

Lecture 5

Multiplayer Game Design

10 Usability Heuristics for Networked Multiplayer Games

D. Pinelle, N. Wong, T. Stach, and C. Gutwin,
**"Usability Heuristics for Networked
Multiplayer Games,"** in Proceedings of
the ACM 2009 International Conference on
Supporting Group Work.

382 Reviews

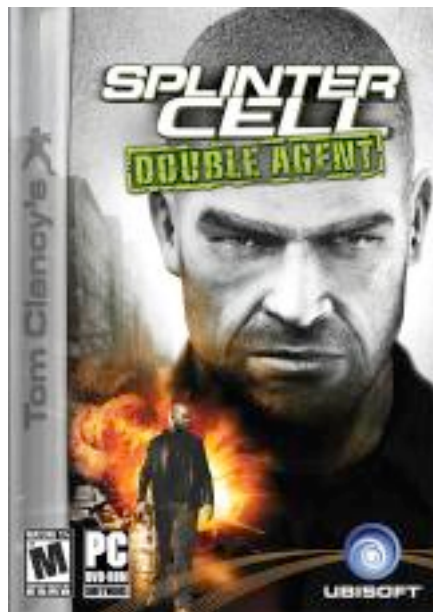


What are some common
problems identified by
reviewers?

1.

Session Management

“Perhaps I'm not as bright as the folks who designed it, but all I want to do is to see a list of servers to join and I can't even accomplish that.” -- By Li C. Kuo | Dec 15, 2006



2.

Flexible Matchmaking

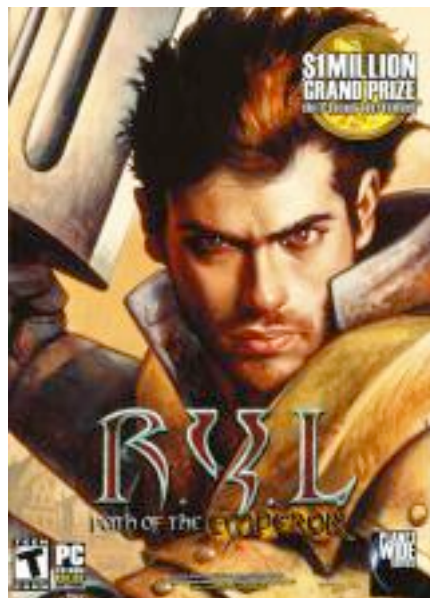
“Even worse, pick-up groups only want to do the high experience value dungeons, which means that many players won't even be able to experience half the content that is there because they can't get a proper party together.” -- By GameSpy PC Staff | Mar 17, 2006



3.

Communication Tools

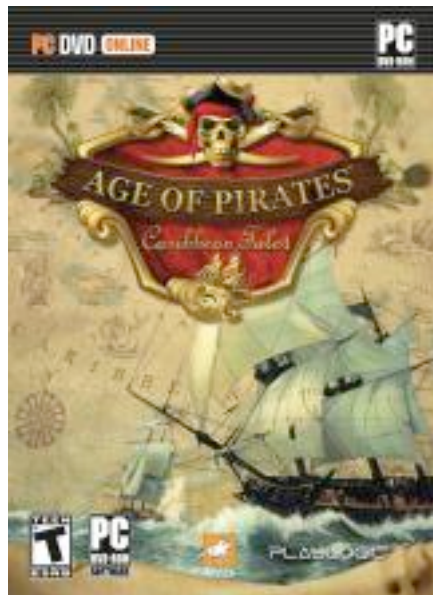
“Another problem is the chat box: a flaw makes it impossible to type more than a short sentence into it, solved only by resizing the box to a larger size.” -- By Carla Harker | Jul 22, 2005



4.

Support Coordination

“Players who can form up into organized teams...might have better luck with actually following some sort of naval attack plan (maintaining a line of battle, etc.), but the game doesn't lend itself to organizing such tactics.” -- By Dave 'Fargo' Kosak | Oct 4, 2006



5.

Meaningful Awareness Information

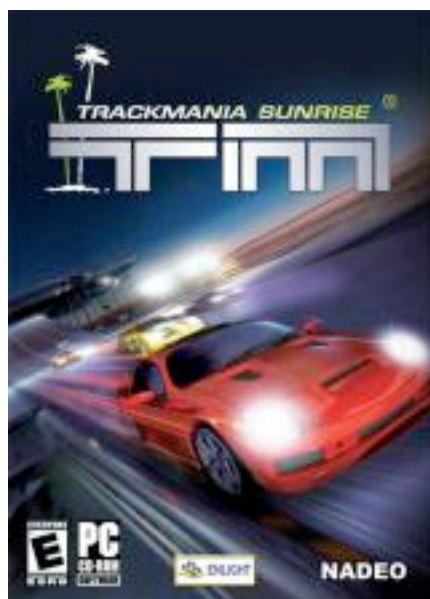
“Sometimes crazy things are happening to you and you don't know what's happening... It's as if you're playing Magic: The Gathering in real-time with no chance to read the cards as they're being played.”
-- By Dave "Fargo" Kosak and Miguel Lopez
| May 12, 2005



6.

Identifiable Avatars

“You can race both point-to-point and multi-lap races, though your competitors' cars are ghosts that you can drive right through, so it doesn't much feel like you're racing anyone.” -- By Scott Osborne | May 27, 2005



7.

Training for Beginners

“Matters get worse online where you'll play against tracks designed by TMU masters who have created mind-boggling challenges that will break the will of any gamer who isn't an elite TMU player.” -- By Li C. Kuo | Jun 26, 2007



8.

Support Social Interactions

“...the tiny Tube stations are just too small to display more than a fraction of the player base, reducing the opportunity for casual meetings and making new friends.”
-- By Allen 'Delsyn' Rausch | Nov 2, 2007

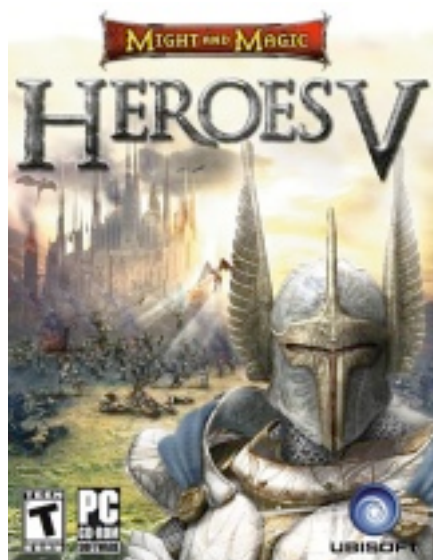


9.

Reduce Game-based Delays

“Playing a turn-based game via multiplayer mode is always a tough sell...In Heroes V you have ‘Ghost Mode,’ which in a roundabout way allows you to move a ghost hero around and do stuff, but it's not really the same as simultaneous turns.”

-- By William Abner | May 25, 2006



10.

Manage Bad Behavior

““Only about half of the servers online are running the Punkbuster anti-cheating measures, and players seem to have discovered an unlimited nuke cheat for the non-Punkbuster servers.” -- By Dave 'Fargo' Kosak | Dec 5, 2007



5 Other Common Problem Found in Reviews

1.

Network Latency

2.

Network Connections

3.

Critical Mass

4.

Bugs and Compatibility

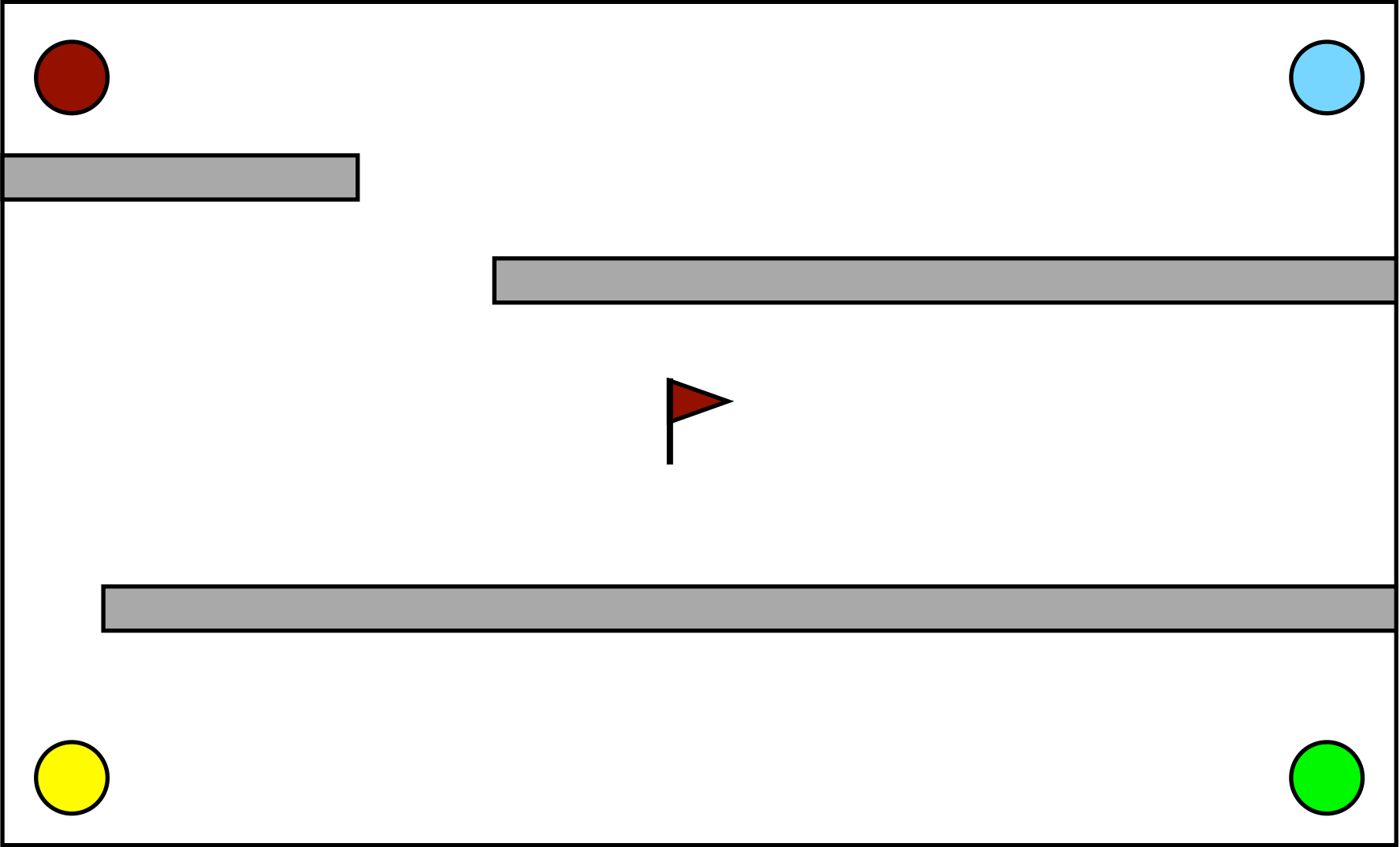
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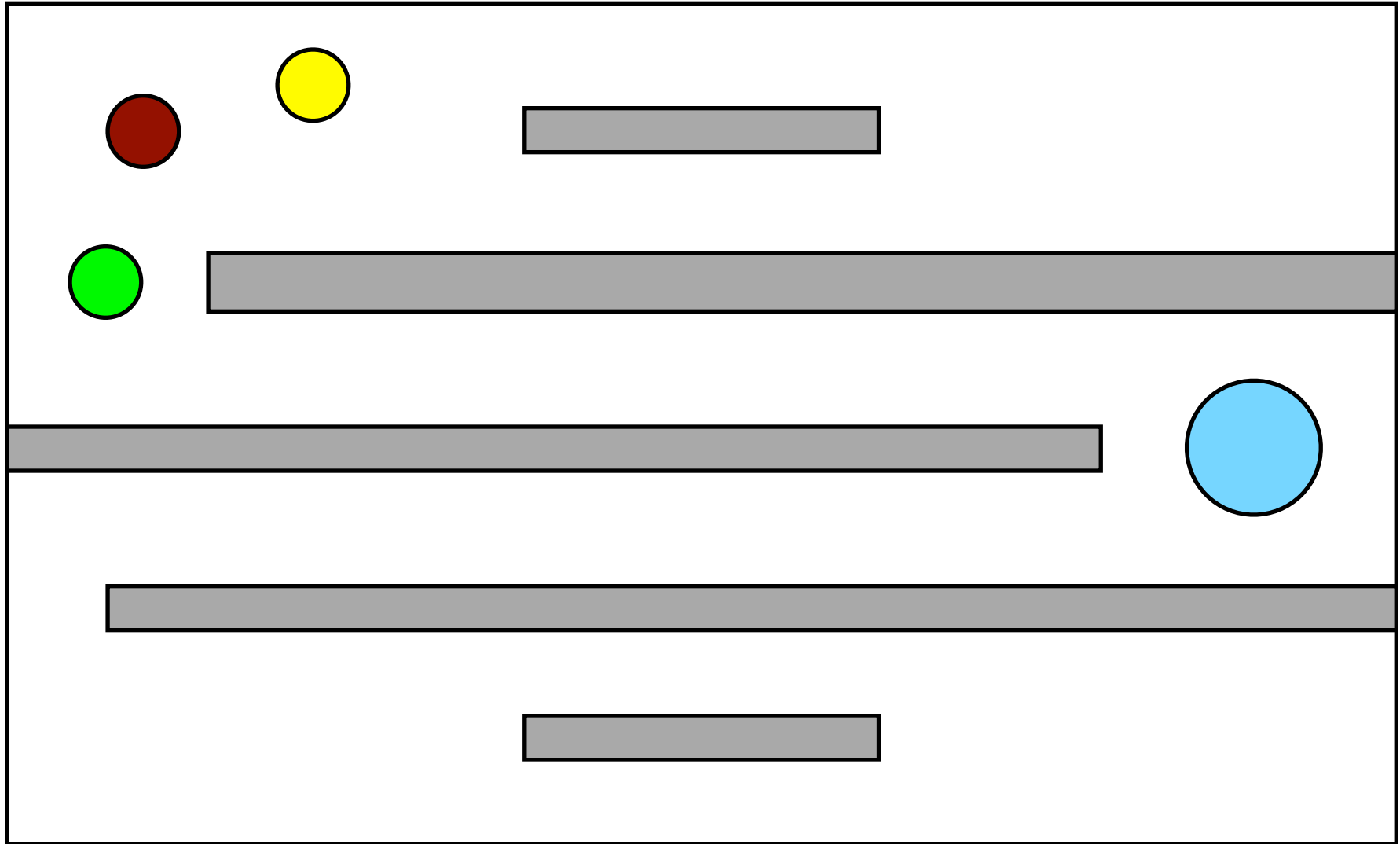
Game Play Balance

8 tips to a **balanced** multiplayer game that is **fun**

1.

Every player should have an
equal chance of winning

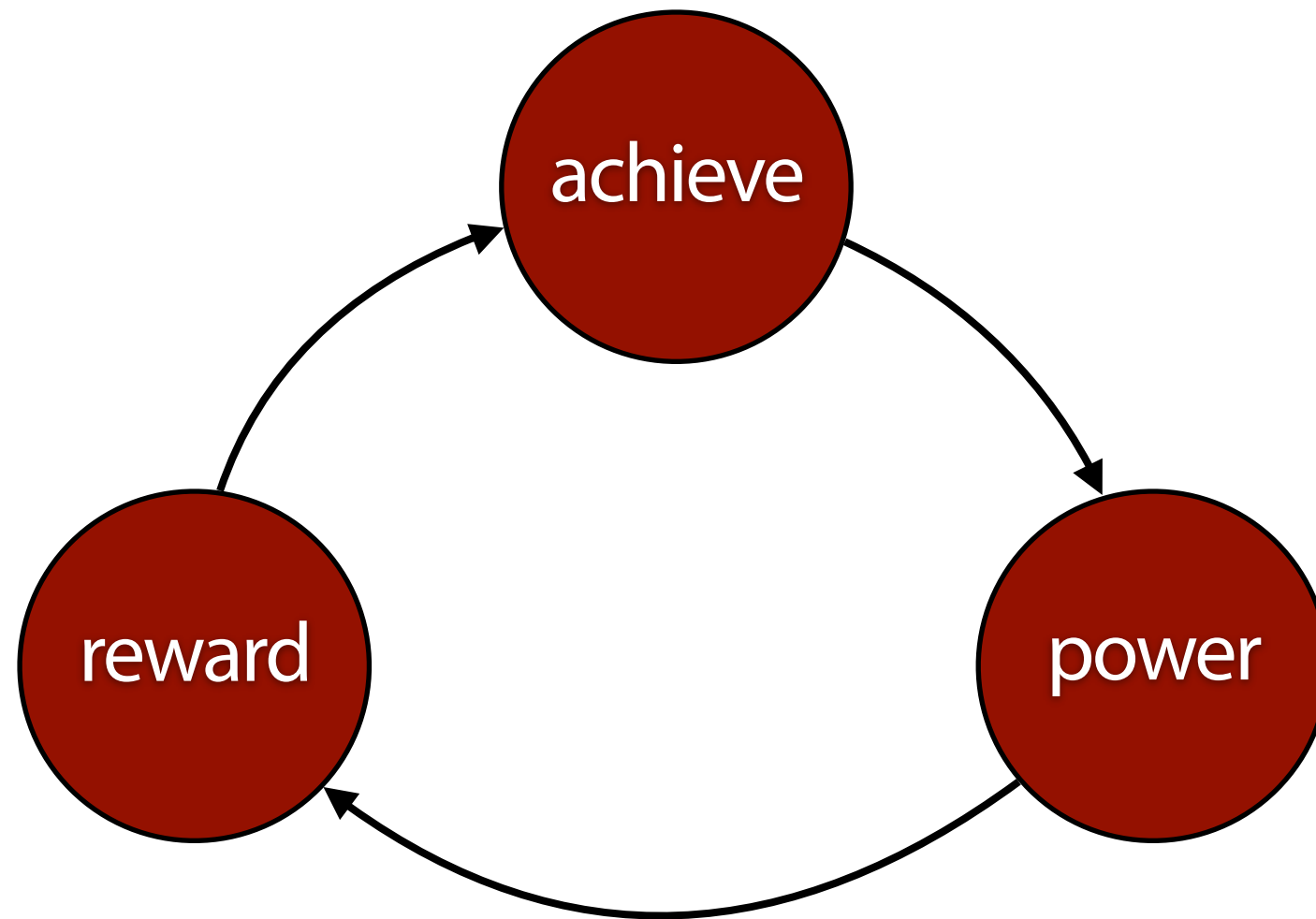




2.

A player who falls behind must
have a reasonable chance of
catching up.

progressively move players
towards victory



allow collusion to tilt the
balance of power

3.

Skill of the player must be
relevant
(cannot depend on luck)

4.

No dominant strategy. Provide multiple possible strategies with reasonable chance of winning.

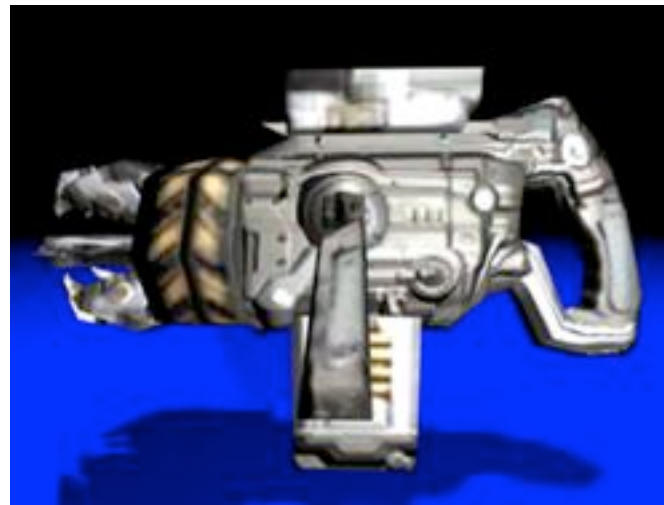
Transitive Relations

$$A > B$$

$$B > C$$

$$A > C$$

Q U A K E 4



Introduce Cost

$$$(A) > $(B)$$

$$$(B) > $(C)$$

$$$(A) > $(C)$$

In-Transitive Relations

$$A > B$$

$$B > C$$

$$C > A$$

STARCRAFT



<http://www.gdcvault.com/play/1014488/The-Game-Design-of-STARCRAFT>

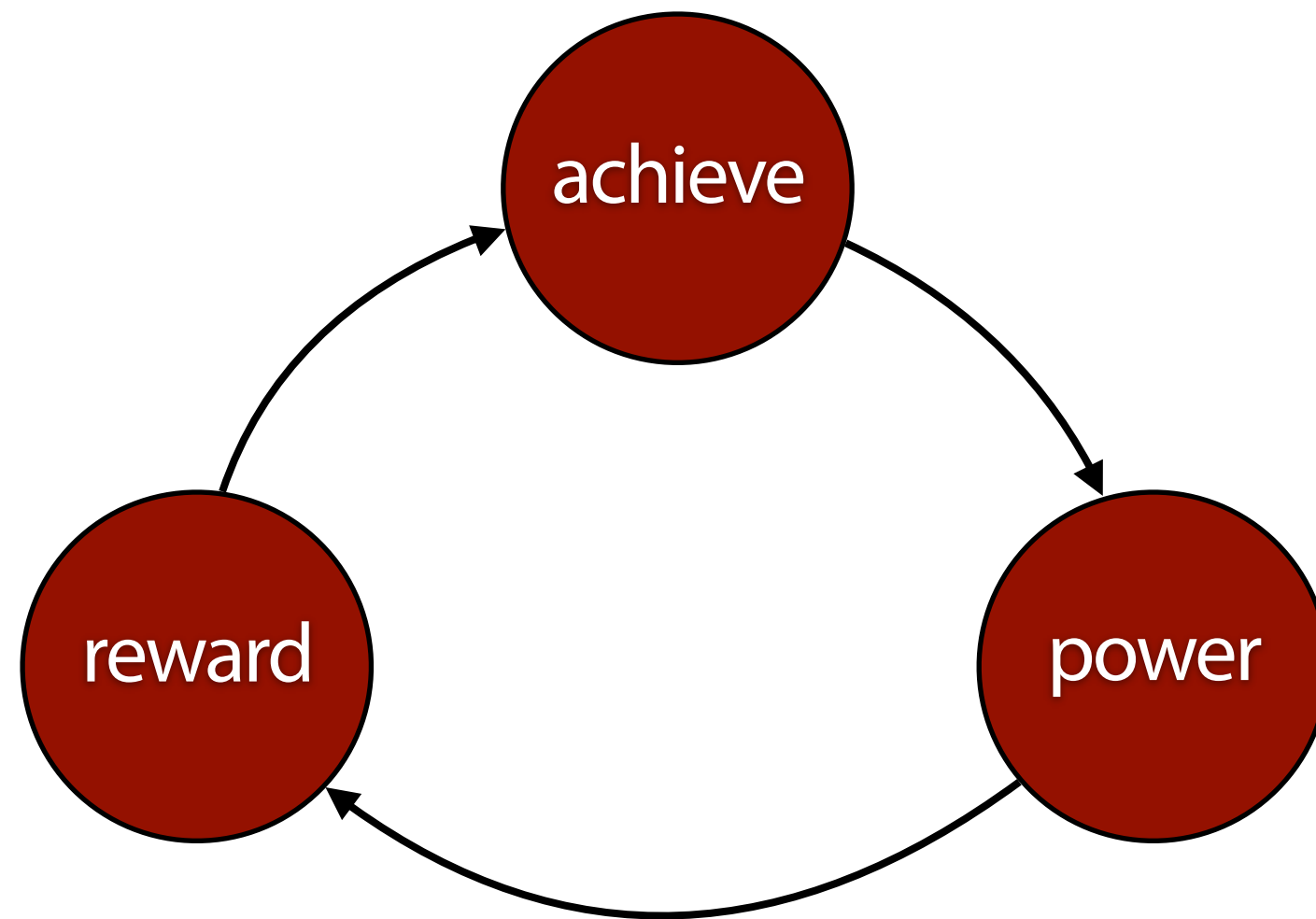
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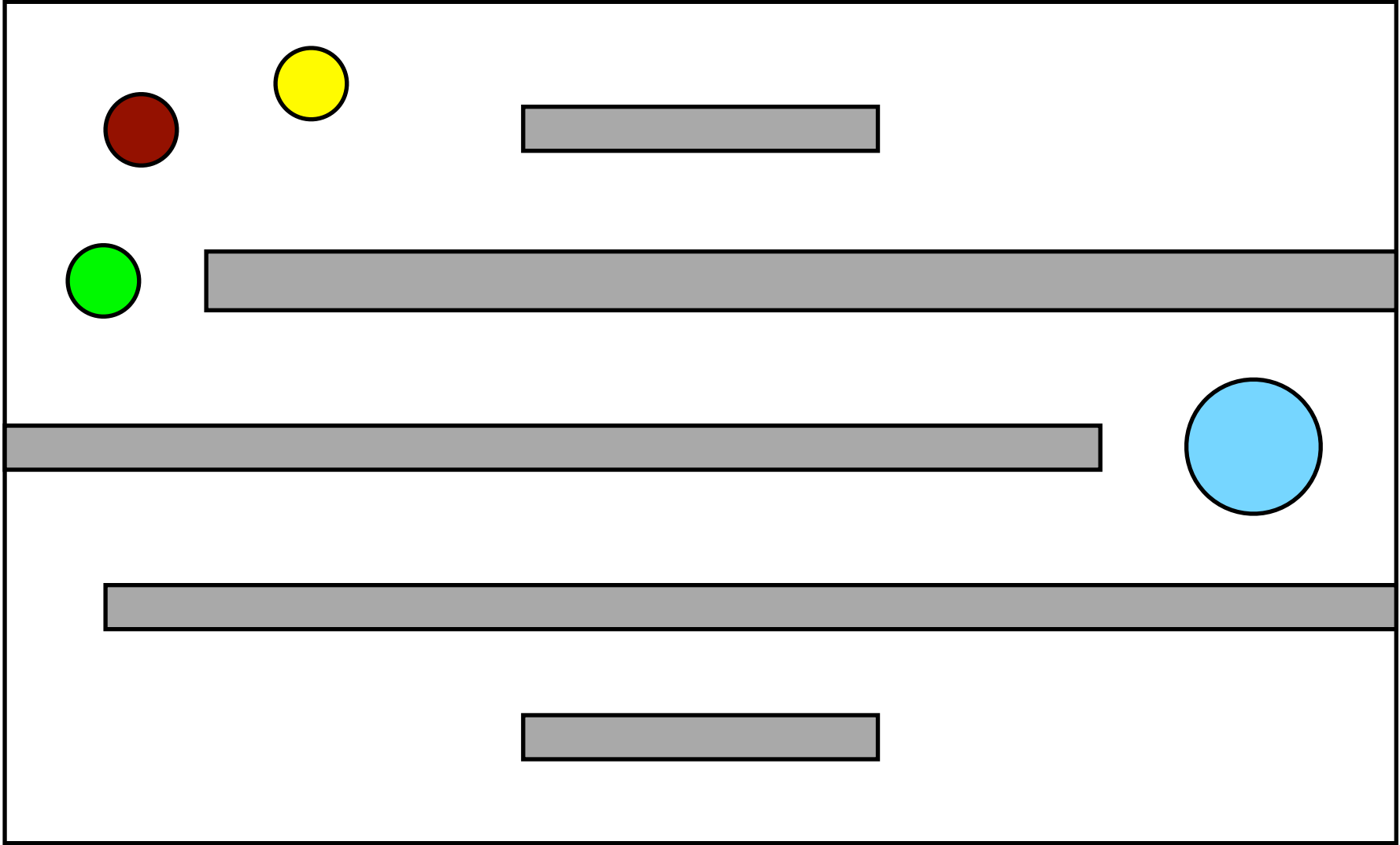
Add orthogonal differences
(e.g., different abilities) to add
asymmetry

6.

Avoid stagnation and stalemate

progressively move players towards victory





7.

Make it easy to tune

8.

Match difficulty to skills

Csikszentmihalyi's Flow

