



# Harnessing Neurodiversity in Game Development



## Definition



Measurable, biological differences in the way the brain is wired to process

- Social interactions
- Intellectual understanding
- Emotions and behaviors

A social model of disability



# Agenda

- Abundance and not redundancy
- Kinder and Forgiving products
- Gaming and Neurodiversity

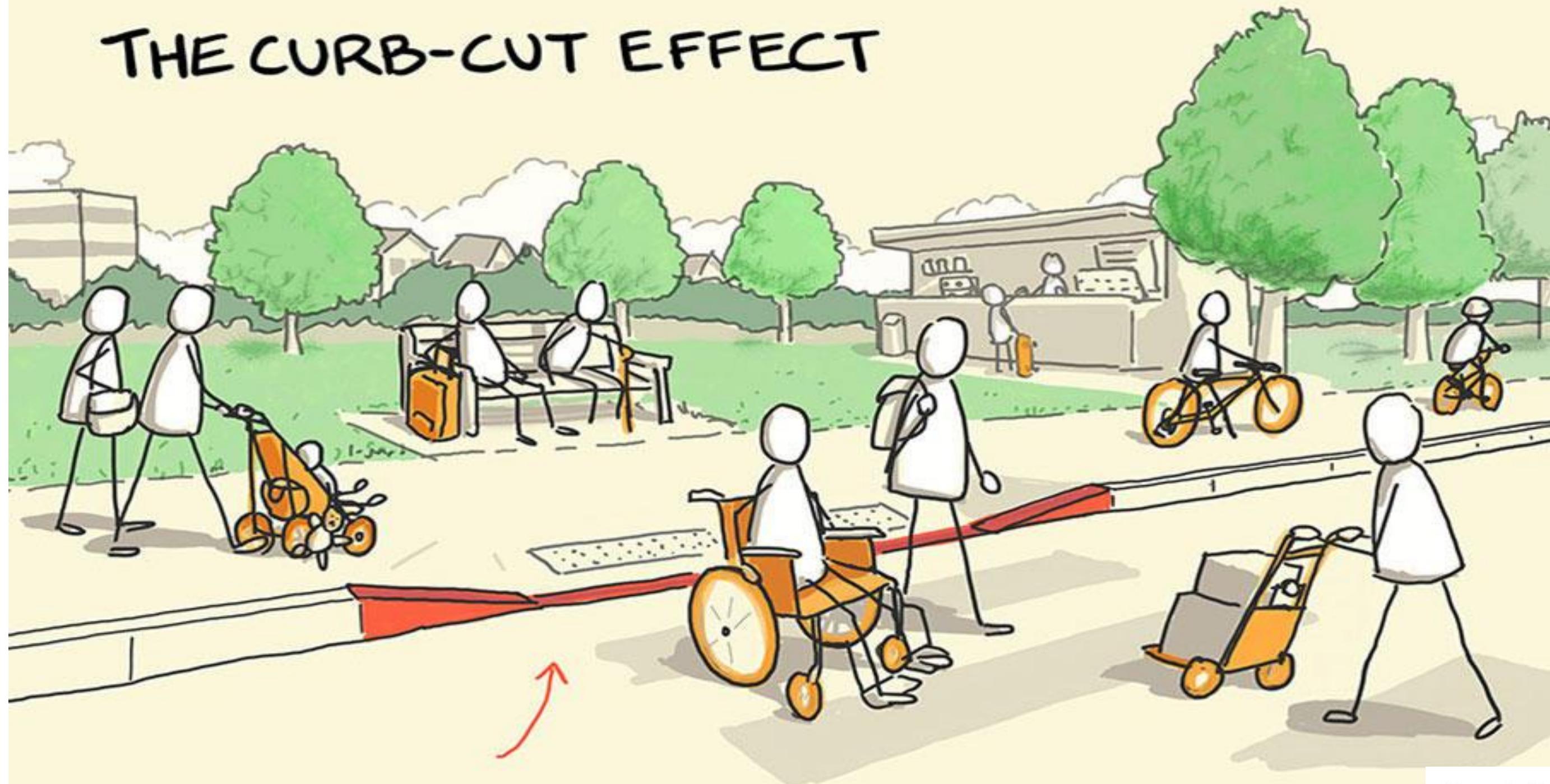
# Introduction



Neurodiversity is about embracing differences in the way people think and learn. By creating inclusive games, we can harness the strengths of all individuals and create a better gaming experience for everyone.



# THE CURB-CUT EFFECT



WHEN WE DESIGN  
FOR DISABILITIES

... WE MAKE THINGS  
BETTER FOR EVERYONE

sketchplanation

- Named after curb cuts that enable wheelchair users to get on and off sidewalks.

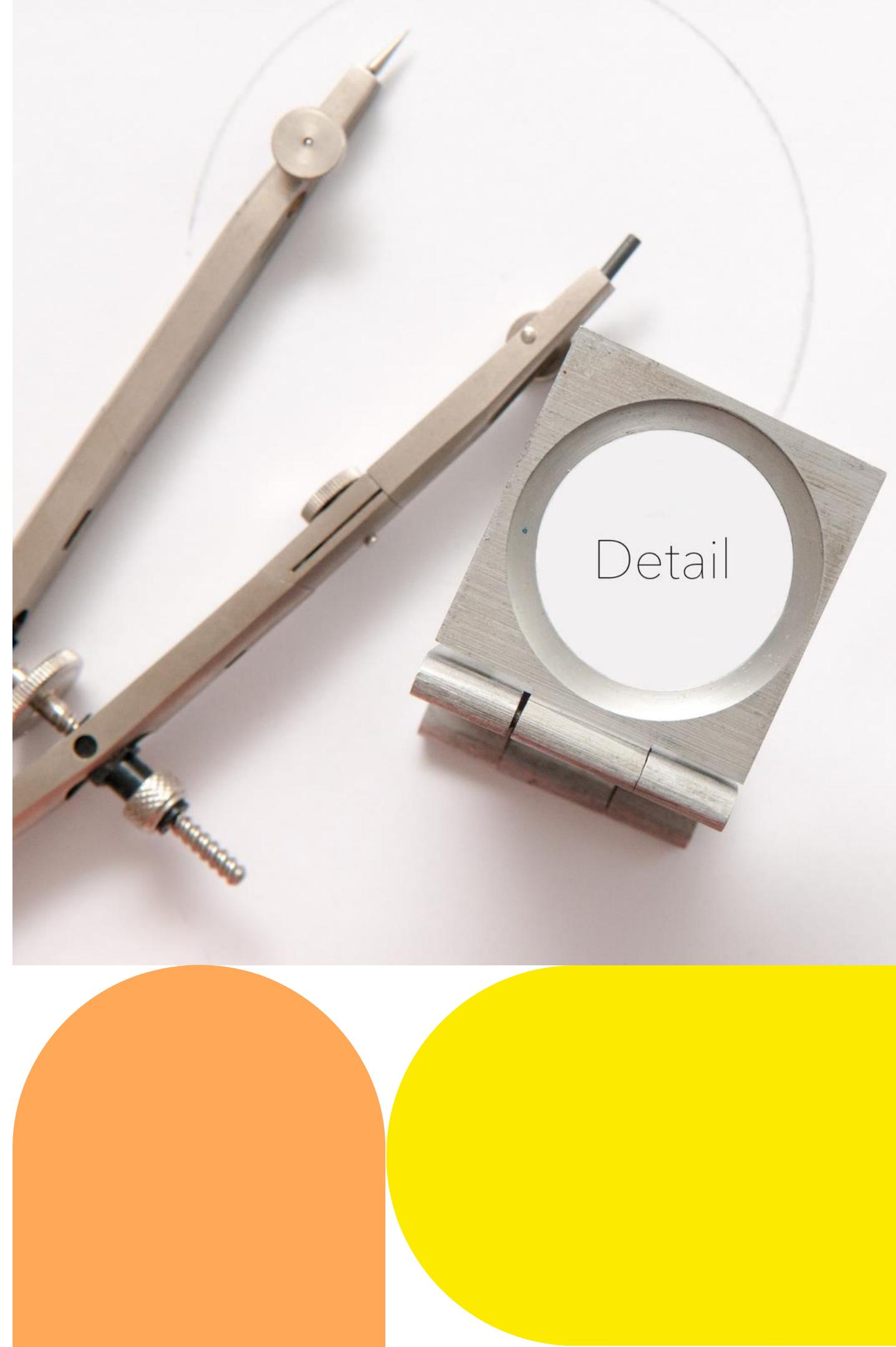
- Were not legally required until 1990 with the signing of the Americans with Disabilities Act.

# Neurodivergent traits that benefit game development

Hyperfocus on details can lead to more polished game mechanics.

Creativity and thinking outside the box can lead to unique game designs.

Pattern recognition skills can be beneficial in level design.





The Sims is a game of comfort for so many neurodiverse people





- Play in different ways depending on my mood. allows to build and create
- Play out different situations in a safe environment.
- Explore relationship dynamics that don't come naturally to us
- "A new trait – now a Sim could be an 'overachiever.' When applied, he would get bored and restless when his life became dormant. When he took on challenging tasks, he was so happy and fulfilled.

# Case Study - Mario Kart

A silhouette photograph of five people of different ages and abilities standing on a grassy hill against a sunset sky. From left to right: a person in a wheelchair with arms raised; a young child; a man gesturing with his hands; a small child; and another child pointing upwards. A single black circle hangs in the upper center of the frame.

INCLUSIVITY IS KEY TO SUCCESSFUL GAME DESIGN.  
EMBRACING NEURODIVERSITY IN GAME DEVELOPMENT  
CAN LEAD TO GREATER CREATIVITY AND INNOVATION.





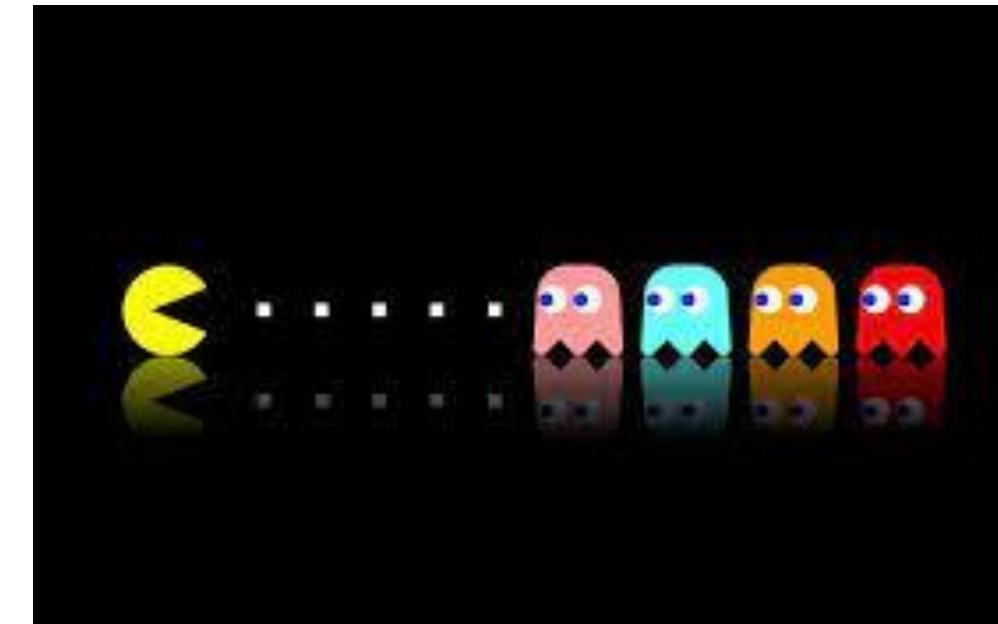
# Pac-Man

When designing games, embrace neurodiversity. Consider how players on the autism spectrum or with ADHD experience your game.



# When Great Minds Don't Think Alike!

CHARACTER	/	ORIGIN
	- BLINKY	PAC-MAN
	- PINKY	PAC-MAN
	- INKY	PAC-MAN
	- CLYDE	PAC-MAN
	- SUE	MS. PAC-MAN
	- DINKY	PAC-MAN (TV SERIES)
	- MIRU/PAL	PAC & PAL
	- TIM	JR. PAC-MAN
	- YUM-YUM	JR. PAC-MAN
	- FUNKY	PAC-MANIA
	- SPUNKY	PAC-MANIA
	- KINKY	PAC-MAN ARRANGEMENT(1996)
	- ORSON	PAC-MAN WORLD





# Case Study – Tetris

Tetris' simple yet addictive gameplay was designed to appeal to players with a range of abilities. Its success shows the value of neurodiversity in game development.

# Design affecting our five senses

Keeping light, acoustics,  
Colour, sequencing,  
Compartmentalisation,  
Transition,  
Sensory,  
Escape, and  
Restoration in mind



# Best practices for harnessing neurodiversity in game development

Use meaningful visual cues to help players navigate the game.

Incorporate different difficulty levels to cater for neurodiverse players.

Implement clear and concise instructions to avoid confusion.



Great Minds Think Unalike And Learn Differently  
Representation Matters!

# Conclusion and Call to Action

Incorporating neurodiversity into game development leads to more creativity, innovation, and inclusivity. Let's embrace and celebrate differences!

