights have been acquired, either by hiring a professional photographer, receiving them from collaboration parties, or making the images myself. In relation to images in the public domain, I have done my best to secure all the necessary third party copyright permissions, three images have been blurred, with a mention to an online link as to where they may be found. All images from the Prinzhorn collection are published with permission. With the Second Life images I have adhered to their online creative commons policies as my avatar made the images. The images taken in *Paved With Fear* were done so with permission. With regards to the screenshots from the other simulations from Janssen, several attempts were made towards contact with the aid of a communications colleague from their internal network, to no avail. I base my use of them on fair use policy, considering their importance towards the arguments made in my thesis.

12.1 IMAGES OF ROOMFORTHOUGHTS

roomforthoughts; a search for the physics of thought by Jennifer Kanary.

roomforthoughts

IMAGE 8 – *roomforthoughts*, 2012, logo by Katja van Stiphout.



IMAGE 9 - *roomforthoughts*, 2000, Maastricht AHK, installation 20m². Image by author.



IMAGE 10 a and b – *roomforthoughts*, 1997, fashion background. Images by author.



IMAGE 11 – *roomforthoughts - Seedling thoughts*, 2000, Maastricht, AHK, installation 20m²



IMAGE 12 - *roomforthoughts Entangled*, 2000, Leuven, station post office, installation 16m²



IMAGE 13 – *I Am A Good Girl*, 2001, Amsterdam, Sandberg Institute, Installation sketch, 16m²

12.1.1 IMAGES OF ROOMFORTHOUGHTS SUICIDE PIGEON

Suicide Pigeon...a clear thought in a psychotic mind..., 2006, Jennifer Kanary, Breda, Lokaal 01, installation 130m²

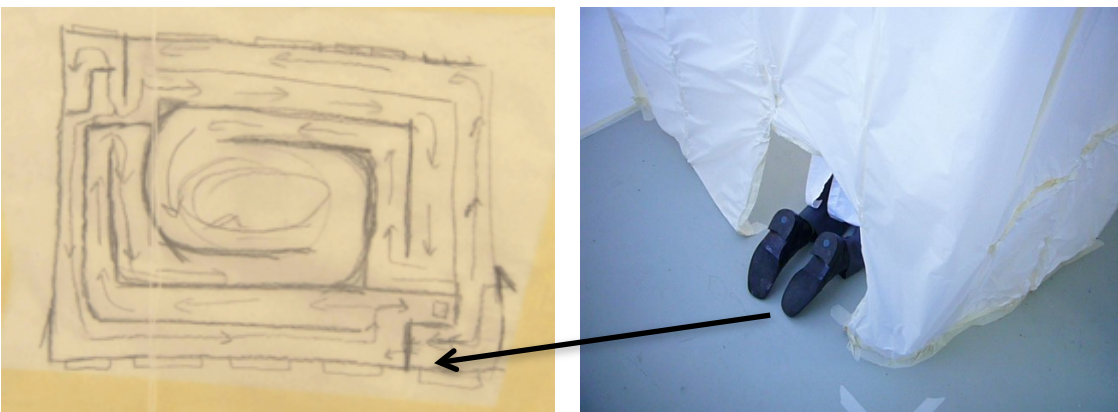


IMAGE 14 a and b - *Suicide Pigeon*, details. Images and drawing by author.



IMAGE 15 – *Suicide Pigeon*, 2006, visitor in the centre. Image by Thomas Lenden.



IMAGE 16 a and b– *Suicide Pigeon*, 2006, details of hallways. Images by Thomas Lenden.



IMAGE 17 - *Suicide Pigeon*, 2006, details of centre. Image by Thomas Lenden.



IMAGE 18 - *Suicide Pigeon*, 2006, detail of visitor shadow. Image by Thomas Lenden.



IMAGE 19 - *Suicide Pigeon*, 2006, detail of hallway and centre. Image by Thomas Lenden.

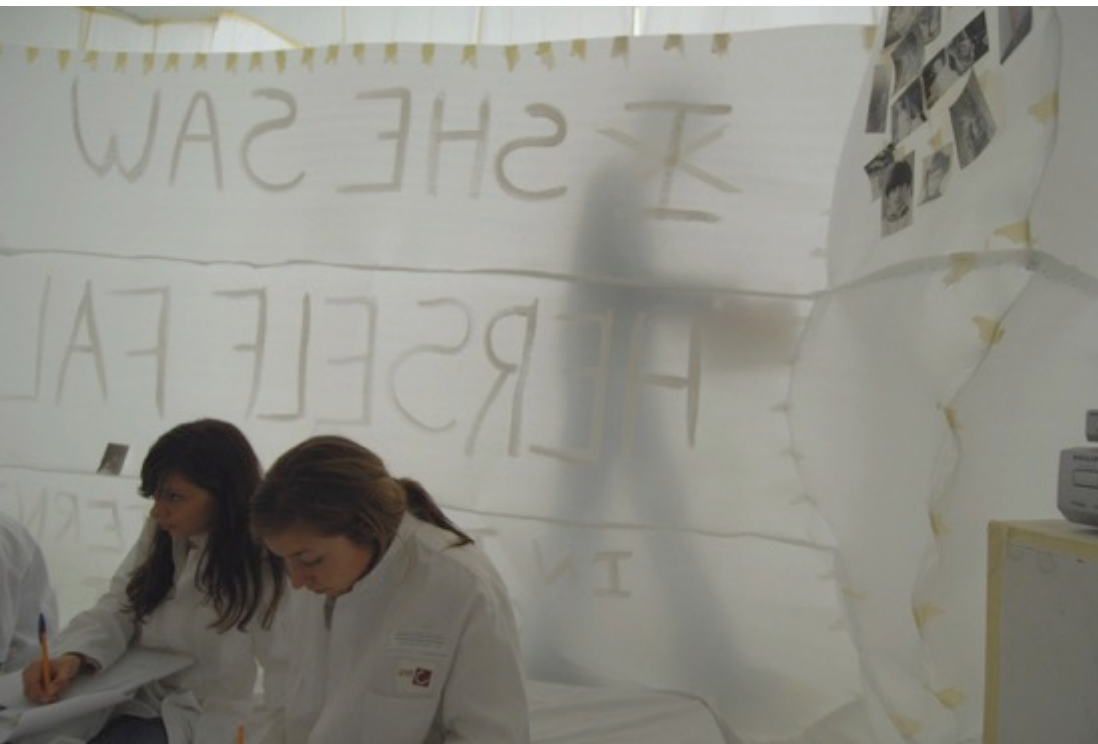


IMAGE 20 - *Suicide Pigeon*, 2006, detail of visitors in centre. Image by Thomas Lenden.



IMAGE 21 - *Suicide Pigeon*, 2006, detail of peeping porthole. Image by author.



IMAGE 22 - *Suicide Pigeon*, 2006, detail of security TV. Image by Thomas Lenden.



IMAGE 23 - *Suicide Pigeon*, 2006, detail of wall hanging by threads. Image by author.



IMAGE 24 - *Suicide Pigeon*, 2006, detail of family images in centre. Image by author.



IMAGE 25 - *Suicide Pigeon*, 2006, detail of hallway. Image by Thomas Lenden.



IMAGE 26 - *Suicide Pigeon*, 2006, detail of centre. Image by author.

12.1.2 IMAGES OF ROOMFORTHOUGHTS INTRUDER

Intruder, 2006, Jennifer Kanary, *Brainspotting* festival, Amsterdam, Pakhuis de Zwijger, installation, 12m² double spiral labyrinth



IMAGE 27 a and b - *Intruder*, 2006, mapping sketch, inside view, images and drawing by author.



IMAGE 28 - *Intruder*, 2006, outside view. Image by author.



IMAGE 29 a and b - *Intruder*, 2006, inside views looking outside. Images by author.



IMAGE 30 - *Intruder*, 2006, outside view. Image by author.

12.1.3 IMAGES OF ROOMFORTHOUGHTS INTRUDER 2.0

Intruder 2.0, 2007-2008, Jennifer Canary, *Museum Het Dolhuys*, Haarlem, installation 60m²

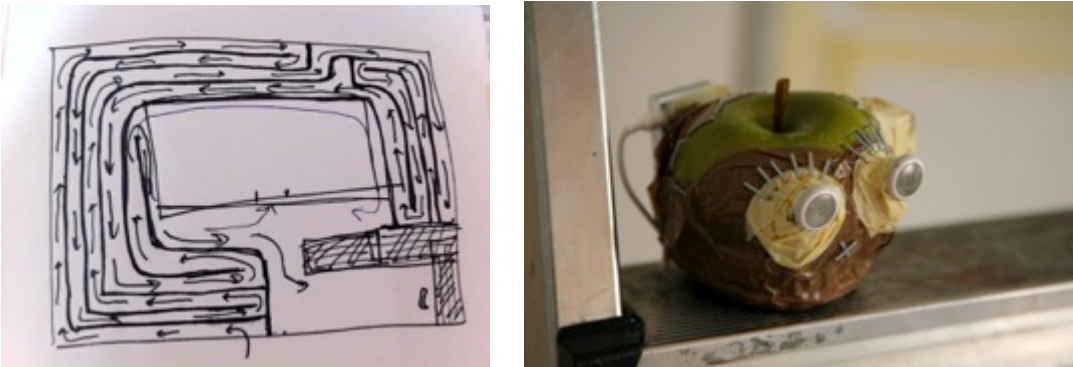


IMAGE 31 a and b – *Intruder 2.0*, 2007-2008, mapping sketch and details apple object. Images and drawing by author.



IMAGE 32 - *Intruder 2.0*, 2007-2008, detail centre, visitor publications. Image by author.



IMAGE 33 - *Intruder 2.0*, 2007-2008, detail 'isolation room'. Image by Thomas Lenden.



IMAGE 34 - *Intruder 2.0*, 2007-2008, detail workshop circle. Image by Thomas Lenden.



IMAGE 35 a, b, c, and d - *Intruder 2.0*, 2007-2008, details workshop circle, 'The TV is talking to Me!'. Images by author.



IMAGE 36 - *Intruder 2.0*, 2007-2008, detail apple significance. Image by author.



IMAGE 37 - *Intruder 2.0*, 2007-2008, detail inside the centre, Big Apple significance. Image by Thomas Lenden.



IMAGE 38 - *Intruder 2.0*, 2007-2008, detail inside the centre, 9-11 significance. Image by Thomas Lenden.



IMAGE 39 - *Intruder 2.0*, 2007-2008, detail of hallway. Image by Thomas Lenden.



IMAGE 40 - *Intruder 2.0*, 2007-2008, detail of hallway. Image by Thomas Lenden.



IMAGE 41 - *Intruder 2.0*, 2007-2008, detail front entrance. Image by Thomas Lenden.



IMAGE 42 a and b - *Intruder 2.0*, 2007-2008, detail of 'The Walls have Eyes'. Image by author.



IMAGE 43 - *Intruder 2.0*, 2007-2008, detail of 'The Walls have Eyes'. Image by author.

12.2 IMAGES OF LABYRINTH PSYCHOTICA THE LABYRINTH

The Labyrinth, 2013 [2012], Jennifer Kanary, various locations, installation 36 m²

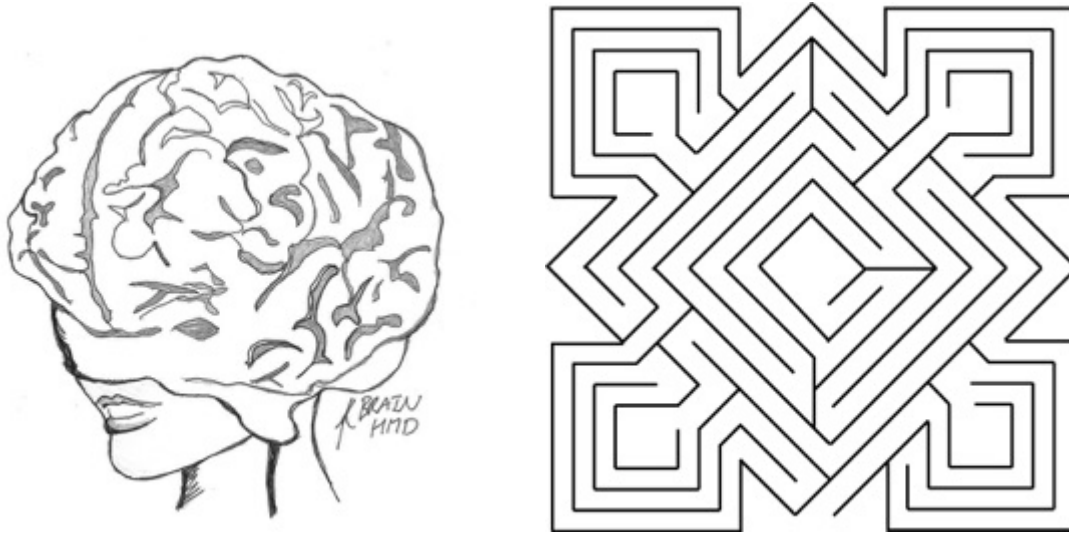


IMAGE 44 a and b – Sketch entering Jamie's mind, mapping labyrinth path. Images by author.



IMAGE 45 – *The Labyrinth*, 2013 [2012], front view. Image by Thomas Lenden.



IMAGE 46 - *The Labyrinth*, 2013 [2012], visitor with the binaural headphones. Image by Thomas Lenden.



IMAGE 47 - *The Labyrinth*, 2013 [2012], detail of floor. Image by Thomas Lenden.



IMAGE 48 a and b - *The Labyrinth*, 2013 [2012], testing the LED Hallucination poles. Images by author.

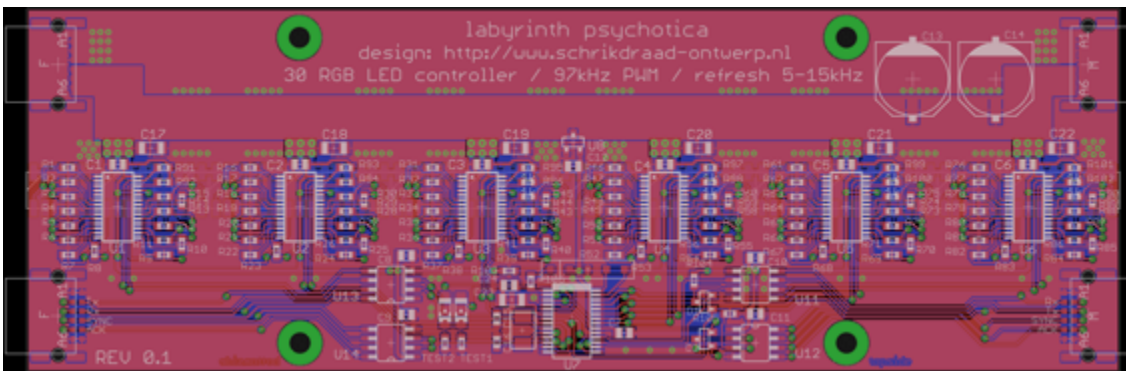


IMAGE 49 *The Labyrinth*, 2013, hardware printboard. Image courtesy of developer.

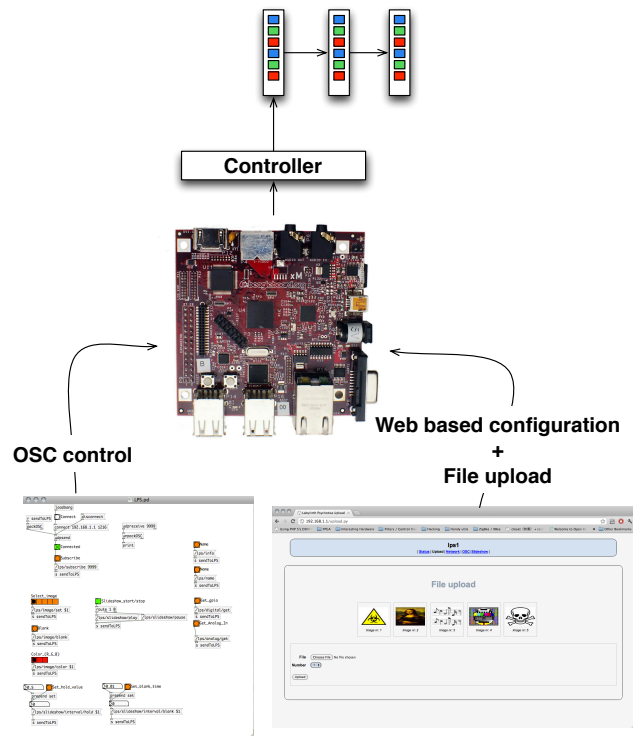


IMAGE 50 - *The Labyrinth, 2013*, software schematics. Image courtesy of developer.



IMAGE 51 - *The Labyrinth, 2013* [2012], sensor-based binaural recording headphones. Image courtesy of the developer Tijs Ham.

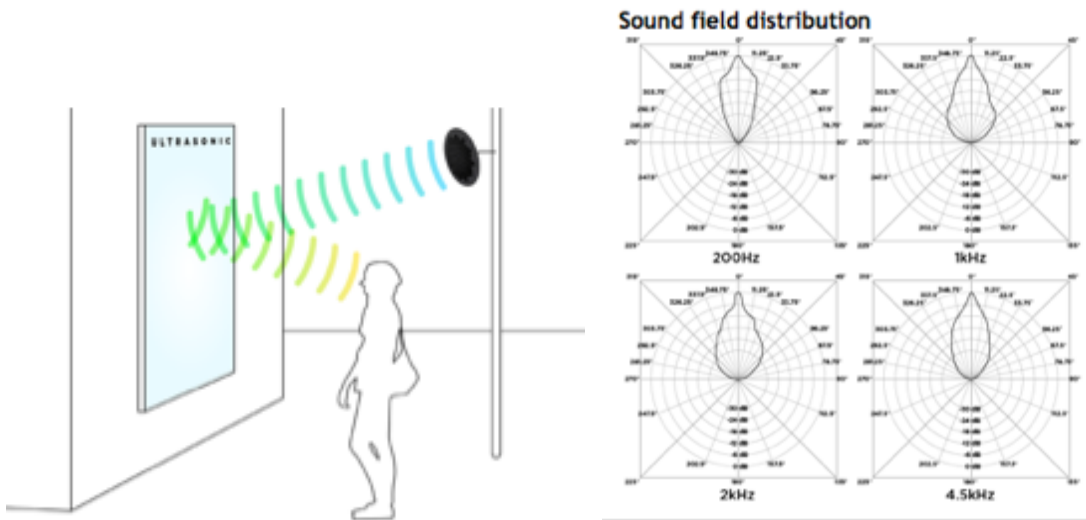


IMAGE 52 – schematics for the Acouspade by Miha Ciglar (www.ultrasonic-audio.com).

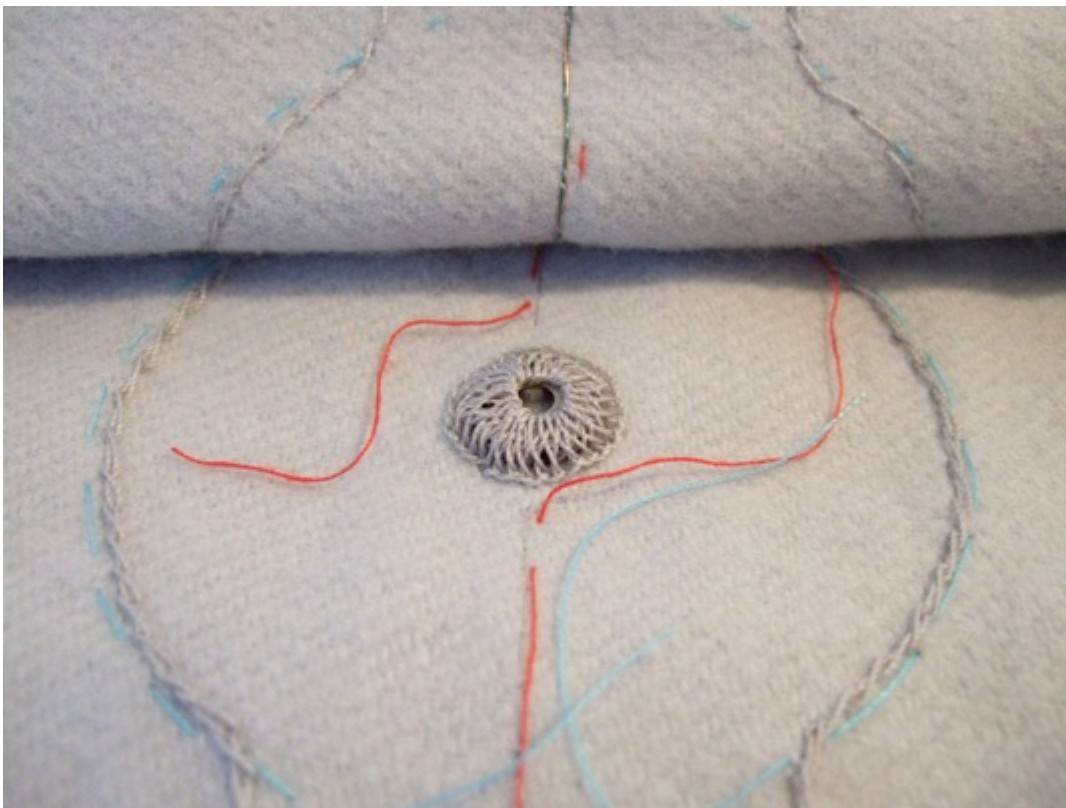


IMAGE 53 - *The Labyrinth*, 2013 [2012], detail of sensor-based wall panel.

Image courtesy of the developer Meg Grant.



IMAGE 54 - *The Labyrinth*, 2013 [2012], detail of sensor-based wall panel. Image courtesy of the developer Meg Grant.

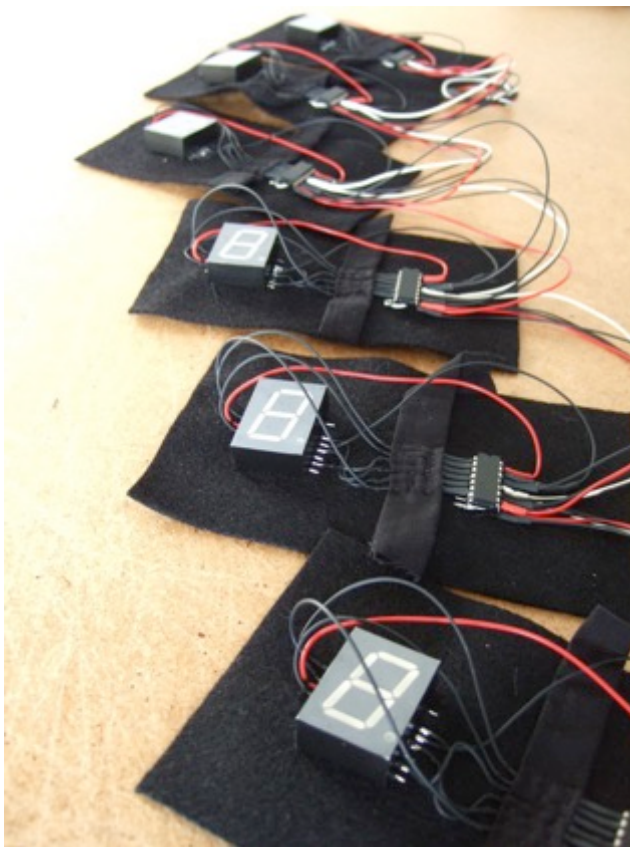


IMAGE 55 - *The Labyrinth*, 2013 [2012], detail of sensor-based wall panel. Image courtesy of the developer Meg Grant.

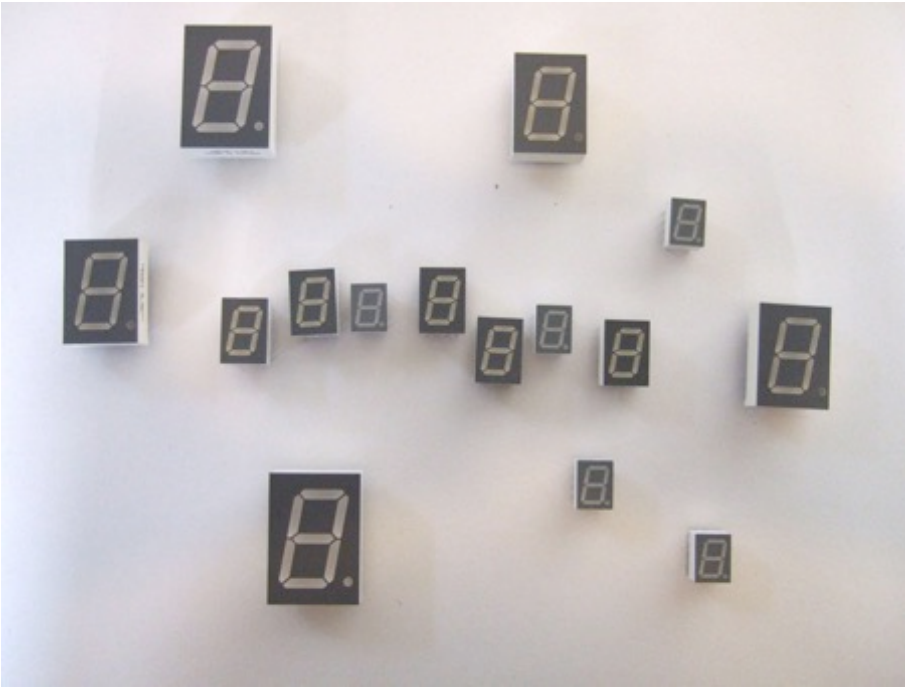


IMAGE 56 - *The Labyrinth*, 2013 [2012], detail of sensor-based wall panel. Image courtesy of the developer Meg Grant.



IMAGE 57 - *The Labyrinth*, 2013 [2012], front view Dr. Guislain Museum. Image by author.



IMAGE 58 – Labyrinth Psychotica logo, designed by Katja van Stiphout.

12.3 IMAGES OF LABYRINTH PSYCHOTICA - THE WEARABLE



IMAGE 59 – *The Wearable*, 2013 [2012], front view. Image by Thomas Lenden.



IMAGE 60 - *The Wearable*, 2013 [2012], back view. Image by Thomas Lenden.



IMAGE 61 - *The Wearable*, 2013 [2012], screenshot 'start'. Image by author.



IMAGE 62 - *The Wearable*, 2013, screenshot 'The Movie Game'. Image by author.

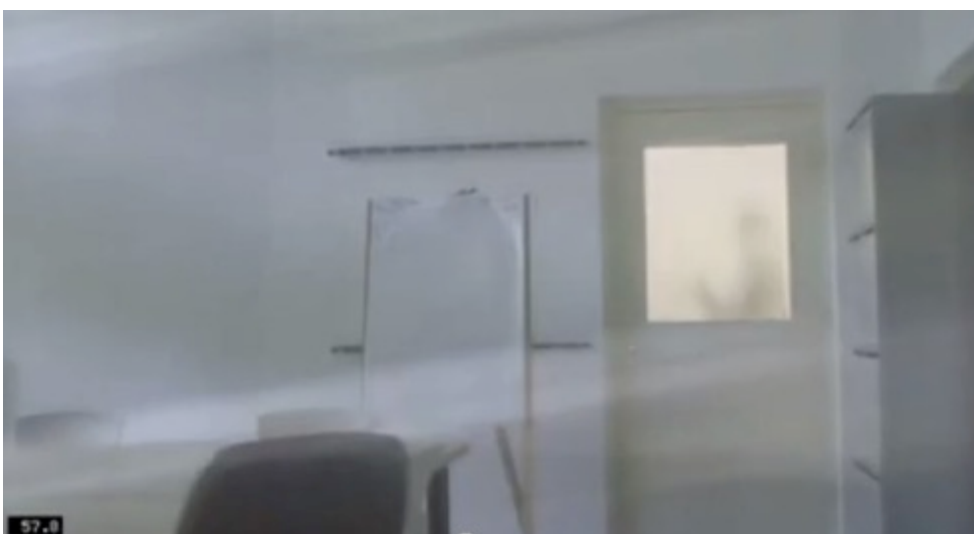
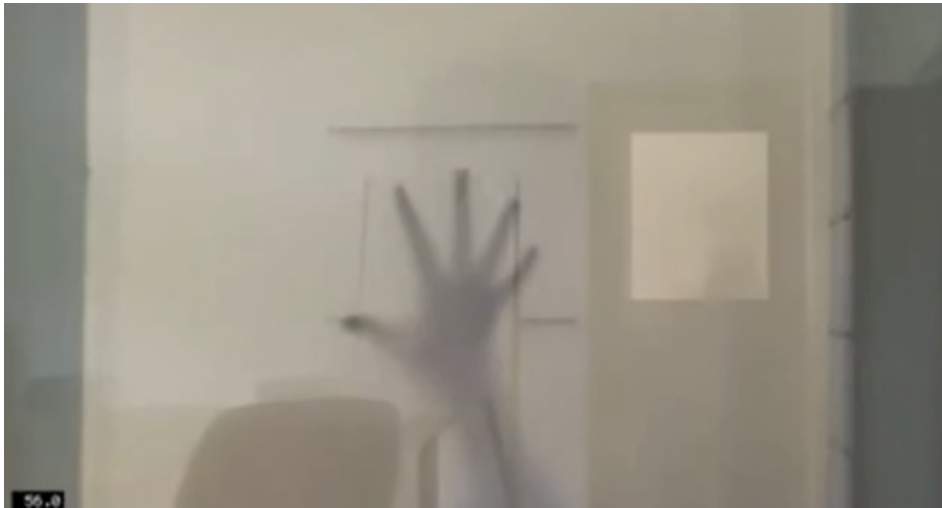
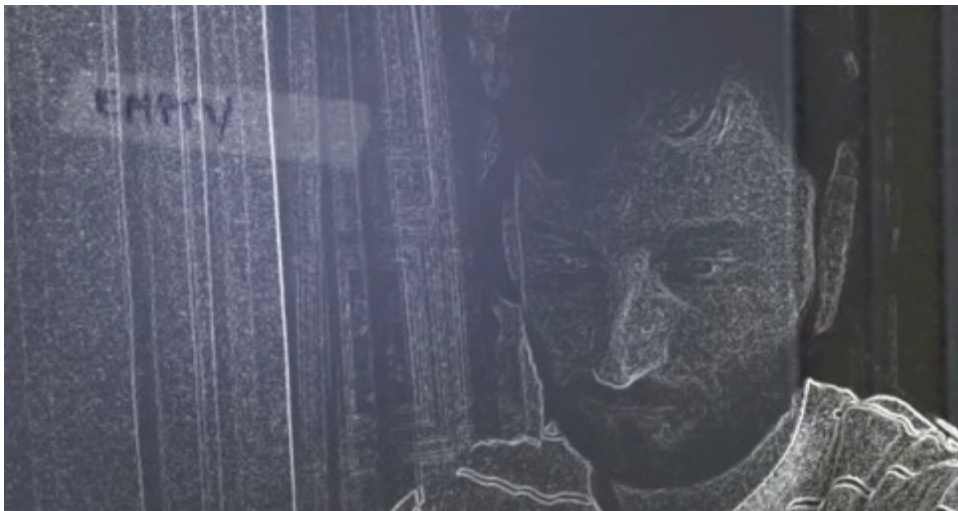


IMAGE 63 - *The Wearable*, 2013 [2012], screenshot 'Electronic Pregnancy'. Image by author.



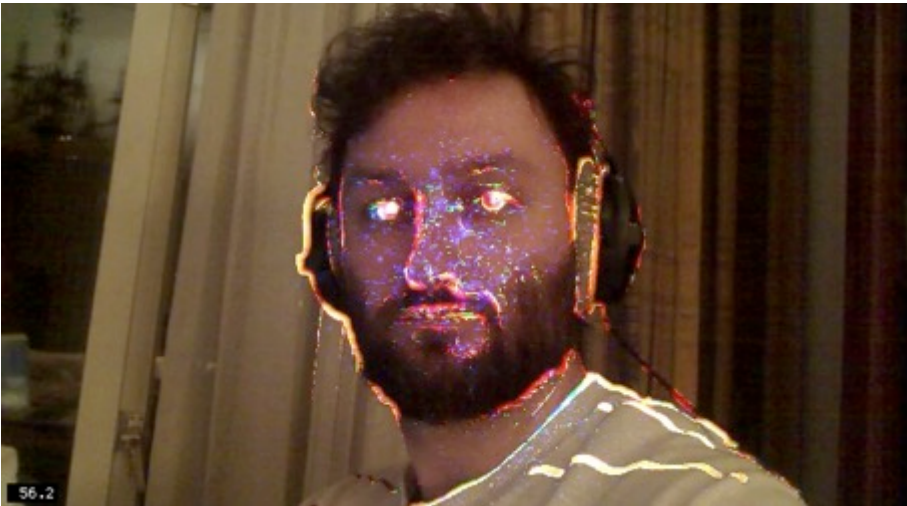
**IMAGE 64 - *The Wearable*, 2013 [2012], screenshot 'Electronic Pregnancy'.
Image by author.**



**IMAGE 65 - *The Wearable*, 2013 [2012], screenshot 'Cartoon World'.
Image by author.**



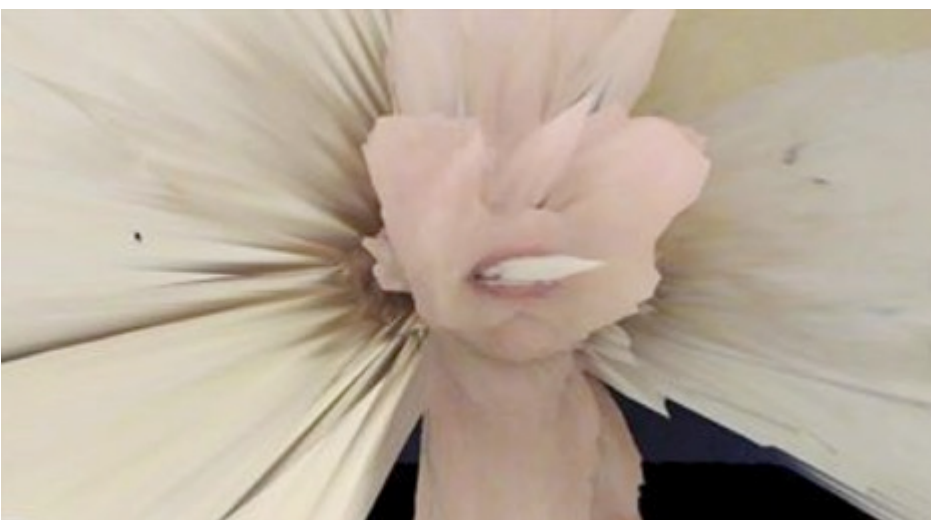
**IMAGE 66 - *The Wearable*, 2013 [2012], screenshot 'Cartoon World'.
Image by author.**



**IMAGE 67 - *The Wearable*, 2013 [2012], screenshot 'Power over Colour'.
Image by author.**



**IMAGE 68 - *The Wearable*, 2013, screenshot 'The Down Fall'.
Image by author.**



**IMAGE 69 - *The Wearable*, 2013, screenshot 'The Down Fall'.
Image by author.**



IMAGE 70 - *The Wearable*, 2013 [2012], screenshot 'The Down Fall'. Image by author.



IMAGE 71 - *The Wearable*, 2013 [2012], screenshot 'Electronic Pregnancy'. Image by author.



IMAGE 72 - *The Wearable*, 2014, presentation at Motherboard Vice. Image by author.



IMAGE 73 - *The Wearable*, 2014, wearer at Motherboard Vice. Image by author.



IMAGE 74 - *The Wearable*, 2013, pilot at Mental Health Care Assen with police. Image by author.



IMAGE 75 a and b - *The Wearable*, 2014, Saudi Arabia. Images courtesy of freelance team.



IMAGE 76 - *The Wearable*, 2014, Middle East Tour. Image courtesy of freelance team.

12.4 IMAGES OF THE EDUCATIONAL MEDIA SIMULATIONS

12.4.1 PAVED WITH FEAR



IMAGE 77 – *Paved With Fear*, screenshot newspaper hallucination- delusion.

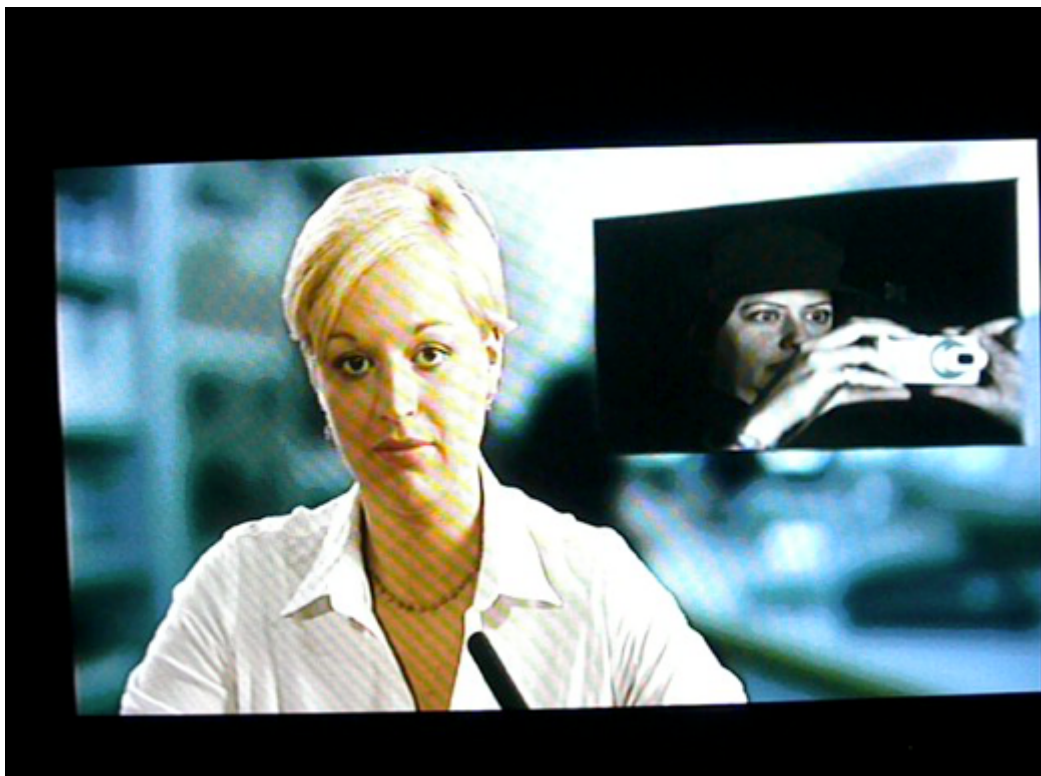


IMAGE 78 - *Paved With Fear*, screenshot newspaper hallucination-delusion.

12.4.2 IMAGES OF MINDSTORM



IMAGE 79 a and b – *Mindstorm*, screen shots media hallucinations.

12.4.3 IMAGES OF VIRTUAL HALLUCINATIONS



IMAGE 80 a, b and c – *Virtual Hallucinations*, Second Life, screen shots media hallucinations.

12.5 IMAGES OF LIVING WITH SCHIZOPHRENIA

12.5.1 AT THE DOCTOR

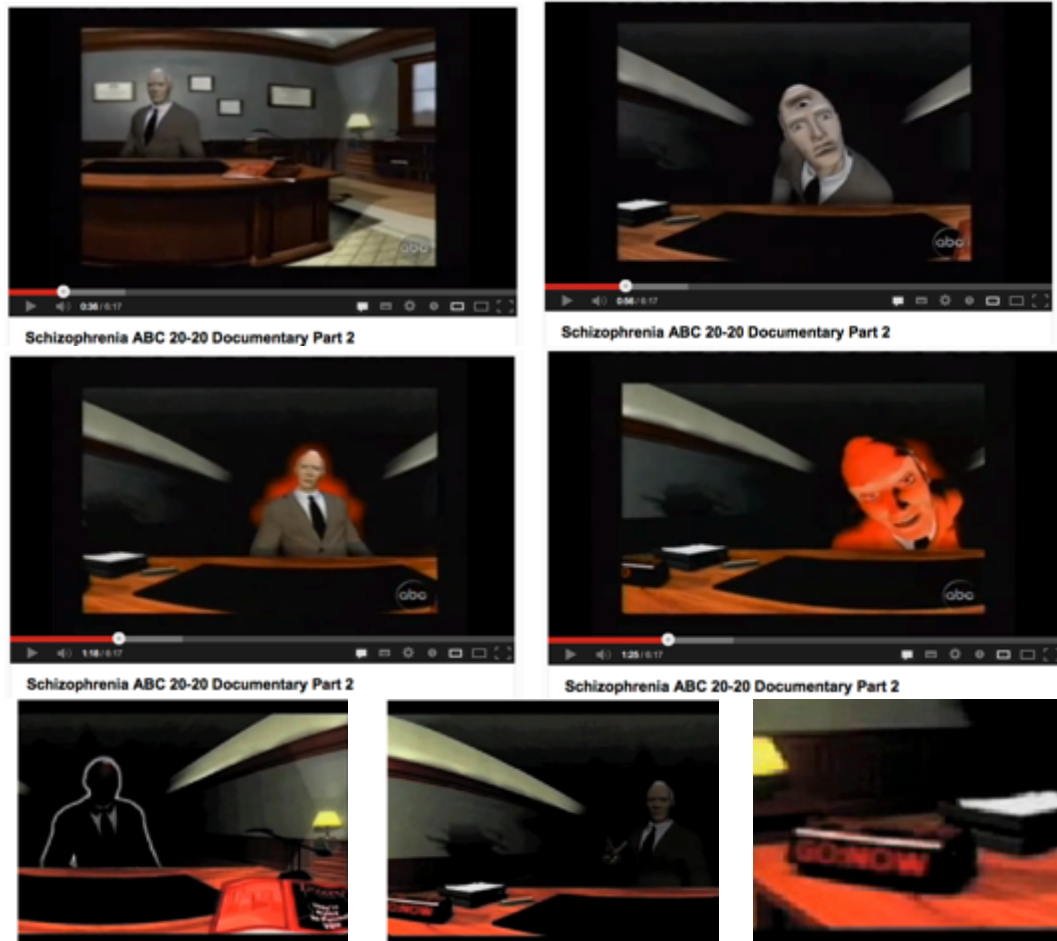


IMAGE 81 a, b, c, d, e, f, e g– *Living With Schizophrenia*, 2000, various screenshots ‘At the Doctor’.

12.5.2 AT THE PHARMACY

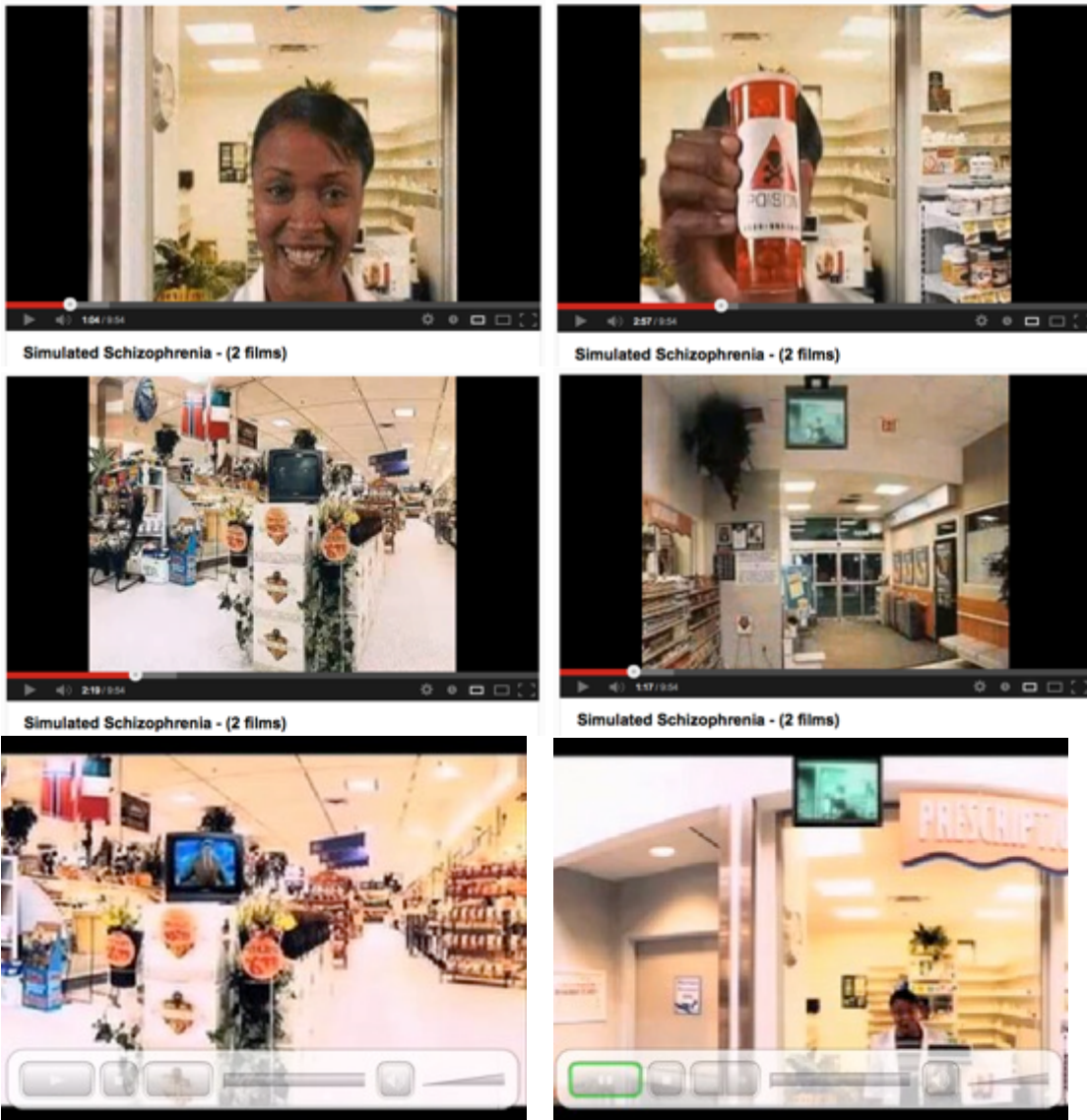


IMAGE 82 a, b, c, d, e, f - *Living With Schizophrenia*, 2000, various screenshots 'At the Pharmacy'.

MEDIA REACH

A SELECTION*

*In the past we have attempted to map the public reach total of these separate institute's (reaching over 5 million people) however, for this report we deem it sufficient to just mention a selection of moments that the project was mentioned in various media. We want to make it clear that with out the initial aid of Fonds Psychische Gezondheid and Janssen (as well as institutions we visited), we would not have such a professional reach. 'Cherry on the cake' was meeting Belgian Queen Mathilde in 2016, who was very interested as a trained psychologist- she congratulated us.

ONLINE LINK

	2016
TVL.be	http://www.tvl.be/nieuws/koningin-mathilde-bezoekt-psychiatrisch-centrum-asser-in-sint-truiden-26277
Doe eens goed gek	https://www.facebook.com/DoemensGoedGek/videos/1068500289878476/?ref=if
	2015
Gespleten Geest independent blog	https://gespletengeest.wordpress.com/2015/12/10/de-psychose-simulator- een-prothese-voor-de-verbeelding/
Het Belang Van Limburg (BE Newspaper)	see image below
Grubbinder - Bundertagblat	http://www.pdgr.ch/fileadmin/user_upload/customers/pdgr/01_Dokumente/4_Berichterstattung/2015/Labyrinth_Gehia.pdf
TV Sidsostschweiz	https://www.youtube.com/watch?v=h3_iZPTcQG&feature=youtu.be
artinliverpool.com	http://www.artinliverpool.com/a-look-back-at-facts-group-therapy-mental-distress-in-a-digital-age/
Dafne.com	http://www.dafne.com/news/abrynth-psychothica-like-psychois/
Confused Guff (independent blog)	http://confusedguff.blogspot.nl/2015/03/group-therapy/abrynth-psychothica-fact.html
FACT LIVERPOOL	https://vimeo.com/123642040hat=1
The Double Negative	http://www.theoublenegative.co.uk/2015/03/the-invisible-hand-of-group-therapy-mental-distress-in-a-digital-age/
Disability Arts Online	http://www.disabilityartsonline.org.uk/group-therapy-fact
The Open City	http://openthecity.co.uk/review-group-therapy-mental-distress-in-a-digital-age-at-fact/
Kids in Museums	http://kidsinmuseums.org.uk/2015/09/10/group-therapy-mental-distress-in-a-digital-age-at-fact-liverpool/
KNAW	http://aon.nin.knaw.nl/images/aon2015/Aon2015ProgramHQ.pdf
	2014
Kuwait Friday Times	see image below
VRT Nieuws (20.55 min)	http://deredactie.be/cm/vrtnieuws/videozone/programmas/journaal/2.36510
DeMorgen Benewspaper	see image below
various newspapers Paul Smits article	see image below
RTV Noord NL	http://www.rtvnoord.nl/gemist/video/gemist.asp?v=30799 and http://www.rtvnoord.nl/nieuws/138383/Behandelaars-GGZ-voor-even-psychotisch
Nederlandse Publieke Omroep documentaire 7.29 min	http://www.npo.nl/doe-even-normaal/20-08-2014/VPWON.1227544
Ypsilon magazine	http://www.ypsilon.org/download/rid=18755889&download=1
Business Standard New Delhi	http://www.business-standard.com/article/specials/unreal-estate-114052301406_1.html
Radio 1	http://www.radio1.nl/tem/193904-Roel%20ondergaat%20een%20psychose%20.html
TV show Je Zult Het Maar Hebben March 25th 2014	no link found
GGZ Eindhoven	http://www.ggze.nl/nieuws/abrynth-psychothica-inderlingen-de-ervaring
Creators Project	http://thecreatorproject.vice.com/blog/video-premiere-make-it-wearable-part-1
Psychologie Magazine	see images below
Studio Max live	http://www.npo.nl/artikelen/themaportal-npo-gezond-stop-t-rns-source-npo-shorter-rns-linkname=gezond
	2013
RADIO show DE Avonden KRO (4.20 min)	http://programma.vpro.nl/deavonden/afleveringen/2013/september/maandag-23-september.html
Goede Morgen Nederland (10.59 min)	http://goedemorgenland.nrc.nl/seizoenen/september_2013/afleveringen/26-09-2013
NRC.nl	http://www.nrc.nl/nieuws/2013/09/30/louw-hoofd-is-eigenlijk-een-stopcontact-zo-voelt-een-psychose/
Motherboard Vice (now over 750,000 views)	http://motherboard.vice.com/nl/read/div-psychose- een-virtuele-psychose-simulatie
BNN Academy	http://www.youtube.com/watch?v=v4Pj0LFSaQ
Trouw Amsterdam independent blog	http://www.trouwansterdam.nl/en/blog/2013/09/the-psychoic-obedience-of-lean-pierre-enfant/855/
SBS Harte van Nederland TV	https://www.youtube.com/watch?v=zu4OHOWAjcc
Het Journaal National News	
Spits! newspaper	
Trouw newspaper	
AD Haagsche Courant newspaper	

13 APPENDIX V

13.1 MEDIA REACH (a selection)

13.3 QUOTES AND REACTIONS (a selection)

ON THE LABYRINTH (FACT EXHIBITION IN LIVERPOOL MARCH-MAY 2015) from online sources provided in media list:

- 1) "Possibly the most elusive of all exhibits at FACT is the Labyrinth Psychotica, forcing even the most stable minds into a weary state of contemplation and uncertainty. As you're handed a lab coat and led into utter darkness, you're forced to immerse yourself into the mesmerising, terrifying and confronting world of psychosis. Immeasurable twists and turns leading you further into the unknown trick your mind into replicating symptoms of psychosis. Expect strobe lighting, claustrophobia, absolute darkness (with whispering voices thrown in to really trip you out)." (NOTE FROM ARTIST: no strobe lighting is used- it is flickering LED)
- 2) "The stand out piece for me was Jennifer Kanary Nikolova's 'Labyrinth Psychotica' [...]. The gallery staff requested I remove my bags and jacket, and instead don a white lab coat. Stepping into the labyrinth, I felt a rush of excitement like I was embarking on a Crystal Maze quest, but that soon wore off when I realised that it was dark, disorientating and a little scary. Moving through the cloth only seemed to reveal more cloth and more darkness, and I wondered when it would end. I could see my movements becoming increasingly erratic until I stumbled a beautiful light piece amidst the darkness. This installation, in a creative and engaged way, attempts to show the audience how psychosis blends realities and perceptions. I certainly experienced an altered state of mind."
- 3) "I experienced Labyrinth Psychotica at @FACT_Liverpool on Sunday. It was intense, suffocating and unforgettable."

ON THE WEARABLE (FACT EXHIBITION IN LIVERPOOL MARCH-MAY 2015) from guestbook:

- 1) "Very intense experience! I felt unsure and sure of myself at the same time. Thanks for showing me. Like a crazy dream."
- 2) "Thank you. Amazing experience. Interesting perceptual experience instances of being disembodied – distanced from your voice and from your overlaid voices and images strangely enjoyed the experience."
- 3) "I found the experience quite surreal at times, like an LSD trip. At one time I found it almost enjoyable, but after taking it off, it made the real world seem more disconcerting for a while. I was sweating. Ten minutes on, my mind is still trying to adjust and make sense of what my senses have just experienced. To have these conditions be part of daily life would be torturous. An experience that would benefit anybody who would be in contact with a person suffering with it."
- 4) "Thank you for this experience, - so interesting, really scared me at the end. I was paralyzed it's so confusing and eye opening. Loved the journey."
- 5) "Thank you so much for facilitating this bodily, intensely immersive experience! Allowing me to reflect on how it might feel like to be psychotic. It's an important project for mental health institutions in particular, but also public engagement with these issues in general."

E-MAIL REACTION

Dear Jennifer,

My name is *****, I'm 19 years old, and I'm from Denmark. I saw a video interview about your project Labyrinth Psychotica, and I think it is a brilliant idea, for others to somehow have a chance to empathise with those who suffer from a psychosis.

I suffered from a psychosis last year, and therefore, when I watched the video on YouTube, where a demonstration was shown of 'how it was supposed to feel' for a psychosis, I was amazed, it is for a fact very accurately like that- you keep hearing the same stuff over and over again, sometimes you feel like everything you see is real, or if maybe walking in the street, you could feel as if you were walking next to yourself.

A psychotic mind is hard to deal with, and sadly not something you just can put a hat on to experience, and afterwards take it off and say- ah that was scary, now back to real life. You'll never know when your mind says no, and 'acts out', you'll never know when you no longer are in control of your own mindset.

But giving others the powers and technology to try it out, is definitely a great way of trying to get people to understand it. Because if there is something that is hard to explain, then it is what is going on in your mind, when you're not even sure yourself what actually is going on upstairs.

You don't have to answer this e-mail, I simply just wanted to give you some credit for a great job, and a great understanding for what a psychosis is. Keep up the good work.

Best regards,

(posted with permission) May 2014

QUOTE FROM JOHNSON & JOHNSON PROJECT LEADER (Eliane Lauwers- Janssen)

"Labyrinth Psychotica is greatly helping to de-stigmatize mental illness and facilitate a better understanding of, and care for, patients with psychosis. The artistic approach of Jennifer really adds value to our scientific view on mental illnesses."

QUOTE FROM FONDS PSYCHISCHE GEZONDHEID (Ben Roelands)

"The Netherlands Foundation of Mental Health (Fonds Psychische Gezondheid) dedicates itself to people with psychological problems and their family and friends. Our labours for the improvement of the psychological health of the Dutch population. In many ways it was a great pleasure to work with Jennifer Kanary. She developed Labyrinth and the Wearable together with many experts and with the help of advisors who experienced psychosis themselves. The programme was focused on professional care takers as well as friends, family members and the general public to gain a better understanding of the subjective experience of psychosis. She really reached the goal to reflect on how it might feel like to be psychotic. Together with Jennifer we launched a successful PR campaign, reaching national television and radio. In this way the programme contributed to anti-stigma in general. During the programme Jennifer informed us about her progress in a detailed way. We were involved in important decisions, especially when they were related to the budget. The programme expenditure was in accordance to the budget plan. The financial report met our standards. The programme was carried out well. Jennifer successfully reached more empathy and understanding of being in psychosis. This was confirmed by the overwhelming reactions of the many individuals who attended the workshops."

14 APPENDIX VI (SCREENSHOTS RESULTS ARTISTIC QUESTIONNAIRES)

5. wat denk je dat een psychose is?	6. eerder in installatie kunstwerk geweest?	7. wat vond je van dit kunstwerk?
dat je de weg niet meer weet	nee	goed
een soort heftige gedachte waar je je dan in begeeft, zeer verwarrend	nee	zeer indrukwekkend, verwarrend, ik was zeer nieuwsgierig
een constante denkfout	nee	vet, je bent een deel van het werk. Alles beweegt en je hoort het. Al je zintuigen werken
iets met paranormale begaafdheid	nee	positief vreemd het is verwarrend
iets paranormals	nee	vreemd/vaag, maar wel vet
In een hele andere wereld terecht komen qua gedachten	ja	interessant, het geeft je een andere kijk op kunst dan bijvoorbeeld gewoon naar een schilderij kijken
iets van een ziekte, met geesten en paranormale begaafdheid	ja	leuk, apart, raar gevoel
stemmen in je hoofd, eigen enge wereldje, isolement	ja	ik weet het niet meer, echt al een tijd geleden
een persoon met psychotische hersenaandoening	nee	vervreemdend, de wijdheid en benauwdheid van de gangen met de vrijwel willekeurig geplaatste lijkende objecten, totaal andere manier van denken geeft. Het doet alles vreemd aanvoelen
een ziekte	nee	gaaf
te maken heeft met hoe je op bepaalde dingen reageert	nee	gek raar gezicht
iemand die veel denkt	nee	aparte ervaring door de witte jas en alle witte elementen, maar ook weer niet door het ruzen van papier als een bis. Je raakt de weg kwijt omdat het ook nog een doolhof is
je hebt verschillende psychoses, iemand gaat in een bepaalde gedachtengang	nee	erg apart, want ik had nog nooit zo iets gezien
een geestelijke aandoening	nee	heel raar, ziet er gek uit
psychisch gestoord	nee	apart en bijzonder, maar wel mooi
iemand die mensen psychische mensen helpt	nee	bets mooi het is heel creatief
soort ziekte	nee	grappig, omdat je verschillende kanten op kan er het is ook mooi gemaakt
iemand die psychisch gestoord is?	nee	heel apart, ik heb zo iets nog nooit gezien ik had dit ook helemaal niet verwacht
een afwijking	nee	grappig want het leek alsof je ergens heen moest, maar dat moest niet
een afwijking	nee	vaag ik snap de bedoeling niet zo goed maar wel heel mooi gemaakt
dat je gek bent in je hoofd	ja	mooi omdat het je een ervaring geeft die al je zintuigen prikket
een geestesziekte, een eigen wereld	nee	ik ben er nog niet egweest
dat je de weg niet meer weet	nee	niet echt geweldig, het ziet er afgeraffelt uit
een geestelijke aandoening	nee	grappig, mooi gemaakt
een soort geestelijke ziekte	nee	apart, je komt dit niet elke dag tegen
iemand die gek is	nee	heel grappig gemaakt
iemand die gestoord is	nee	
	nee	bijzonder, nog nooit dit gezien
	nee	gek omdat het gekke geluiden en teksten had
een getoorde ofzo	nee	apart allemaal plakband en papier

Vraag 21
Als de informatie over psychosen in dit werk beïnvloedt de taal van geluid, kleur, tekst, materiaal, licht en vorm. Wat denk je dat een psychose heeft over psychosen (ook al weet u niet precies wat het is)?

blad nr

1 Dat het verbleekt is.
2 Het topeloosheid is denk ik te een echte psychose erin. Hier was altijd het totale vertrouwen aanwezig dat er zeker een uitgang is.
3 niets.
4 de leegte
5 2
6 Een verandering van het geluidsveld. Het gevoel verandert te zijn.
7 Het gevoel ervan
8 nee
9 het is een vreemde gebeurtenis.
10
11
12 Dat je niet weet welke richting je op moet of kan.
13 Angstig, kl, rondzwalende gedachten, zonder kleur, in de knoop zitten.
14 Angstig benieuwd benauwend onzeker onveilig in een volkomen veilige situatie
15 alsof ik in mezelf zit
16 erg angstig als je erin zit moeilijk uit te ontkomen
17
18 verwarring, onzekerheid, de weg kwijt zijn
19 gevoel van bestemming, waarschijnlijk ongesloten zitten en er niet uit kunnen. ik kan me dat wel voorstellen. Maar het niet zo ervaren.
20 verwarring, vertrouwen opdat het (ooit) goed komt
21 de onduidelijkheid
22
23 geknisper, wtl, oorgesloten, verward, verwaald, er niet uit kunnen.
24 het chaotische karakter
25 zie antwoord vraag 20
26 niet meer dan ik al wist??
27
28 overmorgen

10)wat heb ik geleerd over psychosen
geluid was het sterkste middel
angst en opluchting liggen dicht naast elkaar . Zonder angst egen opluchting
echt eng
heel eng, zou zo niet willen leven
bang in de war en alleen
dat al deze vormen van informatie belangrijk zijn
soort van geleerd hoe het kan aanvoelen
geduld met mensen en jezelf
verwarrend, beangstigend, alles door elkaar druk in je hoofd

benauwd, chaos, angst
kan beangstigend zijn

dat mensen in psychose veel prikkels ontvangen, waardoor niet meer op buitenwereld kunnen richten

bewaar de moeilijke vragen voor het laatst?
hoeveelheid prikkels was overweldigend. Moeilijk fantasie en realiteit te scheiden.
dood vermoediend
psychose houdt hele geest bezig
omgevingsfactoren zijn van invloed
meer inzicht op hoe overweldigend het kan zijn. Functioneren belemmeren.
donker, uitzichtloos, onduidelijk
beangstigend en verwarrend
onzekerheid en geen grip hebben op je.
erger en interessanter dan verwacht. Meer vormen
alles overheersend, geen ruimte voor anderen gedachten
vermoeden kloppen

11)commentaar
indrukwekkend en creatief
beleving brengt empathie en begrip
knap gedaan, onder de indruk.
goed gemaakt. Net echt. Doo geschrokken

geweldig idee om begrip bij te brengen
super
leuk gedaan
leuke ervaring, goed doordacht
nee
succes verder

benieuwd naar resultaten
goed bedacht, leuk ervaren, geen psychose wel absolute stilte

bedankt voor de ervaring

schitterend kunstwerk laat mensen andere wereld zien.
kunstwerk haalt zekerheid weg wat angstbeelden versterkt. Bij psychose zal dit erger zijn.
creatief en leerzaam
prima verbeelding, jammer dat ik dingen soms niet kon lezen
tot radare, maar beter voorbaat worden op chaotische effort

15 APPENDIX VII

15.1 'I KILLED MY BABY!'

In order to illustrate the potential implications of this research I would like to visit a stigmatising sensationalist news story. I would like to emphasise that this is meant only as an exercise to understand what at first seems impossible to understand. In order to understand psychosis I did not want to shy away of the most extreme examples. If I am to understand how to simulate psychosis, I must also be able to trace why such extremes exist, why people like you and me, are suddenly capable of doing horrendous things. In spite of its rareness, it is the biggest contribution to stigma, and in my opinion, the very reason why we still carry so much fear of the nature of madness. It is time to confront these fears head on. I will do this by revisiting the example discussed in Appendix I. I will begin by showing how the various perspectives, criminal, medical, simulation in general, and artistic simulation in particular, may inform a potential understanding of such an event, and I will then show how an informed imagination, or mental simulation, may help to understand:

The scene was so gruesome investigators could barely speak: A 3 1/2-week-old boy lay dismembered in the bedroom of a single-story house, three of his tiny toes chewed off, his face torn away, his head severed and his brains ripped out. [...] Otty Sanchez, sitting on the couch with a self-inflicted wound to her chest and her throat partially slashed, screaming 'I killed my baby! I killed my baby!' police said. She told officers the devil made her do it, police said (Huffingtonpost.com, Weber, 2009).

Any reaction of shock or disgust from reading this in the news is, of course, warranted. What makes the event so heartbreakingly tragic, and hard to understand, is that a child is killed by the very person that is supposed to protect it. How to empathise with that? But without empathy, one will not be able to process, understand, properly treat, or potentially prevent such events. Nor will people be able to understand how the majority of psychosis is generally experienced.

From a criminal perspective, one might view this mother as a murder suspect to be processed for conviction. From a general medical perspective the

woman might be diagnosed with a post-partum psychosis presumably caused by an immunological abnormality, inflammation of the brain, with this extreme behaviour as a result. One might also speculate from both perspectives the potential of fraudulent simulation, or malingering in order to get away with murder. This is the black and white concept of good and evil, of crime and punishment, of broken or healthy. But as most people know, life is much more complex, residing in the grey areas of the in-between. From the perspective of society, of the family and friends of this woman, or the woman herself, (true or not) these perspectives bring very little comfort or understanding. What does a simulation of psychosis have to offer over the criminal, medical, or psychological perspective, assuming that the woman has indeed committed the act in a state of psychosis?

From the existing case study simulations, *Mindstorm*, *Paved with Fear*, *Virtual Hallucinations* and *Living with Schizophrenia*, her family may begin to better understand how and or why she came to act as she did. If the woman was hearing voices saying evil things, she might, based on her cultural background, of course feel tormented by the Devil. By using a simulation, one is able to experience what it feels like to have demonic voices relentlessly telling you to kill someone, which provides a better subjective experience of being tormented by something evil. One is able to feel how disruptive such voices can be, how difficult they are to ignore. One can imagine that if one sees a third eye coming out of a face, bugs crawling over one's desk, or shadows creeping, as in the simulations in *Living with Schizophrenia*, one is able to understand how a person might have come to such notions of being manipulated by evil forces. The *Virtual Hallucinations* simulation not only illustrates what it is like to hear voices, but represents how it might feel when such voices are combined with newspapers suggesting death and the TV telling you to kill yourself. In general, the simulations offer a much better understanding than simply describing an experience as a chemical imbalance with hallucinations and delusions as the result. It provides a better understanding as to what it might feel like to experience hallucinations. Yet, the simulations provide little understanding as to why her actions were so particular, like chewed-off toes: was she following through on what voices were telling her? Just because someone or something tells a person to do something does not usually result in a person actually acting upon it. Why would this be the case in a state of psychosis? In the past

this might have been why psychosis was considered in relation to a weak moral compass. This thesis has shown that there is insufficient psychological context in the existing simulations, and that there is little room for a person to navigate their own imagination, which is needed to strengthen one's empathic abilities. There is still a bridge to be gapped. A news story in general provides very little information, so, for any empathic process to occur, one is initially dependant on one's own creative ability. This is where I feel that this artistic research thesis may help.

From the perspective of this artistic research investigation, which includes the study of literature of psychiatry, psychology, and, in particular, the stories of those with lived experiences, as well as existing simulations and artistic case studies, one has the starting point of training one's imagination. To explain what this can mean to understanding the story of this mother, I need to provide the reader with an imagined story of my own, as to how or why this woman came to act as she did and how this thesis informs this imagined story. But first, I would like the reader to think, for a moment, of a situation in which one could argue for the deliberate death of one's child by one's own hand.

.....

It is very difficult, is it not? Considering the gruesome aspects, one might inevitably become stuck with the notion of a sociopath-turned-psychopath. The process of empathy is the ability to form a story about a person as a human being like oneself. In some cases, one needs a strong imagination; otherwise one remains stuck in the 'I just don't understand how someone can do such a thing' mode, which helps no one. If the reader recognises in him or herself an inability to understand, this inner wall that screams 'does not compute', then perhaps this is an example of the three neurological barriers that need to be overcome. First one needs to be activated, and consciously want to enter the mind of a woman who killed her baby. Second, one needs to get over one's own perspective; maybe the reader is thinking 'I could never do such a thing', when it is precisely those who you would never think would do such a thing, nor would they think it themselves, who would actually do so. Third, one needs to make an attempt at a responsibly informed imaginative process. It is with this last aspect that this thesis has made an attempt to achieve. On the one hand, with the artistic experiences, what does it feel like to hear voices, what does it

feel like to want to obey them, and, on the other hand, the birth of a delusion, the elements that contribute to the generation of a narrative, such as one's own iconic and metaphorical associations with colours, light and patterns. Below is my attempt to take into account all aspects of the thesis, to come to a narrative that moves beyond a debilitating incomprehension that helps to understand why such large differences occur in the experiences of psychosis.

15.2 A STORY FOR A STORY

From listening to people's stories, a juxtaposition of life events plays an important role in triggering psychosis, accompanied by persistent levels of stress, and sleep deprivation, causing a person to enter an altered state of consciousness that I think is what psychosis really is. I learned that life events are different for every person, they may be related to issues of love and/or identity. They may be related to a move, or a trip to another country, a death, a divorce, as well as psychological or physical trauma, but also to leaving a warm family home to go study in a different city. From this perspective, a birth may be seen as a life event that may cause much stress, and sleep deprivation, making it more plausible that the new mother experienced a post-partum psychosis, than that she is a callous premeditated killer. But how does one who enters a state of psychosis commit such an act?

During the course of this thesis I learned that some with lived experiences see the altered state as an extreme healing mechanism of the brain, a state of waking dreaming. Much like how a dream is thought to help process everyday life, a state of psychosis is seen as a state that can help process the more anchored aspects of life itself, such as a sense of what is good and evil, or a sense of what is safe or unsafe. The birth of a child, the accompanying stress, the hormonal alterations and sleep deprivation, could be seen as having such a detrimental impact that the brain might spontaneously enter into a state of psychosis. I imagine this woman, anticipating the birth of her child, looking forward to it. I imagine her preparing the baby room, buying the first clothes, and talking to her friends and family about it. I imagine the birth lasting over 60 hours, as so often can be the case. I imagine the physical exertion, and the strength needed to recover. I imagine it being overwhelming. I imagine the alteration of one's personality and abilities due to sleep deprivation.

I imagine how reality can sink in about the responsibilities one has towards this new life. I imagine the acuteness of one's senses heightening, as one listens for the child's breathing, or cries. I imagine the stress. I imagine the probability of the brain entering a state of psychosis. I imagine how she then suddenly experiences the world. But what is this state?

I learned that a state of psychosis often manifests itself as a state of hyper-awareness in which senses might become acute. Background noises might seem like foreground noises, food might taste different, colours might seem luminous, sounds might become louder, and one's pattern-seeking brain works in overdrive, potentially interpreting human voices in the chaos, that once heard cannot be unheard, much like the ability to see a face in the clouds. In this I imagine the cries of the newborn being even more penetrating than they naturally are, perhaps sounding much louder, or like an unnatural screeching. I can imagine the mother asking herself: is something amiss? Is this normal? I can imagine the depth of the eyes of her newborn staring at her, with extreme intensity, so much that it feels as if there is an old soul trapped within. I imagine her thinking that the eyes, or what is behind them, seem angry. It all feels so unnatural.

I learned that in the state of psychosis, as in a state of dreaming, one can become extremely creative. In effect, one becomes so creative that one is able to create a reality, metaphorical, somehow enlarged, literal and iconic, yet related to one's inner issues. In any case, this often causes one to interpret the world as highly meaningful and coded, and, perhaps, as we like to do with dreams, we would attempt to understand the code, the meaning, and maybe even act upon it. I imagine her associations of an old soul, reminders of the folklore of changelings. I imagine the mother first waving such thoughts aside. I imagine more sleepless nights, contributing to the sensation of being in a world pregnant with meaning, in which one's senses pick up details such as moonlight reflecting through the window, a luminous beam ending above the child's crib. Is that a sign? Is the child blessed, marked? I imagine the child waking at that very moment, and the mother thinking: this cannot be a coincidence, can it? The next day, she looks up 'changeling' on the Internet. She reads: 'Putting a changeling in a fire would cause it to jump up the chimney and return the human child'. I imagine she shivers: who would do that to a child?

As learned in this thesis, in the state of psychosis one's subjective associations hold the danger of being experienced as real objective realities. And as such, a knowing without knowing occurs, it feels unnatural because it is unnatural, there can be no other explanation other than that it is not her child. Perhaps this relates to an underlying fear of having lost or losing one's baby, and, as such, may slowly, or instantly, become experienced as a real reality, revisiting the concept of alterations of one's senses, such as one's sense of perspective, causing people to look as if they are fake, unreal, like cardboard cut-outs. I imagine how this might contribute to the notion that it is not her child. I imagine the same may go for emotions. The fear of guilt, and she is guilty! She lost her child. The association with being a bad person, and she is instantly ultimate evil. Is she the devil? I imagine how one can get caught up in the web of these associations, going deeper down the rabbit hole, consequently becoming more irrational, finding evidence in the altered patterns and colours of one's senses, and the lived quality of one's surroundings. The shadows in the corner of her eyes, experienced as faces: they must be her demons! If they are her demons, she must be the devil, if that is true, then that means that the child is actually not a changeling, the child is the Anti-Christ! What to do? Frantic panic sets in. The world must be saved from this child! I imagine that psychosis may in some extreme cases hit very hard, creating a vicious circle.

I imagine background sounds of traffic become foreground sounds of whispers. What are they saying? The TV news report uses the word 'death' in every item. The news reporter is wearing a red blouse, and red is the colour of blood, of death, of love! She is wearing a red dress, and her child was born in blood. It is all connected! The whispers are saying 'death', 'death, 'death' over and over again. If you love your child, you will kill it, or it will bear the responsibility of being the Anti-Christ - she cannot let that happen! The clock is ticking, it is a bomb, war is coming, no, the Apocalypse is coming! Can you hear the four horsemen? That is the sound! She is not a bad person, she would never harm her child, so she must be possessed by a demon, or by the devil himself! Her child stares with dark unnatural eyes. The Devil has possessed her child! His toes are so cute, she could bite them, and so she must, and so shall it be done! As one descends into a waking nightmare, the more bizarre happens, yet feels just as real. She must bite, and she must chew. 'This little piggy went to the market, this little piggy stayed home.' Her child cries, it is a very unnatural

sound, the sound of a banshee. When she holds it against her chest, the child slowly calms down, all seems well now, it searches for her breast, for comfort, but it finds her neck, and sucks on it. She has been bitten! The child is a vampire! She too will now become a vampire, more panic sets in, she's hungry as she has forgotten to eat, is that the bloodlust setting in? She already feels the need for blood! She must have blood, blood is the colour of love, love will feed her! The voices tell her relentlessly what to do. She must save the world, the only way to kill a vampire is to dismember its head. She grabs a knife and slashes the vampire's throat, her baby's throat. So much love splashes all around her, making her laugh! She has saved the world from the Anti-Christ, which came to her as a vampire!!! She looks out the window, but sees no reflection. There is no time, she is changing fast, she grabs the knife again, and begins to slash her own throat. All will be well. But the state of psychosis is like a dimmer switch, on and off within a matter of seconds. The realisation of the situation hits home: 'I killed my baby!', she holds the knife to her chest and pushes, she can't carry the weight of what she has done, she breaks down in sobs so loud the neighbours phone the police. Why a piece of the face of the child is torn off, I leave to the imagination of the reader.

* * *

A horrifying story, but a story none the less, is better than no story, better than a gaping hole. It is important to learn to be able to create stories, without seeing them as ultimate truths. The story becomes the prosthesis. Of course, the chances are that we will never know the truth of this woman's story, the reader may think my interpretation of events too fantastical, and some might say not fantastical enough, yet I know enough of the state of psychosis to assert that nothing is impossible, it is the reason why we fear it so much. After creating my own story to be able to deal with what at first seems impossible to understand, using the thought experiment I created based on my research, I made further investigation into her case. Her story reveals that I was not far off:

On July 20, 2009, Ms. Sanchez was taken by EMS to Metropolitan Methodist Hospital. According to the report by Dr. Sellers, Otty Sanchez had auditory and visual hallucinations as well as delusions. Sanchez

indicated that she needed to be hospitalized; however, she was discharged to her sister.

In the days leading up to the death of baby Scott, Sanchez says she was paranoid, fearing that people were spying on her and plotting to take her baby from her. Her paranoia became worse when the voices began to get worse. For days, Sanchez says, the voices told her that the devil was in her son; she would avoid looking into his eyes for fear of 'see[ing] the devil'.

[...] In Sanchez's interview with Dr. Puryear, she says, "the voices told me to hurt Scotty... he was going to be the apocalypse." Further on in the interview, Sanchez explains the decision to kill her son, saying, "the voices told [me] to eat his insides, I was a harlot because I had committed adultery... there was a demon in my stomach." The demons would come out of her stomach if she ate Scotty. This had to be done by 5 in the morning. Scotty would evolve and he would no longer be possessed' (Murderpedia.org, Heath, 2010).

What strengthens me in my endeavour, is that I feel it will empower mental health care workers to overstep their own adversities to a persons acts, and provide the support that a person needs, keeping in mind, that such acts are not done by evil psychopaths, but by people in mental despair. It is important to learn that most people, before they commit such an act, have sought help, but were failed by the system as not being recognized on time, or taken seriously⁶³. By understanding how psychosis works, police officers may become empowered in their negotiating techniques. Family members will be able to give the horror a place and remain connected to a person's life. By understanding how a narrative in psychosis is born, one may become empowered to recognize it for what it is, and perhaps even consciously be able to decide, not to follow down that path.

We must never forget, that most experiences of psychosis are actually very innocent. 'My son flushed the toilet at the same time floods were broadcast on the news - he therefore knew he was 'guilty of the floods'. I accused my husband of taking away my freedom; he had put away my porcelain bird in fear of me breaking it, as he 'knew how much I loved it', but the bird represented my freedom. Or, 'I saw a crack on the wall, and thought about the foundation of my house, I knew then that the world was falling apart and hid completely terrified in the bathtub.' 'I bought a house for the first time in front of an elementary school: I hoped people would not think I was a paedophile, after which I spent weeks avoiding everybody.' These are but a few examples of the stories I was

⁶³ Sanchez's life story tells of a history of abuse, and reports of her seeking help on numerous occasions (murderpedia.org).

told during my research. I hope that by viewing psychosis as an altered state of consciousness, in which sensory data is altered, we will begin to understand that everything else that is born from that forms a logical reaction to a person's experience. We turn around when we think a person is calling our name, only to find no one there. How we proceed to such a moment, depends on many factors. By understanding that the base of psychosis is within all of us, we can begin to empathise and give madness a place in our society as much part of humanity is as dreaming, remembering, imagining, and thinking.

16 APPENDIX VIII – JANNEMIEK TUKKER

Tukker, like me, has been very inspired by outsider art. Tukker not only has a degree in art, but a degree in cultural sciences as well, making it inspiring to learn how she describes her own work. During one of our correspondences I asked her to select black and white art works that, for her, express various subjective experiences of psychosis⁶⁴. She referred, among others, to a work by the artist Marc Lamy, because of his ability to express the turbulence and overwhelming impressions experienced during insomnia, with the use of a decorative style. She also referred to a work by the artist Oswald Tschirtner (1920-2007) that for her expresses the sensation that psychosis is able to entail in relation to how one's limbs can feel detached, or in a completely different place from their usual position, with the legs and arms all over the place. It also represents for her how one can feel like being more of a head than a body. She explains how, for her, not only was it an idea or sensation, it also became an actual reality.

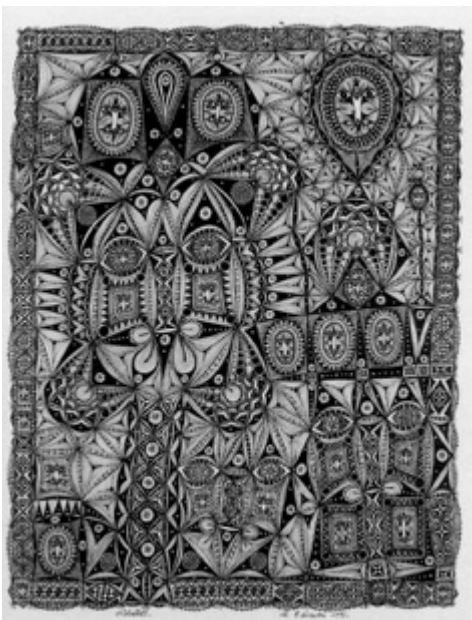


IMAGE 83 a and b

⁶⁴ I asked for 'black and white' because, on the one hand, of the strong polarities that become subject within psychosis, such as the relationship between good and evil, and, on the other hand, because of how iconic or metaphorical symbolism may become experienced as literal and real.

83a – Published with permission. Mark Lamy (1992), untitled No.5, series of 16, inkdrawing, Stadshof collection <<http://www.collectiedestadshof.nl/nl/artworks/untitled-5/>>, [30 March 2015]

83b - Published with permission. Oswald Tschirtner (1980), 'Menschen' ink drawing. Gugging Museum. <<http://www.gugging.at/en/program/exhibition/gugging.-meisterwerke>>, [30 March 2015]

Tukker also found much recognition in the rawness of the works by Unica Zürn (1916-1970), in particular the series *Hexentexte* (1954). Tukker does not elaborate which particular aspect of the rawness it is that entices her, but I myself was inspired by its dark fairy-tale-like complexity.



IMAGE 84 – Published with permission. Image presumed to be in the public domain. Unica Zürn, 1 of 10 ink drawings from the publication *Hexentexte*, published in 1945/1954. Image taken from: <<http://50watts.com/Hexentexte>>, [30 March 2015]⁶⁵

Tukker refers to a particular work from the Prinzhorn Collection, namely that of Hyacinth, Freiherr von Wieser, mentioned by Prinzhorn as 'Heinrich Welz'

⁶⁵ I found conflicting information with regards to the year of creation.

(1883-1912).

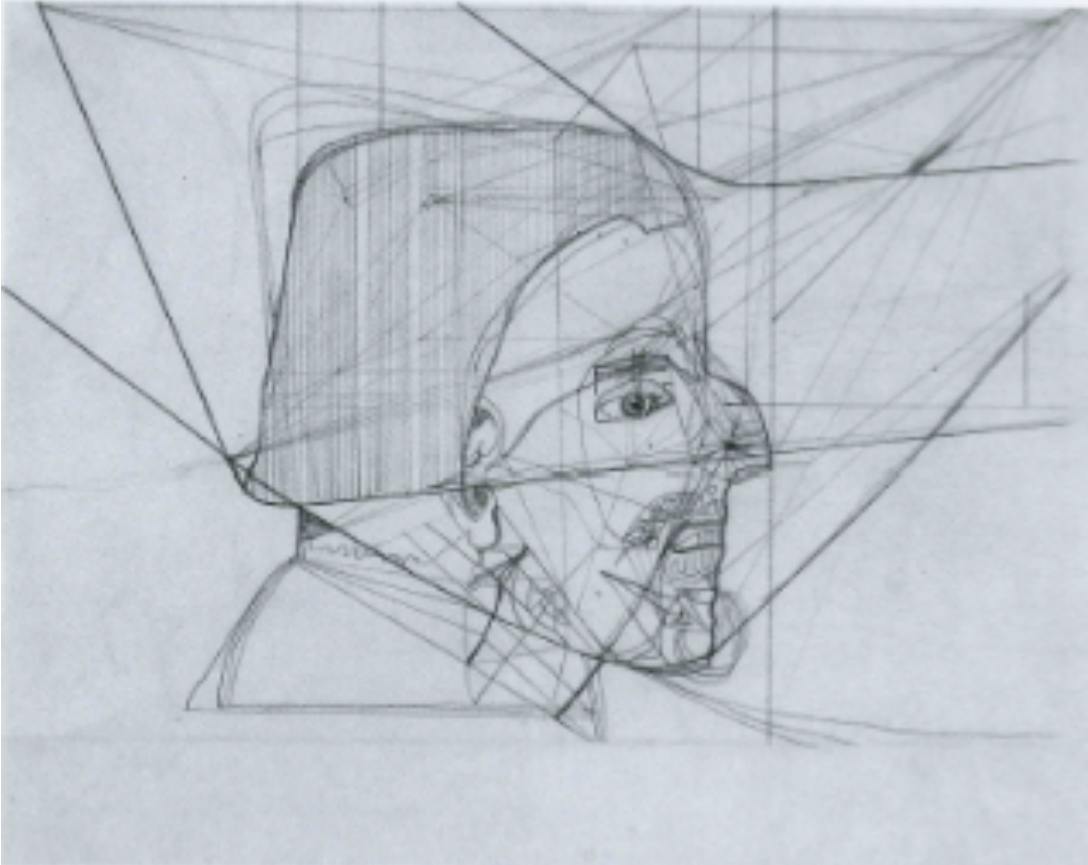


IMAGE 85 - Published with permission. Heinrich Welz, (also known as Hyacinth, Freiherr von Wieser). Prinzhorn collection.

For Tukker this line drawing represents the way that in psychosis everything feels connected, that even one's face can seem connected to the world through invisible lines, which only you can see; lines that help to anchor a person in chaos. She emphasizes that the black and white aspect does not represent any particular mood, but she adds that it represents madness, thoughts without colour; concepts that race across one's mind at hyper speed.

Tukker's own work consists of a style she calls *Lineairisme*, not only referring to her line drawing style, but also to the walking of a meditative path on paper. Tukker relates the effect of making the work to Freud's description of the 'oceanic' sensation or the feeling of dissolving into space. The hypnotic process reminds her of the sensations she had in her hallucinations, the repetitive process provides her with a cosmic sensation. And as the term, as she describes, was born from a typing mistake, for her it also refers to her work following its own path (jannemiektukker.nl). I mention her influence in particular because her work and the drawings she referred me to were visual aids that

allowed to me to better grasp experiential aspects of psychosis and methods of expressing them.

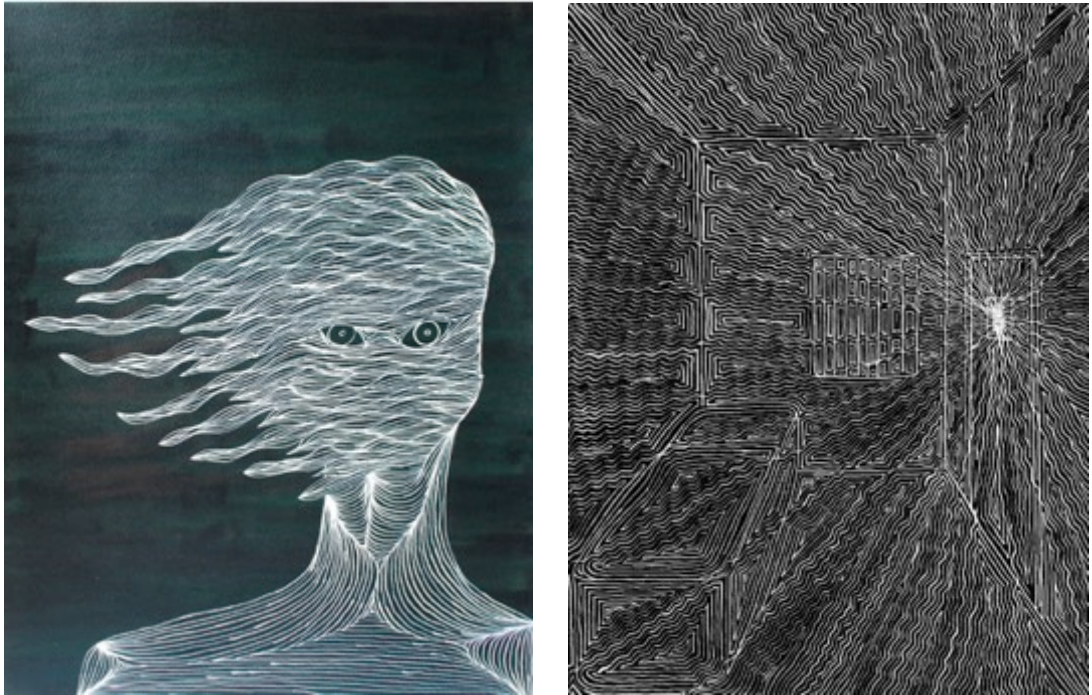


IMAGE 86 a and b

**86a Jannemiek Tukker, 2008, Ruimtevaarder 20, acrylic ink,
<<http://www.jannemiektukker.nl/papier.htm>>, [30 March 2015]**

**86b Jannemiek Tukker, Straling, 2006, Straling, acrylic ink,
<<http://www.jannemiektukker.nl/straling.htm>>, [30 March 2015]**

17 REFERENCES

Dear Reader,

This reference list makes use of the Harvard referencing style. Please note that this reference list separates physical and digitised literature to distinguish between books read and held physically in my hands and literature that has been accessed or downloaded online, as e-book, digital journal, or otherwise. An additional list of accessed websites, DVD or other media content is provided separately.

Each web link will be accompanied by [DD-MM-YY], which is either a download date or the last viewed date. In the instances of YouTube, DVD or film references, I have seen the original, unless otherwise specified.

This reference list has been constructed and double-checked with the utmost care. Nonetheless, it is possible that mistakes have slipped through, for this I apologise in advance.

Please note that this list only contains references that made into my thesis, and is not a complete bibliography of my journey.

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18 PUBLISHED PAPERS (in unpublished draft version)

18.1 ROOMFORTHOUGHTS: CREATING AND USING INSTALLATION ART IN ORDER TO PROVIDE A BETTER UNDERSTANDING OF THE SUBJECTIVE EXPERIENCE OF PSYCHOSIS⁶⁶

What is it like to be psychotic?

Roomforthoughts is an art practice that tries to find an answer to the question of what a thought is. Inspired by Neurobiologist Prof. Semir Zeki's idea that the artist is an intuitive neurologist that explores the workings of the brain using techniques that are unique to them. *Roomforthoughts* considers art as a way of materialised thinking that could say something about how the brain works. *Roomforthoughts* aims for its research to be useful in the area of psychiatry, cognitive science and consciousness studies. This paper explores possible analogies between characteristics of installation art and psychotic experience. My artistic research argues for the use of installation art as a creative tool of knowledge in understanding what it is like to be psychotic. There is no clear definition of psychosis, as it is a collection of symptoms that are found in different disorders such as schizophrenia, schizoaffective disorder or mood disorders. Psychosis, often considered as a thought-disorder, may be summarized as a mental state, in which one experiences reality in a significantly different way than experienced others. Occurrences in psychosis might be that one hears voices that others do not hear, or see things that others do not see. The award winning philosopher Wouter Kusters, who experienced a psychosis twice, argues that psychiatry is becoming good at suppressing, controlling, healing and even preventing psychosis; but that it is still unversed in understanding and describing the subjective experience of psychosis (Kusters 2004 p16)⁶⁷. In this paper I will present arguments for why installation art might be used as a cognitive tool of empathy in order to gain a better understanding of the subjective experience of psychosis.

According to psychiatrists M. De Hert and E. Fuller Torrey sympathy is important in treating and dealing with psychosis. To be able to sympathize means that one is able to put oneself in the position of the other to share their feelings. Sympathy makes the suffering of the patient more bearable as it creates an environment of support in which the patient may feel safe to unfold (De Hert & Sperans 2004 p100, Torrey pp2-3). According to Torrey, because psychotic symptoms are bizarre, people say the strangest things and act in the weirdest ways, it makes it difficult to sympathize with them. It is as if the person has lost control of their brain. "How can one sympathize with a person who is possessed by unknown and unseen forces?" "How can one sympathize with a madman or madwoman?" Because sympathy is difficult there is little understanding and because there is little understanding there is little sympathy (Torrey pp.2-3). Indeed in reaction to my projects I often get the question why anyone would want to know what it is like to be psychotic. How to break through this vicious circle? If sympathy is too scary, then perhaps empathy is a way to advance. In their paper "Empathy and Analogy"* Barns and Thagard (1997) argue that empathy

⁶⁶ **Kanary J**, 2008, 'Roomforthoughts: Creating and using Installation Art in order to Better Understand the Subjective Experience of Psychosis', *New Realities: Being Syncretic*, Ascott R, Bast G, Fiel W (eds.), conference proceedings of the 9th Consciousness Reframed Conference in Vienna, 3-5 July, pp.161-164 Springer, Wien New York – published with permission.

⁶⁷ In 2005 Kusters won the Socrates floating trophy for most stimulating Dutch philosophy book of the year for his book *Pure Waanzin, een zoektocht naar de psychotische ervaring*, Uitgeverij Nieuwezijds, Amsterdam, free translation.

is a cognitive process that is fundamentally analogical. Cognitive scientists of psychology, Boicho Kokinov and Robert M. French (2003), point out that analogy-making is crucial for human thinking as it helps us to learn, understand metaphors and communicate emotions: "It requires a form of abstract mapping between two cases or domains based on their common structure (systems of relations)". Empathy as an abstract analogical cognitive process might create a necessary emotional distance in attempting to understand the experience of psychosis. As the psychologist Lauren Wispe explains there is a relevant difference between empathy and sympathy.

In empathy the self is the vehicle for understanding, and it never loses its identity. Sympathy, on the other hand, is concerned with communion rather than accuracy, and self-awareness is reduced rather than enhanced....In empathy one substitutes oneself for the other person; in sympathy one substitutes others for oneself." To know what something would be like for the other person is empathy. To know what it would be like to be that person is sympathy. In empathy one acts "as if" one were the other person....The object of empathy is understanding. The object of sympathy is the other person's well-being. In sum, empathy is a way of knowing; sympathy is a way of relating. (Wispe 1991, p.80 as cited in Barnes & Thagard 1997).

The question 'what is it like to be psychotic?' would therefore transfer to 'what would it be like to be psychotic?' But empathy as an analogical process is problematic as Barnes and Thagard (1997) point out empathy can easily fail: "Because the other person is very different from you, it may be very hard for you to find a source analog from your own experience that has features and causal structure that are similar to those of the other person." But what to do when one's own experiences fall short? Thus, how to find a source within oneself that could be analogue to the features and causal structure of another's experience? An answer might be found in Alvin Goldman's (1992) theory of 'High-Level Simulation-Based Mindreading' The basic idea of Goldman's simulational mind-reading is:

To 're-enact' or 're-create' a scenario in one's mind that differs from what one experiences in an endogenous fashion. It is to imagine a scenario, not merely in the sense of "supposing" that it has occurred or will occur, but to imagine being immersed in, or witnessing, the scenario. In other words, it involves engaging in mental 'pretense' in which one tries to construct the scenario as one would experience or undergo it if it were currently happening.

By 'mind-reading' Goldman means the attribution of a mental state to self or other. For him to 'mind-read' means to form a judgment, belief, or representation that a designated person occupies (or undergoes) a specified mental state or experience. For him it is based on enactment imagination, perspective shifts, or self-projection, which are found in activities like theory of mind. 'Theory of Mind' refers to the ability to reason and make inferences about another's mental states, and presupposes the ability to hold beliefs about another's beliefs, or to mentally represent another's mental representation (Barnes and Thagard 1997). To engage in such mental 'pretense' one must rely heavily on one's imagination. But what if constructing the scenario in your mind proves to be too complex? What if your imagination fails? Could an artist be capable of using his imagination to create a structured experience that plays with the senses of the visitor in such a way that it facilitates mental 'pretense' towards understanding the experience of psychosis?

Philosophers of consciousness studies, Andy Clark and David Chalmers (1998), argue that beliefs can be constituted partly by features of the environment. In this they are partly constructed by external coupling which they term 'Active Externalism'. In which they describe the human organism as linked with an external entity in a two-way interaction, creating a coupled system, in which all the components play an active causal role that may be seen as a cognitive system in its own right. Clark and Chalmers (1998) point to language as a possible central means by which cognitive processes are extended into the world. As an example they mention the game scrabble in which one re-arranges tiles to form words. In this sense one could look at an installation about psychosis as an *external entity* in which

the visitor is actively coupled with, to aid the visitor in forming a belief about psychosis. The idea of an activated viewer is intrinsic to installation art. As the art critic Claire Bishop explains in her 2005 book *Installation Art, a critical history*, the viewer is considered active because they are directly... In this I put the idea forward that the experience of an installation could be used as an active cognitive extension of mental "pretense" that could aid empathic understanding of the subjective experience of psychosis.

Installation art

To do this one would have to look at installation art as an intricate system of experience that is analogue to psychosis (a system being a set of connected things that form a complex whole). I consider this a possibility as installation art combines concepts, space and media to immerse the viewer in a sensorial and contextual network in order to create a physical as well as mental experience. Now, let me point out some aspects of psychosis that could be linked to experiences of installation art.

The first aspect is that of Dream. Dreaming is often used as an analogy to psychosis, because they both contain odd topology and chronology and a different sense of reality that create disorientation (Kusters, 2004, pp.98-99). What is interesting is that Bishop (2005) considers dreaming as the closest analogy to our experience of a particular type of installation. She employs a psychoanalytical model of the viewing subject, and consequently, according to her, the experience of installation art may share the quality of psychological absorption similar to that as experienced in dream, prompting conscious and unconscious associations in the beholder (Bishop 2005 pp.15-16) Kusters (2004 p.115, 2008) describes that a person in psychosis may live in their own fairytale stories filled with strange fairytale figures, alien creatures and science fiction like powers, such as telepathy and telekinesis. As an artist I believe that installation art is capable of providing a situation that can seem that one enters a dream-like situation, creating the disorientating experience of travelling down a rabbit hole into a beautiful but disturbing wonderland where one can be made to believe one has certain magical abilities. And as an artist that attempts to understand psychosis by building an installation, I know that I must deal with the alteration of senses, as it is one of the key aspects of psychosis. These alterations may involve hearing background noises just as loud as foreground noises. Elyn Saks (2007 p249), a psychiatrist who has experienced a multitude of psychoses, describes this as:

Imagine yourself sitting in a room, then turn on the stereo, the television, a loud video game simultaneously, then invite a bunch of ice-cream eating toddlers and then turn up all electrical appliances and take away the ice cream from the children and then imagine that this would continue day and night.⁶⁸

Such an experience might be easily created with installation art, but this is merely an example of sound. Try to imagine when more senses are altered. Not just sound or sight, but meaning and memory as well. The senses are flooded. As Torrey (2006 p9) explains "It is as if the brain is being bombarded both with external stimuli (sounds and sights) and with internal stimuli (thoughts, memories)" As Kusters says (2008) in psychosis everything is pregnant with meaning and not just meaning in itself but meaning that is personally created for the psychotic. Now this too might not form a serious problem. Art is very capable of generating a multitude of meaning within the viewer and it may seem that the meaning is only there for them as they are the one generating it in the first place. It is this over acuteness of the senses and abundance of triggered thoughts and meaning in psychosis that makes installation art such an appropriate medium to experiment with. But there is more. Normally we know where our bodies stop and where everyday objects begin, but in psychosis these borders become diffuse (Torrey 2006 pp38). Kusters (2008) describes that in psychosis even one's sense of time and space is altered. The experience of

⁶⁸ free translation

blurred borders between body and space has been ascribed to installation pieces that work with dark space, light space and mirrored space. Claire Bishop describes one of her experiences of stepping in to a pitch-black installation as one of the few chances we get to experience total, consuming darkness. "Entering such rooms can make one aware of one's body, but as a loss: one does not sense one's boundaries, which are dispersed in the darkness, and one begins to coincide with the space" (Bishop 2005 p82). What is interesting is that she refers to the French psychiatrist Eugène Minowski's (1933) case study of schizophrenia and his suggestion that the patient's sense of being 'penetrated' by and dissolved in space may well be the overriding characteristic of human experience of darkness in general:

[dark space] does not spread out before me but touches me directly, envelops me, embraces me, even penetrates me completely, passes through me, so that one could almost say that while the ego is permeable by darkness it is not permeable by light. The ego does not affirm itself in relation to darkness but becomes confused with it, becomes one with it. (Minowski 1933 pp.428, 405 as cited in Bishop 2005 p84).

Two examples of diffusion between body and space by light space might be found in the work of James Turrell. As Bishop (2005, p.85) describes her experience as:

Rather than grounding the viewer's perception in the here and now, Turrell's installations are spaces of withdrawal that suspend time and orphan us from the world. Although the installations contain light, and materialise this as a tactile presence, they also eliminate all that we could call an 'object' situated as distinct from ourselves.

Bishop quotes the art historian Craig Adcock from his book *James Turrell; The Art of Light And Space work* :

[...] without form for the eye to latch on to, visitors fell over, disoriented, and were unable to keep their balance; many had to crawl through the exhibition on their hands and knees in order to prevent themselves from 'being lost in the light' (Adcock 1990 as cited in Bishop p.87).

These are just a few examples of how materials of installation art, such as sound and light could be used to create experiences that could be considered analogue to experience in psychosis.

Conclusion

When I say that installation art might be used as a creative tool of empathy, I envision the experience of installation art not so much as a simulation of psychosis, but as a network of emotions, thoughts and actions that provide analogous stepping stones towards understanding the complexity of that which is often described as indescribable. The most problematic aspect of trying to understand what it is like to be psychotic with an installation, or any other immersive configurations for that matter, is that one is always aware that one is engaged in pretence, as opposed to a person in psychosis who is not. So I would like to ask the visitor to think about an installation as a different reality in which the artist has created new rules that alter your thinking and your behaviour. Now imagine taking this reality with you to the streets. You might describe the reality of this artwork to me with big gestures and I would look at you like you were a mad man. What do you mean the light is dancing? You're crazy!

The above-mentioned arguments to utilise installation art to convey a better understanding merely scratch the surface, but I hope that they provide enough argument for further exploration.

18.2 ROOMFORTHOUGHTS, LABYRINTH PSYCHOTICA: UNDERSTANDING THE SUBJECTIVE EXPERIENCE OF PSYCHOSIS⁶⁹

Abstract

The Dutch linguist and philosopher Wouter Kusters states that psychiatry is good at suppressing, controlling, healing and even preventing psychosis, but that it is unversed in understanding and describing the subjective experience of psychosis.⁷⁰ Starting from Kusters' criticism, one might then ask the question how to contribute to a better understanding of the subjective experience of psychosis. Which tools could be used? Might the experience of (installation) art provide new ways of understanding something that is as difficult to describe as psychosis?

While studying recent development of psychosis simulators in a scientific context, Jennifer Canary's artistic research, *roomforthoughts, Labyrinth Psychotica*, argues for the use of multimedia installation art as a creative tool of knowledge in approaching an understanding of what it is like to be psychotic. In this paper, *roomforthoughts* deploys arguments that support Kusters criticism, and illustrates how recent developments of psychosis simulation by science seem to emphasise the need to better understand the subjective experience of psychosis. *Roomforthoughts* also points out where there is room for improvement in the design structures of these simulations. By using the existing psychosis simulator 'Paved with Fear' as an example, *roomforthoughts* suggests how – by improving audio and narrative structures of the simulation as two examples– one might gain a better understanding of the subjective experience of psychosis.

Key Words: Fear, installation art, psychosis, simulation, tool of empathy.

The subjective experience of psychosis

Psychosis like Schizophrenia, as Renana Elran emphasises in this publication, we must not forget, is a modern term of psychiatry that has undergone several conceptual changes and shifts of paradigms in theory and treatment methods. Keeping this in mind indeed allows us to focus on the subjective experience of such extreme mental states of human existence.

In order to find evidence that supports Kusters' thesis that psychiatry lacks an understanding of the subjective experience of psychosis, one could for instance, take a look at some of the points made by Richard Bentall in his 2003 book *Madness Explained*, especially in his chapter on 'Madness and Emotion'. Here, he describes that even though emotions are pivotal to human nature, they are, curiously, not usually considered to be important features of madness.⁷¹ Bentall shows that research about negative emotion in psychosis has mainly paid attention to people diagnosed with bipolar disorder rather than schizophrenia. Which he states is very unfortunate, as he suspects that emotion plays an important role in the experience of schizophrenia as well.⁷² As Bentall argues, the lack of understanding concerning emotions experienced during psychosis could perhaps be related to the manifestation of so-called 'negative symptoms'. The term

⁶⁹ Published with permission. **Kanary J**, 2012, 'Roomforthoughts: Labyrinth Psychotica, Understanding the Subjective Experience of Psychosis', *Madness in Con-Text: Historical, Poetic and Artistic Narratives*, pp. 141-157, G. Araoz (ed.), Inter-Disciplinary Press, Oxfordshire

⁷⁰ W Kusters, 'Ziektebeeld', in *Pure Waanzin: Een Zoektocht Naar De Psychotische Ervaring*, Uitgeverij Nieuwezijds, Amsterdam, 2004, p. 16.

⁷¹ R P Bentall, 'Madness and Emotion', in *Madness Explained: Psychosis And Human Nature*, Penguin Books Ltd, 2004, p. 205. In this sentence I take the liberty of using the term 'madness', paraphrasing Richard Bentall's description 'extreme forms of mental suffering that are the focus of this book'.

⁷² R P Bentall, 2004, p. 205

'negative symptom' is used by psychiatry to describe aspects of a person's character or behaviour that were initially present but subsequently disappeared. An example for such a negative symptom is the apparent absence of emotion in schizophrenia patients. This is sometimes described as *flat affect* or *affective blunting*.⁷³ Bentall describes *flat affect* based on the description of the American psychiatrist Nancy Andreasen, of which some features manifest as if the patients face is unchanging; wooden, mechanical or frozen, the body is not used to express emotions, there is poor eye-contact, no laughter when prompted and speech often has a monotonic quality.⁷⁴ In his chapter 'The Inner World Of Madness: View From The Inside' from his book *Surviving Schizophrenia: The Indispensable Guide to Today's Most Misunderstood Illness*, the American psychiatrist Dr. Fuller Torrey suggests that in order to better understand psychosis, we should, among other approaches, imagine how we would feel if we lost the capacity to feel emotions.⁷⁵

But is this not an example of one of the many destructive misconceptions about psychosis? Bentall, for instance, warns against the dangers of equating outward expression with subjective experience. As he points out, recent studies have discovered that people diagnosed with schizophrenia, who show evidence of flat affect, actually have normal subjective emotions, and that flat affect therefore, appears to reflect a difficulty of expressing rather than feeling emotions.⁷⁶ Hence my interest as an artist to investigate ways of expressing what the outside world does not see or feel. Much like how the artist Sandra Uray-Kennett aims to find a way to represent the nexus of silence in relation to madness, in this volume. Her reference to Derrida's question is mine as well: Is it possible to represent the 'seemingly paradoxical [and] the unsayable'?

Another point that Bentall makes, which supports Kusters' criticism, is that even though the problems treated by psychiatrists are often called 'emotional disorders', most textbooks have nothing to say about the nature of emotions.⁷⁷ Taking into account Bentalls' claim that people, as a symptom of psychosis, might have difficulties expressing their emotions, I would like to raise the question whether it might be possible to create a tool, which could enhance our imagination about the experience of psychosis. The central problem is: How to provide access to what is going on behind the 'wooden faces' of flat affect, as difficult it is to describe it? This is important as health Worker Jennifer Tichon explains that:

Currently patients have to describe their hallucinations, auditory and visual, to their therapists. There is no way that therapists can either share the experiences or objectively evaluate them. As a consequence patients often feel their therapists do not really understand them. Therapists themselves have difficulties learning about the exact nature of psychosis, as they have no personal experience of it.⁷⁸

⁷³ R P Bentall, 2004, p. 219

⁷⁴ R P Bentall, 2004, p. 220 in this Bentall refers to N C Andreasen, 'Scale for the Assessment of Negative Symptoms (SANS)', *British Journal of Psychiatry*, 1989, 155, (supplement 7), 53-8

⁷⁵ E Fuller Torrey, 'The Inner World of Madness: View From The Inside', in *Surviving Schizophrenia: a manual for families, patients, and providers*, 5th ed, HarperCollins Publishers, New York, 2006, p. 3 Later in his book, p. 44, Fuller does refer to the issue becoming increasingly apparent that many individuals showing flat affect, actually concerns difficulty in expressing oneself, but this does not take away the debatable suggestion of how to imagine what it is like to be psychotic.

⁷⁶ R P Bentall, 2004, p. 225

⁷⁷ R P Bentall, 2004, p. 207

⁷⁸ J Banks, J Tichon, et al., 'Constructing the hallucinations of psychosis in Virtual Reality', *Journal of Network and Computer Applications*, 27, 2004, 1-11 p. 1 in reference to J Tichon, 'The potential of virtual reality to improve education about psychosis'. In Proceedings of the World Conference on E-learning in Corporate, Government, Healthcare and Higher Education, Association for the advancement of Computing in Education. Montreal, 15-19 October, 2002

To illustrate the difficulties surrounding the understanding of subjective visual experience of hallucinations, a YouTube video clip of a recent interview with John Nash and his son, who are both diagnosed with schizophrenia, was shown to the conference visitors. In this video clip interview it becomes apparent that the father is unaware that the son experiences visual hallucinations, that the son shows difficulties in explaining what the hallucinations look like and is hardly given a chance to explain, by another person present, presumably his mother, who starts to guess and make quick and easy assumptions about the visuals of the hallucinations 'they must be shadows, right?' in which the son replies; 'I guess you could call them shadows'.⁷⁹

The Psychosis simulator *Paved with Fear*

Since antiquity, madness has been expressed and simulated by many artistic forms, from Greek tragedies such as Euripides's *Madness of Heracles* to books such as Philip K. Dick's *Martian Time-Slip* (1964); from films such as Richard Kelly's *Donnie Darko* (2001), to paintings, such as Edward Munch's *The Scream* (1895).⁸⁰ Science is not unknown to make use of visual representations. Photographic portraits were used to express different mental states for educational purposes, such as the 1878 *Attitudes passionnelles: extase, Iconographic photographique de la Salpêtrière*, to be found at the Museum Dr. Guislain in Gent, Belgium.

In recent years, there have been several psychosis simulators that have been created in a scientific context as virtual teaching and awareness environments for mental health workers and students, providing a method for generating empathy, also among family members and relatives. These simulations perhaps express the growing desire to understand more about the subjective experience of psychosis.

In this paper, I will talk about one of these simulation projects called *Paved with Fear*, which is mainly based on the medium of film. In order to give an impression of the situation, I will first describe my personal experience of the simulation when I visited it in 2007, and then analyse how, as a tool to replicate the subjective experience of especially *fear* during psychosis, it might be improved. As I argue, this could especially be achieved when using additional technologies in concordance with the particular qualities that characterise installation art, such as a physical immersive experience. Therefore, I will initially focus on the sound aspects of *Paved with Fear* and subsequently talk about the narrative aspects of the film.

Paved with Fear (PwF) is a psychosis simulator that was developed by the pharmaceutical company Janssen-Cilag. The simulator uses a combination of cinema and multimedia technology to help the visitors to gain a deeper understanding of the experience of psychosis. The simulator travels in a truck through Europe and is mostly visited by students, professionals and family members of people with psychosis and schizophrenia. Janssen-Cilag worked with many patients to develop the device, which they claim demonstrates at a practical level what a person in psychosis might endure on a daily basis.

Upon entering the parking lot of a psychiatric care facility I see the truck standing there. It is impressively large (as most trucks are when you stand next to them). The truck resembles a *Transformer*, as its sides open up forming two side spaces. It appears to me as ominous, as it is pitch black and carries no logos. One of the compartments holds a staircase that leads to a dark entrance. Above this entrance hangs the logo 'Paved with Fear'. I wonder what's going to happen to me?

Upon entering the truck I found an interior that resembles a type of surrealistic science fiction waiting room. Blue light comes from an illusive source. Under the ceiling are two large containers that

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<http://www.youtube.com/watch?v=7zMz3l7IXKA&feature=Playlist&p=B4863F8E1773E797&index=0&playnext=1> 5,27 min, titled 'Beautiful Minds- An Interview with John Nash and Son' last viewed on October 7th 2009.

⁸⁰ Fuller Torrey, 2006, p. 59. Fuller Torrey uses an image of Edvard Munch's Lithograph of *The Scream* as an example of an expression of anxiety and fear that mirrors the despair, depression, and bewilderment of auditory hallucinations experienced so often in schizophrenia with reference to the National Gallery of Art, Washington, D.C., Rosenwald Collection

resemble to me old-fashioned designs of time machines. They each have two doors. A green or a red light burns on the side, indicating occupancy. The ceiling is airbrushed with clouds perhaps suggesting that we will take off into another world of Dr Who. Next to each container stands a computer. Upon entry, a member of staff greets me and tells me that in order to enter the 5 minute experience in the simulator I need to answer a couple of questions on one of these computers. Questions like: "What is your name?" The computer station is built to show a short video of a trip to a bakery, the simulator will be about the same trip through psychotic eyes. I am then asked to take a seat on one of the cold metal chairs that are lined up against the wall. Sitting in these chairs are people who are waiting to enter, their faces look anxious.

I sit down to wait my turn. Everywhere around me the text 'Paved with Fear' is present. The faces of those who come out look confused. They are quickly escorted out of the vehicle. The light is green again. It is my turn to enter. I am told that if I panic I may wave and they will stop the simulation. I am tense with anticipation. I step into the darkness and stand upon the metal plate behind a thick yellow gate. My hands latch on tightly to the bar. The door closes behind me. A movie starts on a large screen. The words paved with fear appear accompanied by the gentle tune of 'It's a small world after all'. A demeaning male voice says; "Well, well, its you again, so you think that you can just go outside to buy bread. So easy, so simple, so calm..." "O, yeah? I don't think so." "Get a hold of yourself! Take your things and go outside!" A single NOW! is uttered in a deep demanding voice. I have entered the world of schizophrenic psychosis. What follows is a cinematic multimedia experience, which I will describe in more detail further into my research.

The multidimensionality of sound

Although many positive things can be said about *PwF* after taking a closer look at the cinematic and dramaturgical aspects of the simulator, I also believe that there is room for a lot of improvement in which I believe art and technology could play a role.

Paved with Fear used a first person perspective, using the camera as a substitute of the spectator's eyes. The camera is often focussed on the ground as if to avoid the environment. It made use of slow motion when focussing on faces, allowing for every thought on a face to be seen, exaggerated, and interpreted. There was a chaotic array of images switching and zooming in. *PwF* did not just make use of film techniques, as the experience also seemingly includes dramaturgical and theatrical tools, which one might describe as *setting* and *décor*, which brings the experience to the streets as one approaches the dark and ominous vehicle. It also makes use of sensorial tools of multimedia that create an augmented cinematic experience. Examples being a floor that shakes at programmed times, a voice that whispers your name (which is made possible by the fact that you entered it into a computer programme before you came in). And last but not least, the photographic portrait that is taken while you watch the film, which is then integrated into the visuals in the form of newspaper and news-broadcast images.

PwF sounds like an amazing experience, but in practice, I was disappointed by the experience of the simulation. Why was this? On the one hand, one could say, this is it, this is how psychosis is experienced, nothing glamorous about it and although maybe not for you, in a psychotic state it is very frightening. But is this a case of me wanting more intensity? Consultant psychiatrist Mark de Hert, who worked as a medical advisor on *PwF*, states that any physician's goal is to have the most accurate representation of a patient's symptoms in order to treat them most effectively. Is this the case with *PwF*?

As psychosis is such an individual experience it is not an easy task to assess this. Janssen-Cilag created *PwF* in collaboration with patients, but, unfortunately, I have not retrieved information yet about

how this collaboration took place. On the website of the patient and family member organisation on psychosis and schizophrenia accounts can be found of people who have visited *PwF*. There are people who say that it is pretty accurate and people who say that it is not. Correspondent for the Ypsilon organisation, Ger Waltmans, describes that, according to one visitor who experienced psychosis three times in eight years, the simulation gives a reasonably accurate account of what someone in a psychosis experiences⁸¹. Patient Ruben Walenbergh describes his own experience as follows:

Patients are discouraged to visit this spectacle. With every step to the truck my heart was beating faster. The way there in itself was 'Paved with Fear' for me. But, I also like horror films, so I decide to take the chance. For me, the way there turned out heavier than the experience itself. I found it pretty soft. I realised the whole time that it wasn't real [...].⁸²

In order to examine the potential 'softness' of the simulation of *PwF*, one could refer to Elyn Saks' description of her personal experiences of psychosis in her autobiography:

Imagine yourself sitting in a room, then turn on the stereo, the television, a loud video game simultaneously, then invite a bunch of ice-cream eating toddlers and then turn up all electrical appliances and take away the ice cream from the children and then imagine that this would continue day and night⁸³.

This to me is a very intense audio (and visual) situation that indeed seems to go beyond my imagination. I feel that I would need to create such a situation in order to truly get it. On an audio the level of sound, does the experience of *PwF* live up to this description? I would have to say yes and no. The sounds in *PwF* were chaotic, and intrusive, but they were edited one after the other with only a few moments with overlapping sound layers, hardly giving the impression of senses being overwhelmed as described by Saks. These were sounds of traffic, a camera flashing, a drill, a baby crying, distorted sounds of water, a news presenter presenting the news, an accordion, a bread cutting machine, and voices that laugh and whisper that it is not safe and that you are guilty. The most peculiar sounds for me were the footsteps and the 'ghost sounds' when zooming in on the keys and the wooden face of the 'lady' on the staircase.⁸⁴

*** during the presentation we revisited the scene with the face and the keys to hear the 'ghost sounds'

Perhaps, as I am an artist, I might be considered to be too critical about the qualities of what in art is known as the strength of an image or sound, and the effect it has, but for me the sound experience in combination with the visual close up of the wooden face, the echoing footsteps and the shaking floor, was a bit too illustrative, in a way that resembled cheap horror movies or haunted house attractions. Yet, spokesperson Marja Hasert from patient organisation Ypsilon warns that although *PwF* is a wonderful educational tool it is not a carnival attraction.⁸⁵ This is perhaps one of the reasons that *PwF* is only accessible by invitation for family members and professionals, people who take the experience serious and do not visit it for the sake of spectacle. As an artist, I am curious if it is possible to create a more subtle approach to the experience. But as a metaphor, I must admit, the haunted house is worth further investigation.

⁸¹ <http://www.psychoseplein.nl/?page=11564728>, Ger Waltmans, Kaderwerk, Psychosesimulator voor familie, patiënt en hulpverlener report for Ypsilon Heerlen

⁸² <http://www.psychoseplein.nl/?page=11566811>, last viewed 7th October 2009, the quote is a free translation.

⁸³ E Saks, *De Geschiedenis van mijn Gekte, Leven met Schizofrenie*, , Sijthoff, Amsterdam, 2007, p. 249, the quote is a free translation from the Dutch print.

⁸⁴ The image of the film being a quick close-up, led me to see a wooden lady, during discussions it became clear that others saw an (offensive) image of an African male.

⁸⁵ <http://www.psychoseplein.nl/?page=11566811>, last viewed October 7th 2009

In a sense this simulation could indeed very well be seen as a large multimedia multi-layered metaphor of the Haunted House. A metaphor, as described by Renana Elran in this publication, can be used as a poetic tool. A metaphor can be developed as an *intermediate space* for exploring experiences of madness from an interdisciplinary view. The metaphor, I believe indeed, as Elran states possesses the possibility of examining both psychological experience as well as the historical and theoretical context that shape such experiences. But there are dangers to the use of metaphors as well as values. Perhaps the danger exists in particular when those who are not experienced in working with them develop metaphors. In the production of *intermediate space*, as the space between the inner world and outer reality that allows for fantasy, play, art, and also therapy, there is a fine balance between the simulation of objective phenomenon, and subjective phenomenon.

Returning to the voices one could hear in *PwF*, a separate comment I have in this regard is that in the simulation the voices spoke to you in second person (“You are guilty!”, “They know you are guilty!” etc.), yet many describe that the voices actually are often in dialogue with each other, acting more like commentators on what you are doing in third person. Also, in actual psychosis, there is often a relentless quality to the endless repetitions of this commentary, which is often described as the most debilitating aspect of hearing voices. In that respect, the voices that were audible in *PwF* were perhaps not repetitive enough. One of the more educational characteristics of the voices in the simulator was the fact that they were both male and female, that they included malignant laughter, and that they sometimes sounded ‘mechanical’, as the hearing of voices in the head are often described.

Another aspect that one could experiment with in attempting to improve the experience is to make use of sound technologies that allow for more than a stereo experience, in which sound seems to attack you from all directions and from different distances, by using a technique called binaural recording. With binaural recording, recordings are made from the position of the ears, thus simulating human hearing. In this I think about the intricate audio works by the artist Janet Cardiff. These are just a few aspects that I think an artist could address, solely based on the experience of sound in *PwF*. When thinking about other senses, like smell, we could think about projects done by the artist Sissel Tolaas, *The Fear of Smell*, *The Smell of Fear*. We could also investigate how art plays with an altered sense of self and bodily boundaries, being surrounded in an environment pregnant with meaning that is there just for you.

Film as a tool of mental simulation

When we are trying to imagine what it is like to be psychotic, we are in a sense creating an alternative reality in our head, a kind of mental simulation. In the case of psychosis, our imagination often seems to fail. A tool that facilitates mental simulation could act as a kind of temporary prosthesis to our imagination. That the makers of *Paved with Fear* used film as a medium to simulate psychosis is not surprising. In the context of (cognitivist) film theory, it has been argued that the nature of film itself is hallucinatory as we find ourselves being immersed in an emotional experience reacting to scenes as if they are real, even though they are just a series of images projected on a screen.⁸⁶ Greg M. Smith explains in his book *Film Structure and the Emotion System*, that film achieves this effect by creating what is called an array of ‘mood-cues’ or ‘emotion-cues’. Because every person in an audience reacts differently to emotion cues, filmmakers use an array of cues with the aim to increase the chance of nudging the audience to a desired emotional experience.⁸⁷ These cues can be facial expression, character qualities, histories, and perhaps the most important: narrative situations.⁸⁸

⁸⁶ E S Tan, *Emotion and the Structure of Narrative Film: Film as an Emotion Machine*, Lawrence Erlbaum Associates, Mahwah, New Jersey, 1996, p. 1

⁸⁷ G M Smith, ‘The Mood-Cue Approach to Filmic Emotion’, *Film structure and the emotion system*, Cambridge University Press, Cambridge, UK, 2003, p. 42-43

⁸⁸ G M Smith, 2003, p. 42

Even in regard to the use of multimedia in simulation, narrative can still be an important way of generating certain effects. As film theorist Ed Tan points out in his book *Emotion and the Structure of Narrative Film: Film as an Emotion Machine*, filmgoers do not passively experience the stream of sounds and images reaching them; they single out those aspects that appeal to them.⁸⁹ Yet, in any film there are certain events that are more significant than others, and the average audience will probably be of one mind about which these are.⁹⁰ The rationale, he elaborates, is that the film, to the extent that it is seen as a narrative, systematically manipulates fictional situations and aspects of those situations in such a way that they fulfil the requirements for the creation, maintenance, and modulation of emotions. Thus, he explains, 'to narrate is to produce emotion'.⁹¹

I would like to state that the narrative of the film of *PwF* could be improved. In simulating visual aspects of psychosis little attention was paid to the transportation of emotional charge, other than attempting to create fear by a collage of flashing images, with illustrative expressions such as ghost sounds. I also question their representation of the classic psychotic notions that newspapers say stuff about you and that they talk about you on television. The way that it is expressed seems to cut short the symbolic signifiers that lead to such notions, as the psychotic is in a world pregnant with meaning, which is there especially for them.⁹² For me, there were too little 'emotion cues' that could have guided me or that I could connect to construct a narrative filled with meaning. In other words there was a lack of signifiers that could help me create a narrative context. My experienced emotions were raised more from the context that I brought with me; my anticipation and knowledge of schizophrenia, than from the film.

I therefore believe that *PwF* could benefit from the expertise of professional filmmakers, who might be able to generate much more meaning for the viewer to play with. In my own view, the most effective signifiers in *PwF* seem to be the faces, which I think represented the idea that people are talking about you in an effective way. But in order to feel an emotional impact, one might need to steer the narrative with more imaginative context creating a multitude of layers of emotion cues.

Restrictions of film in the simulation of psychosis

Last but not least, although the use of film could be considered mandatory in the simulation of psychosis, one might nevertheless ask: Is it enough? To use film to simulate what it is like to be psychotic could be considered restrictive in a sense. One restriction might be the authenticity of cinematic emotion, because viewers are fully aware that what they see is a fictional and/or artificial world, while as Tan explains, according to some emotion theorists, the feeling evoked by an artefact – an image – can never give rise to a genuine emotion.⁹³ This coincides with the remark from visitor Ruben Wahlenberg, when he says the experience was soft, because he realised the whole time that it was not real. Yet, as Tan describes: 'audiences do smile condescendingly, titter nervously, and burst out laughing [...] One and the same film can produce tears of joy or tears of frustration producing an array of contradictory feelings, like hope and fear, embarrassment and mirth, or pity and gloating', even when the audience knows it is not real.⁹⁴ According to some film theorists such as Tan, it is precisely the narrative that allows us to experience emotion. A narrative can unfold from a 1st, 2nd, or 3rd person perspective or several at once. Tension is often created from playing with these three perspectives. Perhaps it is here where *PwF* missed a chance.

The movie of *PwF* was filmed solely from a first person perspective making the distance between

⁸⁹ E S Tan, 1996, p. 2

⁹⁰ E S Tan, 1996, p. 15

⁹¹ E S Tan, 1996, p. 4

⁹² Referring to the experience of psychosis as everything being pregnant with meaning comes from a free translation of a transcript of a presentation given by Wouter Kusters during a public talk at the Museum Het Dolhuys, April 2008, 'In een psychose wordt er dus een merkwaardige mix gemaakt van allerlei taal samples, historische gebeurtenissen en toevallige voorwerpen. Alles is zwanger van betekenis. En ook niet zomaar betekenis, maar betekenis, speciaal bestemd voor de psychoot.'

⁹³ E S Tan, 1996, p. 2

⁹⁴ E S Tan, 1996, p. 2

the psychosis and viewer very big, rather than close. This seems to be a contradiction. One would think that a more accurate visual perspective would allow for more empathy, but in order to create more empathy, I believe a contrast is needed between different perspectives. I was looking through the eyes of someone on the street looking at the ground, but I was too aware of the fact that I was standing in a truck. My role as a viewer was very passive. In a sense for me to take the experience of the person's perspective personally, there would need to be a more skilled play with possible perspectives. The narrative would need to be enhanced with knowledge. Just looking in a first person perspective at the ground is not enough – as a viewer I need more context as to why I am looking at the ground.

Another restriction could be the following: Although film is not passive in a mental sense, one could say it is reasonably passive in a physical-spatial sense, as at least in the classic cinema space, the viewer does not move around. Perhaps the psychosis would need to be about the actual 'here and now' of my experience. Translated to the level of the simulator, this might imply experiencing a psychosis about being in a psychosis simulator truck, as one could say with slight exaggeration to make the point. In order to come to a more accurate simulation of psychosis it could be interesting to create an immersive experience in which the viewer is activated on all levels of senses. As Kusters describes, in the experience of psychosis one does not distinguish between experience that is created by the illness and 'normal' experiences. Psychosis is not an external force, which one can distinguish from the person; it is rather difficult to make a distinction between who has a psychosis from the psychosis itself. The person *is* the psychosis. In a sense you might consider the experience of psychosis as a form of 'augmented reality'.

Labyrinth Psychotica

This inspired me to create a complete immersive experience that uses aspects of film and visual media applications in combination with reality. In a sense the narrative should not only come from the virtual aspects of film, but also from the surrounding in which the film is presented. As Torrey explains, in psychosis, the senses are flooded: 'It is as if the brain is being bombarded both with external stimuli (sounds and sights) and with internal stimuli (thoughts, memories).'⁹⁵ It is this over-acuteness of the senses and abundance of triggered thoughts and meanings in psychosis that makes in my opinion installation art such an appropriate medium to experiment with. In order to do this we would have to look at installation art as an intricate system of experience that is analogue to psychosis (a system being a set of connected entities that form a complex whole). I consider this a possibility, as many installations combine concepts, and space and multi-media to immerse the viewer in a sensorial and contextual network structure, in order to create a physical as well as a mental experience.

I believe that *Paved with Fear* can be considered as a very good beginning in the creation of an immersive experience, but that it can be improved and that in order to make improvements one needs to take a look at installation art. As my research is artistic, I aim to create case studies that attempt to translate the theory directly into practice. I am currently doing this with the project *Labyrinth Psychotica*. In a previous paper I described my idea of the *Labyrinth Psychotica* as follows:

By combining the torturous structure of the maze with the meditative nature of the labyrinth, one might create an interactive labyrinthine multimedia installation that could allow for a visitor to enter an alternative reality. Namely the reality of the artwork in which

⁹⁵ Fuller Torrey, 2006, p. 9, p. 38

the artist has created their own little universe with its own set of rules that is completely different than a 'normal' person is used to. In this little world there could be the potential of experiencing fear as well as ecstasy, depending on a choreographed symphony of light and dark, of disturbing and wondrous smells, objects, colours, materials and sounds. If the path that the visitor follows in this world has walls that twist and turn around corners it will literally disturb the person's sense of time and space as they lose all points of reference that they are used to using. What if the walls started talking to you, reacting to you as if they knew your every move? What if they started giving you assignments? How would you interpret the hidden meaning of the artist if the topic of this experience was about becoming psychotic by entering a labyrinthine artwork about psychosis? Could such a structure help to go beyond an illustration of the experience of psychosis? Could it help move away from simulation or representation, literally bringing a visitor to their own blurred boundaries between the mad and the normal?

For a metaphor to be successful as *intermediate space*, one needs to evaluate the more 'easy' to simulate phenomenon, such as the hearing of voices or eye movement as well as the much more difficult phenomenon to simulate, such as the loss of self, boundaries of the body, and experience of time and space. In other words, there are Haunted Houses, and there are Haunted Houses... For me a labyrinth as a metaphor holds a strong potential to address all aspects concerning madness, as the experience itself brings us to our own mental and physical borders.

The chair that faces a wall in Sandra Uray-Kennett's work *Excuse me while I paint my sadness on the wall* (2008) is indeed a signifier of absence. A powerful metaphor in itself, representing the absence of our understanding of what goes on behind the silent masks of madness. In psychosis, empathy is crucial. Empathy is a form of mental simulation of the other. In *Simulacra and Simulation* Baudrillard refers to Emile Littré:

"Whoever fakes an illness can simply stay in bed and make everyone believe he is ill. Whoever simulates an illness produces in himself some of the symptoms" (Littré).⁹⁶

The question arises, how far are we prepared to go in trying on such a mask? Do we dare to approach our own 'inner beast'?

18.3 HALLUCINATIONS, AN EXISTENTIAL CRISIS?⁹⁷

Abstract

Having hallucinations is often seen as one of the key symptoms of mental health problems, in particular to those of schizophrenia. In the DSM-IV, hallucinations are defined as follows: 'A sensory perception that has the compelling sense of reality of a true perception, but that occurs without external stimulation of the relevant sensory organ'. But what is a true perception? And how do we know whether there really is no external stimulation? With people so unanimously convinced that what they are going through is not illness, but an awakening to the nature of reality. And with more and more documentaries being created about the illusionary nature of our reality, we might want to take a closer look at the descriptions of people who suffer from what is known as a reality disorder. We might think about how this might inform us about the nature of reality in a way that would diminish the existing stigma that surrounds psychosis and schizophrenia. We might even wonder whether the concept of hallucination has the right to exist.

Keywords

Madness, hallucination, constructed reality, (quantum) computer simulation, time-traveller

Hallucinations, an existential crisis?

Questions about the nature of our reality in relation to reality disorders become interesting when recent research shows that people diagnosed with schizophrenia are not fooled by optical illusions (Dakin et al. 2005; Dima 2009). And that 'sometimes their vision can be more accurate than non-sufferers'.⁹⁸ If a hallucination is experienced as a compelling reality by those who seem to have a better grip on what is actually there in time and space, it becomes imperative to look at hallucinations from alternative perspectives of concepts of reality and it becomes important to doubt the term itself.

In order to question the ontology of hallucinations in relation to concepts of reality, I will look at hallucinations through three frameworks:

- 1) Hallucinations as a symptom of psychosis as a mental illness
- 2) Hallucinations in relation to the radical constructivists' idea of *The Invented Reality*
- 3) Hallucinations in relation to the concept of living in a computer simulation.

I hope to use these frameworks to build an alternative model for the mad as time-travellers,⁹⁹ based on concepts of the universe as a quantum computer. This might alter the ontology of hallucinations, understood as seeing and hearing things that are not actually there, in a way that might function as a creative tool in breaking through stigma, in order to question one of society's last taboos.

Hallucinations as a symptom of psychosis as mental illness

⁹⁷ Published with permission. The majority of text of this paper was published in two publications: 1) 2010, 'Hallucinations: An Existential Crisis?', *Making Reality Really Real*, Ascott, Gangvik, Jahrman (eds.), conference proceedings of the 11th Consciousness Reframed Conference in Trondheim Norway, 4-6 November, pp.141-143, Teks publishing, Norway and 2) **Kanary J**, 2011, 'Hallucinations: An Existential Crisis?', *Metaverse Creativity*, Vol 1, Issue 2, Intellect UK

⁹⁸ <http://news.bbc.co.uk/2/hi/health/4360572.stm>, accessed 7 June 2010, published Tuesday, 25 October 2005.

⁹⁹ My ideas about madness as being part of our ability to time-travel, although originating from my art-practice, are currently being strengthened by ideas generated in unpublished papers by the philosopher Wouter Kusters.

Clinical psychologists Richard Bentall and Peter Slade formulated the following definition of a hallucination.

Any percept-like experience which (a) occurs in the absence of an appropriate stimulus, (b) has the full force or impact of the corresponding actual (real) perception, and (c) is not amenable to direct and voluntary control by the experiencer. ([2003] 2004: 350)

In understanding this concept of hallucination, we might say that Bentall and Slade have taken three elements into account: (1) the internal vs. the external, (2) the impact and (3) the control. The first element, involving internal vs. external, makes the distinction between illusion and hallucination: Dr Susan Blackmore describes that an illusion involves a perception of external stimuli and a hallucination involves the perception of internal stimuli, as if it were external ([2003] 2007: 306). The second element, the impact of a hallucination, we might say, involves how powerful the reality of the experience is and whether one can distinguish this *subjective* reality from an *objective* reality. The third element is then the control of the experience. How much of it can one control or is one completely powerless against it?

In the materialism of modern-day psychiatry, hallucinations tend to be regarded as an abnormality of the brain or a result of a disease called schizophrenia, which affects related regions of the brain. The most common hallucinations are auditory. It is thought that about 70 per cent of people diagnosed with schizophrenia hear voices.¹⁰⁰ As a 'true biological' disease, schizophrenia is considered treatable, but not curable and successful treatment means control of the symptoms (Fuller Torrey [1983] 2006: 356–57). And it is a common conviction that even though science does not understand the mechanisms of auditory hallucinations, in time, new technologies will uncover these abnormalities (Torrey 2006: 35–36). This is typical of a scientific discourse – the belief in the accumulation of knowledge that leads towards full control of man over nature. All things are considered 'knowable', given time and proper technology. Torrey goes as far as to say that the hearing of voices is '[...] so characteristic of the disease that a person with true auditory hallucinations should be assumed to have schizophrenia until proven otherwise' (2006: 33).

Ivan Leudar and Philip Thomas, authors of *Voices of Reason, Voices of Insanity*, describe how psychiatry and psychology consider voices as auditory hallucinations being due to failures of reality testing, which typically involves confusing what is objective and what is subjective, real and imagined, seen and remembered, or psychological errors. From a diagnostic stance, voices indicate mental pathology, but the problem is, as they explain, that voice hearers do not often confuse hearing voices and hearing people who are talking. They know perfectly well that nobody else is speaking (Leudar and Thomas [2000] 2009: 1).

Phenomena of hearing voices have been recorded for over 2000 years. Well-known voice hearers of history are Socrates, Mohammed, Pythagoras and Joan of Arc. It is believed that today about 5 per cent of our population hears voices on a regular basis (Leudar and Thomas [2000] 2009: 7–12). The Dutch Psychiatrist Marius Romme discovered that large numbers of Dutch citizens hear voices without needing psychiatric treatment. Bentall's book *Madness Explained*, inspired by a conversation with Romme, made a strong contribution towards shattering the modern myths surrounding the experience of hallucinations as a symptom of madness.

I really like your research on hallucinations, Richard. But the trouble is, you want to cure hallucinators, whereas I want to liberate them. I think they are like homosexuals in the 1950's – in need of liberation, not cure. (Bentall [2003] 2004: 511)

Bentall's book went on to collect compelling arguments that the experience of the hallucinations strongly depends on the (cultural) beliefs of the experiencer ([2003] 2004: 356) and that psychiatric diagnoses are

¹⁰⁰ The knowledge I have built about auditory hallucinations has come from numerous sources, interviews, blogs, autobiographies. A good summary about hearing voices may be found on <http://www.intervoiceonline.org>

in essence meaningless when it comes to madness, in particular as symptoms such as hallucinations occur in the 'sane' as well as in the 'insane' ([2003] 2004: 511).

In his book *Psychoses without Psychiatry* (2000), psychologist Thomas Bock reports on people who survive without psychiatric treatment. He describes how hallucinations seem to function more like dreams do, as a means to help deal with life. As he suggests, bad hallucinations should be equated to having a bad dream, interfering in a waking state, making psychosis just another state of human consciousness, like a fever of the imagination attempting to heal the human psyche (Bock [2000] 2001: 363–64). Perhaps in that sense, hearing a persecutory offensive voice might be like having a bad trip that acts like a reflection or an enlargement of one's own inner turmoil and self-image.

Julian Jaynes has an interesting theory in which he claims that before the second millennium AD, everyone heard voices and that voice hearers today are remnant examples of what he calls the breakdown of the 'bicameral mind'. The bicameral mind is the term he uses to describe the human experience of decision making. Decisions were made via voices in the head and not through conscious experience.

Another way to say it is that volition came as a voice that was the nature of a neurological command, in which the command and the action were not separated, in which to hear was to obey. (Jaynes [1976] 2000: 99)

Julian claims that these voices were experienced as voices of gods and that one had no choice but to act by the will of the gods. As Julian puts it: 'The gods were organisations of the central nervous system [...]. The gods are what we now call hallucinations' ([1976] 2000: 74). Jaynes came to this conclusion by studying the linguistic content of the *Iliad* from which he derives that hallucinations were part of everyday life. In that sense, *everyone* would have been diagnosed as schizophrenic. Indeed, Socrates' voices came from what he called his daemon, which usually told him what not to do, but Leudar and Thomas criticize Jaynes' idea that this was a common phenomenon. Instead, it was considered as a sign by the divine, a sign of his wisdom, and it was acceptable to publicly use the advice of the Daemon (Leudar and Thomas [2000] 2009: 4).

Returning to the concept of having hallucinations as part of human nature or human evolution is a big step, but in today's world, the social representation of a homeless person is still more acceptable than that of a chronic mental patient (Bock [2000] 2001: 127). If the fear of madness is a much bigger problem than madness itself (Bentall [2003] 2004: 511), how can we find ways to deal with madness? Why is our society so poorly equipped in dealing with it? How to be less afraid of what is most likely a natural occurrence? In order to develop concepts to help answer these questions, it might be useful to take a look at alternative ideas about the nature of our reality. Radical constructivism might be such a framework.

Hallucinations in relation to the radical constructivist's idea of *The Invented Reality*

Radical constructivist theory advocates in *The Invented Reality* (Watzlawick [1981] 1984) the view that any so-called reality – in the most immediate and concrete sense – is the construction of those who believe they have discovered and investigated it. In other words, there is a high probability we have created the world we live in, but for some reason, have become unaware of the fact that we have created it. This has led us to believe that our invented reality exists as an objective reality outside of ourselves, making it the fundament of our worldview (Watzlawick [1981] 1984: 10).

This means that from a radical constructivist point of view, one might see a hallucination as a reality that is no more real or unreal than other perceptions. From this perspective, the whole world could be a hallucination, rendering the distinction between sanity and insanity problematic. Radical constructivist ideas are not new. In 1836, Pierre de Boismont, who was a Catholic, believed in more than what the eye can see and the ear can hear. He objected to subjective experience being treated as merely 'a play of imagination' and somehow less real and valuable than 'objective' perception (Leudar and Thomas [2000]

2009: 12). For Brierre De Boismont, Secretary of the Société Médico-Psychologique too hallucinations are in themselves not a sign of madness, at least not any more than thinking and remembering are. He implied that hallucinations were ordinary mental functions, which can indicate impairment of reason, like any other. 'There is only an error if we say that we *should not* have experiences without external objects – we should not have an overly vivid imagination!' (Leudar and Thomas [2000] 2009: 12). We might wonder whether the error of ignoring such states of consciousness lies at the core of why they can be so nightmarish, why people suffer so much terror.

How the nightmare begins might be better understood if we look at the conceptual division between a first- and second-order reality. Watzlawick uses the often-quoted example of gold to explain the difference. Gold has certain physical properties that everyone agrees on. This is called the first-order reality. The second-order reality contains qualities, such as the value, which have nothing to do with the physical properties of the metal, but are attributed to it by human beings. When we feel that our ideas of the second-order fit in with the ideas of the first order, we are reassured and can cope fairly with adversities. However, if these two worlds collide, when our constructions no longer 'fit', we fall into despair, and we develop fear, psychosis or suicidal thoughts (Watzlawick 1990: 135–37). Thus, it becomes important to think about how to stop making this error of judging realities and focus on ways of ensuring that we have ideas that allow us to make the two orders fit together.

Hallucinations and computer simulations

Another conceptualization of reality that might be useful as a tool to understand the experience of hearing voices that others do not hear might be the idea that we are living in a computer simulation. In his infamous 1973 lecture 'On constructing a reality', Heinz von Foerster paraphrases 'cognition' as computing a reality or computing descriptions of a reality unto cognition being computations of computations, in an ongoing cycle. He does this by using experiments as an example 'in which we see or hear what is not "there", or in which we do not see or hear what is "there" unless coordination of sensation and movement allows us to "grasp" what appears to be there'. These experiments imply the notion of other realities existing alongside with the 'one only reality' that we seem to presuppose. Suggesting that everything, from his wristwatch to the galaxies, is merely computed, and is not 'there' (Watzlawick [1981] 1984: 45–47).

Oxford Professor Nick Bostrom's ([2001] 2003) paper 'Are you living in a computer simulation' is based on the idea that civilizations of the future have enough computing power and programming skills to create what he calls 'ancestor simulations'. Such a simulation would be a very realistic virtual reality world, in which the brains inhabiting it are themselves part of the simulation. The idea of living in a computer simulation is interesting as a tool for understanding hallucinations, especially when we look at existing simulated worlds such as *Second Life*. It is easy to imagine that the other could hear voices that you do not hear, just because their Avatar is running different software. It means that you might not judge their experience as non-existent or diminished. The interesting thing about Bostrom's paper is that in the end, he concludes that there is a high probability that we are already living in such a computer simulation. Philosopher David Chalmers even goes as far as to estimate the chances being 20 per cent.¹⁰¹

The apparent shift that is being advocated by professionals such as Richard Bentall and Marius Romme allows for not only seeing hallucinations and madness as normal, albeit extreme, occurrences of human experience, but if we take into account that 'sometimes their vision can be more accurate than non-sufferers', we have the opportunity to see what such experiences can tell us about the nature of our reality. This brings a whole new light to Julian Jaynes' concept of the bicameral mind. Within this context, it might be interesting to take a look at descriptions of voice hearers:

¹⁰¹

<http://www.simulation-argument.com/faq.html> question nr 2, accessed 11 Aug 2010.

If you start hearing voices, you realise that they have always been there. It's a matter of the right wavelength.¹⁰² (van den Bosch 1993: 36).

[...] I hear the voices only if I attend to them, but hear them I do [...] (Jaynes [1976] 2000: 412).

Let us for a moment think about the world as a computer simulation and us as avatars. If suddenly we realized we were a Sims character in a game of life, how would that feel? How would we describe that? Let us take a look at the description by Sechehaye's patient Renee:

For me madness was definitely not a condition of illness; I did not believe that I was ill. It was rather a country, opposed to Reality, where reigned an implacable light, blinding, leaving no space for shadow; an immense space without boundary, limitless, flat; a mineral, lunar country, cold as the wastes of the North Pole. In this stretching emptiness, all is unchangeable, immobile, congealed, crystallized. Objects are stage trappings, placed here and there, geometric cubes without meaning.

People turn weirdly about, they make gestures, movements without sense; they are phantoms whirling on an infinite plain, crushed by the pitiless

. And I – I am lost in it, isolated, cold, stripped, purposeless under the light. [...] This was it; this was madness, the Enlightenment was the perception of Unreality. Madness was finding oneself permanently in an all-embracing Unreality. (Sechehaye [1950] 1994: 1)

The phenomenological approach of using descriptions from the inside to learn about the world is still a big taboo in science, but we may learn that not including subjective experiences has caused us delays in understanding the nature of our reality.

Hallucinations and the universe as a quantum computer

If we are living in a computer simulation, perhaps it is a quantum computer? MIT's inventor of the quantum computer Seth Lloyd has recently introduced the concept of our reality being a quantum computer. In his book *Programming the Universe*, he suggests that the universe is a huge ongoing quantum computation, which computes itself and its own behaviour (Lloyd 2006: 3).

Ideas that support this theory are also developed by the neuroscientist and head of the Blue Brain Supercomputer Brain Simulation Project, Henry Markram. In his recent 2010 TED-talk, Markram speculates on the basis of his research results that the universe might have evolved the brain in order to see itself.¹⁰³ We might wonder then what the role of the brain is in a quantum computer. Could its role be to create things such as time constructions? In his 2009 TEDx talk in Amsterdam, 'Astronaut, engineer and physicist' Wubbo Ockels explains how:

[...] 'time' is created by human beings, as a way our brains can make sense of gravity. The speed of light is constant, because it is made by us: it's the clock by which we have calibrated our existence. Based on this premise, Ockels proposes a new way to explore life in our galaxy.¹⁰⁴

Wubbo's proposal is to let go of our chronocentric thinking; the speed of light is our own construct. In a sense, time seems to be the very material that allows us to have experiences in a physical world.

This is my 'big idea', then: What if madness, which I believe resides in all of us, is the ability to step outside of our constructed realities, just as we do in our dreams? That is, how about considering madness as our time-travelling or time-shifting abilities to manipulate the substance of the quantum

¹⁰² Free translation.

¹⁰³ 14.15 minutes.

http://www.ted.com/talks/henry_markram_supercomputing_the_brain_s_secrets.html, accessed 11 Aug 2010.

¹⁰⁴ <http://www.tedxamsterdam.com/2009/video-wubbo-ockels-on-time-and-gravity/>.

Accessed 11 Aug 2010.

computer in a more extreme sense, and to rebuild realities, the goal of life to play? What if this is an ability we have always had, yet have somehow forgotten about, as radical constructivism suggests is possible? This would probably include a whole new take on Einstein's statement that reality is an illusion, albeit a very persistent one. Madness would be the mind-space we enter to question this very persistency. The very laws of physics would be the rules of the game we created. But how to break free from them? What wonderful things could we do if we could break through our construct of the speed of light, just as Ockels suggests?

We might wonder whether that is why madness is so often linked to creativity and genius. Why linguist (Ph.D.), philosopher and experimenter of psychosis Wouter Kusters describes the psychotic as the performance artist in extrema forma (2004: 37). In psychosis for me as an artist, the power of thought seems to be key. Whatever thoughts you have, it has the danger of being experienced as 'real' reality. If you have a fraction of a thought, that relates seeing a black car as something that could be from the FBI, and you again in a fraction of a thought think about what it would be like if they were following you, that thought is experienced as a real reality. At that very moment you are being followed by the FBI, with every emotional response related to such a reality. Often suffering severely by the solitude of the experience.

So how to shift an individual's constructed reality to a shared constructed reality? As Heinz von Foerster states in 1973: reality=community (Watzlawick [1981] 1984: 60). Thinking about our experienced reality as a quantum computer simulation means we would need to take constructed realities of others seriously by not ignoring or trying to suppress them just because we do not see them, as we simply cannot be sure that there are no external stimuli that are causing them. We would be trying to suppress the very nature of our human ability to construct realities. In a quantum computer, everything would be true and not true at the same time, depending on the perception of the observer. As Louis Sass describes:

Rather than mistaking the imaginary for the real, they [the psychotics] often seem to live in two parallel but separate worlds; consensual reality and the realm of their hallucinations and delusions. ([1994] 1995: 21)

Let us take a look at more descriptions of how the space of madness is described from within. Suddenly, the grandeur of the power often described as felt during psychosis could be considered in a rather different way:

I felt that I had power to determine the weather, which responded to my inner moods, and even to control the movement of the sun in relation to other astronomical bodies. (Fuller Torrey [1983] 2006: 29)

Should we keep ignoring such claims as an overvivid imagination? Mr Nil, who has experience with psychosis, says that the psychotic enters realities that no one else can enter – realities in which the past, present and future cannot be distinguished from each other. He describes that the suffering that goes along with madness comes from the inability to communicate one's inner experience (Bock 2001: 183–86).

Conclusion

In the end, if what I am suggesting is true or not, if it can be proved or not, or if you believe it or not, is not important. What matters is that it provides a thought experiment, a tool, a new way of thinking about madness as a space that we can all fall into. It is important to think about tools that allow us to explore this space, and to navigate through it in a way that makes us feel that we 'fit', so that we do not succumb to fear and suffering. We fear and suffer from what we do not understand. In essence, what I am arguing for is an awareness that our concept of madness is intricately related to our concepts of reality, and that in order to break through the stigma of madness, we need to break through our conventional conceptions of

reality. As Jim Al-Khalili, professor of nuclear physics at Surrey University, explains in a BBC4 documentary on the nature of reality:

The world we think we know, the solid reassuring world of our senses, turns out to be just a tiny sliver of an infinitely weirder, more wonderful universe that we could have ever conceived of in our wildest fantasies. Our reality is just an illusion! ¹⁰⁵

In such a world, is the concept of a hallucination as a symptom of mental illness not a self-fulfilling prophecy of suffering? As others consider your experience as an error of the brain that should not be taken serious, something that should be suppressed and ignored, does such a concept in itself cause the very suffering as it is not being allowed to exist? If so, does the concept of the hallucination have the right to exist?

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¹⁰⁵ 00.24 minutes, <http://www.youtube.com/watch?v=n70BceXaLWo&feature=related>, accessed 10 May 2010.

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18.4 'THE TV IS TALKING TO ME!' SIMULATING PSYCHOTIC PHENOMENA¹⁰⁶

Introduction

The very basic function and design of media, such as newspapers, radio and TV, is to send viewers messages; to convince you to buy stuff, or to inform you of the state of the world. In psychosis, however, the messaging somehow takes on 'a life of its own'. It becomes an experience in which it feels as if media are communicating, with a particular sentient awareness, directly to you. One person describes this experience as: 'There was something not right with newspapers, they were printed especially for me. The radio was not broadcasting the right programmes, but ones that were meant especially for me. It was the same with the television'.¹⁰⁷ Such an experience may be terrifying, as another person describes when he was fourteen years old, he came home from school one day and began to hear voices on the radio speaking directly to him and about him. The voices on the radio commanded him to hurt himself, they were predicting his death and telling him how he could electrocute himself, burn himself or make himself explode.¹⁰⁸ Apparently, experiences of feeling that one is being controlled by radio, occurs relatively frequently.¹⁰⁹ And psychotic experiences, in general, often seem to revolve around themes related to (electronic) media.¹¹⁰ Before I speak about the simulation of psychotic experiences, it is useful for the reader to know a bit more about what psychosis is considered to be and why it is important to simulate it.

In medical literature, psychosis is often described as a severe mental illness during which thoughts and emotions are so impaired that contact is lost with external reality. In a state of psychosis one might hear voices that others do not hear, see things that others do not see, and have beliefs that others do not share, often causing someone to act in unfathomable ways. In isolation these behaviours and cognitions are not necessarily seen as illness, but when they manifest themselves in a way that causes someone to retreat from society, to become a danger to him- or herself and/or others, they are usually considered as a set of symptoms of mental illness and described as hallucinations and delusions.

Approximately 3 in 100 young people are estimated to experience psychosis in their lives, in particular in the age group between 16-30; it is estimated that 1 in 100 of these young people will be diagnosed with schizophrenia, which simply put, could be described as a condition of chronic psychoses.¹¹¹ In spite of such high occurrences, psychosis is hidden in society, hard to detect, as its onset is similar to adolescent behaviour, and talking about it, seems taboo. People with experience of psychosis are severely stigmatized and misrepresented in the media as being dangerous and violent. Understanding psychosis is important, if only for the reason that science still does not know what causes it, but in particular because of the costs of psychosis to society, in relation to health care, which lies in the billions. A diagnosis of psychosis will often lead to a loss of social connections, jobs, and the means to take care of

¹⁰⁶ Published with permission under creative commons: **Kanary J**, 2013, 'The tv is talking to me!': Simulating Psychotic Phenomena, theme number 'Madness and Media', *Tijdschrift voor Mediageschiedenis*, Blom I, Lameris B, (eds.), vol 16, no 1, pp.81-91, online journal, Amsterdam, <<http://www.tmgonline.nl/index.php/tmg/article/view/64>>, [30 March 2015]

¹⁰⁷ J. van den Bosch, *Schizofrenie, Subjectieve Ervaringen & Cognitief Onderzoek*, Bohn Stafleu van Loghum, Houten/Zaventum, 1993, p. 76, (as cited from Wing, 1975), translation by author.

¹⁰⁸ https://www.youtube.com/watch?v=74vTftboC_A, 2.04 min, (last viewed April 11th 2013)

¹⁰⁹ E. Fuller Torrey, *Surviving Schizophrenia, A Manual For Families, Patients, And Providers*, Harper Collins, New York, 2006, p.p. 27-28

¹¹⁰ C. Frith, E. Johnstone, *Schizophrenia A very Short Introduction*, Oxford University Press, Oxford, New York, 2003, p.8.

¹¹¹ C. Frith, E. Johnstone, *Ibid* p. 1 and <http://www.ypsilon.org/?page=6753919> Note: The numbers vary with different sources,

oneself, as a consequence there is much emotional suffering.¹¹² Understanding psychosis is difficult, symptoms are considered bizarre; people say the strangest things and act in the weirdest ways, it is difficult to sympathize with:

[...] it is as if the person has lost control of his/her brain. How can we sympathize with a person who is possessed by unknown and unseen forces? How can one sympathize with a madman or madwoman? [...] Because there is little understanding of schizophrenia, so there is little sympathy.¹¹³

Additional obstacles of understanding psychosis are related to an ability to find words to do so. Those who have experience with psychosis, find it hard to explain, and those who don't, find it hard to envision, making it extra difficult to understand and empathize with:

Currently patients have to describe their hallucinations, auditory and visual, to their therapists. There is no way that therapists can either share the experiences or objectively evaluate them. As a consequence patients often feel their therapists do not really understand them. Therapists themselves have difficulties learning about the exact nature of psychosis, as they have no personal experience of it.¹¹⁴

And:

In attempting to communicate with a patient in such a state, the interviewer or therapist is liable to have the sense of bumping up against the limits of language and communication. Few patients can offer more than the cryptic statement that things seem somehow 'different,' 'unreal,' or 'intense.'¹¹⁵

The ability to engage in a process of understanding and empathy is crucial to a person struggling with psychosis; it makes the experiences more bearable as it creates an environment of support in which a person may feel safe to share what is bothering them.¹¹⁶ This is where simulation may come in handy. Simulation is not an unknown phenomenon in medical science. In order to help their patients, doctors have traditionally simulated symptoms to better understand what their patients are going through, but how to simulate psychotic phenomena? In the past, doctors took drugs, such as LSD, to better understand hallucinatory phenomena. But, as such actions are now considered taboo, one might consider possibilities of simulating psychotic experiences with the aid of technical innovations as a form of digital LSD. Many people find this unappealing. I often receive the question why anyone would want to simulate psychosis, let alone experience the simulation.

My own personal reason for wanting to understand psychosis is that my sister-in-law, who was diagnosed with schizophrenia, committed suicide. It was only after her death, when I realized how little I knew about her condition. As I am normally a very active, curious person, I wondered why this was the case. As I began to investigate, I learned that there is genuine fear of understanding psychosis, maybe on some unconscious level I was afraid to understand her? When a person tries to understand what it is like to be another, one engages in the process of empathy and sympathy, one could say that an attempt is made, to construct in oneself a feeling of what the other feels, but this is not so easy when it comes to psychosis, even professionals struggle, as Bertram P. Karon described in his article 'The Fear of Understanding Schizophrenia' that: 'Sometimes the therapist may, all too successfully, empathize with the

¹¹² C. Frith, E. Johnstone, *Ibid* p. 1

¹¹³ E. Fuller Torrey, *Ibid* p.p. 2-3

¹¹⁴ J. Banks, J. Tichon, et al., 'Constructing The Hallucinations Of Psychosis In Virtual Reality', *Journal of Network And Computer Applications*, vol. 27, 2004, 1–11. In reference to J. Tichon, 'The Potential Of Virtual Reality To Improve Education About Psychosis'. In Proceedings of the World Conference on E-learning in Corporate, Government, Healthcare and Higher Education, Association for the Advancement of Computing in Education, Montreal, 15–19 October, 2002.

¹¹⁵ Sass, 'The Land of Unreality: on the Phenomenology of the Schizophrenic Break', *New Ideas in Psychol.*, Vol. 6, No. 2, p.p. 223-242, Pergamon Press plc, 1988, p. 225.

¹¹⁶ M. De Hert, F. Sperans, *Bij de Psychiater*, Uitgeverij De Geus, Breda, 1998, p. 100 and E. Fuller Torrey, *Ibid* p.p. 2-3

schizophrenic patient's terror and tend to withdraw in terror just like the patient. Human beings are not easily able to tolerate chronic, massive terror'.¹¹⁷ If a well-informed professional is having an arduous time, what does that mean for non-professionals? But, just because it is difficult, does not mean we should not try to understand it, in particular, as it is so beneficial. I learned that there are more challenges. As, in addition, there seem to be neurological barriers.

In the book 'Perspective Taking: Misstepping Into Others' Shoes' of the *Handbook of Mental Simulation and Imagination* (2009), Nicholas Epley and Eugene M. Caruso point out that although humans possess the mental capacity necessary to adopt another's perspective and consider another's thoughts, feelings and mental states, possessing this capability does not mean that people will necessarily use their perspective-taking skills when they should. This is what was most like going on with me. In fact, they clarify how recent studies show that there are several important challenges to using one's perspective taking capabilities to their fullest potential. Supporting their argument, they explain, is a recent neuroimaging experiment, in which neural regions associated with self-referential thoughts were activated when participants reasoned about the mental states of a person perceived to be similar to them, but not when they reasoned about a person perceived to be very different.¹¹⁸ Meaning my brain somehow remained 'silent', as I had no analogue archive of experiences that was sufficient to understand my sister-in-law. So what to do about that?

Epley and Caruso name three barriers that need to be overcome when trying to understand what it is like to be another person who is very different from you. First, the mental process of perspective taking must be activated. This, they point out, requires people to actively think about another person's mental state: 'when it is appropriate to do so', as they say: 'there is no more immediate barrier to accurate perspective taking, than failing to use it in the first place'. Secondly, they say: 'people who are actively attempting to adopt another's perspective, must first get over their own, to try to experience, simulate, or infer the perceptions of another person'. They explain how one's own perspective is: 'typically immediate, automatic and easy, whereas thinking about another's perspective is typically slow, deliberate, and difficult'. The second barrier is none other than taking the more difficult road, than the easy one, and being aware when this happens. Thirdly: 'overcoming one's egocentric perspective', they describe: '[...] may require using some other information in its place to intuit another's perspective'; too often such substitutes are based on 'stereotypes or other idiosyncratic information known about the target being evaluated'. They continue with: 'Accurate perspective taking requires using diagnostic and useful information about another's mental state'.¹¹⁹ This, for me, emphasises the importance and need for psychosis simulation.

Like a flight simulator helps aspiring pilots in their journey of learning how to fly, technological tools might be developed that act as a prosthesis to imagination, to help better understand and communicate what it is like to be in psychosis. In recent years, several such multi-media psychosis simulators have indeed been developed as teaching and awareness environments for mental health workers, police and students to increase their knowledge and understanding of the subjective experience of psychosis. They aim at helping professionals to become more empathic towards their patients as well as towards their patients' friends and families to what their loved ones are going through. In this article, I will introduce three of these multi-media psychosis simulation projects: *Paved with Fear* (2001), *Mindstorm* (2007) and *Virtual Hallucinations* (2005).¹²⁰ I will take a closer look at how they simulate the particular

¹¹⁷ B. P. Karon *Psychoanalytic Psychology*, 1992, 9(2), 191-211, Lawrence Erlbaum Associates, Inc, p. 194

¹¹⁸ N. Epley and E. M. Caruso, 'Perspective Taking: Misstepping Into Others' Shoes', *Handbook of Imagination and Mental Simulation*, editors K.D. Markman and W.M.P. Klein, Psychology Press, Taylor & Francis Group, New York Hove, 2009, p. 295, p. 303.

¹¹⁹ N. Epley and E. M. Caruso, *Ibid* p. 297.

¹²⁰ The years given are approximations. The exact year of presentation to the public has been difficult to track down from official sources, some of the developers were unresponsive to emails, other parties of the same project gave an

phenomena of the experience of media 'talking to you'. I will analyse their design against descriptions of psychotic experience in literature and show why I think it is important to be vigilant about their design. In this article I will identify the problematic aspects that I see and argue for approaching these design challenges with the use of multi-media installation art. In order to illustrate this I will use my own work, *INTRUDER 2.0* (2008), as an example.

Psychosis Simulation 'PAVED WITH FEAR'

The first psychosis simulation project that I would like to introduce is *Paved with Fear*, which was made possible by the Belgian branch of Janssen Pharmaceuticals. The simulation is situated in a truck currently still visiting health care institutions throughout Europe. In 2007 I had the opportunity to visit the experience myself. Upon entering the truck, I found an interior that, for me, resembled a sci-fi waiting room. Blue light came from a light source behind a line of aluminium chairs against the wall. The ceiling was painted in a way that emulated a blue sky with clouds. Beneath the ceiling were two constructions with large doors that reminded me of some kind of time machine elevator. A staff member greeted me and told me, that in order to enter one of the simulators, I first needed to answer a couple of questions at a computer station; simple questions such as 'What is your name?' After the questionnaire, the computer station showed me a short video of a 'normal' trip to a bakery.

Once I was in one of the 'elevators', I experienced that same trip to the bakery in the form of a cinema experience with a psychotic narrative that employed a whole range of cinematic effects. The film was shot from a first person perspective in which the camera is positioned as the eyes, making it feel like I am the person going to the bakery. Time seemed to slow down by delaying the frame speed of the film, creating an experience of people staring at me as if they knew something that I did not. Quick close-ups with added sound effects made objects suddenly become suspicious. Fast camera shots were made to redirect my attention into all kinds of directions, making it hard to build a consistent mental image of the represented journey. Voices whispered, people seemed to be talking about me. Apart from cinematic techniques, the simulator also used other technologies; for instance at key moments in the narrative the floor started shaking and clever software took the pre-registered answers of the questionnaire, such as my first name, and had it whispered to me by a computer voice during the experience.

Paved with Fear simulated a 'The-TV and Newspaper are talking me' experience by using software to trigger a camera to take my picture while I was in the simulation. This picture was then repositioned within the film, in the shot of a newspaper carrying the headline: 'Police arrest suspect in family horror drama' and in a news report about this drama. I imagine, the message could be interpreted as me receiving a message of being guilty of the family horror drama. But, after this experience I began to wonder, did my sister-in-law have such experiences? Did she see pictures of herself in the paper or in the news?

Psychosis Simulation 'MINDSTORM'

The second project I want to introduce is *Mindstorm*, which was independently developed by an American branch of Janssen Pharmaceuticals.¹²¹ I did not have the opportunity to visit this simulation, but I found

indication, but were not sure anymore. I determined the approximate year on what was reported in several press sources and educated guesses from indirect parties involved.

¹²¹ The project Janssen 'Mindstorm 3D: A Virtual Hallucination' director: Scott Whitham, director of photography: Tony Stewart. An online report about the project may be found here: <http://www.behavioral.net/article/mindstorm-simulating-psychosis> (last viewed October 1st 2012).

online footage of the film that was used.¹²² The cinematic project does not take place in a cubicle; it is built more like an IMAX theatre installation that seats 11 people. Much like *Paved with Fear*, the simulation project employs various special effects, such as smells that are released at key moments of the experience. The film itself first shows a set of everyday situations, such as brushing one's teeth, making coffee, reading the newspaper and watching the news, and then portrays the same situation while employing a more ominous atmosphere; the light in the film darkens, voices make derogative remarks. Like *Paved with Fear*, the whole film is also filmed from a first person perspective. In the narrative, the character, sees coffee bubbling, a mysterious phone call is received, full of static, with a female voice repeating 'rain, rain', and pizza is suddenly delivered in a box that first has a text on the box that reads as 'pizza' which later can be read as 'poizzon'. Later on, in the film, one learns that the phone call comes from a friend, 'Lorraine' (not rain), and the pizza is a gesture from her.

Mindstorm simulates media as communicating to a person by showing a newspaper with the headline 'Man Wins Lucky Lotto', which later reads 'Don't Leave The House' and 'renew prescriptions'. A mans portrait first is printed as laughing, and later is printed as looking serious. When the TV reporter on the TV is doing a weather report, the actor turns to the main character and addresses him or her directly as worthless. Again, after seeing this representation of the experience, I wondered, did my sister-in-law see completely different headlines switching at different moments? Or was it more like a how the word 'pizza', transformed into a word that resembled 'poison'. Misreading a word is a common mistake any brain can make. Or did she have literal experiences of TV reporters turning to her, addressing her directly? That is terrifying stuff of horror movies!

Psychosis Simulation 'VIRTUAL HALLUCINATIONS'

The third project I would like to introduce was formed in collaboration between Queensland University and UC Davis, in which they developed a virtual reality experience on *Second Life* named *Virtual Hallucinations*.¹²³ I visited it many times over the years. The experience, like the others, is also aimed at simulating psychosis for the purpose of education, showing visitors what it is like to under go psychotic phenomena. In *Virtual Hallucinations* it is possible for one's *Second Life* avatar to become subject to visual and audio hallucinations.¹²⁴ The simulation consists of a walk through the hallways of a small virtual hospital. When I entered the experience with my avatar I was invited to 'put on' a voice badge, a piece of audio software that allowed me to hear things that other avatars could not. I was able to choose a male or female voice badge, which then allowed me to hear voices; a malignant male voice repeatedly whispers things like: 'You're dead', while a dominant female voice whispered things like: 'She thinks you're ugly'. There were several visual hallucinations staged throughout the experience. Laptop computers at an abandoned reception desk opened and closed as if they were munching mouths. The tiles of the floor suddenly become a precarious path above a sky full of clouds as I walked over them. There was also a mirror in which I could see a man's face slowly decaying, while blood dripped out of his eyes, horror indeed. Walking further down the hall, I came into a common room with books that were war-related. The room was made location sensitive – when I passed a table, a gun appeared and a voice was triggered that told me to 'Get the bloody gun' and kill a 'copper' (police officer). Next to every hallucination, there was a small coloured triangular cone that provided additional information explaining the experienced phenomena. Unlike *Paved with Fear*, which was exclusively filmed from a first-person perspective, *Second Life* allowed me to experience the same environment from a first-person or a third-person camera position – the camera was either located 'as the eyes' of my avatar, or just behind my avatar.

¹²² <http://www.youtube.com/watch?v=b69pOQYve4Q> (last viewed, April 13th, 2013).

¹²³ <http://www.ucdmc.ucdavis.edu/ais/virtualhallucinations/> (last viewed October 1st 2012).

¹²⁴ <http://www.youtube.com/watch?v=s33Y5nI5Wbc> (last viewed April 12th 2013).

The *Virtual Hallucinations* project on *Second Life* simulates 'media talking' or 'sending messages', by an animation of a folded newspaper that is lying on a table in one of the rooms in the hospital. As my avatar approached the table, I saw the newspaper as 'normal' with the headline 'Reagan Death Shakes Nation', then everything in the newspaper faded, leaving only the word 'Death'. This was a subtle, yet important difference, as in this case, the word really existed; it just became more meaningful as all the rest disappeared, however, again, I am curious, did she literally see words disappear in a newspaper, leaving only one word? In the room with the gun and library there was a TV. As I approached the TV a male voice accused my avatar of being the most worthless person in the world and that he will not have me 'contaminating his society', the voice then told me to kill myself. Did she hear such direct voices coming from the TV? My sister-in-law jumped off the seventh floor of a building. I began to wonder: if she was constantly seeing messages or hearing voices telling her to kill herself, then this would help a lot to understand why she did it.

Vigilance

The above mentioned simulations I found crucial as they are contraptions that helped me to break the first barrier, by allowing me to consciously be activated in thinking about what my sister-in-law was going through. The simulations also helped me to break the second barrier, as their design was carefully based on patients real stories and not on, for instance, media stereotypes. The simulations helped me to overcome my own easy perspective. With regards to the third barrier, as an artist, I felt a responsibility to be vigilant of the accuracy of information provided, or more precisely, I questioned the methods that were used to represent and illustrate certain experiences. They seemed somehow artificial to me. I wondered if the experience of media sending messages was something more subtle or more complex.

Upon investigation, I found an example, that supported the need for my questions, in the famous 1950 *Autobiography of a Schizophrenic Girl*, in which a girl, Renee explains how, in early childhood, her friend suddenly appeared like a lion: 'Once more my playmate became strangely transformed and, with an excited laugh, once more I cried out, 'Stop, Alice, I'm afraid of you; you're a lion!'¹²⁵ If one views and simulates this hallucination from a literal perspective, then one must simulate Renee's friend literally as a lion. But, as Renee later explains, she did not really see these things literally: 'But actually, I didn't see a lion at all; it was only an attempt to describe the enlarging image of my friend and the fact that I didn't recognize her'.¹²⁶ What Renee was describing was a metaphor, that in the moment of her subjective experience, she felt, could best explain and express the alterations she was experiencing. Thinking in metaphors, to express how you feel, is something I recognize and do as an artist. This made me wonder if, when a person describes the TV talking to them, this is a literal description or a metaphor, or other.

In another situation described by Renee, I found more reason to evaluate the design of simulations. It seems that in part, why communication might be difficult, is that it can be quite creative. Renee describes an attempt to communicate to her therapist, Marguerite Secheyaye, what she was feeling: 'One day, after tying together all the shoes I could find, I hung them on the key of the wardrobe, and on the key I balanced a pair of scissors, the sharp points up.' Renee later explains how the shoes signified for her 'departure' and the way they were in disarray represented her 'anger'. The strings signified for her the tension of 'unreality'; and the scissors represented 'aggression'. It was a request to her therapist to help find a place for the anger to help her cut the tension. But her therapist did not understand and took the small installation apart with the remark that the composition was too dangerous.¹²⁷ Communicating with objects and materials is, again, something I recognize well as an artist, by engaging in such play, I deal with, and express, my own inner issues in a way that is transferable to a viewer. In

¹²⁵ M. Secheyaye, *Autobiography of a Schizophrenic Girl*, Meridian, Penguin Group, New York, 1994 [1951], p. 23.

¹²⁶ . Secheyaye, *Ibid* p. 23. NOTE: Renee's experiences are often cited in medical literature due to the intricate vividness with which she is able to describe them.

¹²⁷ M. Secheyaye, *Ibid* p. 23. p. 114.

childhood such play is considered having an important function that allows: 'to find a "middle ground" between our inner world and the real world', whereas: 'In psychosis the boundary between fantasy or play and reality has been lost'.¹²⁸

The relation between creativity and psychosis is of such a complex nature that there is little room to discuss this in this article, however the artist Jannemiek Tukker, diagnosed with schizophrenia, does describe: 'When you are psychotic you are capable of inventing a whole new language. You make new words, create new images. You are all creation'.¹²⁹ The philosopher (MA) and linguist (Ph.D) Wouter Kusters, who also has experience with psychosis, goes as far to say that the psychotic person is the artist in 'extrema forma', a performance artist that does not know that the performance has ended.¹³⁰ It is thought that creative 'disconnected narratives' in psychosis may serve as a 'protective function' and that '[...] Personal narrative, or the meaning persons make of their lives in a storied manner, may stand as a unique dimension of recovery'.¹³¹ It is as if the 'tools' we use in childhood, to digest everyday life, become significant again.

This makes me think of how much the description of media talking to you might be part of a creative narrative. Renee's description of miscommunication between her and her therapist, and her explanation that she did not literally see lions, but that she meant it as a metaphor, makes me feel that a literal simulation of a metaphor is problematic, as with metaphors, and other creative acts, there is a danger of them being seen as facts.¹³² Considering the importance and need of psychosis simulation, it is crucial to be aware if psychosis is simulated in a misleading way, and if yes, think about ways to address this. A literal simulation could unwittingly be alienating a persons experience as very different, when it might not be. During my investigations I found two aspects of psychotic experience, the way senses are altered and the way meaning is created, that would bring psychotic experiences closer to our own archive of experience.

Altered Senses

In his chapter 'The Inner World of Madness' in *Surviving Schizophrenia*, the American psychiatrist Edwin Fuller Torrey begins with what he describes as one of the most prominent features in the onset of psychosis which can be found in almost two thirds of all patients: the alteration of the sensory experience in which senses are felt to be enhanced, blunted and/or flooded.¹³³ One person explains a heightened sense of colour:

Colours seem to be brighter now, almost as if they are luminous painting. I'm not sure if things are solid until I touch them. I seem to be noticing colours more than before, although I am not artistically minded (...) Not only the colour of things fascinates me but all sorts of little things, like markings in the surface, pick up my attention too.¹³⁴

Another person experiences a heightened sense for sound:

During the last while back I have noticed that noises all seem to be louder to me than they were before. It's as if someone has turned up the volume (...) I notice it most with background noises – you know what I mean, noises that are always around but you

¹²⁸ J.Cullberg, 'The Psychotic Crisis and the Schizophrenic disability' in *Psychoses, An Integrative Perspective*, Routledge Taylor & Francis Group, London New York, 2006, p.p. 4-5.

¹²⁹ J.Tukker, *Meer Dan Dat, 10 Portretten van Mensen met Schizofrenie*, Tobi Vroegh, Amsterdam, 2011, p. 37. Translation by author.

¹³⁰ W. Kusters, *Pure Waanzin, een Zoektocht Naar de Psychotische Ervaring*, Uitgeverij Nieuwerzijds, Amsterdam, 2004, p.16 and p. 37, translation by author.

¹³¹ D. Roe, P.H. Lysaker, 'The Importance of Personal narratives in Recovery from Psychosis' in *Experiencing Psychosis, Personal and Professional Perspectives*, Editors: J. Geekie, et al, Routledge, Hove, 2012, p. 10 and p. 11.

¹³² R. J. van den Bosch, *Ibid* p. 21.

¹³³ E. Fuller Torrey, *Ibid* p.p. 4-6.

¹³⁴ E. Fuller Torrey, *Ibid* p. 5.

don't notice them. Now they seem to be just as loud and sometimes louder than the main noises that are going on (...) It's a bit alarming at times because it makes it difficult to keep your mind on something when there's so much going on that you can't help listening to.¹³⁵

Learning that psychosis is related to a state of heightened senses, helps me to understand and imagine what that would feel like, as it breaks it down into something that I can relate to.

Psychologist John Cohen writes: '(...) nothing is so alien to the human mind as the idea of randomness.'¹³⁶

When bombarded with an array of stimuli, we want to make sense of them:

In the beginning I had to prick my ears to hear or understand them. They sounded softly and they worked with damned hard codes to unravel. Snap-crackle-pop, the sound of the wind with blinking lights and car horns as punctuations. I unravelled the code and made myself so accustomed with them that in the end it seemed as if I was hearing normal words. In the beginning it seemed mostly non-sense, but gradually they gained in meaning. When you start to hear voices, you realize that they have always been there. It is just a matter of the right frequency.¹³⁷

This suggests that voices are born from experiences that are similar to our ability to see shapes in clouds, or see faces where there are none (Pareidolia) and hear full sentences in random 'white noise' (Electronic Voice Phenomenon).

During my investigations I also learned that a common misconception in understanding psychotic experiences is, indeed, to think that these are unrelated to the 'normal' experiences of everyone else. I learned that I could better describe psychotic experiences as 'enlargements' of everyday experiences: '(...) [t]he apparently mysterious, incomprehensible symptoms of the mentally ill are actually extensions of what many of us experience every day.'¹³⁸ This I find in the following story:

I would sometimes get a fright whilst listening to music that I know well, as there would be sentences or sounds that I had never heard before. Looking back I think it also has to do with heightened senses and not actually hearing something that wasn't there. I think I heard layers within the actual music that I had never noticed before and some sentences sprung out which I had never noticed, also parts of the percussion or backing music were more prevalent than at other times. I think my perceptions were effected not that I heard things that weren't there, however my experience in these moments was very much as if I was hearing things that weren't normally there.¹³⁹

What fascinates me about this is that in the moment, the experience is very real, but that in hindsight it was considered based on errors made by the senses. So how does this relate to the design of the above-mentioned simulations? *Mindstorm* and *Virtual Hallucinations* both simulate the reporter in the news addressing the character or avatar directly. I wonder if, when a person experiences that the TV reporter is turning towards them, it is a reaction based on an enlarged sensory experience? For instance a small muscle movement, that in force feels like it is coming directly at you? If one simulates voices coming from a TV and talking to you in a literal sense, yes, you simulate the reality of a momentary conclusion of a person in psychosis, but it does leave out the sensorial 'errors' that might have led to this conclusion.

In simulating the 'TV talking to you', one might want to consider simulating it in a way that allows for a more open interpretation, using layers that allow for an experience of interpretation or 'filling in'. Or in other words, a simulation might consider simulating voices coming from the TV, not so much as literal and concise, but in a way that illustrates or steers an experience of errors based on sensorial enlargements

¹³⁵ E. Fuller Torrey, *Ibid* p. 5.

¹³⁶ J. Cohen, *CHANCE, SKILL, AND LUCK: THE PSYCHOLOGY OF GUESSING AND GAMBLING*. Baltimore, MD: Penguin Books, 1960

¹³⁷ R.J. van den Bosch, *Ibid*, p. 35 and p. 36 (citing Vonnegut, 1975).

¹³⁸ R.P. Bentall, *Madness Explained, Psychosis And Human Nature*, Penguin Books, London, 2004 (published by Allan Lane, 2003), p. xi of foreword by Prof Aaron Beck.

¹³⁹ This is cited from a personal e-mail interview with an individual with experience of psychosis

making it sound as if additional words and sentences are born. In that sense, the simulation of the *Virtual Hallucinations* project is less alienating, as it does not shift the actuality of the newspaper text completely, but illustrates how one word 'jumps out'. Hearing, or interpreting, the word 'death' from chaos arising from the mixture of background and foreground noises, and seeing the word 'death' in news headlines, perhaps combined with an inner sense of worthlessness, the mind could be seen to link these experiences together in a creative narrative that builds a sensation of media 'talking' to you. Telling you that it would be better, if you were dead, and implying how to kill yourself. As it were, media then mediates, or is actor within the build of a story.

Interpretation of meaning

Humans develop narratives to help organize and make sense of their experiences.¹⁴⁰ Where the 'normal' person is capable of filtering signification of the mass array of stimuli and events of everyday life, a person in psychosis tends to interpret significance in everything.¹⁴¹ This is perhaps one of the reasons why so often the experience of psychosis is described as a filter being 'broken'. When we begin to lose our common filters, the narratives we create to explain and bridge experiences might become intricate and increasingly bizarre. As patient Norma MacDonald wrote in 1960:

The walk of a stranger on the street could be a sign to me, which I must interpret. Every face in the windows of a passing streetcar would be engraved on my mind, all of them concentrating on me and trying to pass me some sort of message.¹⁴²

One finds more such sensations of connectedness in a description by a nurse who describes her first psychotic episode:

Every single thing 'means' something. This kind of symbolic thinking is exhaustive... I have a sense that everything is more vivid and important; the incoming stimuli are almost more than I can bear. There is a connection to everything that happens – no coincidences. I feel tremendously creative.¹⁴³

It is as if the mechanism in the brain that filters such information is indeed 'broken' and one unwillingly finds oneself paying attention to details that the brain would normally filter out:

Everything seems to grip my attention although I am not particularly interested in anything. I am speaking to you just now, but I can hear noises going on next door and in the corridor. I find it difficult to shut these out, and it makes it more difficult for me to concentrate on what I am saying to you. Often the silliest little things that are going on seem to interest me. That's not even true: they don't interest me, but I find myself attending to them and wasting a lot of time this way.¹⁴⁴

In a sense, the brakes are off; the inner world goes haywire and too much meaning is attributed to the outside world.¹⁴⁵ It is a form of creative over-interpretation. Pamela Spiro Wager, an accomplished writer and living with the diagnosis of schizophrenia, describes this process as follows:

¹⁴⁰ . Roe, P.H. Lysaker, 'The Importance of Personal narratives in Recovery from Psychosis' in *Experiencing Psychosis, Personal and Professional Perspectives*, Editors: J. Geekie, *et al*, Routledge, Hove, 2012, p.8.

¹⁴¹ E. Fuller Torrey, *Ibid* p. 27 and W. Kusters, *Ibid*, p. 83.

¹⁴² E. Fuller Torrey, *Ibid* p. 13.

¹⁴³ . E. Brundage, 'First Person Account: What I Wanted To Know But Was Afraid To Ask', *Schizophrenia Bulletin*, 9, 583-585. 1983, p. 584 (as referred to in P. Brugger's 'From Haunted Brain to Haunted Science: A Cognitive Neuroscience View of Paranormal and Pseudoscientific Thought').

¹⁴⁴ E. Fuller Torrey, *Ibid* p. 7.

¹⁴⁵ .J. van den Bosch, *Ibid* p. 35.

Now I understand – it is an undertow beneath the ocean of other understandings – everything is connected, even the sharpness of my senses, all is part of what is happening. These things mean something, even though I am not sure what. [...] We turn the corner into a glow of light coming from the doors at the far end of the hall. I know suddenly that this is the Light of Truth that will make all things clear because it is made up entirely of shadows.¹⁴⁶

In medical terms, this is described as *apophenia* or *apophany*, 'an "unmotivated seeing of connections" accompanied by a "specific experience of an abnormal meaningfulness."¹⁴⁷ It is a spontaneous perception of connections and meaningfulness of what is considered as unrelated phenomena.¹⁴⁸

Such experiences seem to begin because we humans rely so much on our senses; people are used to depend on the efficient organization and schematic processing of the information relayed to their brain, but in psychosis, the automated routines that filter begin somehow to deteriorate, causing a person to misinterpret data without realizing it, a feature known as *anosognosia*.¹⁴⁹ Anosognosia has an effect on how a person interprets his/her environment. In medical terms, it is placed under the header of 'delusions of reference': when things in the environment seem to appear to be directly related to you even though they are not. Thus it may seem as if people are talking about you or special personal messages are being communicated to you through the TV, radio, or other media.¹⁵⁰ An illustrative example of this may be found in the museum of psychiatry, Het Dolhuys, in Haarlem, which displays the story of Pieter Overduin, diagnosed with bi-polar disorder, who experienced a psychosis, in which he thought he was Ghandi reborn based on the common traits he had with an image of Ghandi. Both were bald, both were skinny, and both had little round glasses. This was enough evidence for Pieter to make the conclusions and to begin organizing a trip to India, so that they may rejoice at his return.¹⁵¹

A famous example of how natural this process can feel is summarized in the answer to a question posed to mathematician John Nash, diagnosed with schizophrenia, in the book *A Beautiful Mind* (1998 [2001]): 'How could you, a mathematician, believe that extra terrestrials were sending you messages?' To which Nash replied: 'Because the ideas I had about supernatural beings came to me the same way my mathematical ideas did, so I took them seriously.'¹⁵² The question, then, becomes how to simulate this much more general, in fact, almost unlimited phenomenon of seeing meaning in everything, in a way that feels natural, and allows for a person to create narrative. How to simulate the experience of one's surrounding as being pregnant with meaning that is there especially for you?

Installation art

In a sense, a spontaneous perception of connections is what the process of creativity is about. To understand psychosis, and relate it to ourselves, we might want to think of psychosis as a state of creativity. I learned that creative individuals and individuals diagnosed with schizophrenia, do share many cognitive traits.¹⁵³ Neuropsychologist Peter Brugger describes:

The propensity to see connections between seemingly unrelated objects or ideas most closely links psychosis to creativity. Indeed, with respect to the detection of subjectively meaningful patterns, apophenia and creativity may even be conceived of as two sides of the same coin. One must keep in mind, however, that the term 'detection' as used here

¹⁴⁶ P. Spiro Wagner, C.S. Spiro, *Divided Minds, Twin Sisters And Their Journey Through Schizophrenia*, St. Martins Griffin, New York, 2005, p. 30.

¹⁴⁷ D. Blom, *A Dictionary Of Hallucinations*, Springer, New York, 2010, p.p. 32-33.

¹⁴⁸ . Conrad, *Die Beginnende Schizophrenie. Versuch Einer Gestaltanalyse Des Wahns*, Stuttgart: Thieme, 1958, p. 46 (as referred to in P. Brugger's 'From Haunted Brain To Haunted Science: A Cognitive Neuroscience View Of Paranormal And Pseudoscientific Thought').

¹⁴⁹ R.J. van den Bosch, *Ibid* p. 23 and p. 35.

¹⁵⁰ <http://www.schizophrenia.com/diag.php> (last viewed October 1st 2012).

¹⁵¹ On top of seeing this in the exhibition, I have also spoken personally to Pieter about his experiences.

¹⁵² S. Nasar, *A Beautiful Mind: The Life Of Mathematical Genius And Nobel Laureate John Nash*, Touchstone, 1998 (2001), back cover.

¹⁵³ E. Fuller Torrey, *Ibid* p. 389.

does not refer to a process of mere identification, to finding the solution to a perceptual puzzle. Rather, the assumption of 'meaningfulness' in randomness always involves a subjective interpretation of spatial or temporal configurations.¹⁵⁴

This aspect of creative connections, in my opinion, could reflect a simulation of psychosis, in which the aim would be to support the phenomenon of *apophenia*, by constructing a surrounding that allows for the experience in a temporal or spatial configuration, that communicates the feeling, that all meaning is there especially *for you*. In the above-mentioned simulations, there is little to no room for the experience of a creative process. This is where I feel that installation art might be an appropriate tool for understanding this aspect, as I stated elsewhere:

To do this, one would have to look at installation art as an intricate system of experiences that is analogue to psychosis (a system being a set of connected things that form a complex whole). I consider this a possibility as installation art combines concepts, space and media to immerse the viewer in a sensorial and contextual network in order to create a physical as well as mental experience.¹⁵⁵

When I design a space as intricate as an immersive installation, everything in that space is there for a reason, which is especially there, for the visitor to create meaning with, in a way that feels natural, as this is what is expected when visiting an artwork. What I think could be simulated with installation art, is what I would like to call the 'emotional logic' of psychosis, which I view as the logic of our associations and the emotions we have with them. When placing materials in my installations, I hope that a visitor's own network of associations becomes an enlarged experience. Essentially, I hope to trigger the pattern seeking function of a visitor's brain in a way that actively involves them in processes of unravelling their own inner complex narratives. It is precisely this aspect, the activation of the visitor, which I consider to contribute to an understanding of the subjective experience of being in psychosis that is different from the limited, technical and rather artificial simulations discussed above. Let me give an example of how I have been investigating possibilities to simulate this aspect.

INTRUDER 2.0

The work INTRUDER 2.0 was made in the context of *Labyrinth Psychotica*, a practice based PhD of the field of artistic research. INTRUDER 2.0 is a 60-m² multi-media labyrinth experience. The work was presented and built in public at the Museum of Psychiatry, Het Dolhuys, in Haarlem, during a five-month artist in residency (2007-2008). Each week visitors of the museum would be able to see the labyrinth grow, engage in conversation and participate in the build. The walls of INTRUDER 2.0 were about 4 meters high, hanging from a metal wire grid, reaching until the floor. The walls of the single pathway to the centre were about 20 cm wide and swirled from left to right in atmospheric patterns of light and darkness. A visitor had to move the walls with their hands in order to walk through. As they did, they could not escape making intense sounds with the crackling of the paper. Different types of material made each pathway sound different. Some walls were transparent. I attempted to not only simulate the experience of being in a space full of meaning, but also to capture the enlarged emotional experience of 'the newspaper is communicating with me' by creating a literal space of chaos, a world in which one traverses the walls of the labyrinth as if

¹⁵⁴ P. Brugger, 'From Haunted Brain To Haunted Science: A Cognitive Neuroscience View Of Paranormal And Pseudoscientific Thought' in *Hauntings and Poltergeists*, ed. James Houran and Rense Lange, North Carolina: McFarland & Company, Inc. 2001, p.p. 195-213. this information was found in online article: <http://www.dbskeptic.com/2007/11/04/apophenia-definition-and-analysis/> (last viewed October 1st 2012) the full quote comes from the word doc of the unpublished version of the paper 'Haunted Brain' sent to me by e-mail by the author.

¹⁵⁵ J. Canary, 'Roomforthoughts: Creating And Using Installation Art In Order To Better Understand The Subjective Experience Of Psychosis' in R. Ascott et al (ed), *New Realities; Being Syncretic*, Springer WienNewYork, 2008, p.p.161-164, p. 162 as conference proceedings of the the 9th Consciousness Reframed Conference in Vienna, 3-5 July 2008, p.162.

they are the pages of the news paper, expressing for me the sensation of getting lost in all the information. Let me share three aspects of the work that, I think, contribute to an alternative way of understanding the experience of media communicating with you:

First: I wanted to use a pivotal symbol that could play a role in a fictional psychotic narrative. I wanted to enlarge and make understandable for a visitor how, I feel as an artist, a person in psychosis could automatically derive evidence from seeing an apple in the media, that they are guilty of 9/11. In order to do so, I designed the labyrinth narrative around a '(green) apple psychosis'. To create this, I placed as many references to (green) apples as I could, throughout the labyrinth, which, I imagined, could help build a narrative of 'emotional logic' (a network of associations) becoming enlarged and experienced as a real reality. 'An apple a day keeps the doctor away' (apples are important), Newton's apple (apples carry messages), Snow Whites poisoned apple (apples are dangerous), Adam and Eve's apple (guilt), William Tells apple (a shooter), New York (the Big Apple) etc. In order to build this, in part, I asked visitors to whisper their associations with apples, while recording them. I used the recordings by playing them back in small Apple iPods that were attached to fake apples (the ear buds formed the ears of the apples), and placed at different locations in the labyrinth. These whispers could be heard as layers over the already present crackling of the paper. In this I hoped to create an experience that would aid a sensation of apples being suspect carriers of meaning or messages.

Second: In the labyrinth I placed a set of surround sound speakers connected to a computer from which, while the visitor was walking in the labyrinth, I would slowly build up a soundscape, like a 'DJ', in order to be able to play sounds that reacted real-time to the actions of the visitor. The sounds consisted of the apple whispers, random music, and several versions of pre-recorded sounds of the crackling of the paper of a previous person walking through the labyrinth. I would play with the amount of layers of sounds and silences- the closer a person got to the centre- the more intense I would make it. I hoped in this way that it would feel like the experience of the installation 'communicating' with you.

Third: I invited visitors in a process of 'self-publishing' in which I asked them to leave stories on the walls about their emotional reaction to the labyrinth, as well as their own personal stories with psychosis. By having real messages, with different handwritings and content. I hoped it would contribute to a more visceral experience of deformed explosive media, chaotic content, information overload, in which each visitor would see, and could make their own personal narrative, while walking the labyrinth.

In addition to this, I used real newspapers, as well as a real TV that played 'white noise' and with which I did small workshops of 'seeing things in the noise' when a visitor entered the centre of the labyrinth. There were much more aspects in the design of my installation, that I relate to psychotic phenomena, but this will have to be left unsaid. Whether or not I was successful in my attempt to simulate this aspect of psychosis is hard to say, but I hope it clarifies why I think that using installation art could contribute to an understanding of psychotic phenomena.

Conclusion

In the brief space of this article, I have shown, that understanding psychosis is important; as it is prevalent, and costs to society are high, yet it is hidden and science still does not know what causes it. I have also shown that understanding psychosis is difficult; finding words to describe it is a challenge, and making sense of the bizarre ways a person might act, think or speak is considered near impossible. In addition, communicational expression seems to happen, in part, with creative performative acts, in which metaphors are used that may be confused for literal experiences, causing misunderstandings. I have shown that empathy is tough, even for professionals, as one simply does not want to feel such levels of emotion. On top of that, the brain seems to 'shut down' when the experience of another person is too different from one's own archive of experiences. In order to empathize with a person who is extremely different, one

needs to consciously activate ones mind, one needs to be aware of ones imagination filling with immediate and easy stereotypes, and one therefore needs to consciously seek sources outside oneself.

I have thus argued that the practice of psychosis simulation is crucial, as it acts as a prosthesis for ones imagination in an active and involved manner. I have also argued for the need to be vigilant about the existing simulation designs. I illustrated this by referring to the classic 'media is talking to me' experience, and taking a closer look at how the experience is simulated, concluding that existing simulations need to be aware of alienating psychotic experiences from 'normal' experiences, and that simulating experiences, in a literal way, is problematic. To make my point, I have highlighted two aspects of psychotic experiences: how the senses are altered, and how meaning is generated, in order to show that these experiences are not alien from 'normal experiences'. I then proposed how installation art may help contribute to the understanding of these two aspects and may help inform future design practices of psychosis simulation, illustrating this by referring to one of my own artworks, in which I represented an enlarged messy embodied emotional experience of media, as opposed to a distant literal illustrative approach.

Coming to the end of this article, I would have liked to elaborate on why I consider the form of a labyrinth significant for psychosis simulation, or how I think that embedding new sensor and sound technologies, could enhance experiences of a world communicating and reacting directly to you, which I developed in a project called 'The Labyrinth'.¹ I would have liked to explain the problematic aspects of taking a labyrinthine experience to the 'real world', which I think, could be addressed by using wearable augmented reality technology; allowing a person to view ones everyday environment through a cinematic labyrinthine narrative, that I consider to be analogue to psychotic experiences.¹⁵⁶ And last but not least, I would have liked to talk about the perceived dangers and ethical issues, in which psychosis *SIM*ulation is feared as psychosis *STIM*ulation. But sadly, there is no time. For this I refer interested readers to my thesis *Labyrinth Psychotica*.

What I can do, however, is leave the reader with a mental exercise that I created to help me to imagine what it is like to experience media sending you messages. Begin the exercise by deciding for yourself that an apple, wherever it appears, has a meaningful message that is there especially for you. Think about the colour of the apple; when it is red, what does it mean? When it is green, what does it mean? If you want, choose a different symbol; something, you think, might not appear so often, like a dandelion, or a peacock, but has significance for you. You will begin to notice just how uncannily often that symbol starts to appear in your world, on TV, on your Facebook wall, etc. Now, link the moment you see the symbol, to what you are feeling, thinking and associating, begin to create a story, let the symbol 'enter' you, become more than a coincidence when you see it. Then, imagine your senses enlarged, your ability to create meaning expanded, imagine that the association you have in the moment, is so creative, that it becomes an ability to be experienced as a 'real' reality. What would media be telling you? And how would you act?

Jennifer Canary

¹⁵⁶ I have conducted artistic experiments with wearable augmented reality cinema in the collaborative project 'The Wearable': http://www.youtube.com/watch?v=fMQUEgy0m_8 (last viewed May 2nd 2013)