Expert Systems for Disc Golf
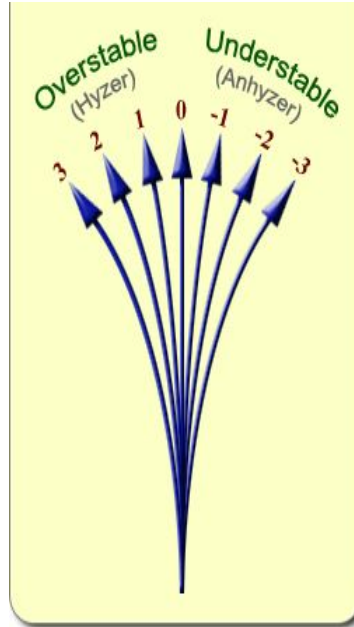
Throwing Frisbees into Trees with AI-Assistance

Background - Disc Selection

- Over-Stable fight Left
- Neutral fight Straight
- Under-Stable fight Right

- Discs traveling more slowly behave more over-stable

(Assuming Right-Hand Back-Hand)

Disc Ratings

- Putters Speed 1-3
  - < 200 Feet
- Mid-Range Speed 4-5
  - 200 - 250 Feet
- Fairway Driver Speed 6-8
  - 250 - 325 Feet
- Hybrid Driver Speed 9-10
  - 325-400
- Distance Driver Speed 11-14
  - > 400 Feet

Fuzzy Range:
- Slow (< 200 Feet)
- Medium (200 - 300 Feet)
- Fast (> 300 Feet)

SPEED

The speed number represents how quickly a disc must be thrown in order for it to follow it's intended flight path. Discs with higher speeds go farther, if thrown faster.

1 - 14

GLIDE

The glide number represents how long the disc will stay in the air, as well as how long before the disc starts to turn over. Discs with a higher glide number will stay in the air for longer.

0 - 7

-5 +1

The turn number on a disc represents the left to right distance that a disc will travel in the first half of it's flight path. A disc with a -5 turn will start to go left at the beginning of it's flight path, and a disc with a 1 turn will go farther right.
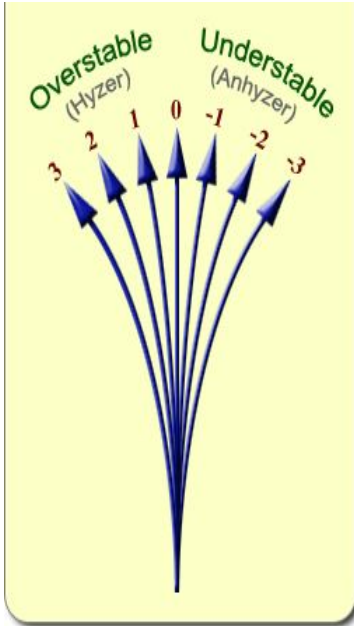
TURN

0 - 5

The Fade number on a disc golf disc represents the left to right distance that a disc will travel in the second half of it's flight path, after the apex. Discs with lower fade will finish straight, while discs with high fade hook hard.
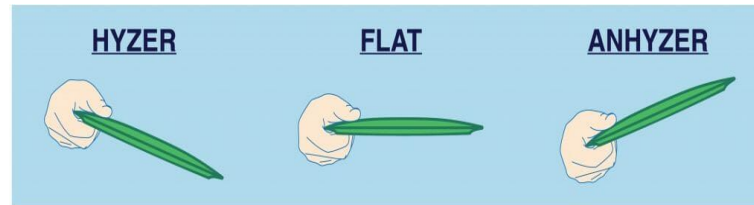
FADE

Background - Environment

Condition (IF)	Effect on Disc	Change your Disc (THEN) (to go more straight/neutral)
Uphill	Slows disc down	Throw more under-stable
Downhill	Speeds disc up	Throw more over-stable
Headwind	Pushes disc up	Throw more over-stable
Tailwind	Pushes disc down	Throw more under-stable
Left->Right Crosswind	Pushes disc right	Throw more over-stable
Right->Left Crosswind	Pushes disc left	Throw more under-stable

Background - Environment
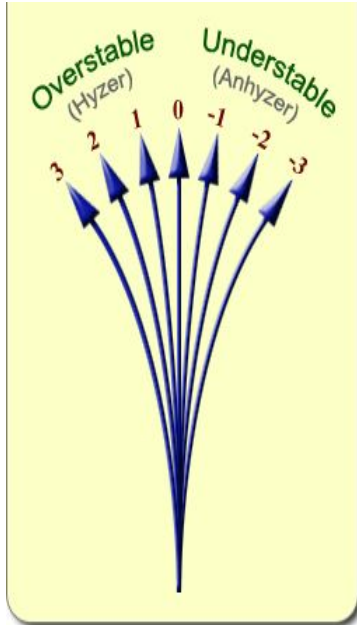
Condition (IF)	Change your Disc (THEN) (to go more straight/neutral)
Curves Left	Throw Hyzer
Straight	Throw Flat
Curves Right	Throw Anhyzer

Demo Time