# AI and Multiple Intelligences in 'God of War'

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### Part I: AI Representation in "God of War"

# **Act Humanly**

In "God of War", non-playable/ AI controlled characters including enemies and companions behave in ways similar to a human-being. They interact with each other, have strategy planning and respond to the protagonist's activity in a similar manner as real people, for example, taking cover when receiving attack, or flanking during battle. Kratos' companion, Atreus evolves through the course of the game which is demonstrated by human learning and Interactions.

**Improvements:** To better represent acting humanly, the game could improve the AI's emotional responses, making characters' reactions more varied and context-specific. For instance, enemies could show hesitation when facing overwhelming odds or display frustration when consistently outsmarted by the player.

### **Think Humanly**

The AI in "God of War" simulates thinking humanly by using strategies during combat (Bainbridge, 2017). Enemies plot ways on how to have the opponent down Kratos, at times performing coordinated work to bring down the god of war. Atreus, Kratos' son, assists in the fight by giving helpful information about levels and enemies, and gets involved with the combat and solving of puzzles.

**Improvements:** To enhance on this, the AI could use sophisticated decision making that replicates human mind such as being able to recall previous interactions and adjust the strategy accordingly. For instance, a specific enemy type could be defeated by a certain strategy then AI could progress to adjust countermeasures for it, implying a human-like thinking.

### **Think Rationally**

The AI in "God of War" makes decisions based on game logic, evaluating risks and rewards during combat. For example, weaker enemies might retreat when Kratos overpowers them, while stronger enemies attempt to isolate him from allies to gain an advantage. This shows a level of rational decision-making focused on self-preservation and tactical advantage.

**Improvements:** To enhance thinking rationally, the game could implement more complex decision trees or algorithms that assess not only immediate threats but also longer-term consequences of certain actions (Glynn et al., 2017). For instance, enemies might avoid unnecessary combat if they predict that their resources will deplete quickly, or they could lure Kratos into traps by exploiting his predictable patterns.

### **Act Rationally**

The game's AI attempts to act rationally by prioritizing objectives, such as attacking Kratos in waves or focusing on the weakest member of his party. The AI typically balances offensive and defensive maneuvers to maximize survival, showing a rational approach to achieving its goals.

**Improvements:** To better reflect acting rationally, the AI could have more sophisticated mechanisms for balancing objectives. Instead of always prioritizing combat, enemies could retreat to gather reinforcements or wait for a more opportune moment to strike. This would provide a more realistic, calculated approach to achieving victory.

Part II: Gardner's Theory of Multiple Intelligences in "God of War"

## **Visual-Spatial Intelligence**

"God of War" showcases visual-spatial intelligence through its detailed level design, navigation puzzles, and the use of the environment in combat. Players need to understand the spatial arrangement of enemies and obstacles, and use this awareness to succeed in fights and exploration.

**Improvements:** In order to provide a deeper representation of this intelligence, the game should add more challenging spatial tasks, which in turn will comprise more extensive planning activities like controlling large objects or navigating dynamic environments that change over time.

## **Bodily-Kinesthetic Intelligence**

The game also involves bodily-kinesthetic intelligence in the combat aspects where the player has to carefully time when and how to control Kratos, his weapons, and attacks. Knowing these physical types pays off in combat since the title is filled with different stuns, hits, dodges, and other moves.

**Improvements:** There is also an opportunity to improve this aspect in the sequel by adding more complicated movement-based solutions or tasks that would call for precise and complex physical control, for example, complex and intense climbing sections that are performed simultaneously or tough platforming sections.

## **Logical-Mathematical Intelligence**

The aspect of logical-mathematical intelligence can be evident in the various puzzles that are incorporated in the game (Hayuningrat et al., 2020). Some of them are logical, and call for problem-solving in a form of operating with mechanisms, symbols, or trying to find out how to how to access hidden areas.

**Improvements:** To enhance this intelligence, the game could incorporate more mathematics problems or incorporate tactics involved in any battle, where the player has to think and estimate the impact of types of attack or, determine the best way to use resources inclusive of health, rage and others based on logical deductions.

### **Linguistic Intelligence**

The use of language, including narratives, dialogues, runes, prophecies, and texts is evident in the game world. Atreus and Kratos need to read these writings in order to grasp the story of the game and to progress in the game and solve some of the puzzles in it.

**Improvements:** It could further extend the linguistic intelligence aspect by having more dialogue solving puzzles or by making the player have to deal with language barriers such as old scripts or dialects that would then influence the game and the way one character interacts with the other character.

### **Interpersonal Intelligence**

The relationship between Kratos and Atreus is a key component of "God of War," emphasizing interpersonal intelligence (Aldea, 2019). Their interactions are essential to the story and gameplay, with Atreus' emotional growth and understanding of others influencing his actions.

**Improvements:** To enhance interpersonal intelligence, the game could offer more interactive choices in dialogues or moral decisions that impact relationships with other characters, allowing players to use empathy and social awareness in their interactions.

## **Intrapersonal Intelligence**

Kratos' evolution as a character is representative of the intrapersonal intelligence because of the internal conflict of his past actions and sins that affect his relationship with his son. Active character development is another feature of the game's narrative as his inner conflict stems from having to learn how to deal with rage before he can lead Atreus.

**Improvements:** To deepen this, the game could include more moments of reflection or decision-making that force Kratos to confront personal dilemmas, allowing players to explore his inner world and growth more explicitly through gameplay.

## **Musical Intelligence**

Musical intelligence is less emphasized in "God of War," though the soundtrack plays a significant role in setting the tone and atmosphere. The game's score helps convey emotions and heighten dramatic moments.

**Improvements:** The game could incorporate musical features meaning missional items which are synchronized with selected rhythm or melody, or the parts of the game where the sound is used as the way to solve a number of problems like identification of patterns in the attack of enemies by the sounds used.

## **Naturalist Intelligence**

Since the game is based on Norse mythology and its creatures, they were designed with the proper respect of the natural world, enabling players to interact with an environment inspired by features such as forests, mountains.

**Improvements:** To better reflect naturalist intelligence, the game could have more elements of context a player interacts with in the game, for example, include more problem solving based on

natural concepts, or recognition of existing relations in nature affecting the game (Alexiou & Schippers, 2018).

# **Existential Intelligence**

Existential themes are essential to "God of War," which investigates concerns like fate, destiny, and the existence of gods. Kratos frequently questions the greater purpose of his life and his place in the world, demonstrating existential intelligence.

**Improvements:** The game should go deeper into existential intelligence by presenting philosophical dilemmas that force the player to consider life's grander issues, such as the consequences of power, morality, and the meaning of legacy. Players may be presented with existential decisions that result in varied story outcomes depending on their choices.

#### References

- Aldea, A. (2019). Video Games As A Catalyst For Empathy And Perspective Taking.

  \*Repositories.lib.utexas.edu. https://doi.org/10.26153/tsw/2519
- Alexiou, A., & Schippers, M. C. (2018). Digital game elements, user experience and learning: A conceptual framework. *Education and Information Technologies*, *23*(6), 2545–2567. https://doi.org/10.1007/s10639-018-9730-6
- Bainbridge, W. S. (2017). Transcendence: Virtual Artificial Intelligence. *Dynamic Secularization*, 237–268. https://doi.org/10.1007/978-3-319-56502-6\_9
- Glynn, P. D., Voinov, A. A., Shapiro, C. D., & White, P. A. (2017). From data to decisions: Processing information, biases, and beliefs for improved management of natural resources and environments. *Earth's Future*, *5*(4), 356–378. https://doi.org/10.1002/2016ef000487
- Hayuningrat, F., Yuliati, N., & Saputri, S. W. D. (2020). Analysis of Logical-Mathematical Intelligence Characteristics on Children With Autism Age 4-5 Years Old. *Proceedings of the 2nd Early Childhood and Primary Childhood Education (ECPE 2020)*. https://doi.org/10.2991/assehr.k.201112.043