

LECTURE 11 MENTAL ACCOUNTING AND CHOICE

Aim: To describe the importance of reference points in economic decision-making.

Outline: Reference points. Endowment effect. Status quo bias.

Readings:

Kahneman, D. (2011) *Thinking, Fast and Slow*, Farrar, Straus and Giroux, New York, chapt. 27-28.

Kahneman, D., R. Thaler and J. L. Knetsch (1992) "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias", *Journal of Economic Perspectives*, 5, 193-206.

Blogs, Videos and Websites

Dan Ariely "The High Price of Ownership" (4:22)

<http://www.youtube.com/watch?v=drEVEextrUgQ>

Reference points

Sensations depend on reference points r

Put two hands in separate hot and cold water, then in one large warm bath. Hot hand feels colder and the cold hand feels hotter

Loss-aversion

is defined by a reference point that is a “kink” at 0 dividing losses from gains

To define reference points requires theory of “mental accounting”

Where does reference points come from?

- Status quo or pre-experiment condition
- Lagged expectations (Koszegi-Rabin 2003)
- Framing
- Future goal
- Satisficing rationality
- Cognitive boundaries

REFERENCE POINT ANOMALIES

BUYING-SELLING PRICE GAP

Half of you - randomly chosen - is named as "owners" and receive a windfall gift of a classy, stylish, desirable HBS pencil. You are asked to examine it closely. It is yours to keep, or to sell

The remaining half do not receive a pencil and is referred to as "non-owners"

Then each owner is asked to pass his/her pencil to a neighboring non-owner, so that the non-owners can also fully examine the pencil.

It may exist some gains from trade. In order to assess this, the experimenter wants to elicit from each owner the minimum price at which he/she would be willing to sell the pencil and from each non-owner, the maximum price she/he would be willing to pay to buy the pencil.

Experimental finding: Owner prices (WTA) > Non-Owner prices (WTP)

ENDOWMENT EFFECT

People prefer the things they own, *ceteris paribus*

Economic theory predicts that the prices a person will pay to buy and sell an object should be the same.

Environmental economists in the 1970s first discovered that this is not true: duck hunters would pay \$ 247 to maintain a wetland suitable for ducks but asked \$ 1,044 to give up the wetland (Hammack J. and Brown G. M. 1974)

Students were willing to pay 2,75 on average for college mugs but they asked for 5,25 to sell their mugs (Kahneman, Knetsch, Thaler, 1991)

EXPLANATIONS

- ▶ Plott's (1996) discovered preferences hp.: individuals may discover their valuations for unfamiliar items during the elicitation process
- ▶ Action error (Ritov-Baron 1991): fear of action errors is a bias in favour of inaction
- ▶ Higher sensitivity to overpaying (out-of-pocket costs) than to selling too cheaply (opportunity costs) (Thaler 1980)
- ▶ Disposition effect (Weber-Camerer 1992): reluctance to take actions leading to irreversible loss and eagerness to take actions creating gains (i.e. the volume of houses sold falls when housing prices fall)
- ▶ Prospect theory's loss aversion (Tversky-Kahneman 1988): losses are more painful than equally sized gains are pleasurable
- ▶ Action is different from giving advices: no endowment effect when people advise others (Marshall-Knetsch-Sinden 1988)
- ▶ Status quo bias (Samuelson-Zeckhauser 1988): if you have a current choice you enhance preferences for it

What about the neighbor's grass is always greener than yours?

APPLICATIONS

Money-back guarantees

They are offered by businesses because it reduces people's resistance to trying a product. Once someone tries the product, the endowment effect may seal the deal if there is no transaction cost

The IKEA effect

One's sense of ownership of something increases when one invests more of one's resources in it

Virtual ownership

We may feel as though we already own something if we can vividly *imagine* taking possession of it and living with it

This virtual ownership leads to a purchase and to actual ownership

Successful advertisements are good at enabling us to vividly imagine life with a product

REALIZATION UTILITY

An investor bought two stocks last year.

The price of the first is declined and looks likely to fall further. The other has gone up and it is expected it to keep rising.

Which is the investor more probable to sell?

The endowment effect implies that the investor is reluctant to sell both losers and winners simply because they're already in her portfolio.

Barberis and Xiong (2012) argue that with stocks the endowment effect may be dominated by another factor called realization utility.

The realized gains you get by selling an appreciated stock give you more of a thrill than entering the ticker at CNNMoney.com and seeing that the stock price has gone up.

Why? The profit you lock in feels like proof that you made a good decision.

BULL AND BEAR

You can milk your enjoyment still more by bragging to your colleagues and friends of your triumph.

Conversely, realizing losses is a major drag. Who wants to feel as if he or she made a huge mistake?

Realization utility explains a lot of foolish behavior by investors.

When the market is rising (bull), people tend to trade more often than they do when the market is falling (bear).

They're trying to catch those feel-good gains.



DRAWBACKS

Rapid trading inevitably increases costs and lowers your performance.

Realization utility can be disadvantageous when the market is bear by encouraging investors to buy more risky stocks or funds.

The longer investors delay selling, the longer they postpone the pain of admitting your error but this increases losses

Having an unconscious bias to search for gaining realization utility, investors should look at them more critically than they normally would.

And when tempted ask cautiously themselves: Am I really making a smart investment decision or simply pursuing a delicious feeling of triumph?

Experiment 1

Imagine that you are about to purchase a jacket for (\$125)[\$15] and a calculator for (\$15)[\$125]. The calculator salesman informs you that the calculator you wish to buy is on sale for (\$10)[\$120] at the other branch of the store, a 20-minute drive away. Would you make the trip to the other store?

Experiment 2

Imagine that you have decided to see a play, admission to which is \$10 per ticket. As you enter the theater you discover that you have lost a \$10 bill. Would you still pay \$10 for the ticket to the play?

Now imagine that you have decided to see a play and paid the admission price of \$10 per ticket. As you enter the theater you discover that you have lost your ticket. The seat was not marked and the ticket cannot be recovered. Would you pay \$10 for another ticket?

Experiment 4

(shoes costs)

Imagine that you are about to purchase a jacket for (\$125)[\$15] and a calculator for (\$15)[\$125]. The calculator salesman informs you that the calculator you wish to buy is on sale for (\$10)[\$120] at the other branch of the store, a 20-minute drive away. Would you make the trip to the other store?

Yes: 16% No: 84%

Experiment 5

(sunk costs)

Imagine that you have decided to see a play, admission to which is \$10 per ticket. As you enter the theater you discover that you have lost a \$10 bill. Would you still pay \$10 for the ticket to the play?

Yes: 88% No: 12%

Now imagine that you have decided to see a play and paid the admission price of \$10 per ticket. As you enter the theater you discover that you have lost your ticket. The seat was not marked and the ticket cannot be recovered. Would you pay \$10 for another ticket?

Yes: 46% No: 54%

STATUS QUO BIAS

The combination of loss aversion and endowment effect implies that individuals have a strong tendency to remain at the status quo, because the disadvantages of leaving it loom larger than advantage

The term **status-quo bias** has been used to describe people's tendency of "doing nothing or maintaining one's current or previous decision" (Samuelson & Zeckhauser, 1988).

Status quo bias can also be rational route if there are cognitive or informational limitations.

Mere exposure can also be a cause of the status quo bias. Existing states are encountered more frequently than non-existent states and because of this they will be perceived as more true and evaluated more preferably. One way to increase liking for something is repeated exposure over time

STATUS QUO BIAS

- ▶ Subjects were given a hypothetical choice task in the following "neutral" version, in which no status quo was defined: "You are a serious reader of the financial pages but until recently you have had few funds to invest. That is when you inherited a large sum of money from your great-uncle. You are considering different portfolios. Your choices are to invest in: a moderate-risk company, a high-risk company, treasury bills, municipal bonds."
- ▶ Other subjects were presented with the same problem but with one of the options designated as the status quo. In this case, the opening passage continued: "A significant portion of this portfolio is invested in a moderate risk company . . . (The tax and broker commission consequences of any changes are insignificant.)"
- ▶ The result was that an alternative became much more popular when it was designated as the status quo
- ▶ Also the advantages of the status quo increase with the number of alternatives given to subjects