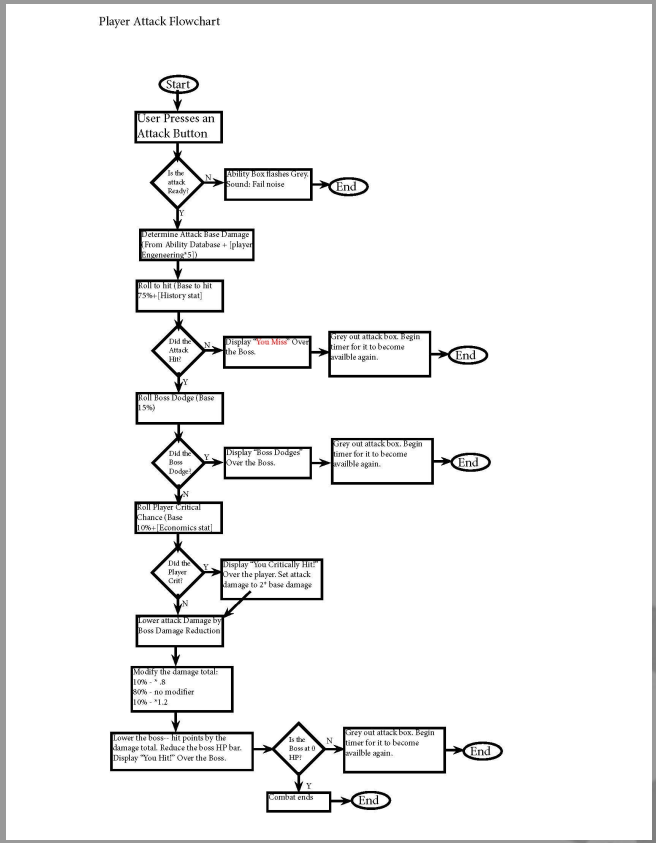
Advanced Melee Combat

A Note on Flowcharts

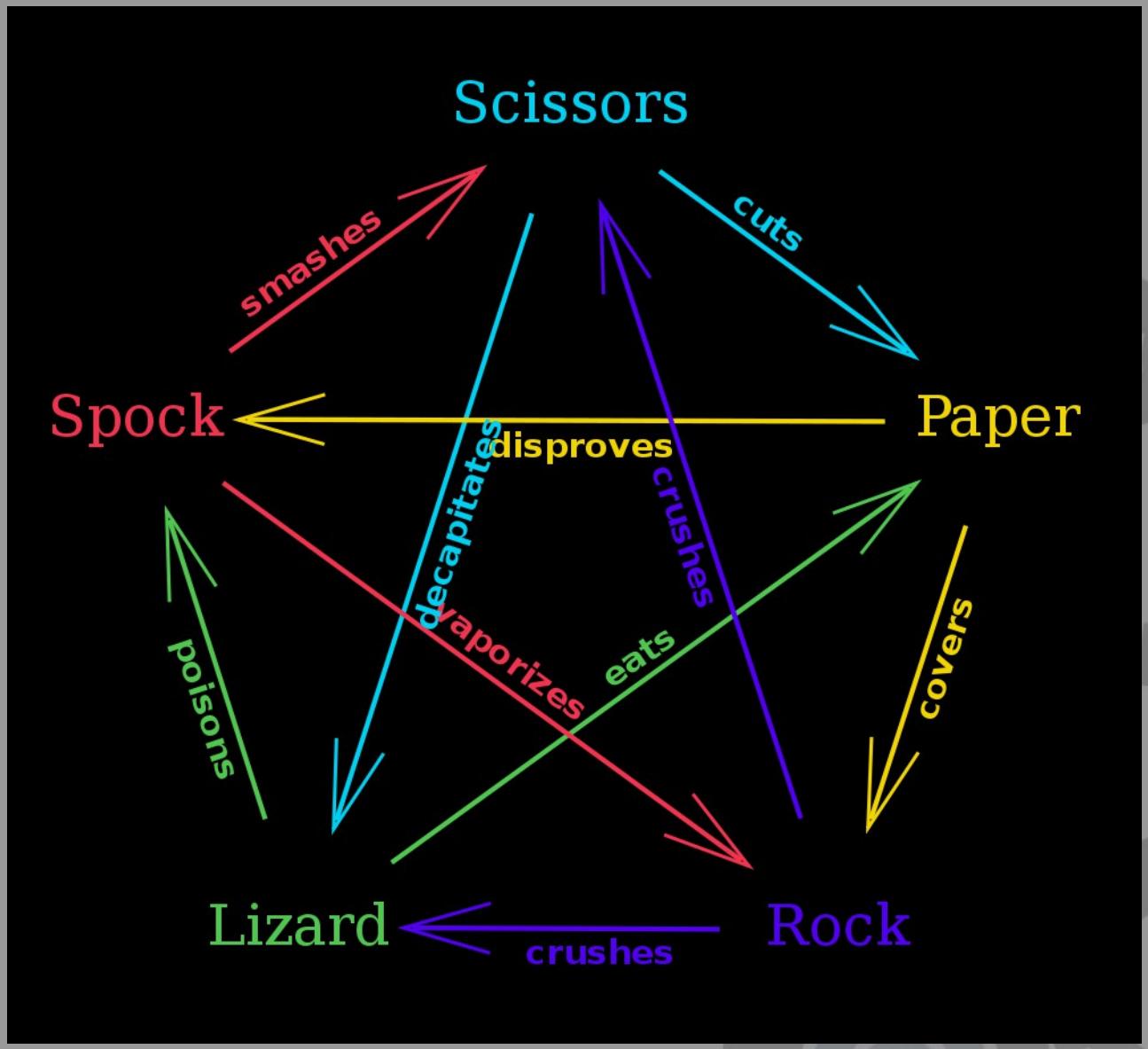


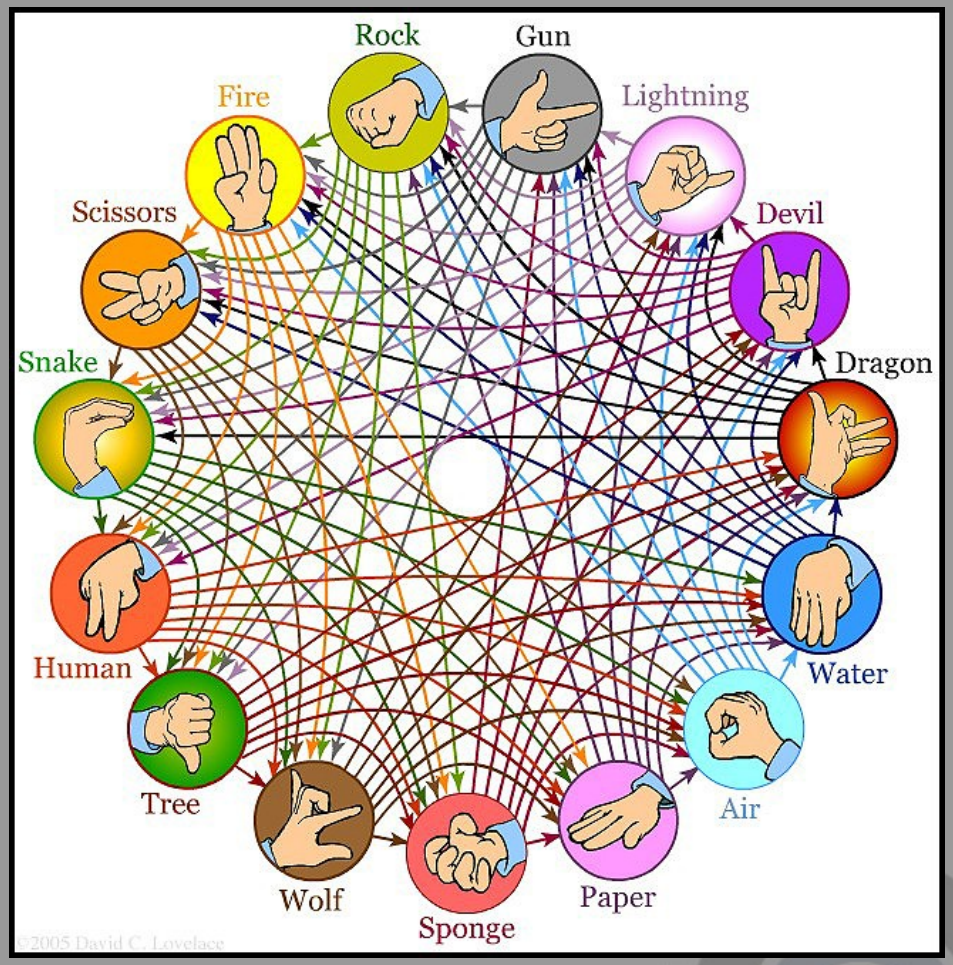
Rock-Paper-Scissors

- A→B→C→A
  - A = Quick Strike (Jab)
  - B = Power Strike (Uppercut)
  - C = Counter Strike (Cross)
- Should usually just give a significant advantage (A does not have to beat B every time).
- This is an example of an non-solvable mechanic.
- MMRPS

Rock-Paper-Scissors-???

- A→B→C→D→A
  - A = Special Move (Throw)
  - B = Power Strike (Uppercut)
  - C = Counter Strike (Cross)
  - D = Quick Strike (Jab)
- This type of circle can be expanded as much as desired, but gets complicated very quickly.


Scissors
cuts
smashes
Spock
Paper
disproves
decapitates
crushes
vaporizes
eats
poisons
covers
Lizard
Rock
crushes


Rock
Gun
Fire
Lightning
Scissors
Devil
Snake
Dragon
Human
Water
Tree
Air
Wolf
Sponge
Paper
©2005 David C. Lovelace

Move Relationship Notes

- These types of structures are not limited to just melee combat or individual combat (i.e., tactical combat).
- They also can be used in any strategic system: build strategies or technology tree choices in an RTS, talent tree choices in an RPG, etc.

Activated Abilities

- Abilities can be limited by timers, resources, drawbacks, etc.
- However, limiting an ability so that it can only be used after a specific event occurs can be much more interesting – players have more feeling of competence.
- **Examples:** only after a hit, only after a critical hit, only after an opponent fumbles, only after a parry or dodge, only after a particular ability lands/is used.

Activated Abilities cont.

- Chains of event-activated abilities can be much more satisfying (i.e., create strong intensity curve peaks) than a simple single response mechanic (although it is more complex) – the Rube Goldberg effect.
- Chains can be indirect: I can only use my Thunder Strike against a stunned target, but my critical hits have a stun effect. - think of the Intensity curve impact!

Delayed Actions and Interrupts

- Delaying an action means you commit to an action, but do not process that action until a later time (or trigger).
- Interrupts are where you jump in to take an action before another declared action is completed.
- Delays/counters help keep fights interesting by compelling interaction – you can’t fight without knowing your enemy.
- Why can't game designers tell jokes?

Hit Locations

- Hit locations add detail and flavor to a combat system, are more complicated.
- Hit Locations add variance to combat.
- Hit locations ≠ Realism
- Combat with Hit Locations can be more satisfying.
- Follow your story – Hit locations fit for Vehicles, Mechs, less of a fit for people.

Hit Locations cont.

- Hit locations can cause a damage multiplier (half for limbs, double for head, etc.) or particular effects (stun for a head hit, crippling for a limb, etc.).
- More satisfying than overall HP (Ripping an arm off>knocking them to 70%)
- Easy to mesh Hit Location with combat “Stages”.

Beyond Damage 1: Grappling

- Grappling has a different feel than basic melee combat (striking).
- Throws and trips are just attacks that are not primarily about damage.
- The real difference is that successful grappling puts the opponent in a disadvantageous position (e.g. you gain +**ATTACK**, they get –**DEFENSE** or –**ARMOR**).

Grappling cont. - Holds

- The “effect” of a hold is continuous until it is broken, but must be maintained.
- Making this interesting, and making grappling balanced with other actions, can be difficult.
- Holds as a lockdown mechanic have vastly different impact on play in single player/team vs. AI, rather than PvP.
- Can create an experience of powerlessness (Stun-locking)

Beyond Damage 2: DoT

- Damage over time effects can help players interact with targets that are hard to hit or damage in other ways.
- DoT can set a ‘floor’ on the intensity curve – even if nothing else is happening, I’m doing/taking damage.
- DoT effects can come from the environment – flaming ground, spiked ground – creates more tactical choices.

Beyond Damage 3: De-Buffs

- These are attacks that deal no damage, but have a detrimental effect on the target (Slow, -**DEFENSE**, -**ARMOR**, Turn off a positive effect)
- These allow you to create ‘unwinnable’ fights that players must puzzle their way out of (letting them feel smart).
- These can create lots of interesting interactions – Debuffs only matter in how they create dynamics.

Beyond damage 4: Healing/Buffs

- Not all ‘Attacks’ need to be detrimental – Effects that ‘buff’ or cure the target are basically attacks, usually with an **ATTACK** of 100%.
- These options help support different play styles/appeal to different types of players.
- Example: The Doctors gun in Team Fortress 2

Complications

- Like every other aspect of game design, It is very easy to make a combat system that is way too complicated.
- Be careful that you are not just designing complicated systems because they are fun to design.
- The quest for “realism” is another trap to avoid. Detailed realism is usually not as good as just avoiding wildly unrealistic results.

Lab this week

- Playable prototype of project 1
- Read the Rubric!
- You need to be testing and developing this system outside of lab.

Project 1

- 10% of your grade
- Show WHAT your system is, HOW it works and **WHY** you want it that way.
- MDE!
- Intensity curve(s)!
- Show as many fights as you need to.

Questions?