Behavioural Economics:

How it drives decisions

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Behavioural finance is the study of the influence of psychology on the behaviour of investors or financial analysts. It also includes the subsequent effects on the markets. It focuses on the fact that investors are not always rational, have limits to their self-control, and are influenced by their own biases.

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TYPES

Behavioural Finance

MICRO

Biases of Individuals

MACRO

Abnormalities in Efficient Market Hypothesis

THE RATIONAL PERSON

- Embedded in finance theory is the notion of **Homo Economicus** (the rational economic man/how man should behave) who:
  - Is perfectly rational (emotion is ignored);
  - Has perfect self-interest maximising utility and profits (philanthropy is ignored); and
  - Has access to perfect information (the amount and complexity of information is ignored).

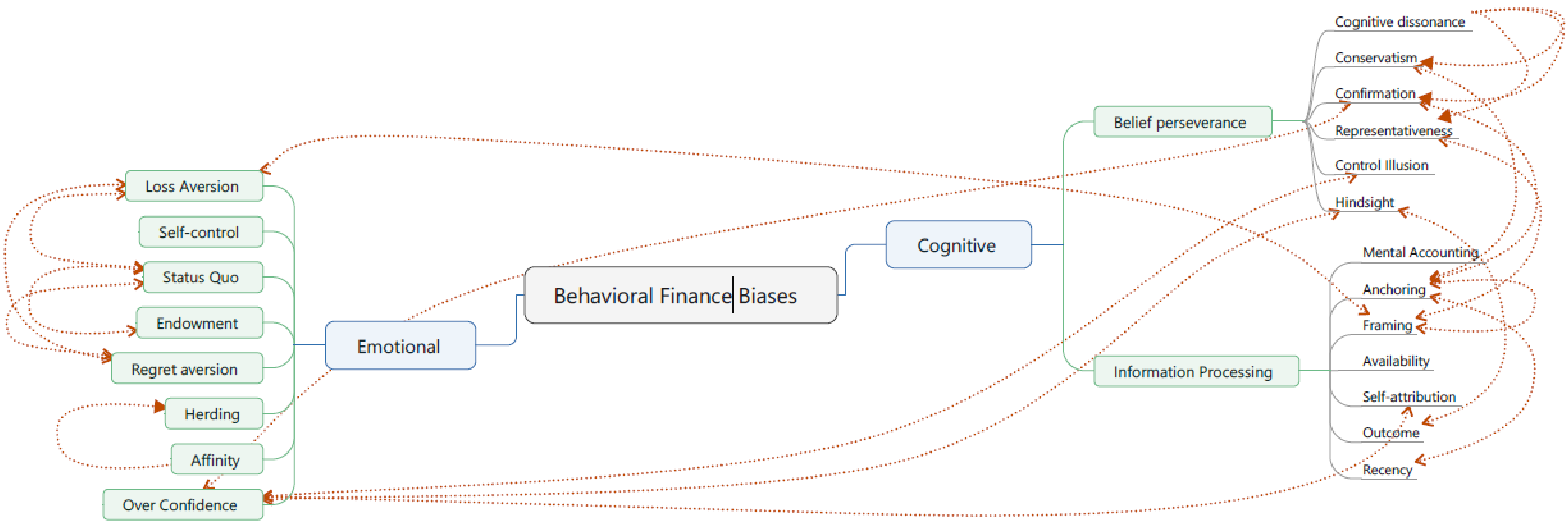
TWO SYSTEMS

- Humans exhibits two modes of thinking:
  - **System 1** – operates automatically and quickly, with little or no effort and no sense of voluntary control. **System one has biases.**
  - **System 2** – allocates attention to the effortful mental activities that demand it, including complex computations. **System 2 takes over when things get difficult** (this is when we tend to act more rational).

BAISES

- A bias is an error caused by:
  - Systematically favouring some outcomes over others due to <u>mental discomfort or information processing</u>/memory errors (Cognitive).
  - A temperament leading to unreasonable judgement due to <u>feelings, perceptions and believes</u> (Emotional).

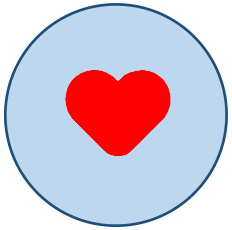
A complex world of biases



Looking at three biases…

- Cognitive
  - Representativeness
  - Mental Accounting

- Emotional
  - Loss Aversion



Representativeness

Which of the following coin tosses appears more random?

1. **HHTHHTTTTHTHHTTTTHHHTHT**
2. **HTHTHTTTHHTHTHTHHTTHTH**

In 1 and 2 it is 50/50 but we choose 2 because we want to see more frequent changes

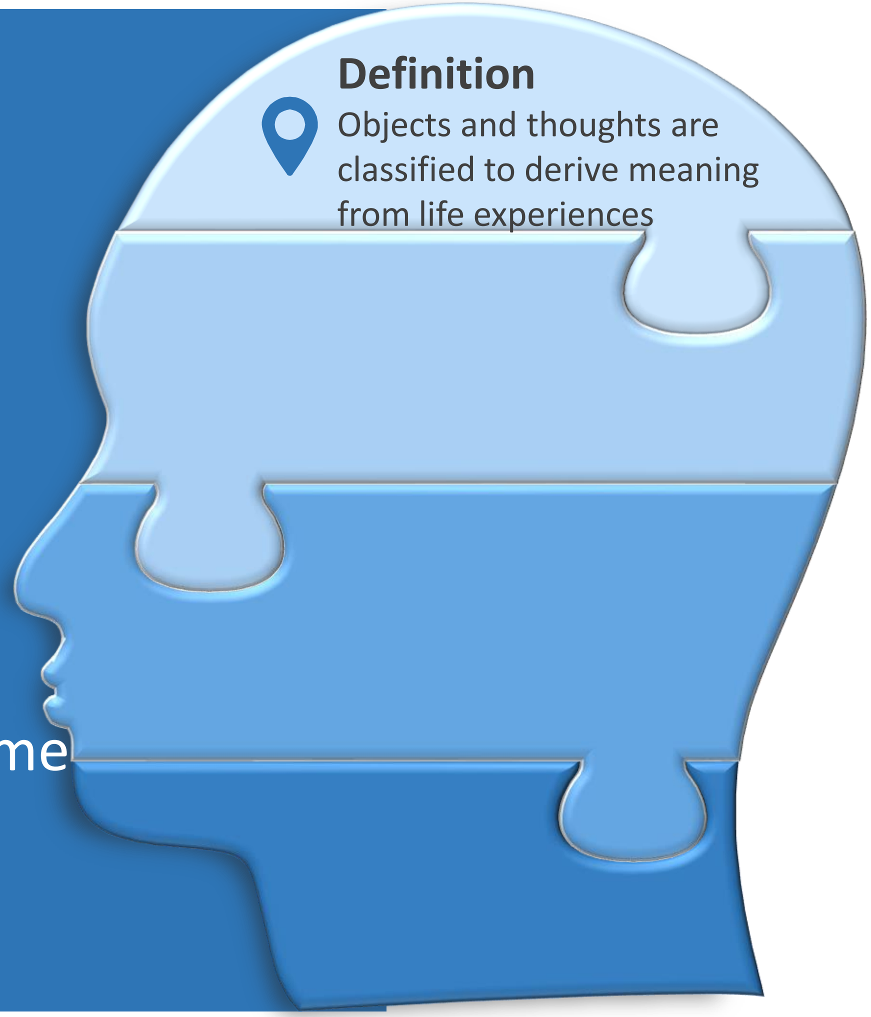
REPRESENTATIVENESS

Cognitive

When confronted with an unfamiliar topic, we try to classify it to provide a quick tool for processing new information.

Two errors

1) Base rate neglect (stereotypes)
2) Sample size neglect (assume small sample represent)



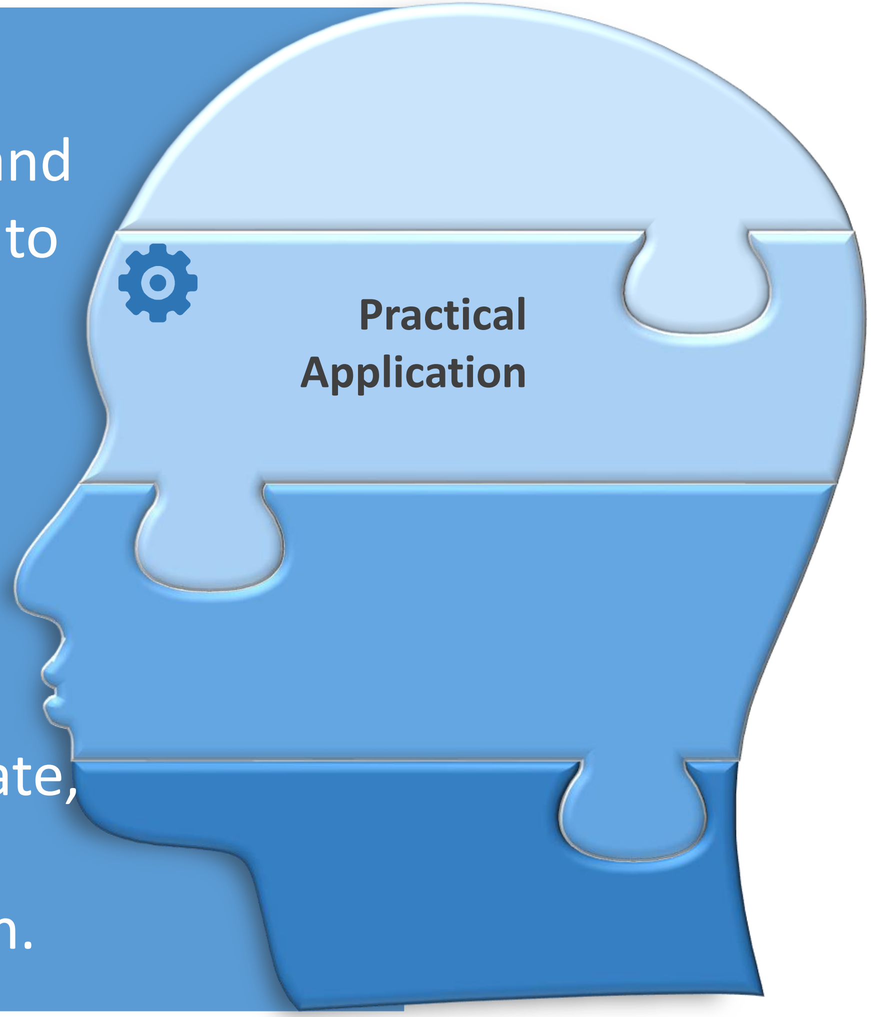
REPRESENTATIVENESS

Cognitive

Investors have a belief of a previous case (stereotype) and now expect this investment to perform the same.

Investors belief recent good performance makes a fund manager good.

The longer you can participate, the better the change that what you expect will happen.

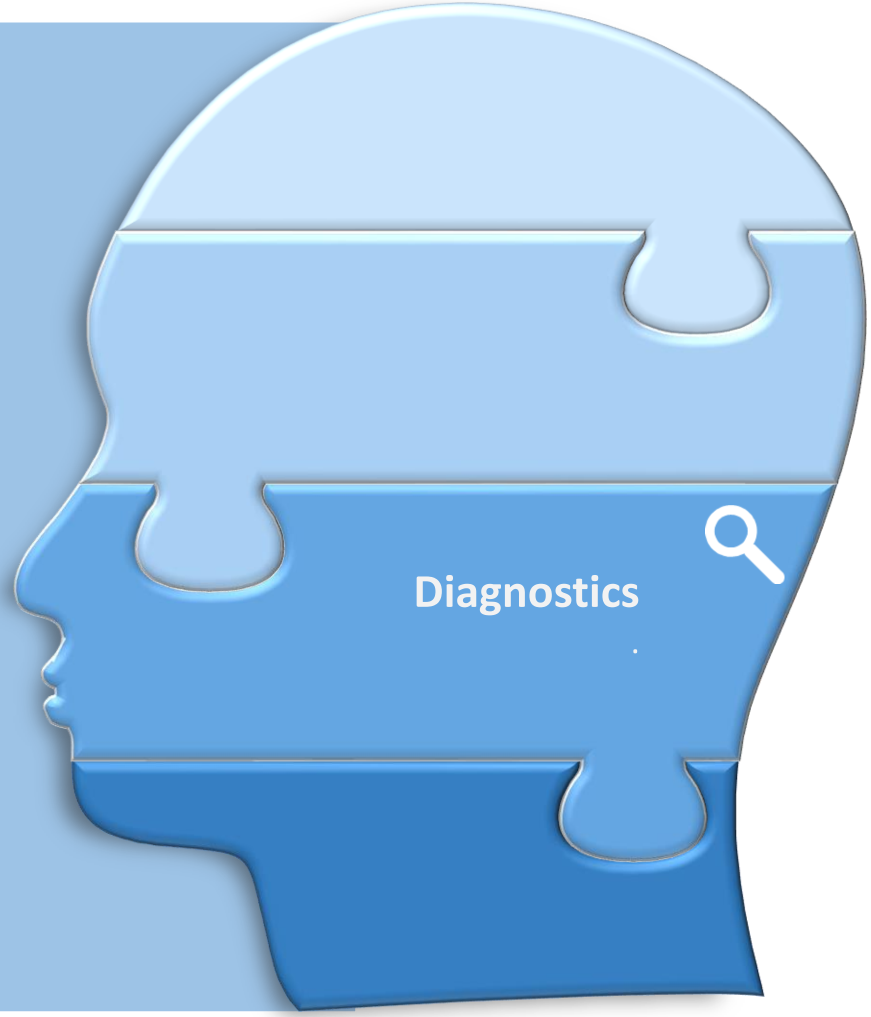


REPRESENTATIVENESS

Cognitive

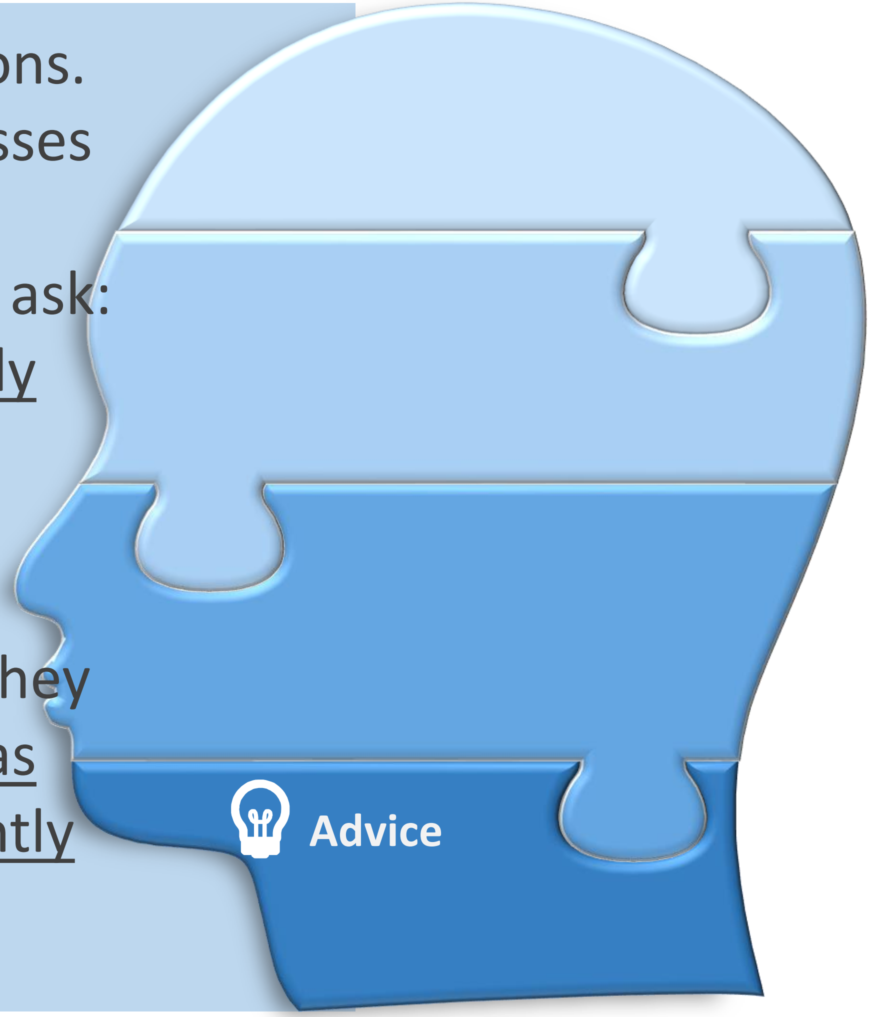
Does the investor:

1. Jump to conclusions on stereotypes?
2. Want to invest in recent performers?



REPRESENTATIVENESS
Cognitive

1. Look at longer time horizons.
2. Diversify among asset classes and managers.
3. In evaluating investments ask:
   - How does it consistently compare to similar investments?
   - What is tenure of management and are they highly regarded and was their strategy consistently applied?



Mental Accounting

- **Situation 1:** you go to see a movie while in town and there is a R100 admission fee. You discover that you lost a R100 bill, would you still pay for the movie?
- **Situation 2:** You go to see a movie and there is a R100 admission fee. You lost your ticket while shopping, would you buy another one?
- The situations are equal because R200 is lost in both (ticket or cash does not matter).

88% buys ticket in situation 1, only 46% in situation 2 (because both losses in 2 are from you “entertainment” budget).

Mental Accounting

By the third day the newlyweds lost their R5,000 gambling allowance at Sun City. That evening the groom notices a glowing object in the room. It was a misplaced R5 chip with the number 17 on it. He went to the casino and bet it at roulette on 17. He won and got R175. This continued until he had won R7.5m. The next roll however landed on 18 and he lost all. Getting back to the room his bride ask him where he had been:

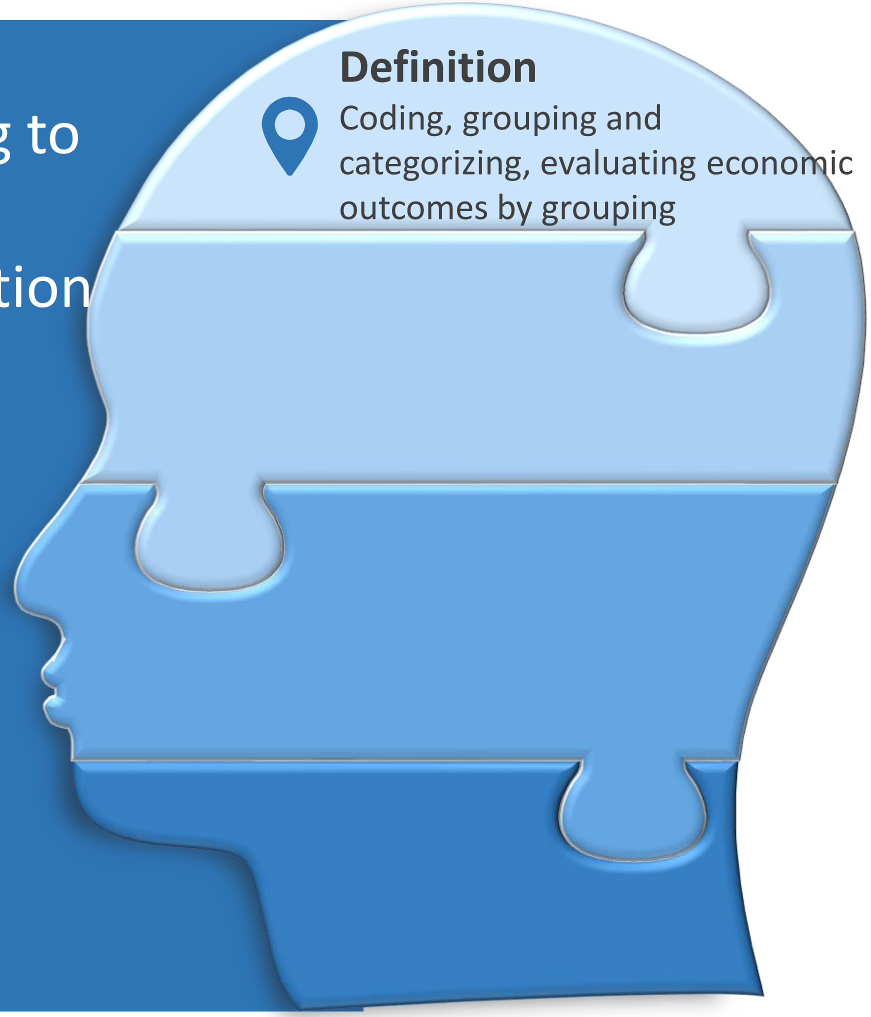
- "Playing Roulette"
- "How did you do?"
- "Not bad. I lost R5."

- He did not update his reference point
- He saw his winnings as house money

MENTAL ACCOUNTING
Cognitive

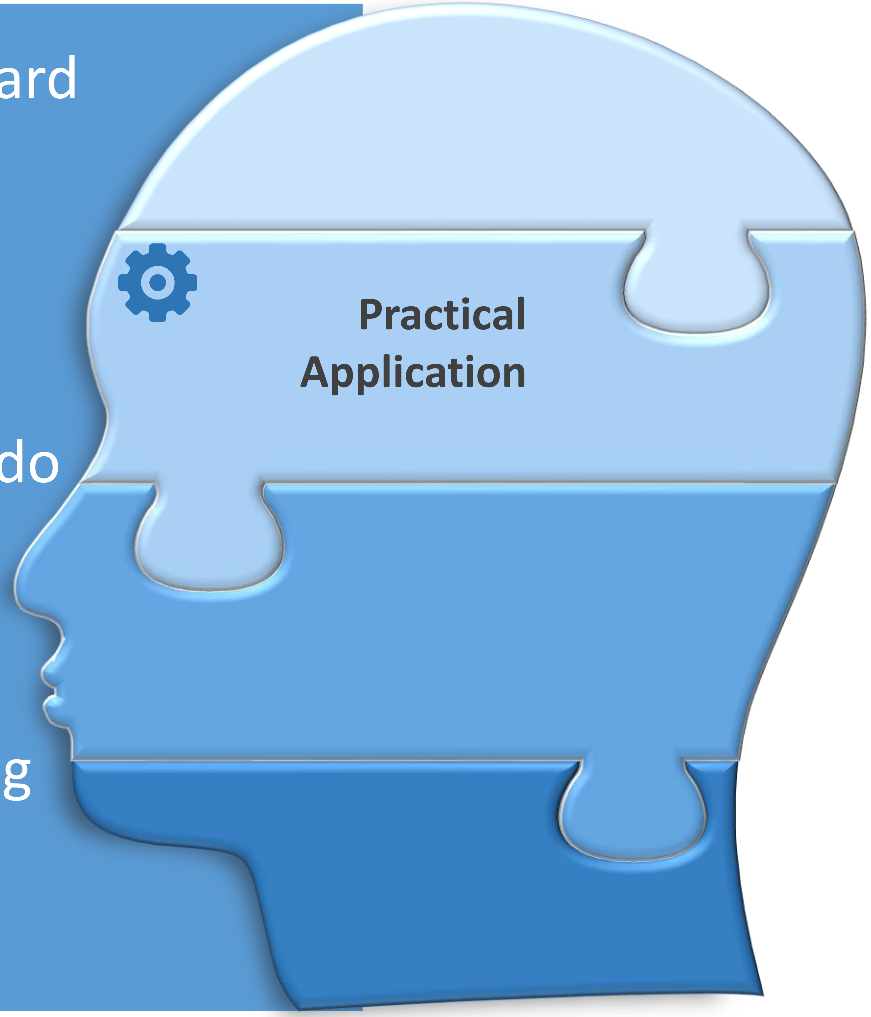
Various sums of money are treated differently according to how they are categorized:

- Current income (gratification now),
- Future income, or
- Expenditure items.



MENTAL ACCOUNTING
Cognitive

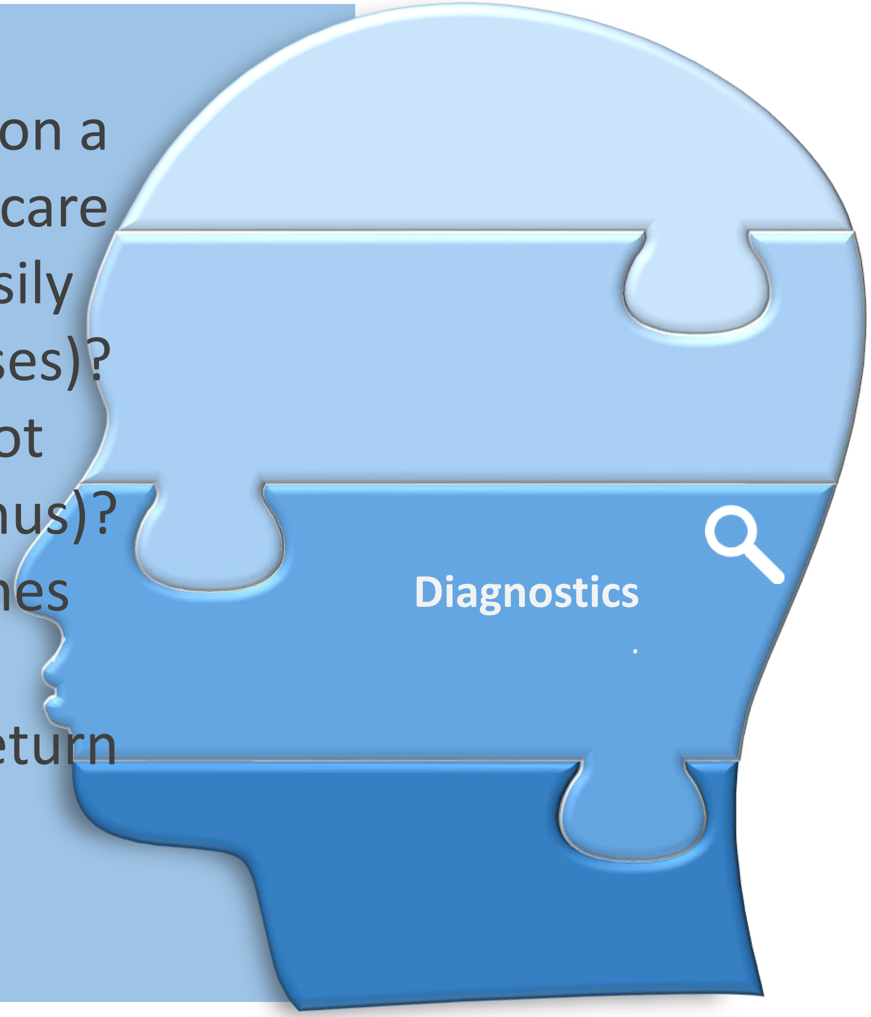
It is easier to pay by credit card (and so pay more).
We easily give up saving for gratification now.
Ignore correlation between categories, therefor people do not diversify into all asset classes (also hold to much company shares).
Can have benefits (budgeting and saving)



MENTAL ACCOUNTING
Cognitive

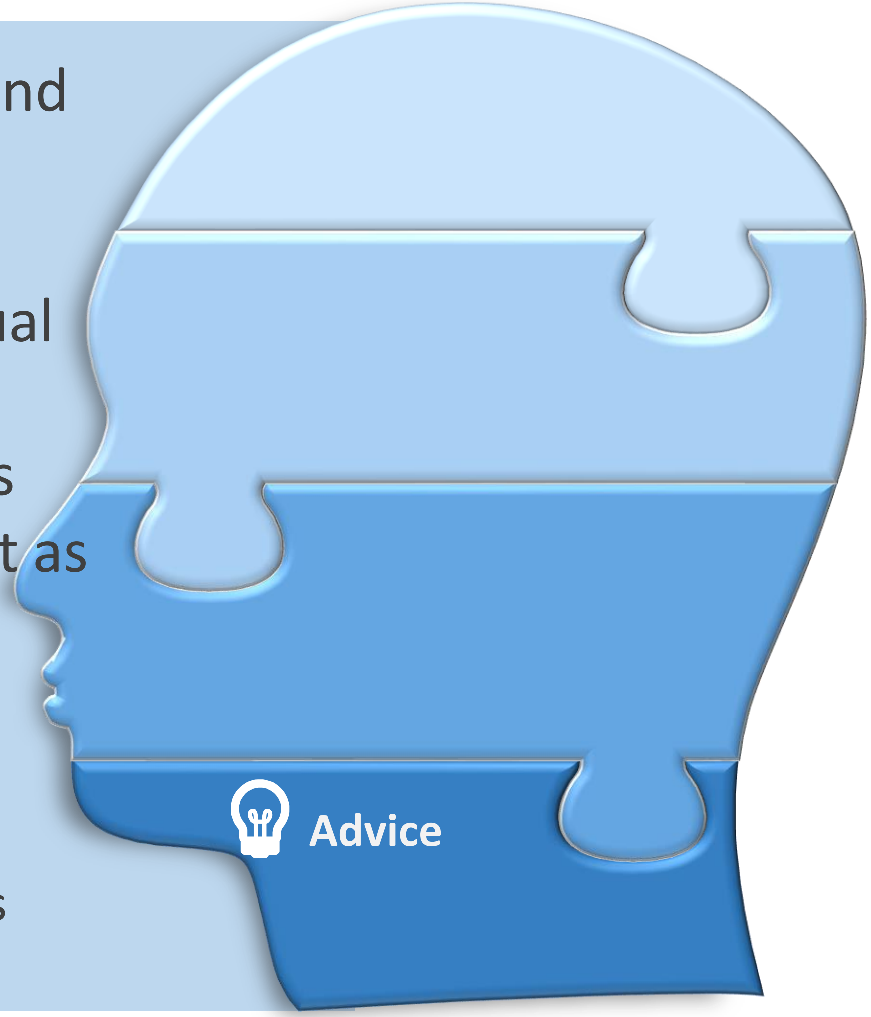
Does the investor:

1. Try and save an amount on a small purchase, but do not care if purchase is large (also easily add extras on large purchases)?
2. Spend money easier if not worked for inheritance/bonus)?
3. Reduce saving first in times of financial difficulty.
4. Do not judge portfolio return in aggregate but each class/fund separately?

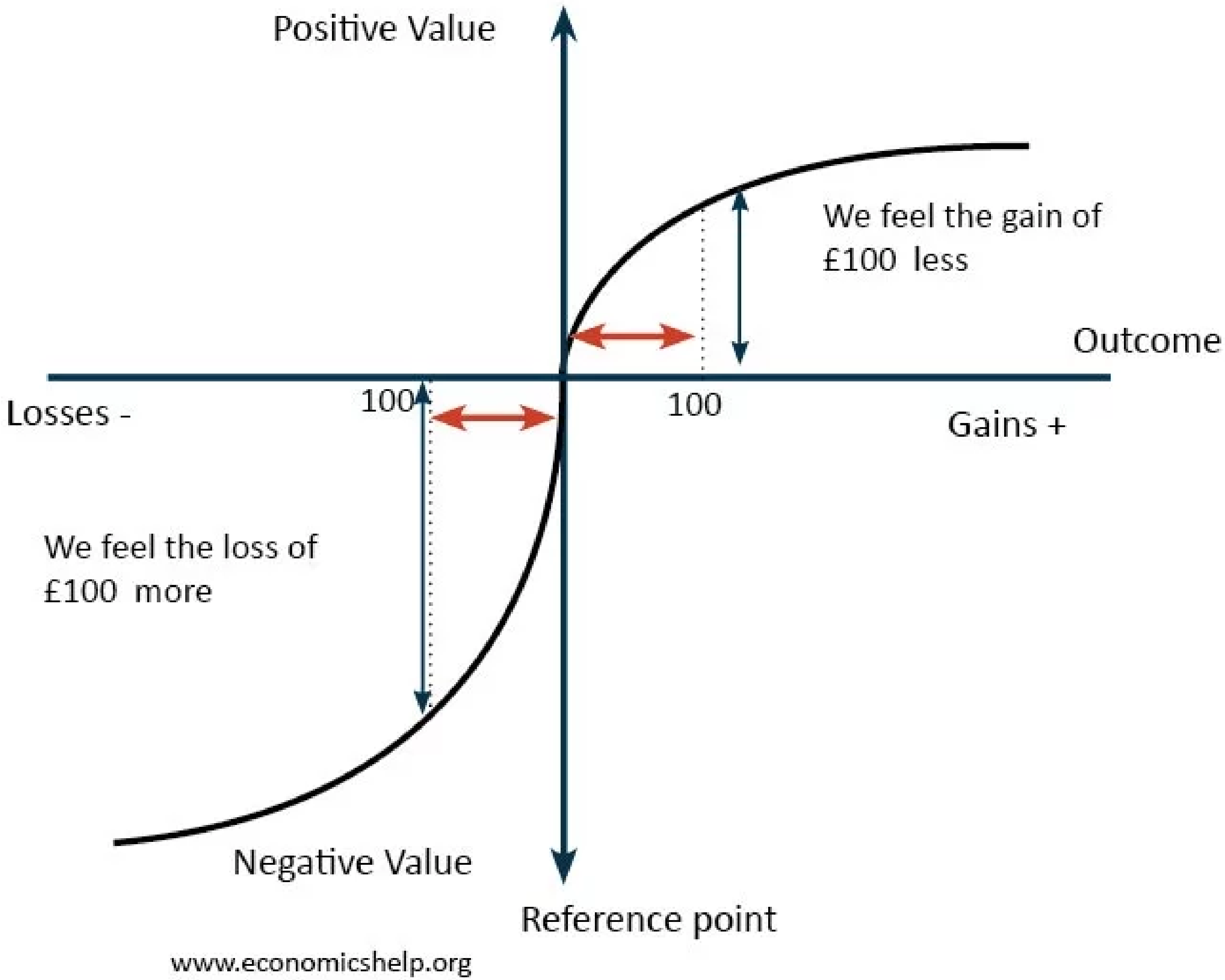


MENTAL ACCOUNTING
Cognitive

1. Discuss asset correlation and diversification.
2. Focus on total returns of portfolios and not individual fund returns.
3. Motivate that each Rand is the same and as important as another one.
4. Apply relevant cash flows
    1. Actual cash
    2. Applicable to future
    3. Differ between alternatives



Loss Aversion

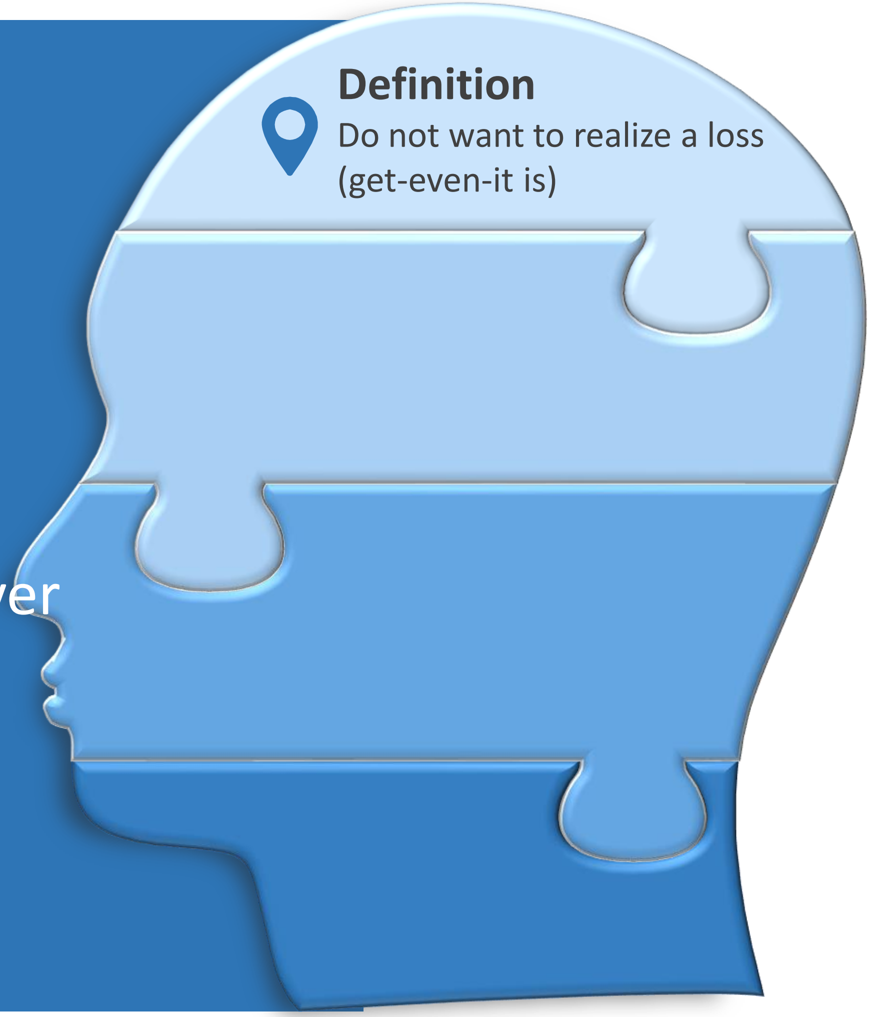


LOSS AVERSION
Emotional

Possibility of loss is twice as powerful a motivator a possibility of making a gain.

Normally wants to lock in profits quickly.

Prepared to gamble to recover losses.

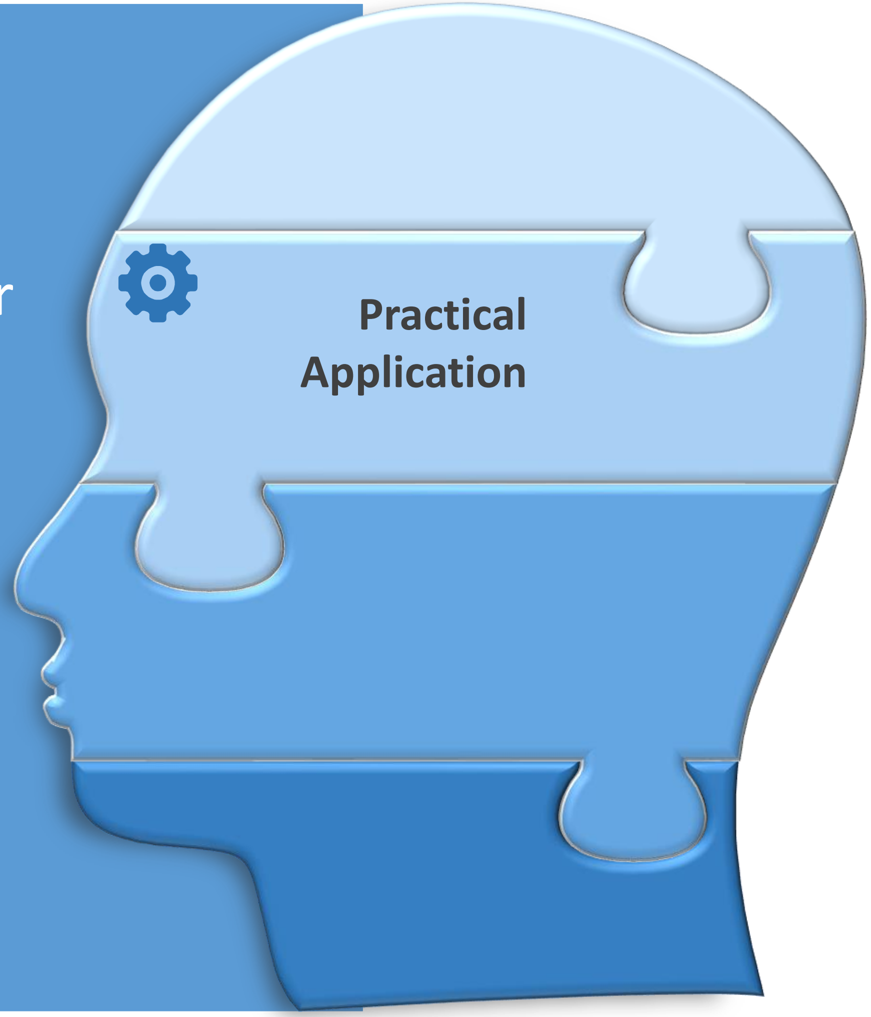


LOSS AVERSION
Emotional

Sell winners too quickly and hold on too losers to long.

This increase risk with lower returns.

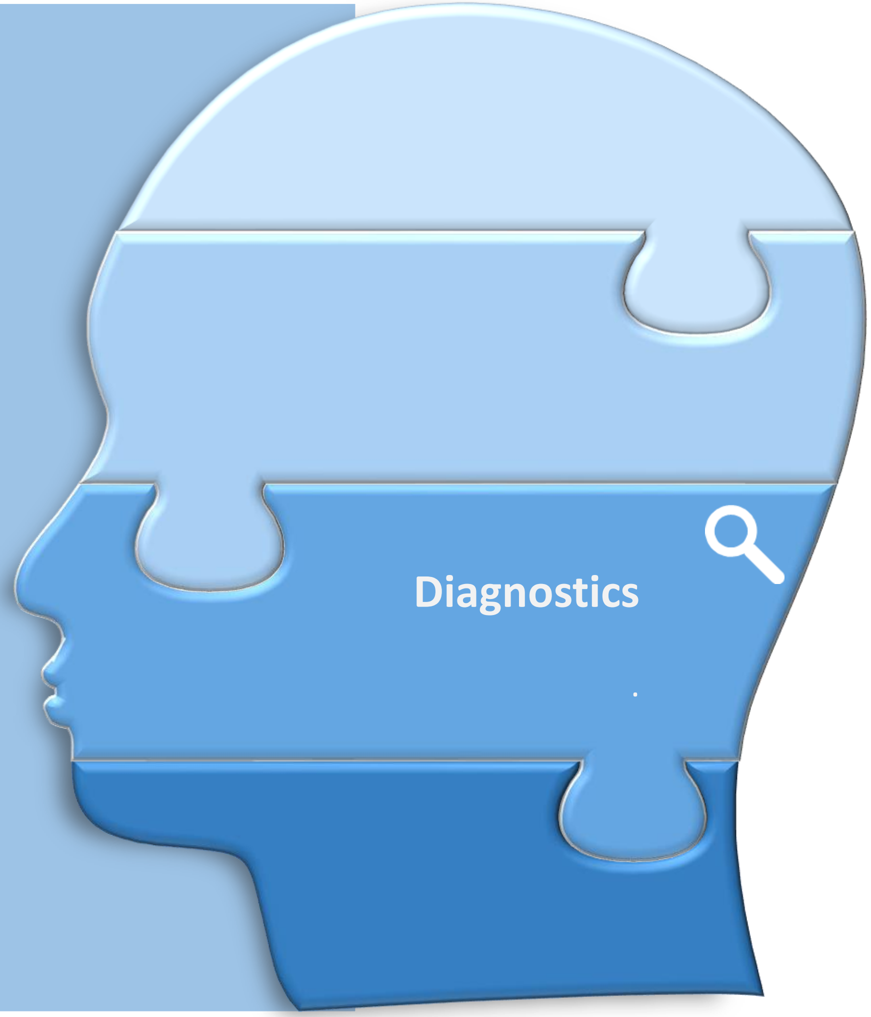
Investors holds unbalanced portfolios.



LOSS AVERSION
Emotional

Does the investor:

1. Sell performing investments soon?
2. Not sell loss making investments?
3. As profits increase take less risk and as losses increase takes more risk to try and get even?



LOSS AVERSION
Emotional

1. Do not be focused on original price, set levels to sell (fair value).
2. Discuss items such as standard deviation (risk) etc. on whole portfolio.
3. Show benefits of diversification.

SUMMARY AND QUESTIONS

Main Point

If you understand BF you can make better financial decisions

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