G54GAM - Games

- Dramatic Elements of Game Play

Narrative Components

- Premise
- Characters
- Developing Story
- Conflict and Dramatic Arcs

Premise

- Establishes the action of the game within a setting or metaphor
- Sets…
  - Time and place
  - Main characters
  - Objective and action that propel story forward
- Can be simple or complex
- Makes the formal system **playable**
- Create an emotional appeal to the game

Premise

- Space Invaders
  - Set on a planet attacked by aliens
  - An anonymous protagonist is responsible for defending the planet from the invaders
  - Story begins when the first shot is fired
  - Shoot aliens (not abstract blocks on a screen)
- Grand Theft Auto San Andreas
  - Set in fictional town called San Andreas
  - Return after 5 year absence to find family and friends in disarray
  - Story begins after cut-scene introduction

Characters

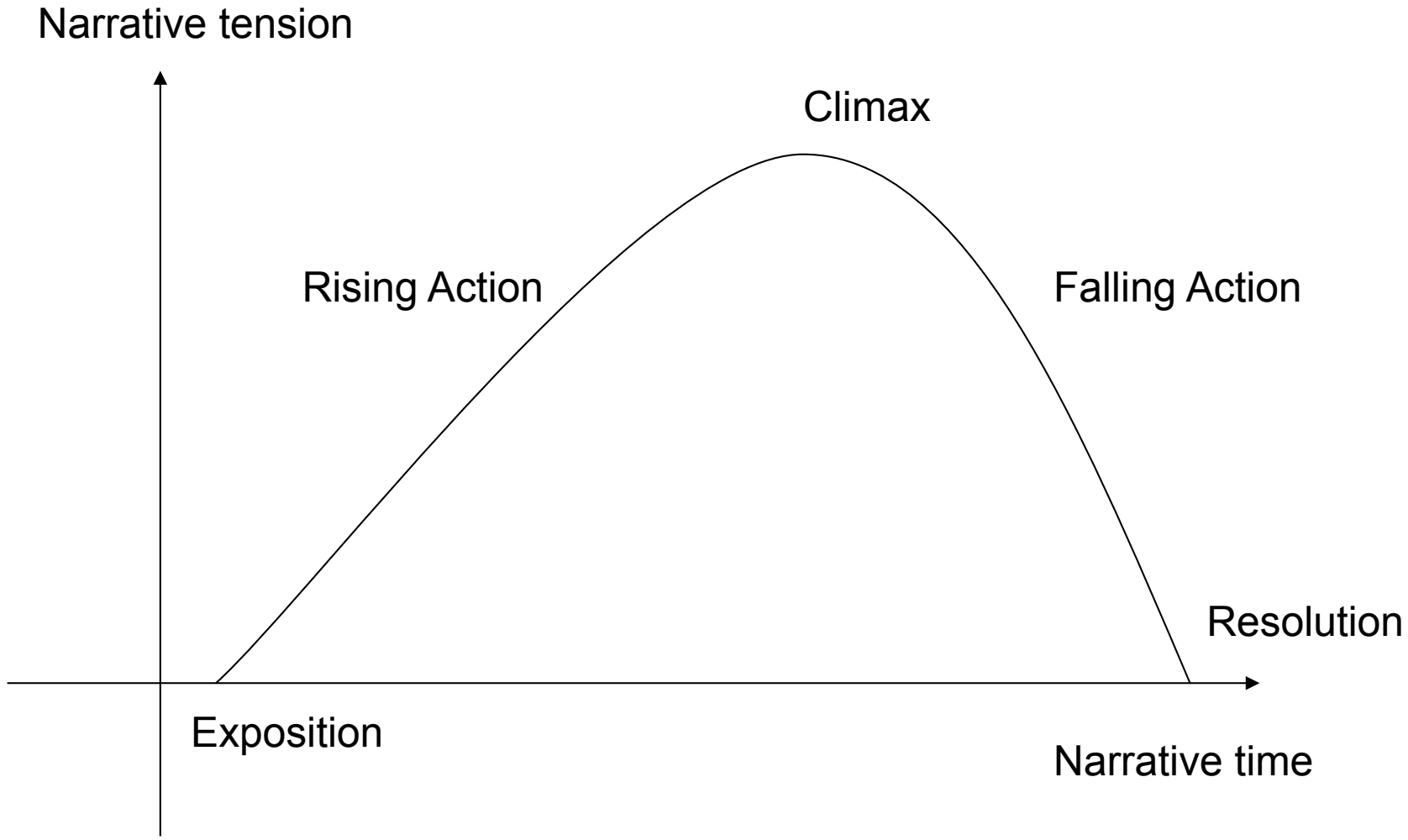
- Story is told through the actions of characters
- Player identifies with characters and the outcomes of their goals
- Protagonist (main character)
  - Engagement with challenges creates conflict
- Antagonist
  - Opposes attempts to solve the problem
  - A person or some other force
- Major / Minor
  - Level of impact on the story
- Round / Flat
  - Depth
  - Realism of personality
- Dynamic / Static
  - Change in personality
  - Stock Character
- Recognisable Stereotypes
  - Good, evil, traitor

Conflict and Dramatic Arcs

- Conflict is the key to a good drama
- Keeps players from accomplishing goals too easily, draws players into the game emotionally by creating a sense of tension as to the outcome
- Traditional drama
  - Conflict occurs when protagonist faces obstacle/problem that keeps them from accomplishing their goal
- Games
  - Conflict from other players, obstacles, other forces/ dilemmas

Conflict and Dramatic Arcs

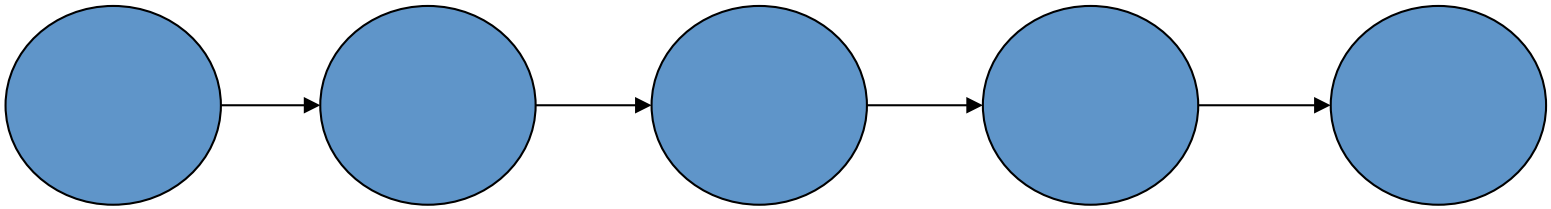
- Conflict must escalate to provide drama
- Escalating conflict creates tension
- Tension gets worse before it gets better
- A dramatic arc describes the amount of dramatic tension in a story


Narrative tension
Climax
Rising Action
Falling Action
Resolution
Exposition
Narrative time

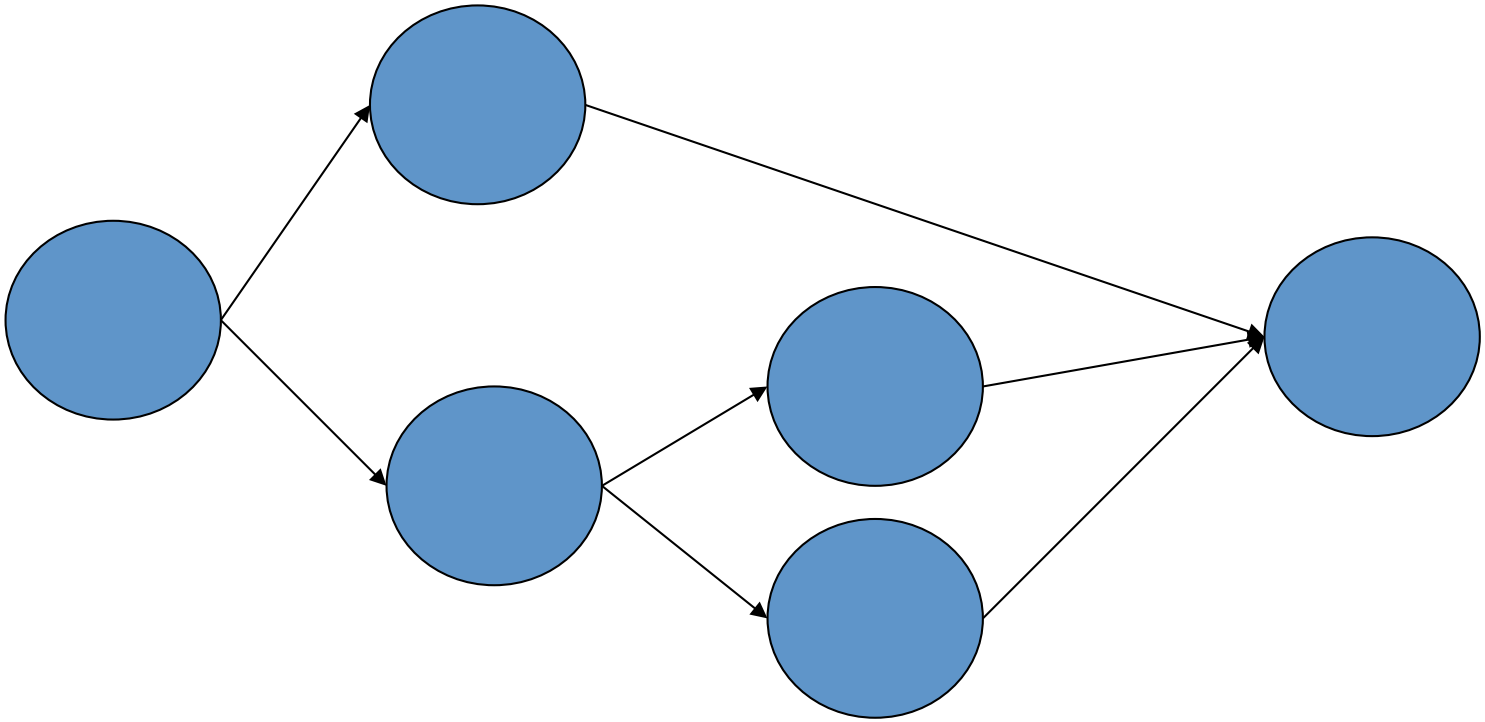
Developing Story

- Conventional Linear narrative
  - Books, plays, movies
  - Audience experiences story that progresses from one point to the next as determined by an author
  - Audience not an interactive participant, cannot change outcome of the story
- Games
  - Player is an interactive participant
  - Can potentially change short or long-term outcome (non-linear)
  - Story potentially limited to back-story (premise)

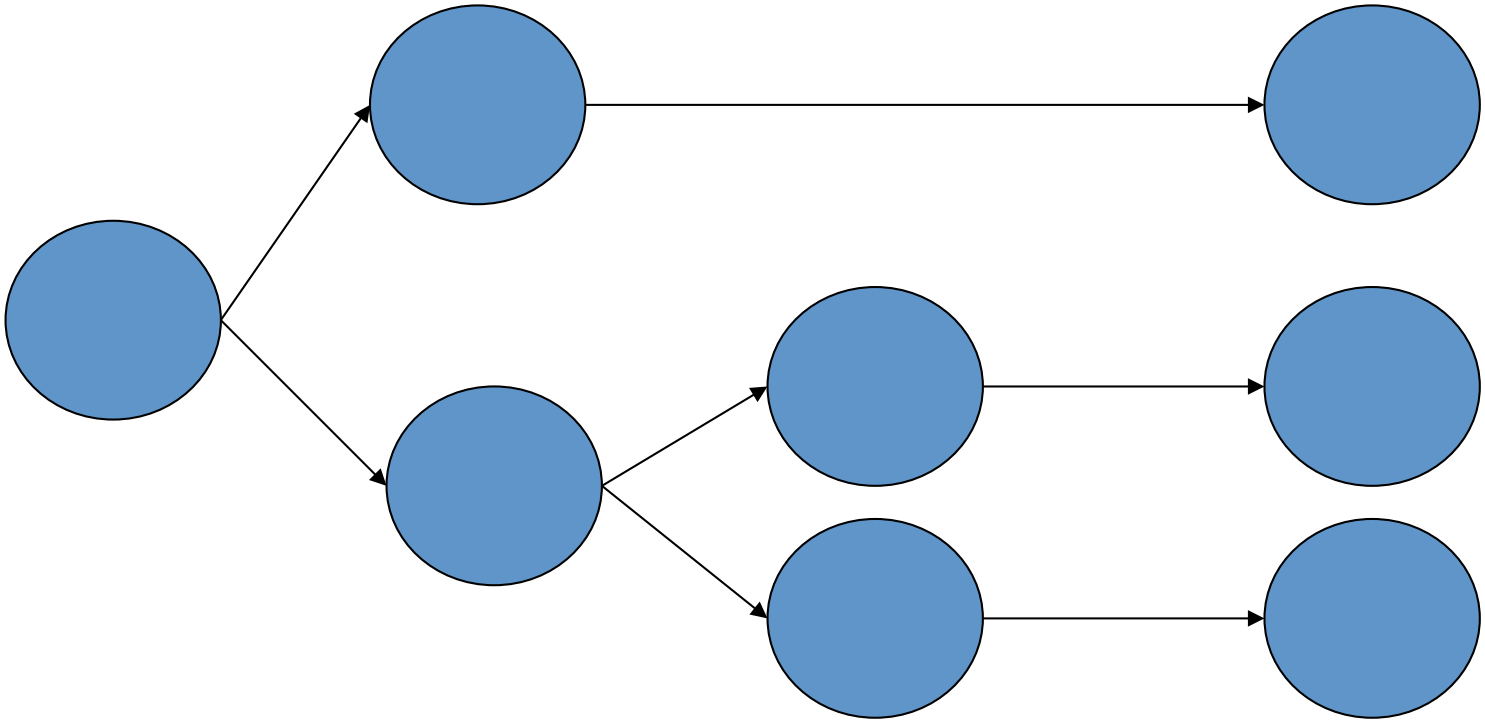
Linear Narrative



Branching Narrative



Branching Narrative (Open)



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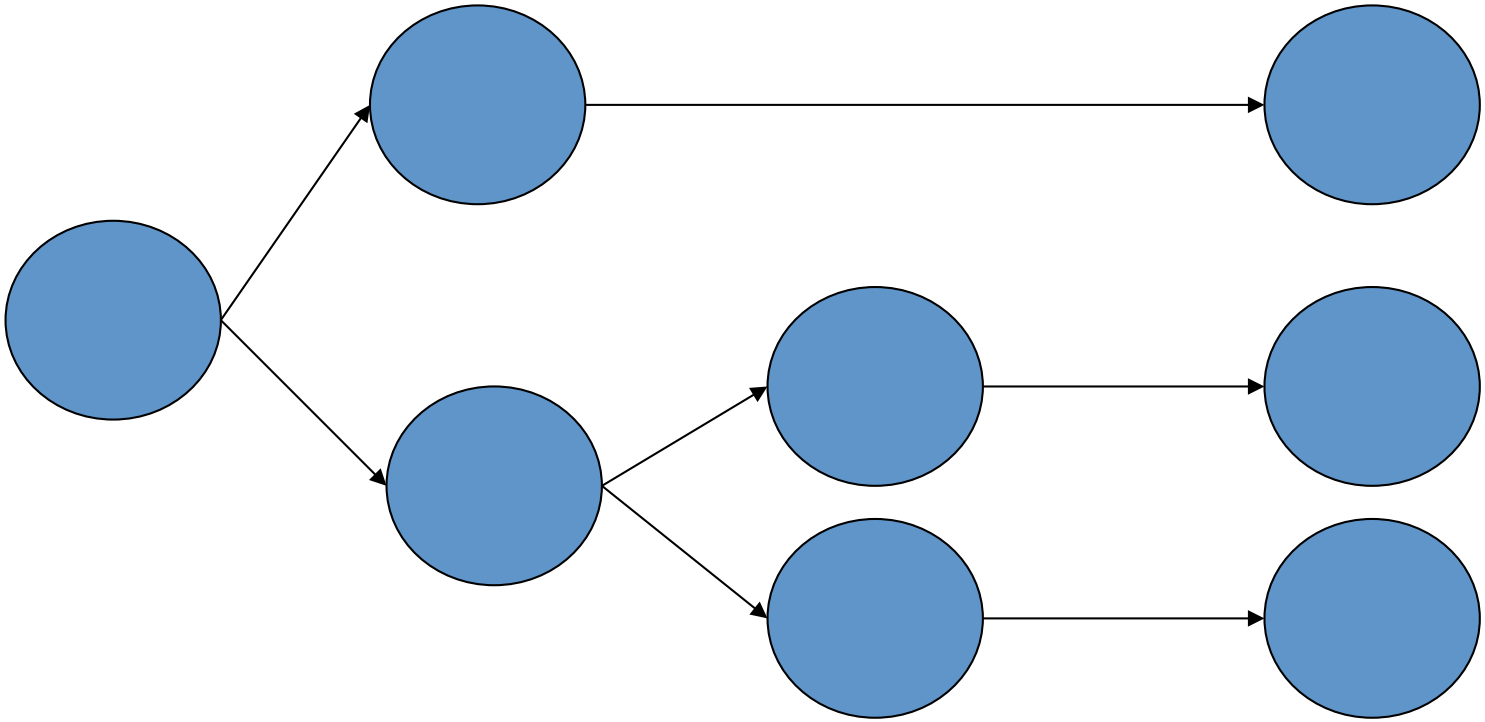
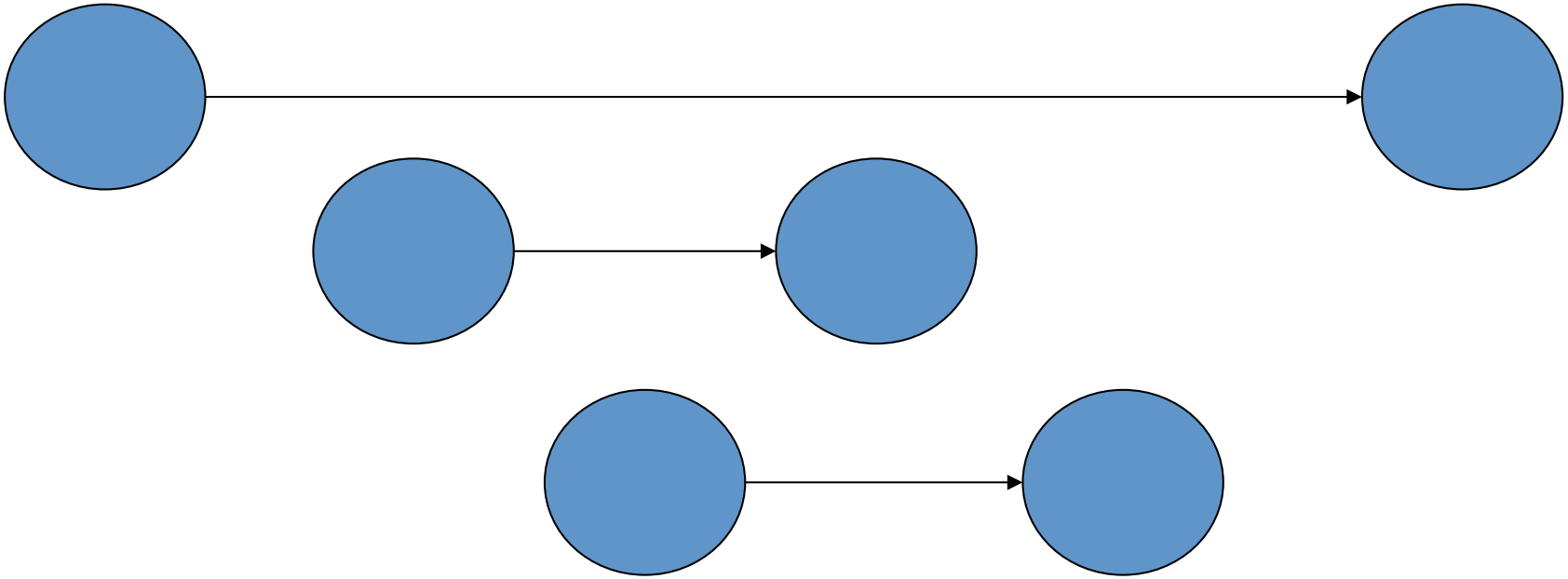


Concurrent Narratives

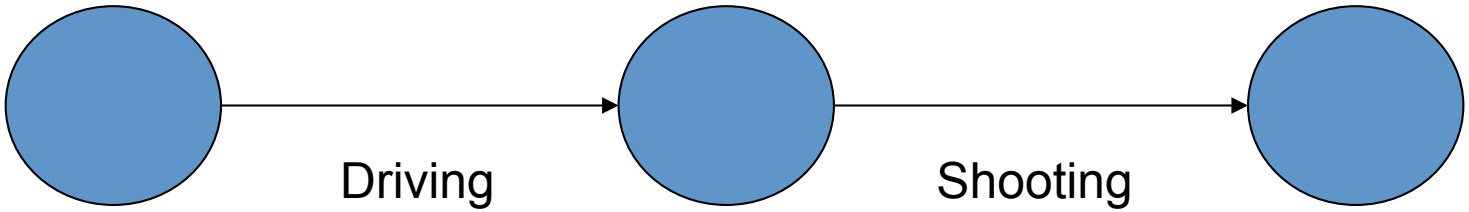


Grand Theft Auto – San Andreas

Cut Scene

Cut Scene

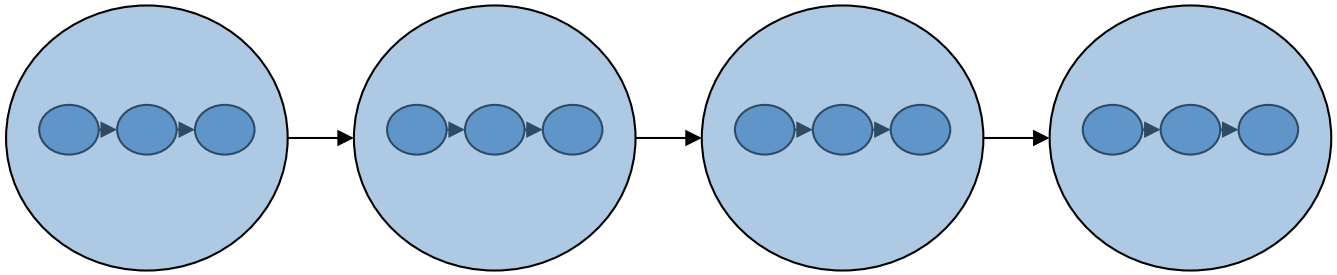
Cut Scene



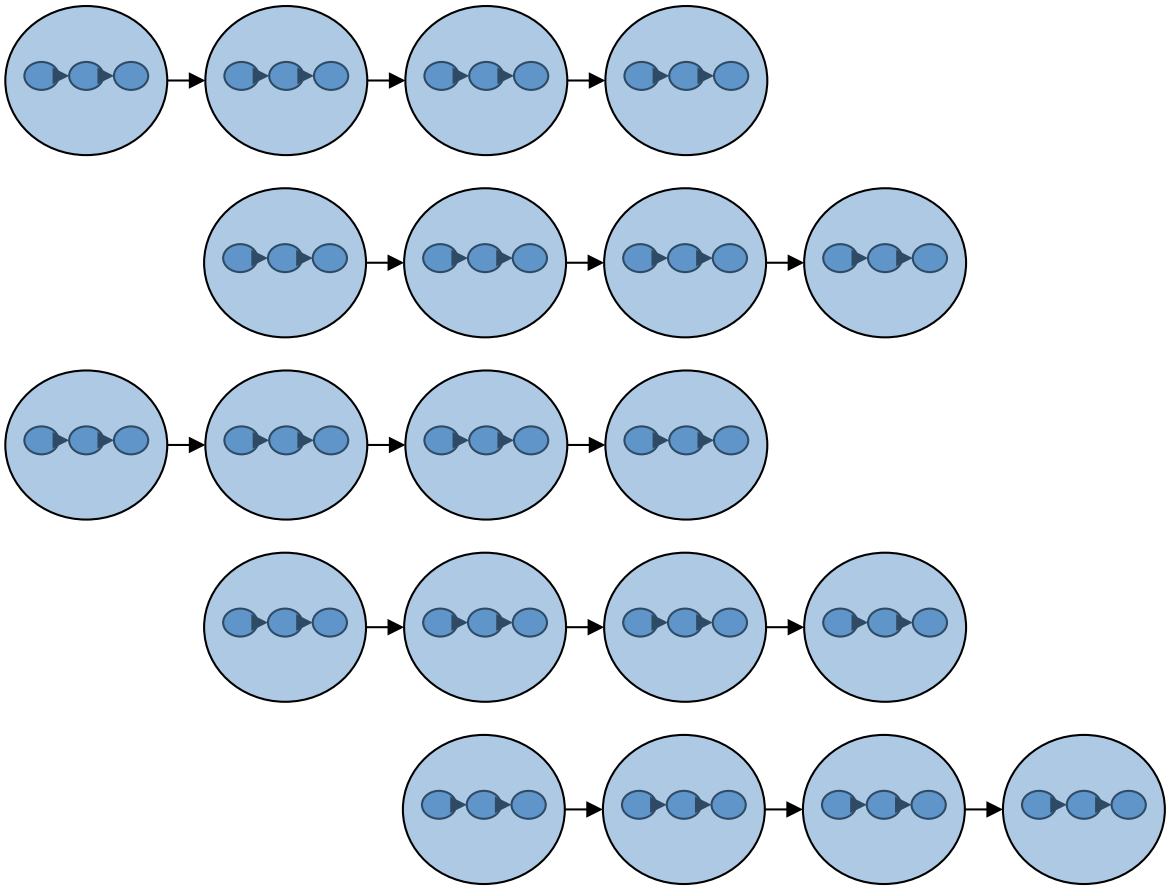
Driving

Shooting

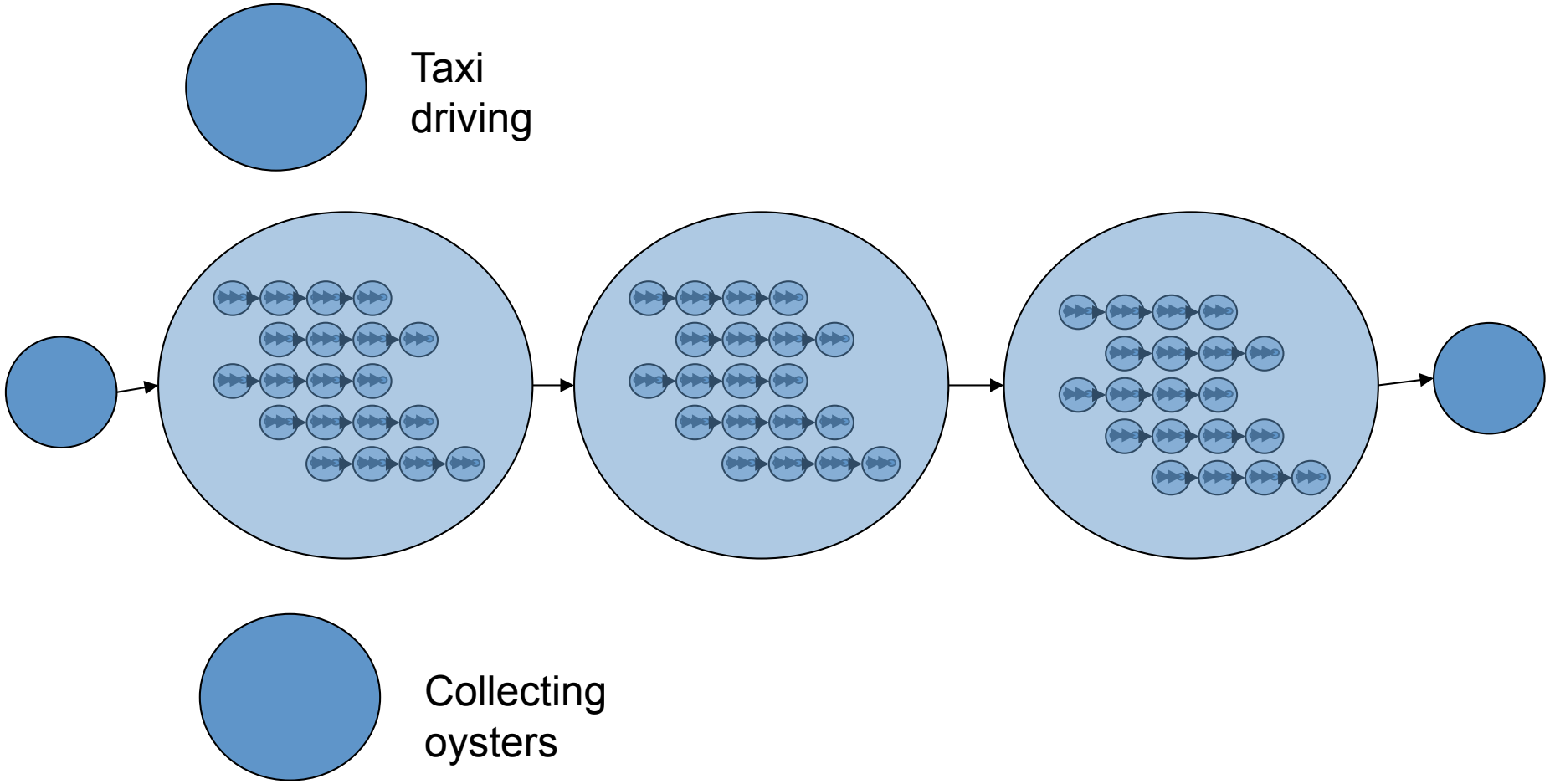
Grand Theft Auto – San Andreas



Grand Theft Auto – San Andreas



Grand Theft Auto – San Andreas



Where are we?

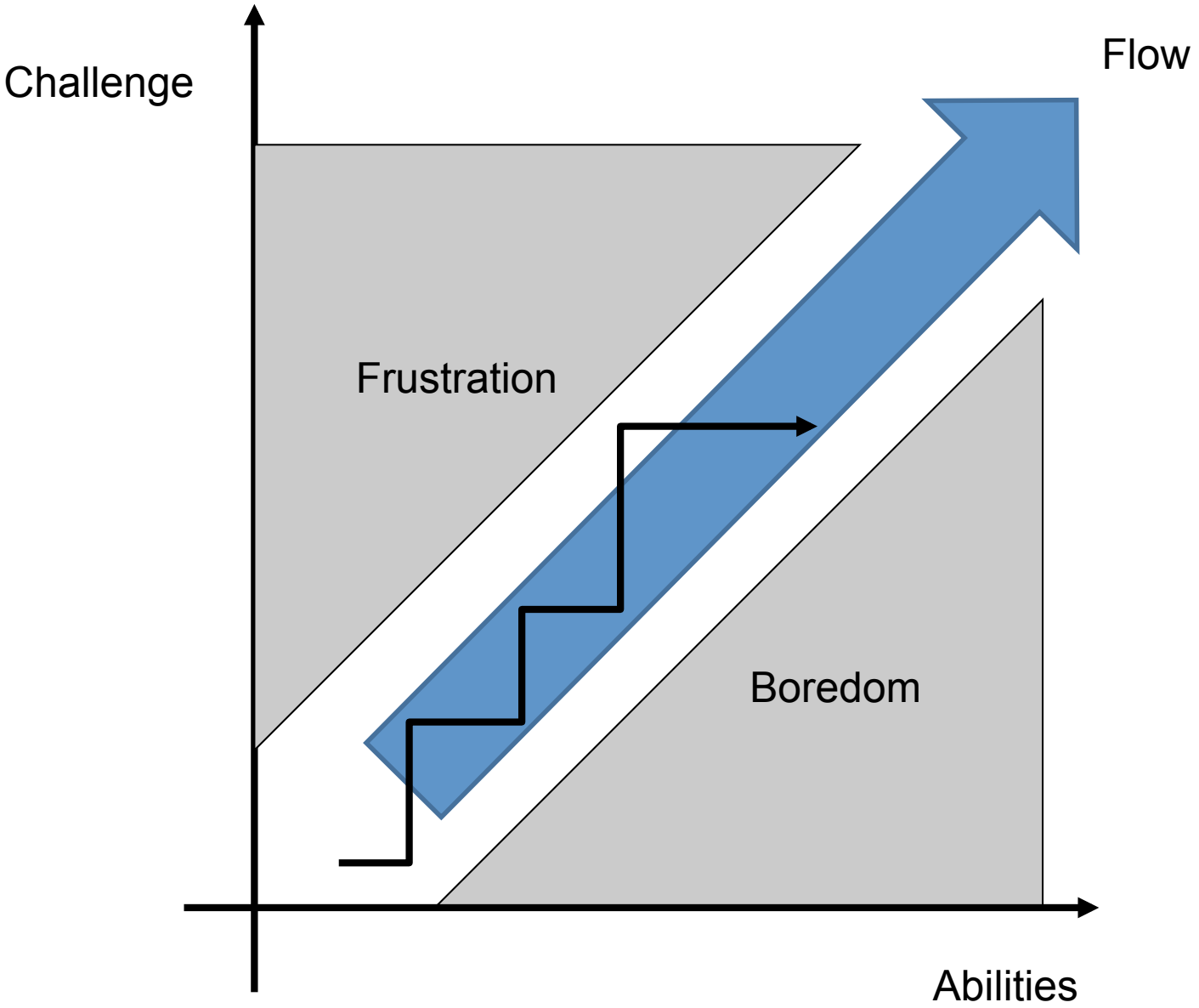
- Formal elements
  - Core game mechanic
  - Game play
  - How we play
- Dramatic elements
  - Challenges
  - Narrative and Story
  - Why it is exciting to play
- What keeps us playing?

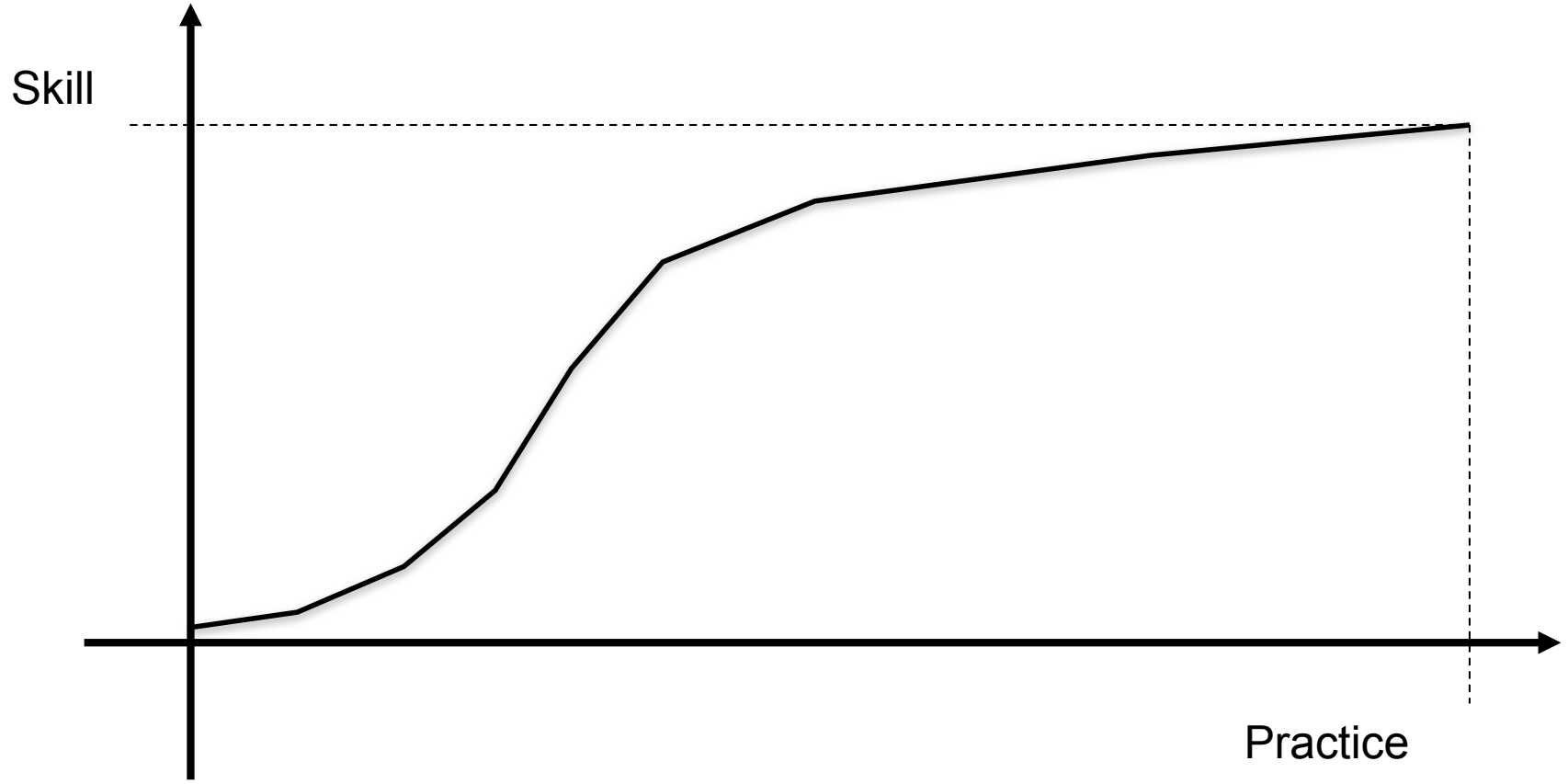
Progression and Longevity

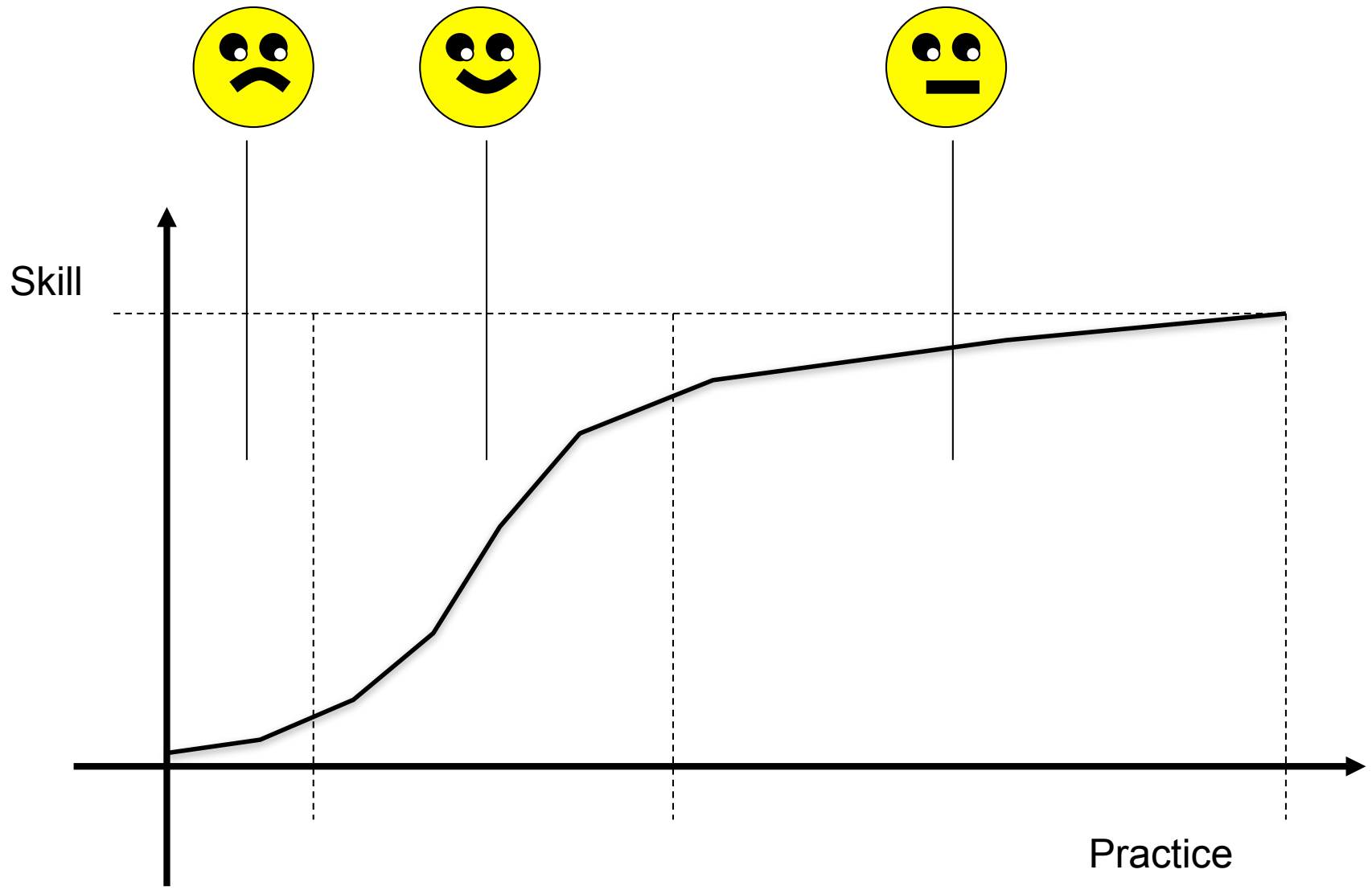
- Good game design is about creating a series of interesting challenges and narratives
- Games become dull if the challenges and narrative never change
- Modulate and ration challenges to keep the player engrossed in the game
- Challenges and narrative can be…
  - Concurrent
  - Contiguous
  - Nested

Flow

- Flow
  - the mental state of operation in which a person in an activity is fully immersed in a feeling of energized focus, full involvement, and success in the process of the activity
  - Mihály Csíkszentmihályi

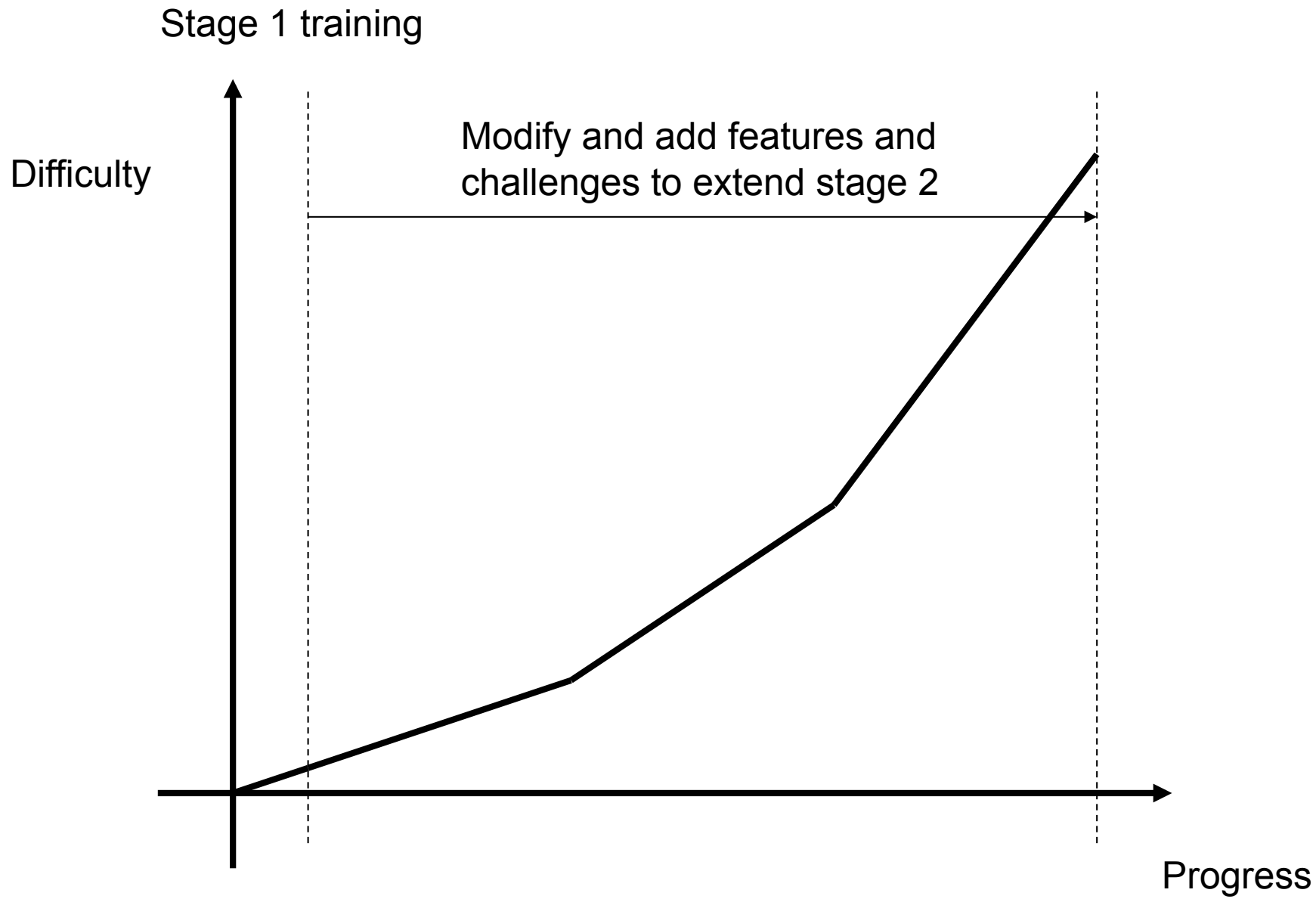

Challenge
Flow
Frustration
Boredom
Abilities


Skill
Practice


Skill
Practice

Progression

- Stage 1
  - Slow progress
  - High frustration
  - A lot to learn
  - Design should support the player
- Stage 2
  - Skill increasing
  - Aware of success
  - Ideal state
  - Make it last as long as possible
- Stage 3
  - Mastery of the challenge
  - Boredom
  - Unlikely to complete the game


Stage 1 training
Difficulty
Modify and add features and
challenges to extend stage 2
Progress

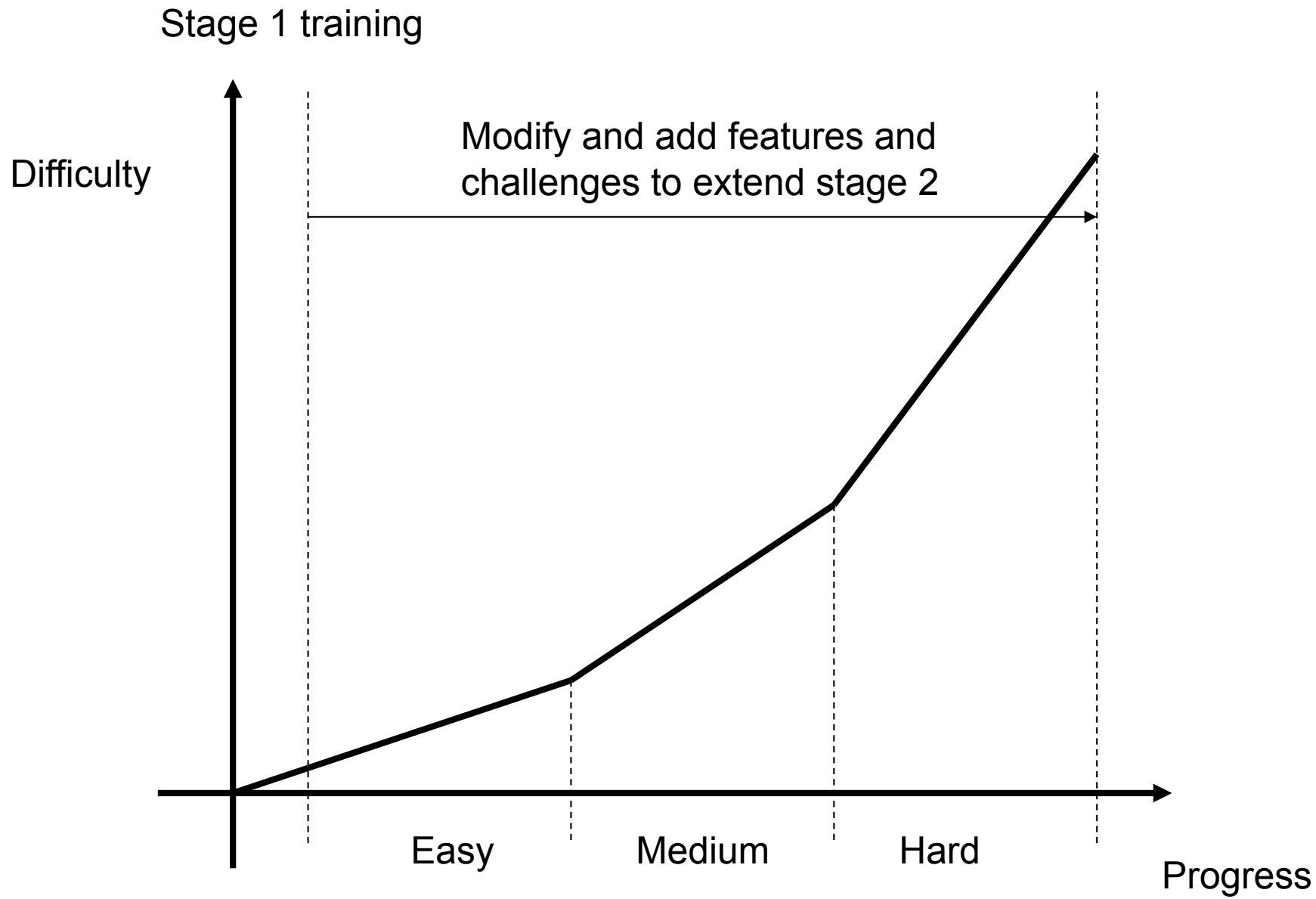
Progression

- Exploration
  - Unlock new areas
  - Re-use an existing area
  - New opponents, obstacles and environments
- Conflict
  - New abilities
  - New or harder opponents and obstacles
- Economy
  - Increase resource scarcity
  - New or harder opponents and obstacles


LSC - Los Santos Courier
BMX - BMX Challenge
OG - Ohliad Challenges
SFC - San Ferro Courier
NRG - NRG-500 Challenge
LVC - Las Venturas Courier
LVC
SFC
NRG
BMX
OG
LSC

Poor Progression

- Equivalent Features
  - Look different, but perform a very similar function to an existing feature
  - Different coloured enemy
- Arms Race
  - Player gets more powerful, enemies get more powerful
  - Game play and challenge does not change
- One Trick Pony
  - A challenge that is completely different to previous challenges, does not fit with the game genre
  - Racing game that suddenly requires puzzle solving


Stage 1 training
Difficulty
Modify and add features and challenges to extend stage 2
Easy
Medium
Hard
Progress

Simple Progression Dynamic

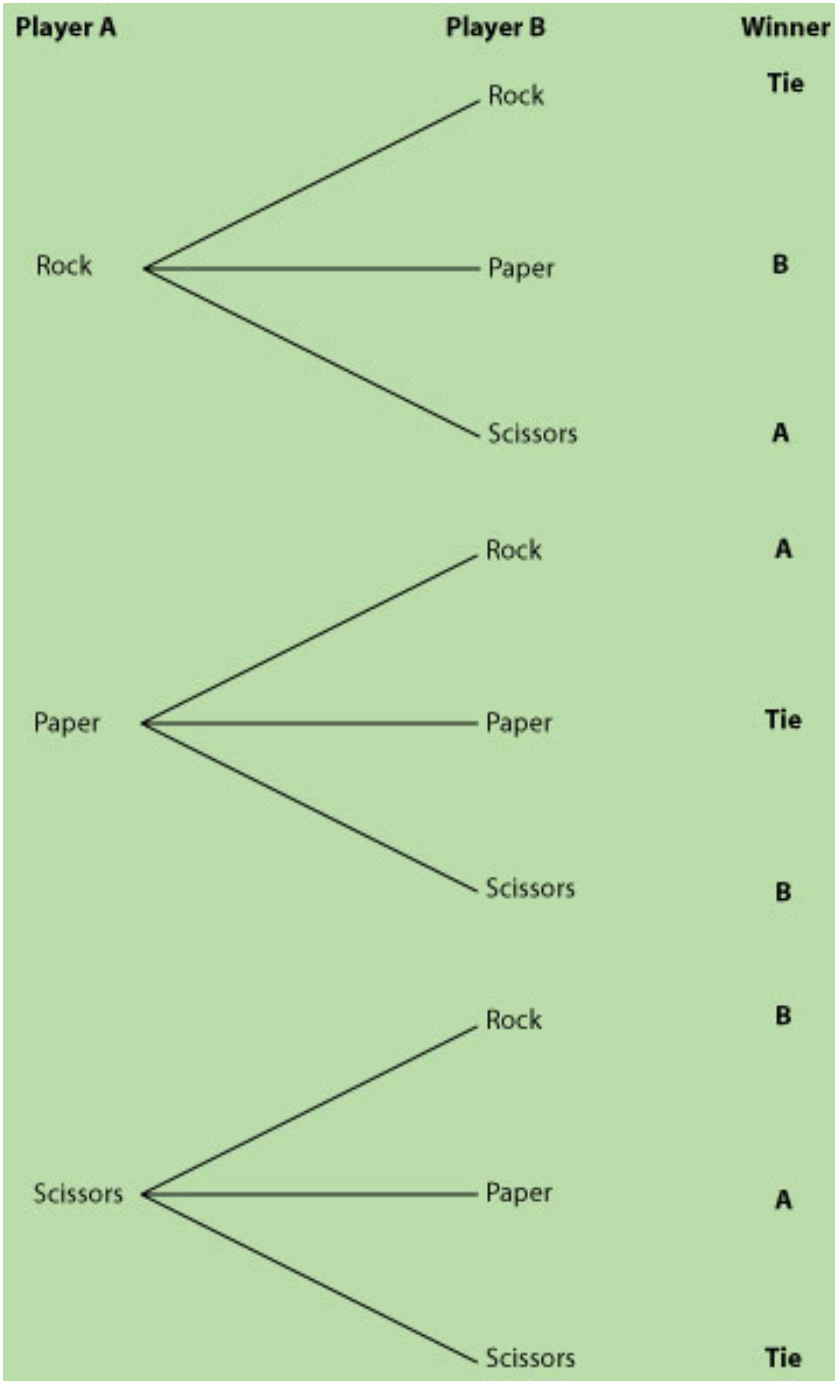
- Create a number of challenges or levels and group by difficulty
- Easy
  - All players should be able to complete these challenges
  - Design for those who are new to the genre
- Medium
  - Most players should be able to complete these challenges, including the game designer
  - Design for casual players
- Hard
  - Good players should eventually be able to complete these challenges

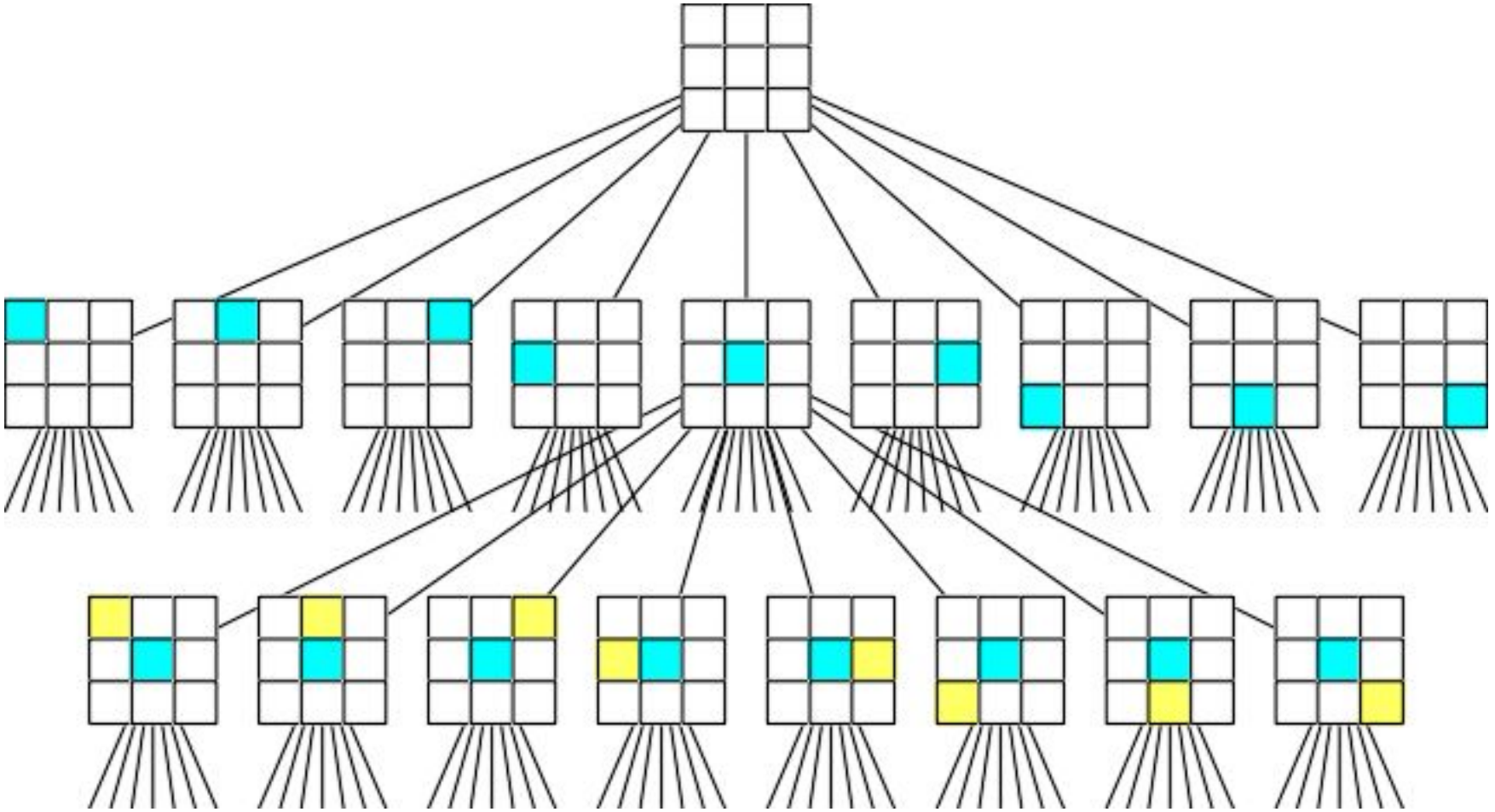
Balance

- Can make or break a game
  - Look, sound and even play well
  - Can still be a failure
- We may have all the formal and dramatic elements of game play
  - Need to be in balance with one another and the player
  - Game fails if they are not, no fun
- A **balanced** game is one where success of the player is largely determined by the skill of the player

How to balance?

- Combinatorial game theory
  - Optimisation problem
  - Just because a result is mathematically correct does not mean it is aesthetically pleasing
- Trial and error
  - Play, tweak, play, tweak…
  - Run out of time, release game
  - Tweak further by releasing additional patches
- Need to understand what we're balancing and how


Player A
Player B
Winner
Rock
Rock
Tie
Paper
B
Scissors
A
Paper
Rock
A
Paper
Tie
Scissors
B
Scissors
Rock
B
Paper
A
Scissors
Tie



Birthday Conundrum

	Birthday	Not Birthday
Buy Flowers	10	20
Do not buy flowers	-100	0

Dominant Strategies

- Always buy flowers
  - Always get positive payoff
- Don't buy flowers
  - Zero payoff
  - Massive loss
- Strongly dominant strategy
  - Guarantees winning every time
- Weakly dominant strategy
  - Guarantees not losing, but drawing

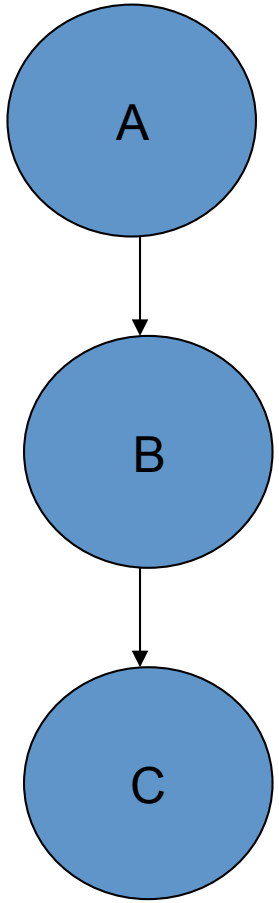

Attacking
25048
Selected across screen.
Apocalypse Tank

Balancing Techniques - Symmetry

- Each player (including the computer) is given the same starting conditions and abilities
- Most applicable to…
  - Sports simulations
  - Multi-player games
- Difficult to achieve precisely
- Leads to boring game play

Transitive Relationships

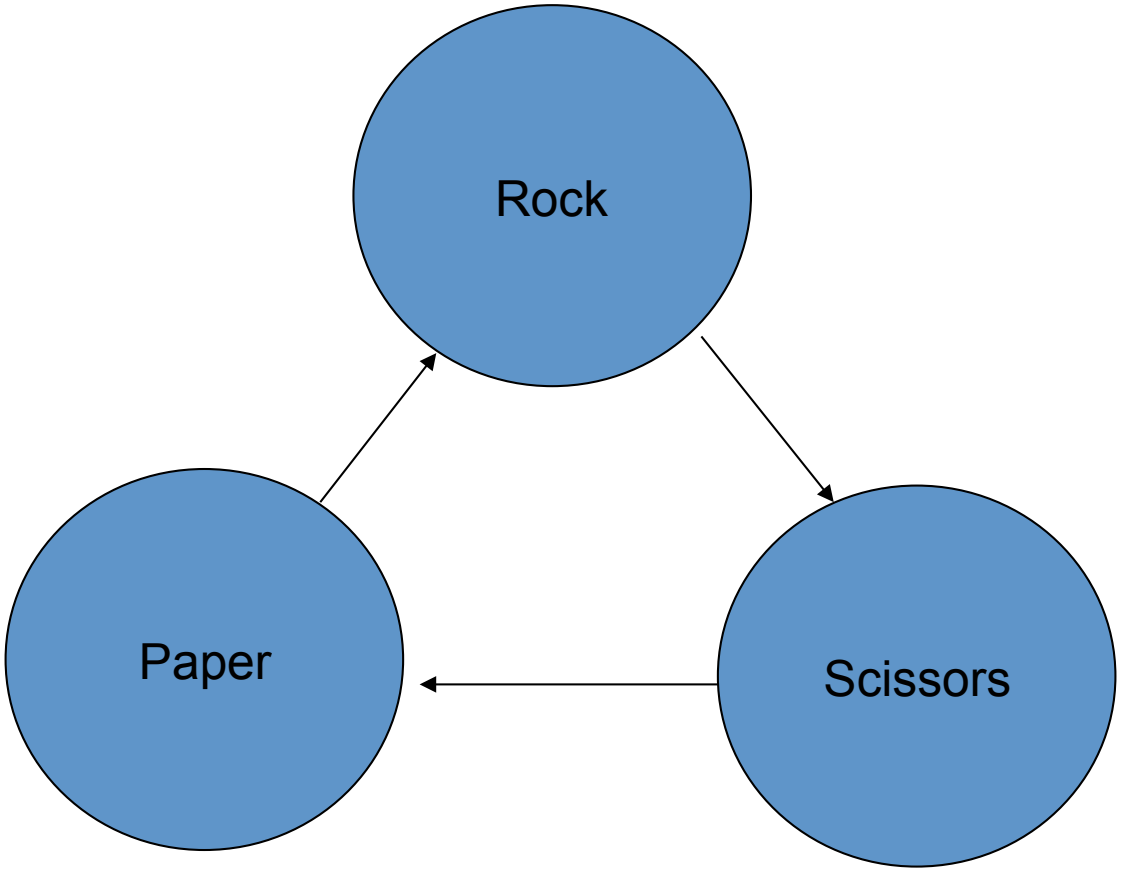
- A one-way relationship between objects
- A beats B, B beats C, C beats nothing at all
- Why would anyone want C?
- Make C **free**, and A **cost** something
- Reward without cost leads to a dominant strategy



Transitive Relationships

	A	B	C
A	0	1	1
B	-1	0	1
C	-1	0	0

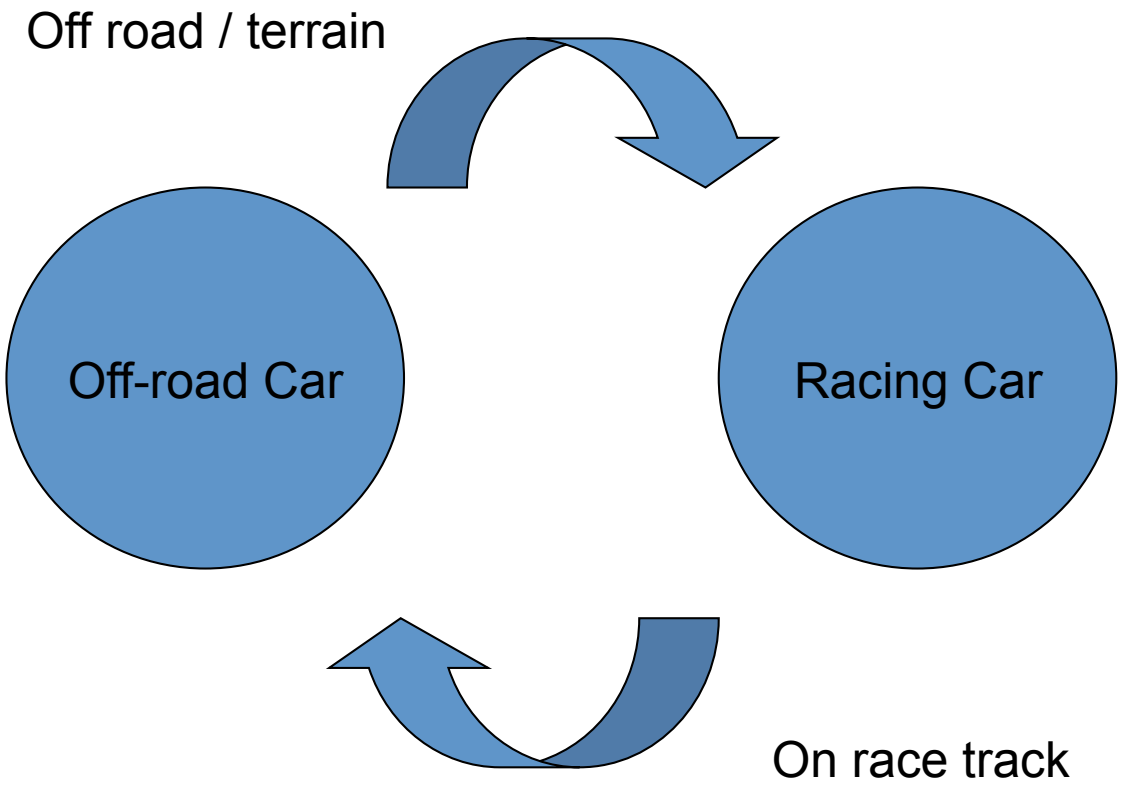
Intransitive Relationships



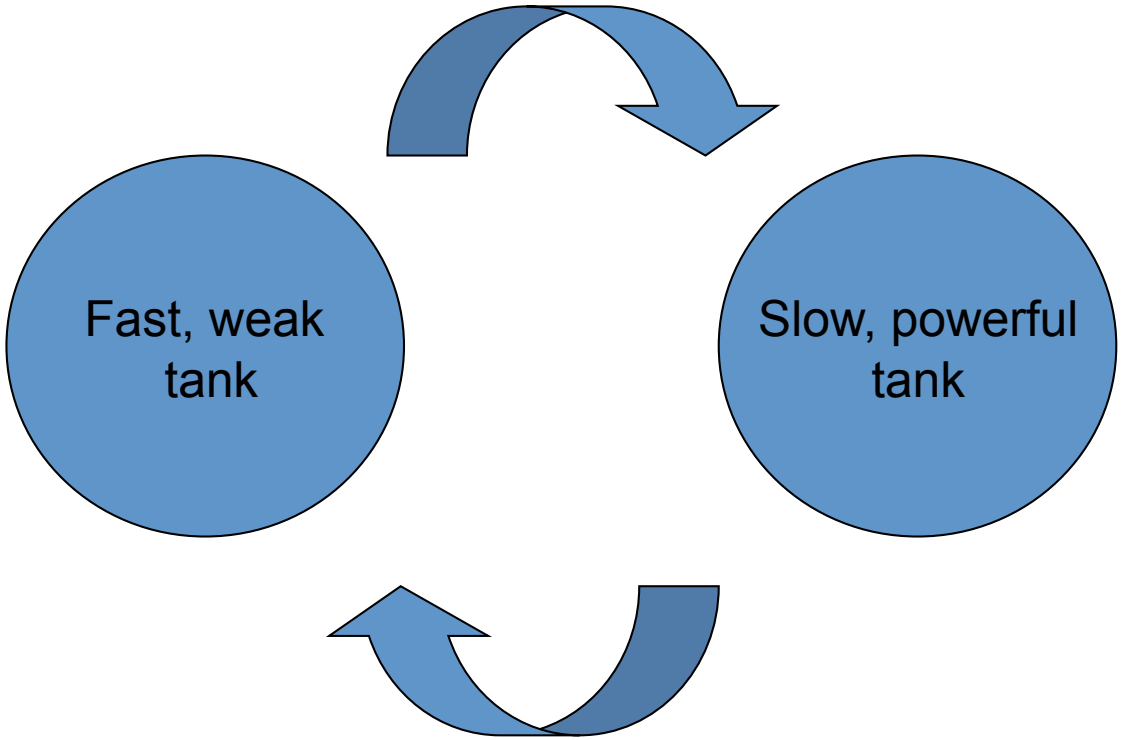
Intransitive Relationships

	Scissors	Paper	Rock
Scissors	0	1	-1
Paper	-1	0	1
Rock	1	-1	0

Intransitive Relationships



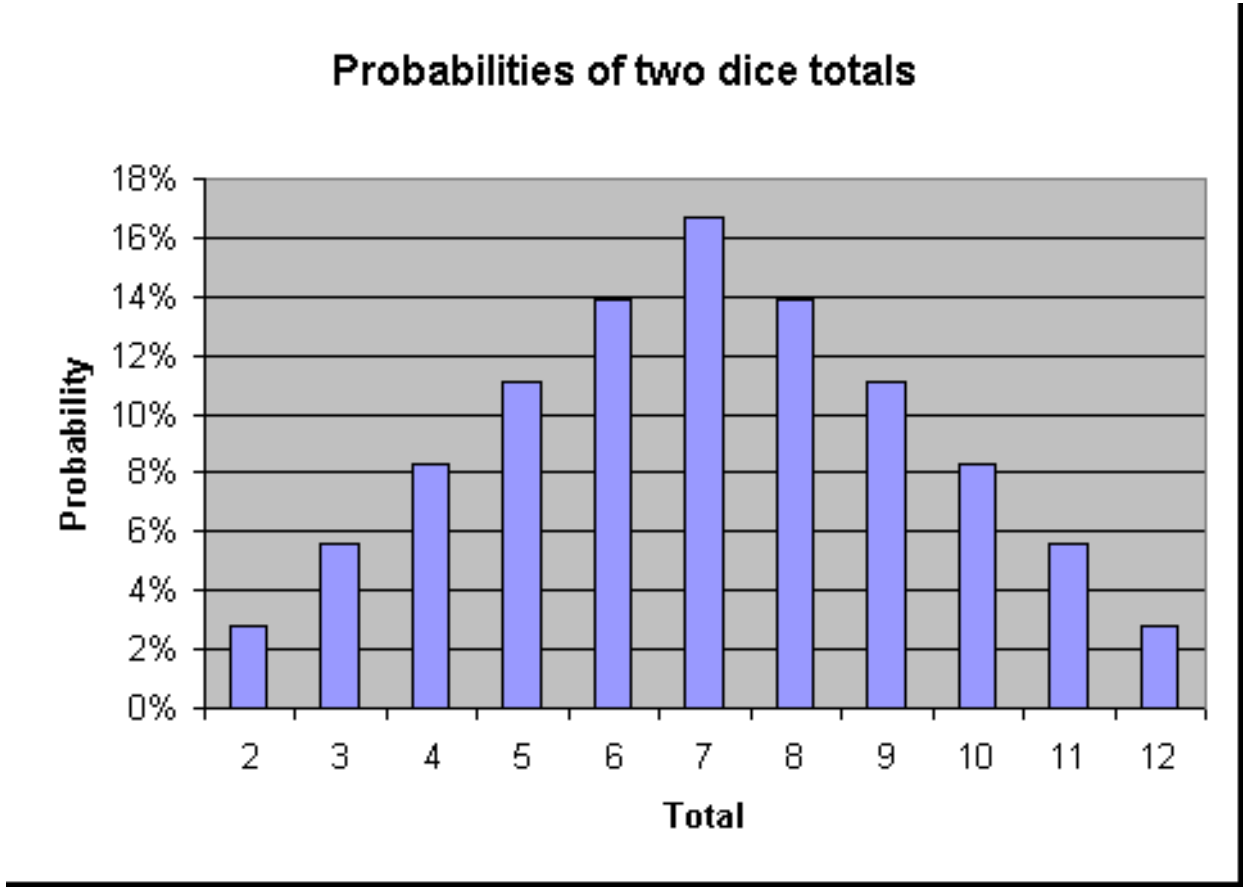
Trade-Offs



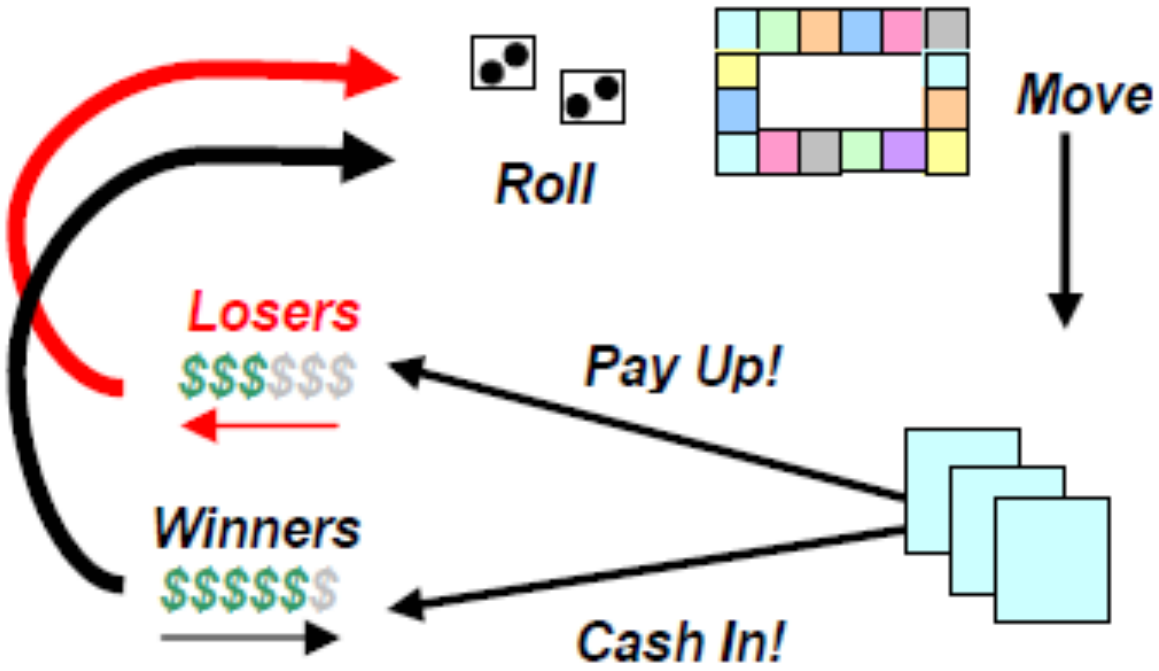
Feedback

- Positive Feedback
  - Destabilises the game
  - Rewards the winner
  - Ends the game
  - Magnifies early successes
- Negative Feedback
  - Stabilises the game
  - Forgives the loser
  - Prolongs the game
  - Magnifies late successes

Predict and Describe Dynamics



Predict and Describe Dynamics



Tools for Balancing

- Design for Modification
  - Implement core rules
  - Configure rules with parameters
  - Store parameters in a modifiable form
  - Modify one parameter at a time, test game play
- Prototype well in advance
- Device pay-off matrices
  - Look for dominant strategies