

50.033

Foundations of
Game Design
and Development

RULES & PLAYERS

Rule characteristics, 3 levels of rules,
Player types, The 5 factor model and
the 5 domains of play,
Breaking the rules

PLAYING A GAME

- Players *voluntarily submit* to the game
- Then, **limit** their behaviours to specific **restrictions** imposed by game rules
- Once game starts, players are enclosed within game world: context of the game ('*Magic Circle*')
- Must adhere to rules in order to *participate*
- If not, they're *leaving* the game

DEFINING RULES

- Formal structures that **constitute the game function**, *not tips or tricks on how to own the game*
- Sometimes, it is all you need to begin playing a game (tic tac toe)
- Fixed and authoritative rules makes games seem a bit constraining and inefficient, but like any other real life situation, rules are important to **define order**, and eventually so that it works

GENERAL CHARACTERISTICS

● Rules **limit** player action



- In the game *Monopoly*, you have a pair of dice
- You can do anything with the dice: eat them, throw them away, destroy them, light them on fire, etc
- But no, in *Monopoly* rule: you throw them and take note of the number, then move your avatar
- When you start a new game in *Diablo 3*, your character begins at level 1
- The virtual character has the *potential* to do a lot of things: fly, jump, crouch, combat, cast magic skills, etc
- But no, in *Diablo 3*, your character actions are limited since its only level 1

GENERAL CHARACTERISTICS

- Rules are **explicit** and **unambiguous**
 - Not HASS class
 - Rules are literal, no room for interpretation
 - E.g: in *Diablo 3*, no profanity can be entered to the chat window
 - Not equal to ‘how’ you play the game, which allows room for creativity

GENERAL CHARACTERISTICS

- Rules are **shared** by all players
 - Just like legal laws, all players act under the same set of rules
 - All rules might not be applicable to *all players* but they understand the set of rules as a whole
 - E.g: in *Diablo 3*, you can't take the loot of other people's
 - In real-life games (basketball, soccer, etc) this is more apparent
 - When players don't share the same rules, they enter a **disagreement**
 - Game comes to a *halt* until disagreement is resolved

GENERAL CHARACTERISTICS

- Rules are **fixed**
 - They don't change as the game is played
 - E.g: In *Diablo 3*, a wizard staff cannot be equipped to a demon hunter
 - Sudden rule improvisation shouldn't happen
 - Again, if rules are changed unpredictably during gameplay, it will lead to *disagreement*

GENERAL CHARACTERISTICS

- Rules are **binding**
 - By right, they *have to be followed* to ensure that the game works properly / in the *normal* way
 - The reason why rules have to be shared and fixed is because they have to be binding
 - If players don't feel that rules are binding, they will *cheat*
 - Ultimately spoiling the game
 - Spoiling the game isn't ideal for most games, but not *all* games (e.g: it feels good to apply cheat codes when playing TheSims, we will talk about breaking the rules later)

GENERAL CHARACTERISTICS

- Rules are **repeatable**
 - *Repeatable* from game to game and are *portable* between sets of different players
 - Eg: Every time you restart *Diablo III*, your character still cannot hold weapons specific to another class

GENERAL CHARACTERISTICS

- Rules **limit** player action
- Rules are **explicit** and **unambiguous**
- Rules are **shared** by all players
- Rules are **fixed**
- Rules are **binding**
- Rules are **repeatable**



3 KINDS OF RULES

- So far we have talked about general *characteristics* of rules
- What kinds of rules are there?
 - Operational
 - Constitutive
 - Implicit

OPERATIONAL RULES

- Our first thought of rules, which is the *rules of play* of a game
- They're in the basic *how-to-play-the-game* documents (tutorials)
- Easiest to follow, **instruct** player what to do
 - E.g : In *Diablo III*, click left button to move, press I to see inventory, press I - 4 to cast skills, click on item to level up, run over to gold to pick it up



CONSTITUATIVE RULES



- Abstract, core mathematical rules of a game
- **Does not explicitly state** how a player will make use of them, thus allowing creativity
- **Guide**, instead of *instruct*
- Exists *below the surface* of operational rules
- E.g: in *Diablo III*, you begin the game at level 1 with 0 XP, and you can play the game indefinitely. You can cast combo skills

OPERATIONAL VS CONSTITUATIVE

- Constitutive rule: concerned with **internal** events (events related to the processing of a choice)
- Operational: rule concerned with **external** events (events relating to the representation of a choice).

IMPLICIT RULES

- The **unwritten rules** of a game
- For *etiquette* and *behaviour* sake, usually is unstated in a game
- E.g: taking turns when playing a game, ‘undo’ some moves, sportmanship
- Depends on *context* (professional game, playing with children, casual games, culture)

GAME IDENTITY

- Implicit rules aren't unique to one game
- Operational and constitutive rules are important in determining game **uniqueness**
- The *true and unique* identity of a game comes from the **interaction** between operational and constitutive rules
- *When establishing rules, think about how they become the formal identity of the game*

GAME IDENTITY

- The key in establishing the formal identity of a game is the **specificity** of the rules
- The **exact** and **unambiguous** nature of the constitutive and operational rules allow a game to be *this game and not that game*
- E.g: *Diablo III* isn't *World of Warcraft*. They have different classes, items, ways to level up, quest types, even though they're both MMORPG games

ELEGANT RULES



- Elegant rules allow players to **focus on the experience of play** rather than on the *logic* of the rules (good if it can be natural or intuitive)
- Designing meaningful play involves **building discernable** (perceivable) and integrated relationships between action and outcome into all levels of the rules of a game
- Example: In traditional *Monopoly*, each destination is placed within a bounding box for easy counting when you need to make a move.

DIGITAL GAMES RULES

- The general characteristics of rules seem rather **intrinsic** (by default) in digital games:
 - Rules **limit** player action
 - Rules are **explicit** and **unambiguous**
 - Rules are **shared** by all players
 - Rules are **fixed**
 - Rules are **binding**
 - Rules are **repeatable**
- Its rather impossible for players to violate these rules in digital games (unless we use cheat codes, but, cheat code is created by the designer so it is just a predictable alteration of the rules)

DIGITAL GAMES RULES

- Operational & Constitutive rules: has to be manifested in code
- But **not all parts of codes are rules**,
 - e.g: how to shade objects in the scenes isn't part of game rules 
- Implicit rules are common sensical in real life, but they may need to be explicitly programmed in digital games:
 - E.g: camera follows character, mouse cursor corresponds to mouse movement, game will not damage the computer resources, allowing undo movements

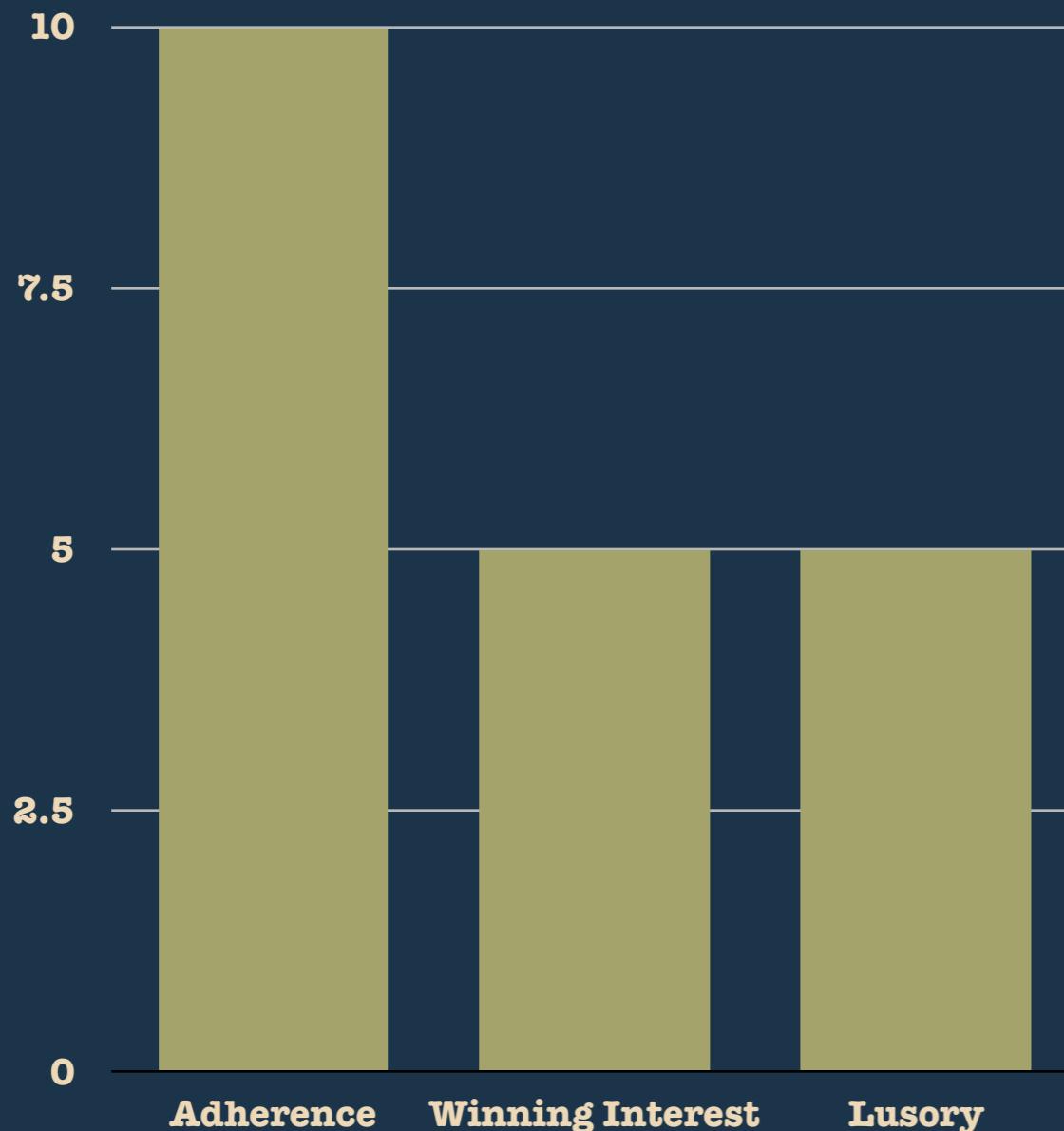
BREAKING THE RULES

- Phenomenon that occurs in almost **every kind** of game.
- Game designers need to **recognize** that rule-breaking is a common phenomenon in gaming and **incorporate** it into their game design thinking
- One solution, which comes from the New Games Movement, is to empower players to be more like game designers by **creating games with rules that are meant to broken and modified**
- Encourages cheating, gives sense of satisfaction and fun

PLAYER TYPES

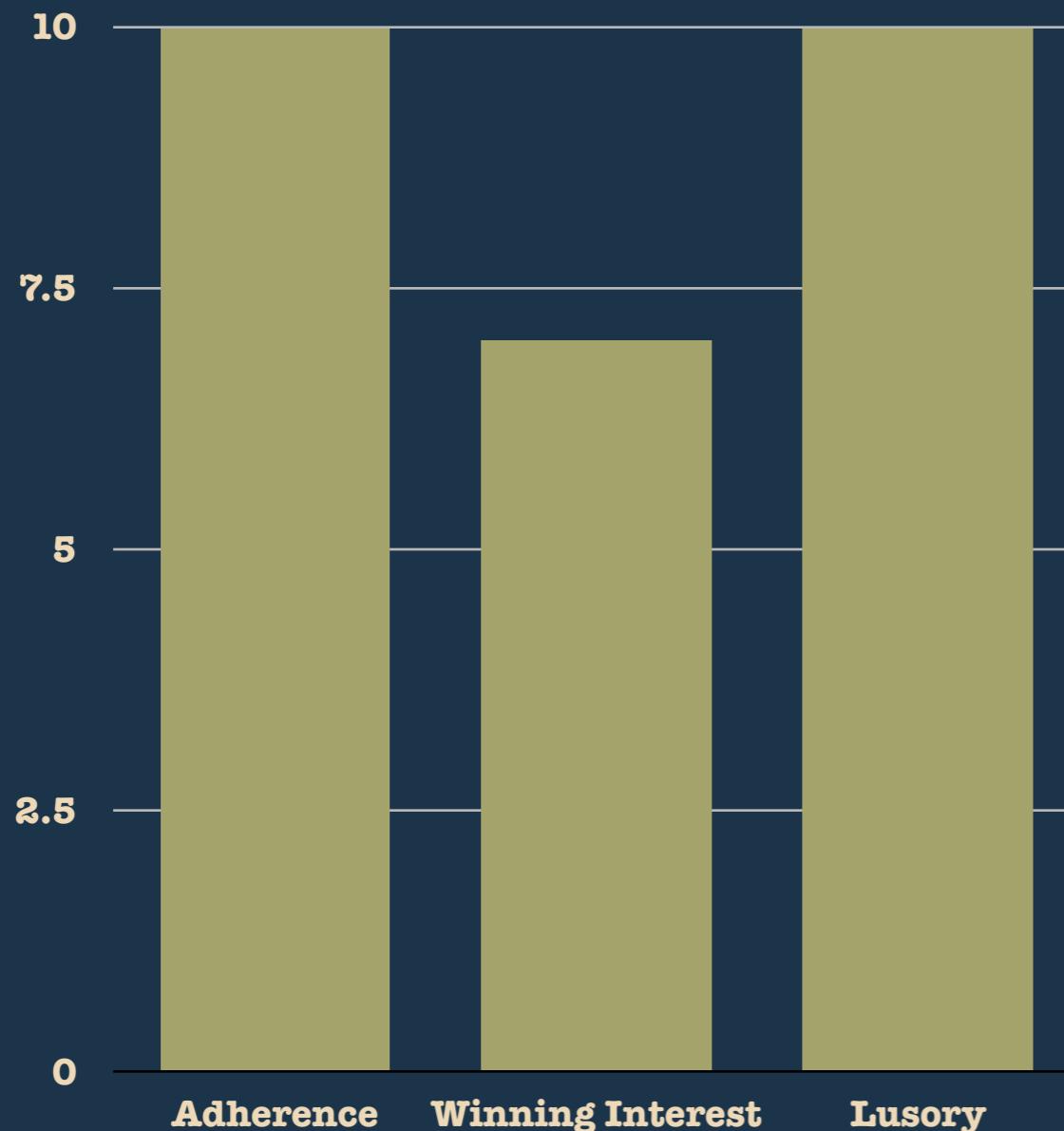
- By knowing player types, we can consider the ways rules are broken
- Player types depend on the combination of these elements:
 - adherence to the rules
 - interest in winning
 - degree of lusory attitude : state of mind required to enter into the play of a game, to accept unnecessary (inefficient) obstacles and have fun

STANDARD PLAYERS



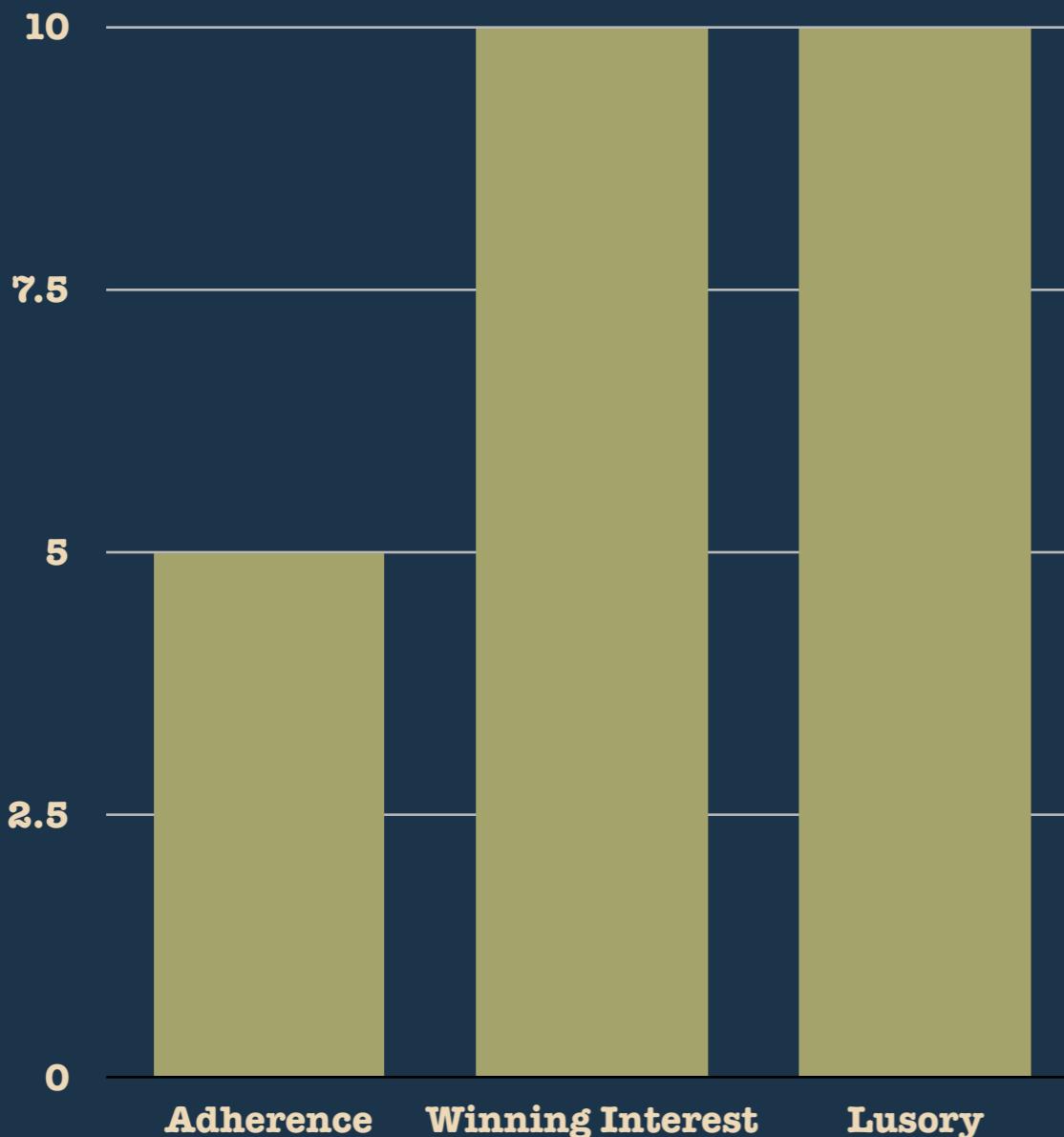
- Casual players
- Honest
- Play games as it was designed to be played
- In fact, this is the majority of players

DEDICATED PLAYERS



- Hardcore version of standard players
- Testing out strategies, perfect their play while still adhering to the rules
- Taking games a bit too seriously
- Doesn't seem enjoyable to casual players

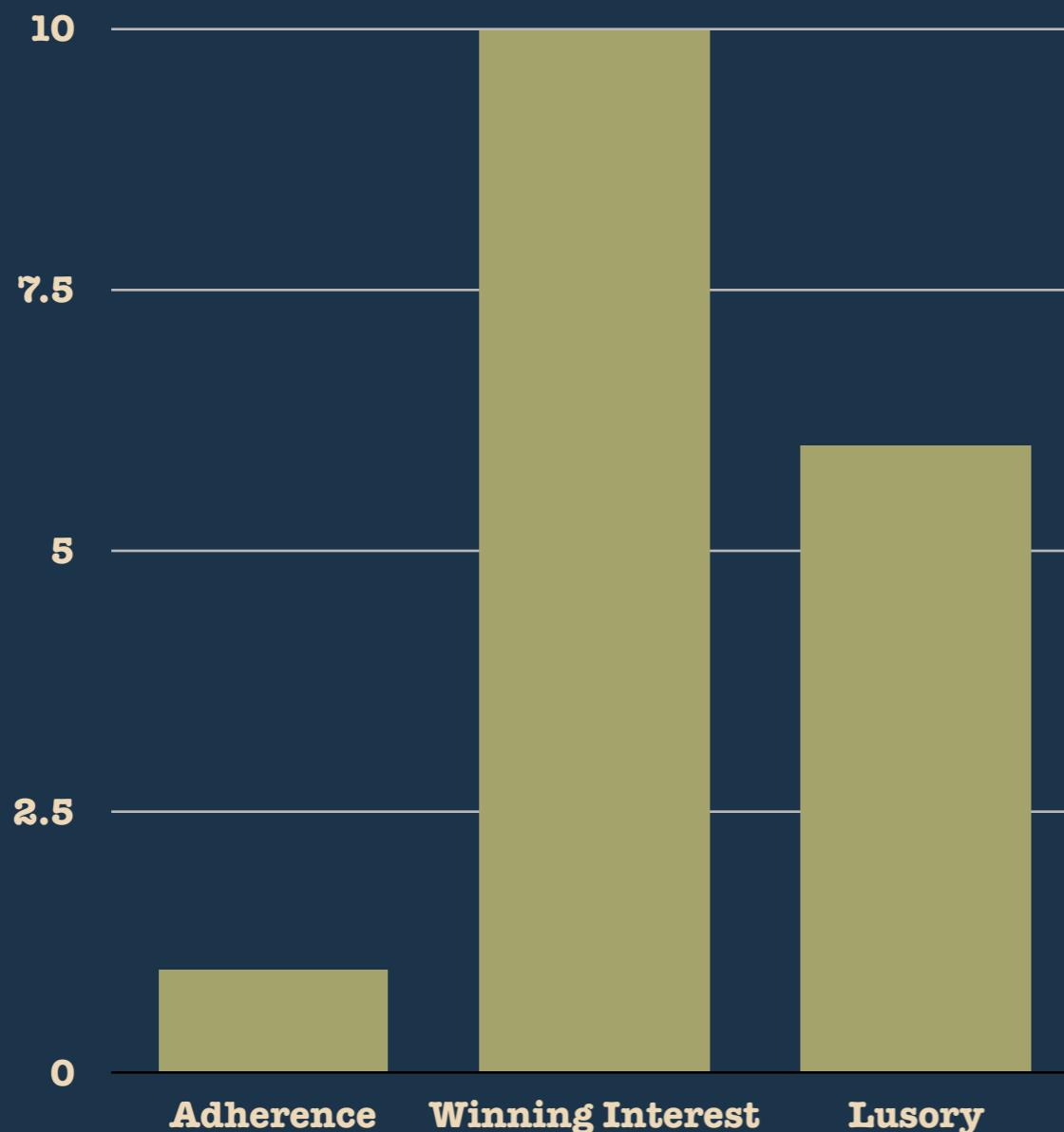
UNSPORTSMANLIKE PLAYERS



- *Unethical* version of dedicated players
- Do anything they can to win
- Try to find *loopholes*, most likely almost (but not) violating the rules
- Violates the *spirit* of the game: the implicit, unspoken game rules

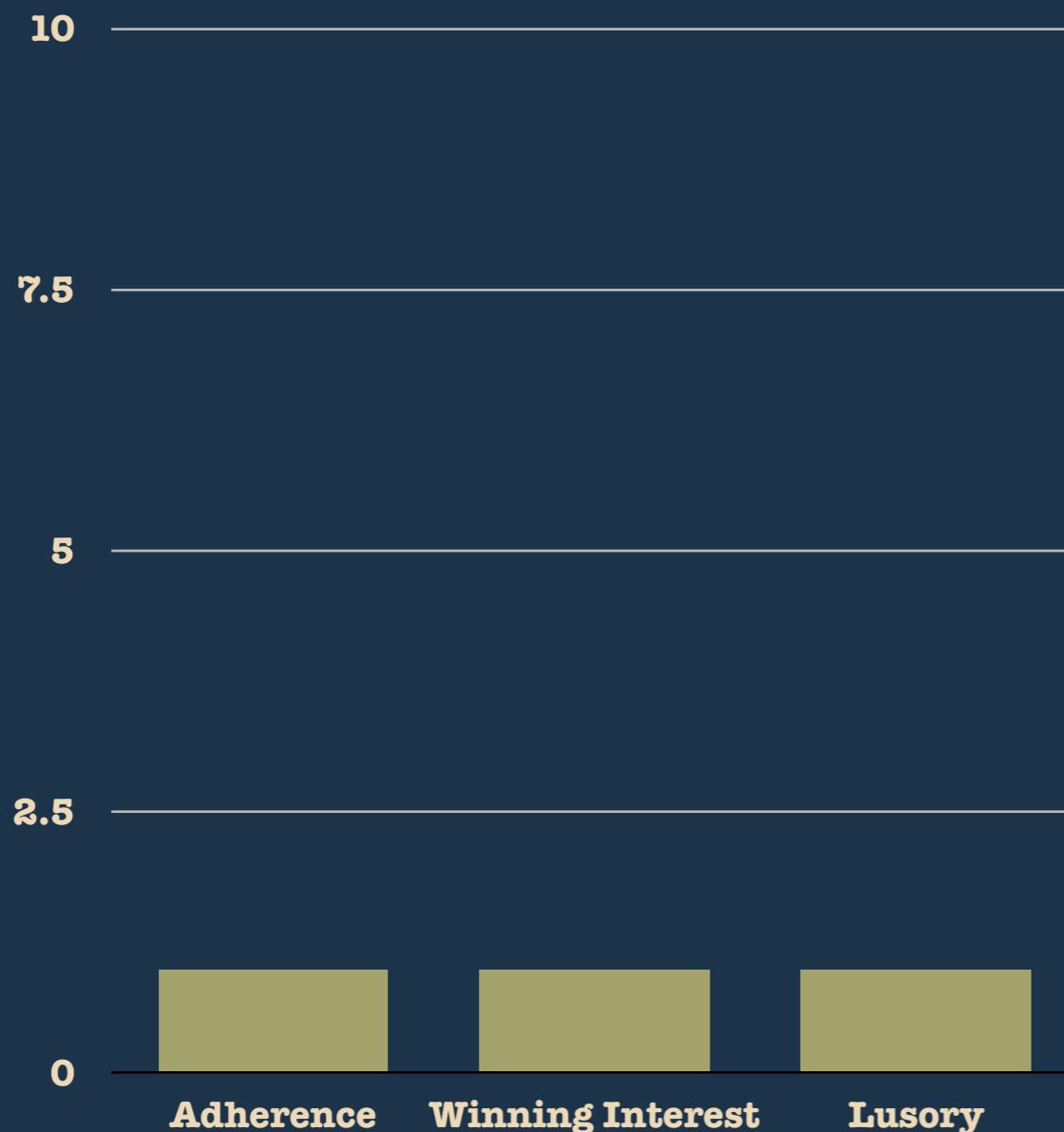


CHEAT PLAYERS



- Breaks the rules altogether to gain advantage
- A cheater however, is still playing the game while pretending to adhere to the rules
- Crave winning so much such that breaking the rules is acceptable

SPOIL-SPORT PLAYERS



- Breaks the rules
- Doesn't accept the rules (refusing to acknowledge the game)
- Doesn't attempt to conceal the fact that they are breaking the rules
- You can't play multiplayer games with spoil-sport players

THE FIVE-FACTOR MODEL

- A well known psychological model of human personality traits
- Explains personality traits in terms of five nonoverlapping domains:
 - **openness to new experiences,**
 - **conscientiousness,**
 - **extraversion,**
 - **agreeableness,**
 - **neuroticism**

MOTIVATION

- Player motivation model is related to game design decision model
- We want to make games that people will play
- But, who? *What kind of players?*
- *We need to get to know our target players first through qualitative experiments — to find out their traits*

OPENNESS TO EXPERIENCE

- Distinguishes imaginative, creative motivations from down-to-earth, conventional ones.

CONSCIENTIOUSNESS

- Deals with the way we control, regulate, and direct our impulses.

EXTRAVERSION

- Deals with the tendency to seek out stimulation and the company of others.

AGREEABILITY

- Reflects differences in concern with cooperation and social harmony.

NEUROTICISM

- Reflects a tendency to experience (or not experience) negative emotions.

THE FIVE DOMAINS OF PLAY

- VandenBerghe proposed a way of understanding different kinds of players and why they choose the games that they do.
- His work is based on the Five Factor Model.
- He explained that the five traits of the Five Factor Model can be correlated with five domains of play that **might fulfill them**—which can also be thought of **as aspects of a game that players might be motivated to seek out.**



“The 5 Domains of Play: Applying Psychology’s Big 5 Motivation Domains to Games,” delivered at the 2012 Game Developers’ Conference (VandenBerghe, 2012)

NOVELTY

- Correlates with: openness to experience.
- Players who seek novelty like games that include a lot of variety and **unexpected** elements.
- People who don't like novelty seek **familiarity** instead: games that offer them a *comforting sameness*.

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CHALLENGE

- Correlates with: conscientiousness
- High-challenge players prefer games that are **difficult** and require **precision to win**. Their conscientiousness drives them to act, to *accomplish things*, and perhaps to try to complete everything in a game.
- Low-challenge players like **sandbox games** and others in which the player is free to fool around without being required to achieve something.

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STIMULATION



- Correlates with: extraversion
- Particularly stimulation via social engagement
- These players enjoy party games and others that involve **interacting** with other players.
- Those who prefer to avoid stimulation prefer games they can play alone, games that let them be the only real person in the game world.

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HARMONY



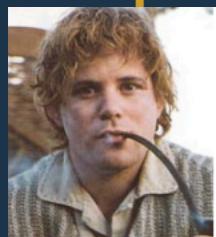
- Correlates with: agreeableness
- Harmony can be described as a **quality** of a game, the feeling that all parts of the game belong to a single, coherent whole.
- Players who tend to have high level of agreeableness like cooperative games, whereas those who don't love highly competitive games

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THREAT

- Correlates with: neuroticism
- The game quality of threat (an element of danger, or frightening content—anything that is likely to generate unpleasant emotions) is popular with people who have *high neuroticism scores*

MAPPING NOVELTY

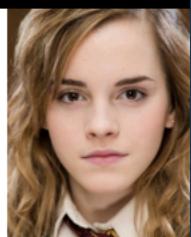


Novelty (Openness to Experience)

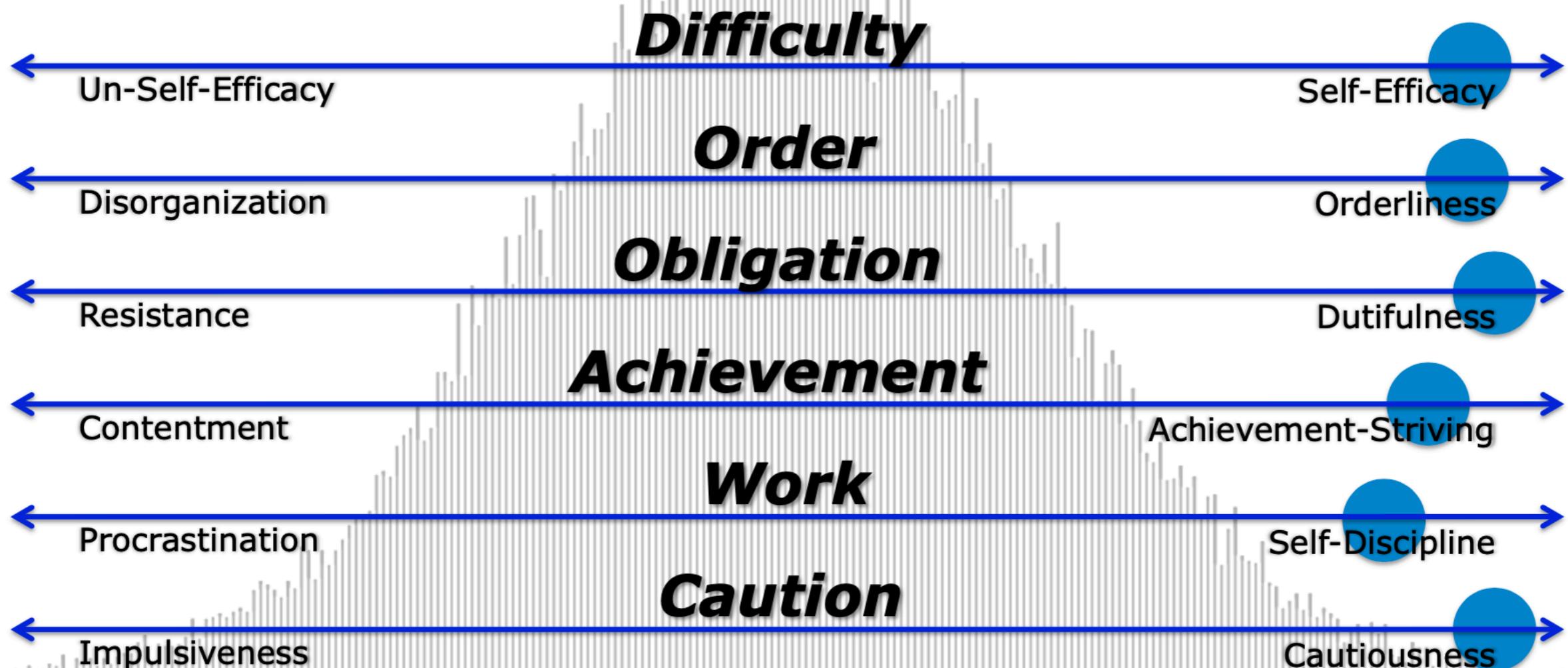


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MAPPING CHALLENGE



Challenge (Conscientiousness)



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MAPPING STIMULATION



Stimulation (Extraversion)

Expression

← Reservedness

→ Friendliness

← Non-gregariousness

→ Gregariousness

← Receptiveness

→ Assertiveness

← Activity Level (low)

→ Activity-Level (high)

← Excitement-Aversion

→ Excitement-Seeking

← Inexpressiveness

→ Cheerfulness

Crowds

Role

Pace

Thrill

Joy

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MAPPING HARMONY

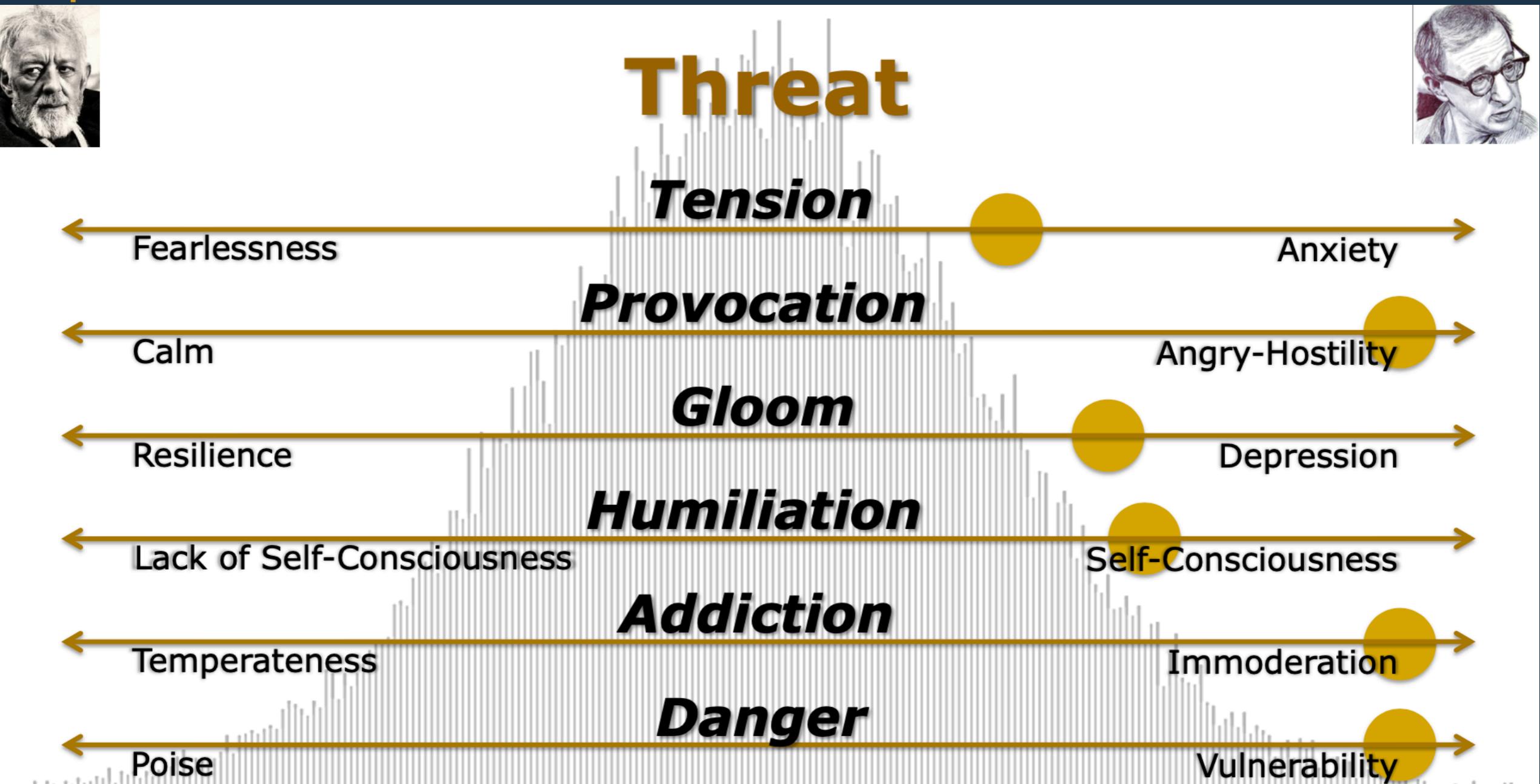
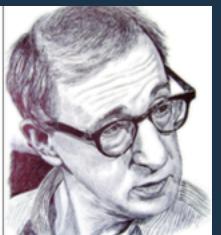


Harmony (Agreeableness)



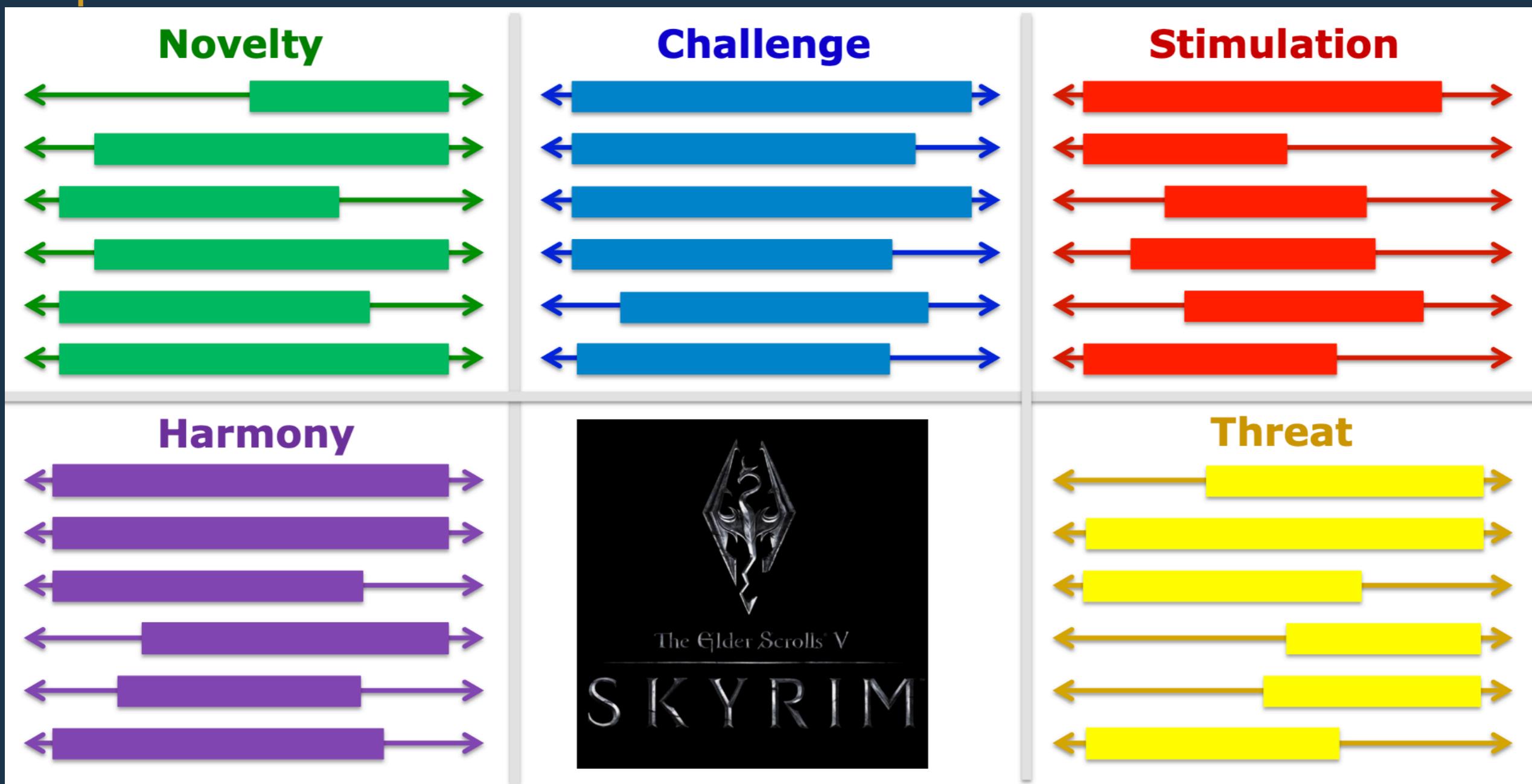
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MAPPING THREAT



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EXAMPLE



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EXAMPLE



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CONCLUSION

- The 5 domains of play — mapped to 30 facets of play (6 each, to characterise the game)
- “We tend to play for the same reasons we live”

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CONCLUSION

- The 5 domains of play — mapped to 30 facets of play (6 each, to characterise the game)
- “**We tend to play for the same reasons we live**”
- “**Game design has techniques for targeting most of human motivation**” — *octalysis is just another tool to analyse your game like this*

CONCLUSION

- The 5 domains of play — mapped to 30 facets of play (6 each, to characterise the game) — can be used to guide us to design games that will satisfy our target audience.
- **“We tend to play for the same reasons we live”**
- **“Game design has techniques for targeting most of human motivation”** — *octalysis is just another tool to analyse your game like this*
- **“To reach a larger audience, target both sides of the spectrum”** — *but if you can’t its okay. We cannot satisfy everybody*

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DEGENERATE STRATEGIES

- Takes advantage of a weakness in the game design, so that the play strategy guarantees success
- Usually fixed by patches in online games
- It is **not** cheating
- Done by dedicated and unsportsmanlike players
- Degenerate strategies put **certainties** on the the **outcome** (formal elements) of the game, thus making it uninteresting

RULE BREAKING IN GAME DESIGN

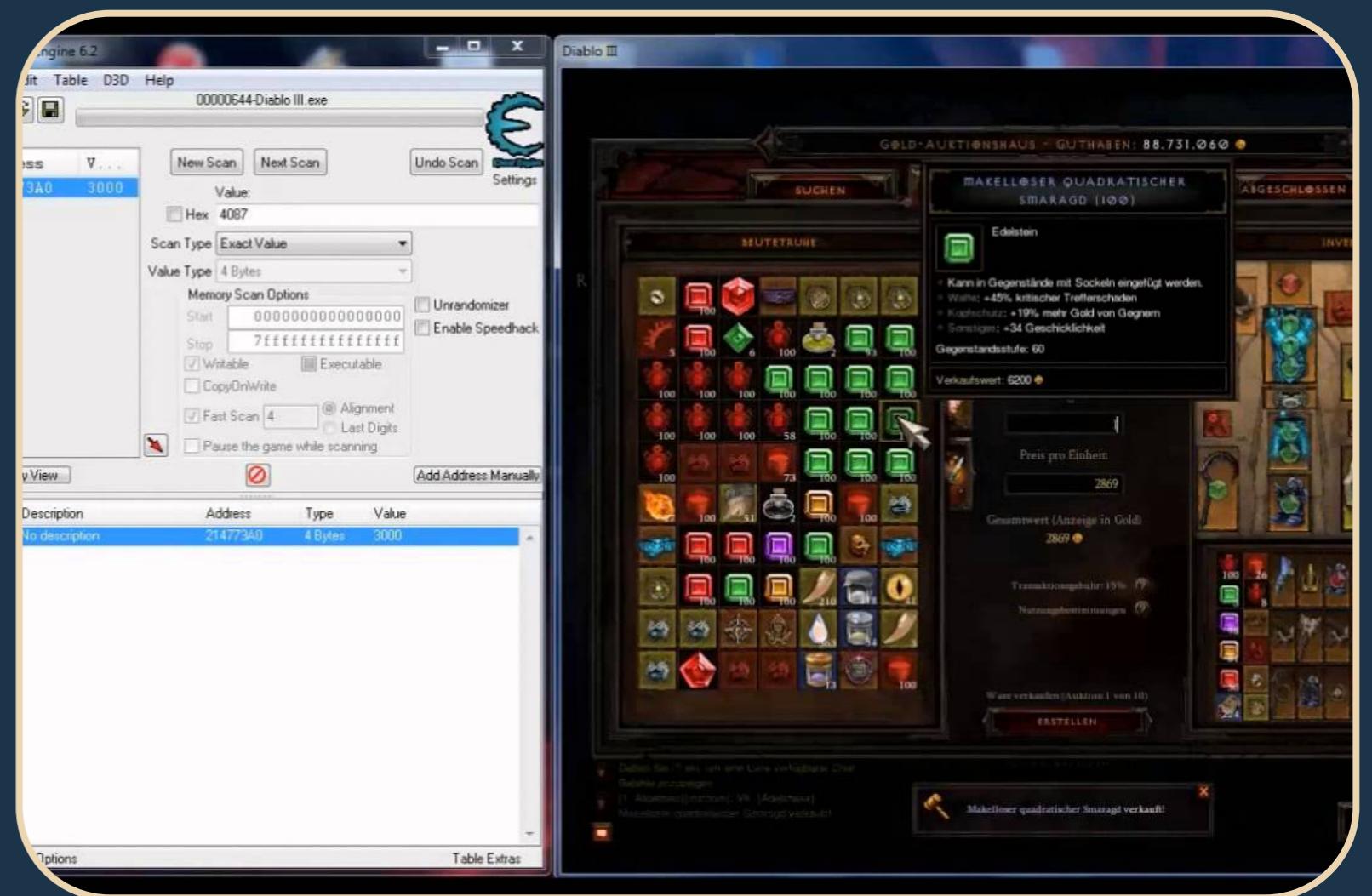
- **Easter eggs:** hidden secrets in the game to discover, but doesn't impact game strategy

Whimsyshire
Diablo III
(Unicorn level)



RULE BREAKING IN GAME DESIGN

- **Cheat codes:** impacts the strategies of the game
- Depends on games, might have consequences (account banned)



RULE BREAKING IN GAME DESIGN

E.g: Easy experience, money, and items

- **Game guides and walkthroughs:** smart, complete guides to get through the game efficiently
 - Play "The Legacy Of Cain - Explore Cellar" quest in Act I. Take the waypoint to The Old Ruins and go north, then east. Go down the cellar to encounter a named mob (Captain Daltyn) and his minions. Kill him for at least one magic item and some coins. Loot the cauldron for at least one health potion. Talk to Leah for quest completion experience and gold. A loot chest also appears 40% of the time. Exit and repeat as many times as desired. The pathway will never change, but you will keep hearing a Tristram Militia whining about how he promised to save Marko but did not. -
- Might be seen as unfair and break the spirit of the game

Read more: <http://www.cheatcc.com/pc/diablo3cheatscodes.html#ixzz5Dfp3hegF>

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RULE BREAKING IN GAME DESIGN

- **Workarounds:** taking advantage of game flaws that were unforeseen by game devs, especially apparent in video games
- Usually fixed by patches, depending on degree of severity
- Example: Playing Diablo III with PS4 Controller for easy navigation + skill combos, force attack (attack monsters without having to click them)

RULE BREAKING IN GAME DESIGN

- **Rule-breaking can be fun and harmless**
- In some games (*The Sims*), it might also be encouraged : gives the player a sense of authority
- For game designers, this means that you should *never take players' behaviour for granted*
- Need to consider the fact that your game will be *played by all kinds of people*
- Some of these player types can help **expand** your game's space of possibility, whereas others can **wreck** the game for everyone involved

TRUE CHEATING, HACKINGS, AND SPOIL-SPORT HACKING

- These acts usually result in your account being banned (for multiplayer games)
- Not going to have much dire consequences for single-player offline games since it doesn't involve other people, but it spoils the potential 'fun' of the game
- How you sanction rule breakers depends on the *context* of the game (PvP? Does it involve cash? MMORPG? MOBA?)

SUMMARY

- Defining rules
- General characteristics of rules
- Types of rules
- Types of players
- The 5 factor model and the 5 domains of play
- Breaking the rules in game design