

Equilibrium: A Story About Depression

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ABSTRACT

Depression is a mood disorder that affects many people globally. One possible positive factor in the treatment of this disorder is support from relatives and friends of the affected person. However, the former can be helpless in aiding the depressed person due to a lack of awareness on the signs of depression and how it impacts their lives. It is in this context that *Equilibrium* was developed. *Equilibrium* is a serious narrative game that aims to raise awareness about depression and the importance of external help in the recovery process of those affected. It does so with a grounded narrative and accessible gameplay, in a format that is easily shareable.

CCS CONCEPTS

- Human-centered computing → Interactive systems and tools;
- Applied computing → Media arts.

KEYWORDS

Serious Game; Narrative Game; Depression; Affective Game Design

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1 INTRODUCTION

Depression is a common mood disorder affecting more than 264 million people globally¹. It can have a big impact on health and can lead to suicide. Family and friends are very important in helping people suffering from depression [7, 8]. With this problematic in mind, we developed a serious video game to help the entourage of individuals suffering from depression understand the human side of the disorder. *Equilibrium* is based on an affective design approach, utilising different aspects of video games, such as visuals, interactions and game systems, to reach its objective.

The paper is structured as follows. Section 2 presents the research implications of the project. Section 3 covers the visual approach, followed by the narrative design in section 4. The general game design is explained in section 5, and the paper concludes in section 6.

¹<https://www.who.int/news-room/fact-sheets/detail/depression>

2 RESEARCH

We wanted to make sure that we faithfully represented the experience of people suffering from depression. An important part of the research was a series of discussions with a psychologist, at different moments during the production of *Equilibrium*.

In the discussions with the psychologist, we started by looking at the definition and the signs and symptoms of depression, and at how it impacts the lives of people suffering from it, as well as the lives of the people around them. We also talked about the healing process and the different methods that can be used to get through it. This research was completed with psychology literature on the subject.

From there, we curated a series of important aspects of depression that we wanted to present in the game's different chapters. We had other discussions with the psychologist throughout the production of the game to make sure that we stayed on track and always represented depression accurately. We also made sure, depression being a subject shouldn't be taken lightly, that we always sent the right messages to the player through our gameplay and story.

3 AESTHETIC EXPERIENCE

An important design decision that we took at the very beginning of the project was to make sure we offered the player an aesthetic experience, by making sure that every aspect of the game was carefully chosen to reinforce the experience and the emotions we wanted to convey with *Equilibrium*.

We went through a lot of iterations to make sure that the story, the gameplay, the environments, and the sounds were in tune with each other and all transmitted the right messages.

4 NARRATIVE DESIGN

Equilibrium tells the story of Claire, a new graduate who recently started working at a law firm. We started the game with a positive premise to show that depression is something that can happen to anyone and that it does not always have a clear cause.

The story is then told through a series of scenes that the player visits, each representing one of Claire's memories that help show important steps in her fight against depression and her path to healing. Each memory is presented in a dream-like world mixing everyday locations and objects from Claire's life with vegetation on floating islands.

This approach allows for a lot of flexibility from a design standpoint, each island being self contained and designed considering two factors: what can we tell about the character's story, and how do we want to represent their mental state? The modularity of the level design makes it possible to create new narratives to represent the experience of various individuals.

A lot of care went into creating the atmosphere of the game. We wanted the visuals and the music to slowly evolve between two atmospheres as the player progresses, to represent Claire's evolving state of mind. At the start of the game, the environment around the player is dark, broken into floating pieces, desaturated, shown through a thick fog, and accompanied by gloomy music. As the player progresses, the environment starts to reconstruct itself, the sun starts appearing through the fog, the colors get more vibrant and the music more optimistic (see Fig. 1).



Figure 1: Screenshots of the game's evolving environment. From left to right in chronological order: 1. restaurant, 2. bedroom, 3. forest, 4. workshop.



Figure 2: Claire's style at the start and at the end of the game.

This evolution happens really slowly, to show that healing from depression is a gradual process and that sometimes you have to think back to where you started to really see the progress you've made.

Those changes can also be seen on Claire herself. She starts the game with colorless clothes, a neglected appearance, rounded shoulders and her head down. Her posture slowly gets back to normal and her clothes start showing colors as the player progresses (see Fig. 2).

The story is also told through audio memories of Claire's life and of her inner thoughts, as well as through the level design and player interactions.

5 LEVEL DESIGN AND INTERACTIONS

Each section of the game, the islands that tell the story, are built with a specific goal in mind, to tell Claire's story and show her state of mind. The way the levels were built and the interactions included in each level follow this guideline.

An example of this is a section at the start of the game, the restaurant. On this island, the player is presented with Claire's realisation that she has a problem, and with the way the people



Figure 3: Example of the restaurant. From left to right: 1. Claire having a panic attack, 2. Claire attacked by a shadow enemy, 3. Claire exits the restaurant.

in her life judge her and how she judges herself. As the player approaches a table in the restaurant, an audio recording plays, showing Claire's colleagues that invite her to sit with them. The player then clicks on a chair, thinking Claire is going to sit, but then the lights start flickering, the scene gets darker, and the chair falls back into the abyss while Claire explains that she does not feel well, that she has to leave. The events and visual effects in this scene show that Claire is having a panic attack.

The player has no choice but to leave the restaurant and step on the next tightrope (see Section 6.1). On the rope, while shadows are attacking (see Section 6.2), the player hears a recording of what Claire hears as she leaves: her colleagues don't understand what's going on with her, they think she does not want to be with them. At the end of the tightrope, the recording fades out; Claire is now outside the restaurant. The player is now presented with a recording of Claire's inner dialogue, where they learn that Claire also does not fully understand her situation. She also judges herself and is scared about what people might think of her (see Fig. 3).

Another example of the level design and interactions being used to tell the story and make sure the player is in tune with the main character is the next island: Claire's bedroom. This island is used to show how people suffering from depression often feel exhausted and have a lack of motivation in moving forward in their life.

This is presented by a series of alarm clocks that ring at different moments on the island. Each time the player has to slowly walk towards the alarm clock to go and stop it. The sound is initially distorted and the player can see a red light flashing in the distance, to simulate that Claire is too exhausted to be awakened instantly by the alarm, and the sound gets clearer as the player approaches. Each time the alarm rings, it's a little closer to the player, to show that Claire is snoozing the alarm, not wanting to get out of bed, but that she's a little more awake each time, until the last clock when she decides to get up, saying that she can't be late to work again.

In the final section of the game, the player gets to revisit Claire's memories a second time, through audio flashbacks. This was made to show a different perspective on what Claire went through. Depression is like a filter that makes everything darker, so we wanted to show Claire's point of view on what happened, now that she is doing better and sees things more clearly, to see what she has learned from her experience, what has helped her get through this difficult time, and how she intends to use that knowledge to keep improving.

6 GAME DESIGN

As with the different sections and interactions in the game, we wanted *Equilibrium*'s game systems to each represent an important aspect of Claire's progress through this difficult time. Each system

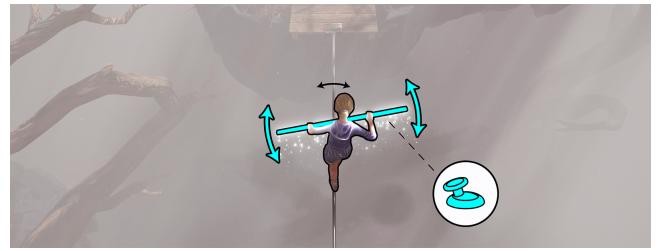


Figure 4: Visual representation of the balance system.

was thus carefully chosen and iterated multiple times to give the right messages and emotions to the player.

6.1 Tightrope System

For *Equilibrium*, we needed a game system that would follow the player throughout the whole game, from one moment in Claire's life to the next, and that would perfectly represent Claire's difficulties and challenges facing depression. We also wanted this system to offer an interesting challenge to the player and to allow them to improve as they progressed through the game.

We chose to represent balance, which is a concept often used when talking about depression, be it the mental balance [9], the balance in different aspects of one's life, or the chemical balance in the brain [4]. We thus built a balance system where the player must walk on a tightrope from island to island between the different sections of the game.

The abyss, under the wire, is also often used in literature and in everyday talk to express difficult moments, as in the expression "being on the edge of the abyss". Many people feel too dizzy to even get close to a cliff, let alone walk over it on a wire, like people suffering from depression are often anxious just at the thought of facing their problems, even though it's something that is often essential in the healing process. In *Equilibrium*, the player has no choice but to step over the edge, face the challenge and walk towards the next island to progress in the game and for Claire to progress in her life and get better.

In *Equilibrium*, an important aspect of the balance system is that it is built in two steps. Instead of having direct control over the character's angle on the wire, as is often the case in video games, like in *Tony Hawk's Pro Skater* [5] and in *Hellblade: Senua's Sacrifice* [6], in *Equilibrium* the player uses the right joystick to control the angle of a pole that Claire is holding, and it's the angle of the pole that then controls Claire's angle on the wire (see Fig. 4).

The two steps system is not only original, but more than that, it offers a great learning curve that allows the player to get better at maintaining their balance over the 10 to 20 minutes that it takes to complete the game.

We wanted the balance system to get easier throughout the game, but we wanted this to happen naturally through player improvement, for the player to be in tune with their avatar, Claire, who gets better at facing her own challenges as the game progresses.



Figure 5: A shadow attacking Claire while another one is waiting in the fog below.

6.2 Shadows

We also wanted a more direct way of attacking the player, to represent the sudden emotions that sometimes overwhelm Claire, as well as her internal battle with her own thoughts. Those difficulties are represented by ghastly shadows, waiting in the fog under the wires. When Claire steps on a tightrope, the shadows get out of the fog and start attacking her, pushing her left and right to make her fall (see Fig. 5).

The shadows also allow for a better pacing of the story by upping the difficulty in sections where Claire's struggles are at their peak.

6.3 Obscure

Healing from depression can be much easier with a little help, be it a friend or a family member that supports you, a psychologist to talk to, or even in some cases antidepressants. We wanted to have this external help present in our game, but we didn't want to target one specific type of help, so we presented external help in the shape of a secondary character called Obscure, a mystical floating wolf-like creature, that follows the player and helps them chase away the shadows under the tightropes.

The character is represented as a wolf to show the two phases of seeking help. At first, someone suffering from depression has to recognize that they have a problem. This is often a difficult and scary part of the process, especially with the often bad perception that today's society has towards mental illness [1]. This is represented by the wolf, which is often used to represent a dangerous predator. On the other hand, Obscure also exhibits dog-like features which represent acceptance and help, since dogs are often represented as loyal companions in popular culture (see Fig. 6).

We introduce Obscure in a cutscene at the start of the game, and it is then used in the tutorial section to teach the player how to play the game.

It then follows the player from island to island, letting them relive Claire's story and waiting for them close to the next wire. When the player steps on a tightrope, Obscure dives in the fog under it. To show that it is okay to ask for help, the player has to press the right trigger on their controller to ask for help before Obscure jumps out of the fog and chases the shadows away with



Figure 6: Obscure, menacing in the dark, much more friendly seen from up-close.

a powerful light, that represents the idea of casting light on your problems to better understand them.

To show to the player the incredible progress that they have made during the game, and to show the progress Claire has made in her own story, before the final section of the game Claire thanks Obscure for the help, and tells it that she feels strong enough to face the next obstacles by herself. The player must then complete the final wires, which are some of the most difficult in the game, alone.

7 CONCLUSION

Other gaming studios, like *Ninja Theory* with *Hellblade: Senua's Sacrifice*, and *Matt Makes Games* with *Celeste* [3], have tried they hand at presenting mental illness in video games in the past years [2]. Our take on the subject differs from the others by making the experience more accessible, both through its short length and its simple controls. We also decided to present the player with a realistic story that can be easily understood and that, although presented through the broken memories of our protagonists, actually takes place in our world and our time. Many games tell the story of the internal battle the protagonist is going through while suffering from mental illness, but rarely is the accent placed on the importance that outside help and communication can have on the healing process like we did. Lastly, we made sure that everything in the game, the environments, the music, the levels and the game systems, was built with a common goal, to tell the story we wanted to tell, with the right emotions, and to deliver the right message.

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REFERENCES

- [1] Fahad Riaz Choudhry, Vasudevan Mani, Long Chiau Ming, and Tahir Mehmood Khan. 2016. Beliefs and perception about mental health issues: a meta-synthesis. *Neuropsychiatric disease and treatment* 12 (31 Oct 2016), 2807–2818. 27826193[pmid].
- [2] Joseph Fordham and Christopher Ball. 2019. Framing Mental Health Within Digital Games: An Exploratory Case Study of Hellblade. *JMIR Ment Health* 6, 4 (18 Apr 2019), e12432.
- [3] Matt Makes Games inc. 2018. *Celeste*. Game [Windows PC]. Matt Makes Games inc., Last played December 2019.
- [4] Inga D. Neumann and Rainer Landgraf. 2012. Balance of brain oxytocin and vasopressin: implications for anxiety, depression, and social behaviors. *Trends in Neurosciences* 35, 11 (2012), 649 – 659.
- [5] Neversoft Entertainment Inc. 1999. *Tony Hawk's Pro Skater*. Game [Playstation]. Neversoft Entertainment Inc., Los Angeles, California, Last played December 2019.
- [6] Ninja Theory Ltd. 2017. *Hellblade: Senua's Sacrifice*. Game [Windows PC]. Ninja Theory Ltd., Cambridge, England. Last played March 2019.
- [7] Robert S. Peirce, Michael R. Frone, Marcia Russell, M. Lynne Cooper, and Pamela Mudar. 2000. A longitudinal model of social contact, social support, depression, and alcohol use. *Health Psychology* 19, 1 (2000), 28–38.
- [8] Georg Schomerus, Herbert Matschinger, and Matthias C. Angermeyer. 2009. The stigma of psychiatric treatment and help-seeking intentions for depression. *European Archives of Psychiatry and Clinical Neuroscience* 259, 5 (01 Aug 2009), 298–306.
- [9] B. Alan Wallace and Shauna L. Shapiro. 2006. Mental balance and well-being: Building bridges between Buddhism and Western psychology. *American Psychologist* 61, 7 (2006), 690–701.