MIND THE BEAT
GAME DESIGN DOC 0.1

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Prompt

Inspired by research being done on the Champalimaud Foundation, developers, scientists and artists got together on the context of the first ever Neuro Game Jam and developed a game experience that uses input given from a smartphone to track how well individuals are adapting to the rhythm of the majority. The idea is to analyse how the rate of adaptiveness can be changed when the auditory input conflicts with the social environment input.

Pitch

Are you influenciable? How well can you adapt to rhythm when facing conflicting stimuli? Come play and discover how adaptable you really are!

"BEAT THE MIND, *MIND THE BEAT*"

Mind The Beat is a multiplayer party rhythm dance game in which individual players have to dance according to the majority, irrespective of how dissonant their personal audio may be. Similar to a silent dance party, *Mind the Beat* is played with each participant having their headphones in their ears, but unlike silent dance parties, the game changes the audio track to which participants are listening to.

Players are only given the instruction that they have to be in sync with the majority to get points. Round by round, as the music changes to a progressively greater percentage of players (in a semi random fashion), they will be watching each others' dance patterns in order to establish if their audio feed is dissonant with the majority or not and conform to the majority if so. Round after round players who are dancing according to the majority get points, and at the end of the game the winner is announced.

Purpose

The general principle behind this game experiment is the scientific intuition that people, in general follow along the behavior of the majority or the perceived authority of the environment. So how can these dynamics be shifted in order to produce disruptions that generate insight into how people behave?

By providing the users with conflicting stimuli, they're led to a choice between synching to their music or synching to the environment, and we are interested to see how the auditory input, when conflicting with the social agreement input produces changes in people's strategy to adapt to the environment. People listening to a different tone than the majority will have more trouble adapting? Or will they overcome the auditory barrier without much effort?

Rules

Number of Players: 3 - N/A

Average Expected Playtime: >(Total players/2+4)round duration

Objective

While paying attention to the movements of the other players, the players dance and the game tracks each mobile device's accelerometer, specifically the frequency with which each player is changing direction, so as to determine their rhythm. If most players are listening to a specific rhythm then the objective will be that.

By mimicking the majority's rhythm the player accumulates points, and whoever gets first to the target score wins.

Rounds

The game progresses through rounds, sections of 45 seconds of play. At the end of each section they are given a score that reflects how sensitive and accurate they are to the rhythm of the majority. A player can be on the wrong rhythm for 40 seconds but if they manage to get to the right one on the last 5 seconds the game registers that as a success.

During the first rounds there will be no dissonance so they just need to dance to what their listening to.

Dissonance: The rhythm the player is listening to does not correspond to the majority.

After 4 rounds with no dissonance, at each stage the game will choose semi-randomly an increasing number of players to be dissonant, taking into consideration who has been chosen before. These rounds will continue until a player achieves the winning score.

Through each stage since more and more players will be dissonant the difficulty will rise as well, up to a plateau when (**even numbered total players/2-1 ; odd numbered total players/2 rounded down)** players are dissonant.

Rewards

At the end of each stage, each player is scored according to their accuracy:

- Off rhythm - 0 points
- On rhythm (no dissonance) - 1 point
- On rhythm (dissonance) - 2 points

When a player reaches: **Total Players/2+4 turns** points, the game ends and the results are shown

Presentation

Experience

A host starts the game in a device, after every player joins the lobby, inserts their name and press the ready button. The game counts down for everyone to get to their place.

After the game, every player stays on the Lobby for the next round by default.

Audio

There are 3 music tracks on different tempos each. The main change out of these is the tempo itself and is the only important cue the game gives to the player besides a notification of success or failure.

The type of music itself has to have a very evident beat to dance to, though on time and double-time swinging of the device are both correct, since each tracks BPMs are distinct enough and not multiples of each other.

Visuals

The game is meant to be played with minimal visual interface so as not to interfere with the players focus on group movement patterns.

The visuals that do exist are meant to be clear and offer no ambiguity for the player so as to, again, let the players focus on eachothers movement.

Behaviour

There is a button pressing secondary mode

Further Development

Eagle Eye

A back-office visualization of the game including a visualization of the speed of the majority which the players are supposed to follow, the rhythm of each players audio feed, and the rhythm that player is dancing to.

Gradual Change

Extra tracks in which the speed accelerates/decelerates gradually to set on one of the three rhythms on the last 10 seconds.

Live Tweaking

Back-office tools to edit the parameters of the game, like duration of rounds, queuing which players are going to be dissonant and score amounts

Early Adopters

To encourage players to take risks and adopt other behaviours we can allow dissonant players get extra points for changing to the correct beat earlier than others

Dissonant Players (x) < Non-Dissonant Players	
x[#1]	x points
x[#2]	x-1 points
x[#3]	x-2 points
...	....

Collaborative Clearing Mode

A gameplay mode in which all players clear the rounds one by one. If someone is offbeat, the dancers won't be able to advance to the next round.

Last Man Dancing Mode

A gameplay mode in which players are subjected to a 3-strike policy. Each time a player fails to synchronize they get marked with a strike, on the 3rd they leave and can see the progress of the game on the second screen. At the end, with the last two people the game changes to a different dynamic, in which the players face off and ignore each other.

Conquest Mode

A team based gameplay mode in which every player is dissonant (listening to a specific beat and try to dance to the one the other team is listening to). From round to round the tempo changes and as players make a misstep they change to the other team. The objective is to get everyone on their team.

Further on

Development on this game will continue despite the results of the game jam itself.

Implementation and further testing would be ideal with large groups like with a club or a festival (like Andanças or Boom), though releasing it to the public and having people use it as a party game will definitely get more results.

Sugestions for the future

In the future, we suggest, outside of the scope of a scientific experiment game, the possibility for the players to insert whatever music they want, respecting the dissonance

aspect of the possible songs (one music can’t be similar in tempo to the other, so we can achieve a reasonable dissonance effect).