Asymmetric information and the curse of knowledge

Notes on Behavioural Economics

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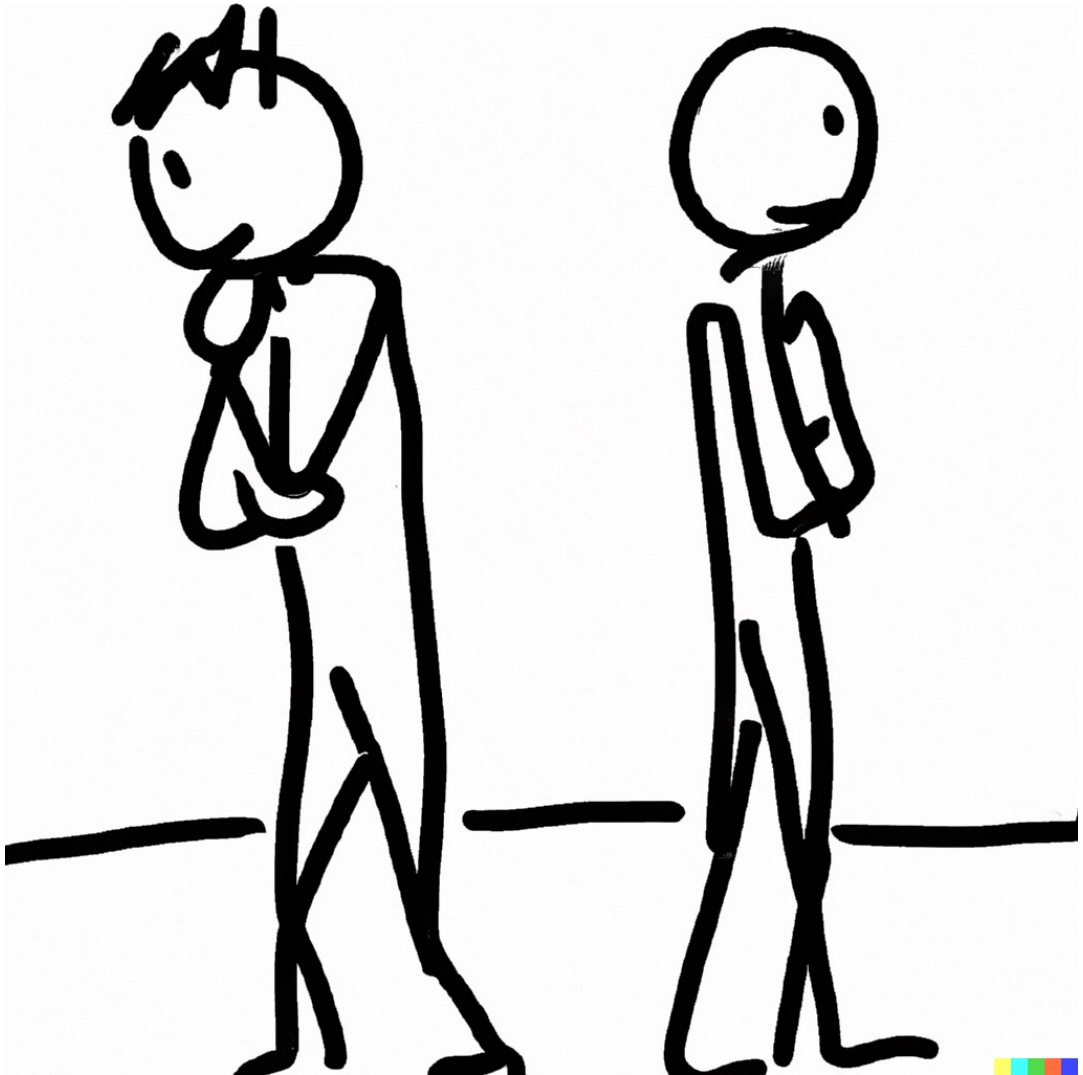


Behaviour with asymmetric information

- People under-estimate the extent to which informational differences drive others' behaviour.
- Better informed agents can fail to take advantage of their informational advantage against less informed agents.

The market for lemons

Good cars: q

Lemons: $1 - q$

Seller

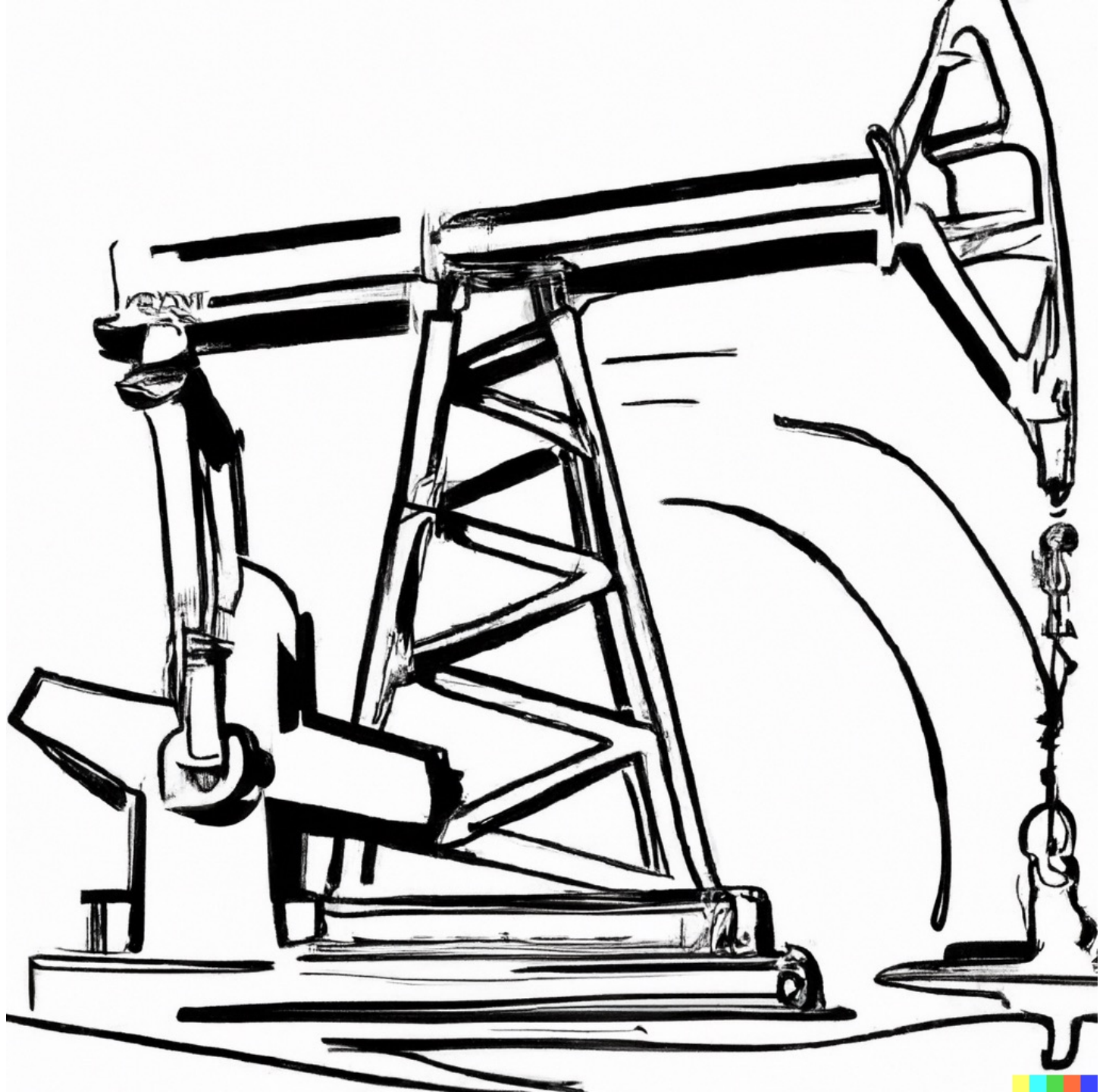
- Good cars: $10,000
- Lemons: $5,000

Buyer:

- Good cars: $15,000
- Lemons: $7,500

$$q = 0.2$$

$$\widehat{\mathrm{E}} = 0.2 \times 15000 + 0.8 \times 7500 = 9000$$



Company 1: $v_1 \sim U(0,100)$

Company 2: $v_2 \sim U(0,100)$

$$\mathrm{V} = \frac{v_1 + v_2}{2}$$

Company 1: v_1

Company 2: $v_2 = 50$

$$\widehat{\mathrm{E}}[\pi_1|\text{bid } v_1] = \underbrace{\frac{1}{2}\pi_1(2 \text{ no bid})}_{\text{Company 2 does not bid}} + \underbrace{\frac{1}{2}\left(\frac{1}{2}\pi_1(\text{lose}) + \frac{1}{2}\pi_1(\text{win})\right)}_{\text{Company 2 bids}}$$

$$= \frac{1}{2}\left(\frac{v_1 + 50}{2} - v_1\right) + \frac{1}{4}(0) + \frac{1}{4}\left(\frac{v_1 + 50}{2} - v_1\right)$$

$$= \frac{3}{4}\left(25 - \frac{v_1}{2}\right)$$

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$$\hat{E}[\pi_1|\text{bid } v_1] > 0 \Leftrightarrow v_1 > 50$$