Why does losing hurt more than winning feels good?

A loss feels about twice as big as an equal gain, and owning something makes it worth more to you: loss aversion and the endowment effect.

1 The flip

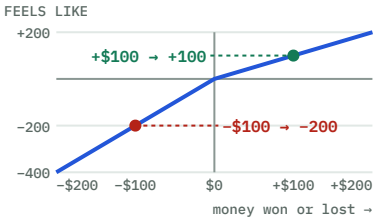
rational benchmark

- Self-test: fair coin (heads, tails: 1 in 2 each) → heads **win $150** · tails **lose $100** → play? → **most people pass**
- **Expected value**: "the average result per play if you could repeat a gamble many times"
- `½ × $150 − ½ × $100 = +$25` per flip (two flips: 150 − 100 = +$50) ⇒ RATIONAL plays
- **Rational benchmark** (economics' ideal decision-maker): judges a gamble by its **average result in dollars**

2 Loss aversion

a loss counts double

- **Prospect theory** (1979) · **Kahneman** + **Tversky** (Israeli-American psychologists) → money judged as a **change from where you start** (reference point)
- **Loss aversion**: "a loss feels about twice as big as a gain of the same size, so people turn down bets that are good on average"
- Value curve (made-up numbers) → `+$100 → +100` · `−$100 → −200` → **twice as steep** for losses
- Real studies → about **× 2** (Tversky + Kahneman 1992: ≈ 2.25)



3 Math of feelings

when does it feel fair?

- $150 / $100 flip → feels `150/2 − 200/2 = −25` → no · fair win = **$200** (2 × the loss)
- $60 / $40 flip → **+$10** in dollars · feels `60/2 − 80/2 = −10` → fair win **$80**
- Find $50 (**+50**) + lose $50 (**−100**) → even in $ · day feels **−50** · a $50 loss = a $100 gain
- **Loss framing** → same choice as "don't lose" → café (¢ = cents): "save 20¢" (+20) vs "pay 20¢ extra" (−40) → the charge works like a **≈ 40¢** discount

RESULT	DOLLARS	FEELS
heads	+$150	+150
tails	−$100	−200
avg / flip	**+$25**	**−25**

4 Endowment effect

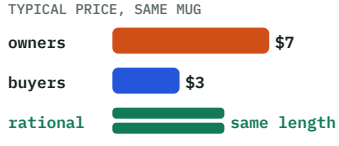
owning raises value

- **Endowment effect**: "people value something more once they own it, because giving it up feels like a loss"
- RATIONAL owner's lowest selling price ≈ buyer's highest price → **two equal bars**
- REAL gift ball: $50 to sell · $20 to buy · a free "Pro" week → losing it hurts → pays

5 Evidence

the mugs · 1990

- **Kahneman** (psychologist), **Knetsch** + **Thaler** (economists) · 77 students · Simon Fraser University (Canada) · a coffee mug given **by chance**
- Owners: lowest price to sell ≈ **$7** · others: most to pay ≈ **$3** ⇒ luck decided who owned → the gap = **owning itself**



6 So what

who uses it · defense

- **Who uses it**: free trials · "30 days money back" · test drives → you own it first · "don't lose your credit" → a loss frame
- Chain: 30 days free → **feels yours** → canceling = a loss (× 2) → many keep paying $10/month → more free trials
- **Your defense** (ownership test): "if I did **not** own it, would I buy it **today** at **today's price**?" → breaks the chain at link 2 · share (piece of a company) bought $50, now $40 → the $50 is gone either way

Watch out: a bet that **feels** bad can still pay **on average** (+$25 per flip) · the gap is in your head, not in the dollars · rational ≠ loves risk: it just counts a $1 loss as $1