

# BARNUM EFFECT

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INFLUENCE OF SOCIAL DESIRABILITY,  
BASE RATE AND PERSONALIZATION

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# Barnum Effect

- People have a tendency to accept some vague and very general statements as accurate descriptions of their personalities
- These statements are known as *Barnum* statements and apply to almost everyone!
- There's no definite explanation why Barnum Effect happens. It's **universal**, no effect of gender, age etc.
- Various 'Possible' Influencing Factors:
  - **Social Desirability**: Favorability, acceptable by society, positive
  - **Base Rate**: Generality of the statements
  - **Personalization** - Subject is made to believe that the analysis is specifically tailored for her

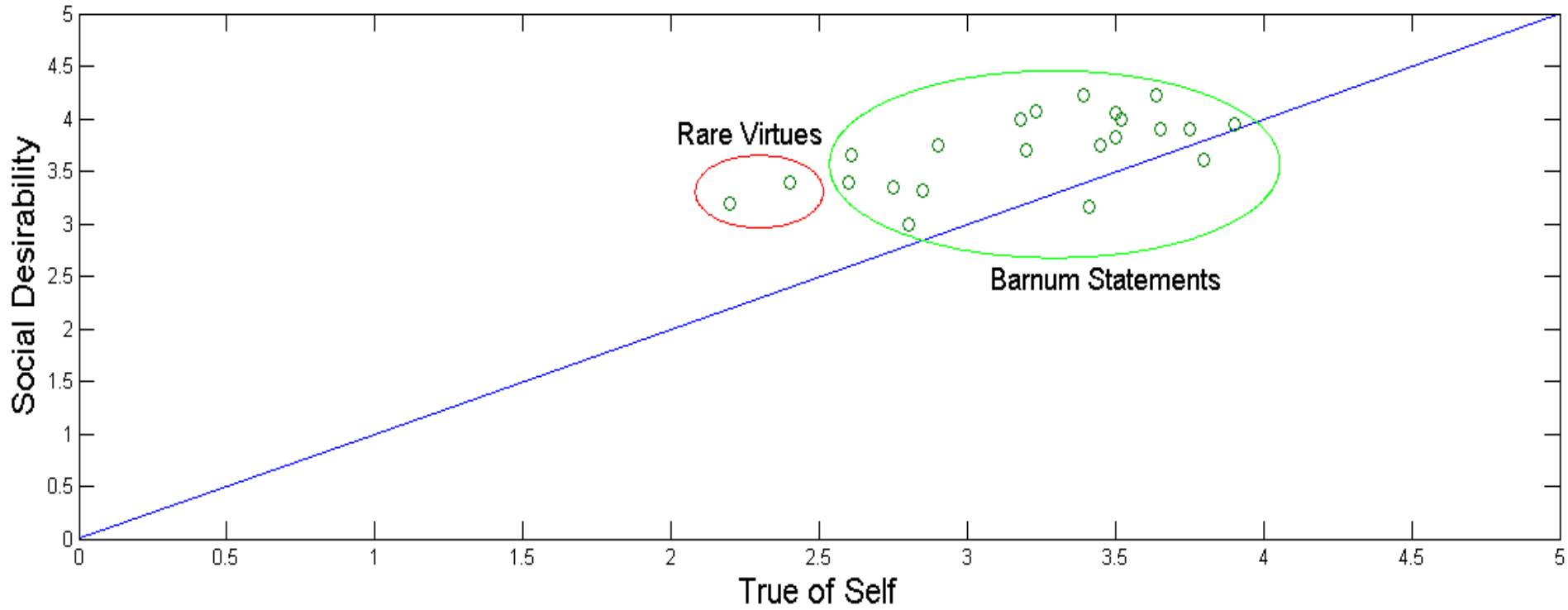
# Methodology

- To investigate Social Desirability and Base Rates, three different kinds of personality traits are required to be evaluated:
- **Barnum Statements**
  - Highly socially desirable traits with high base rates
  - E.g.- Fairness is an important value for you
- **Rare Virtues**
  - Highly socially desirable traits with low base rates
  - E.g.- You are extraordinarily courteous to others
- **Common faults**
  - Low social desirability and high base rate
  - E.g.- You have said something bad about a friend behind his back

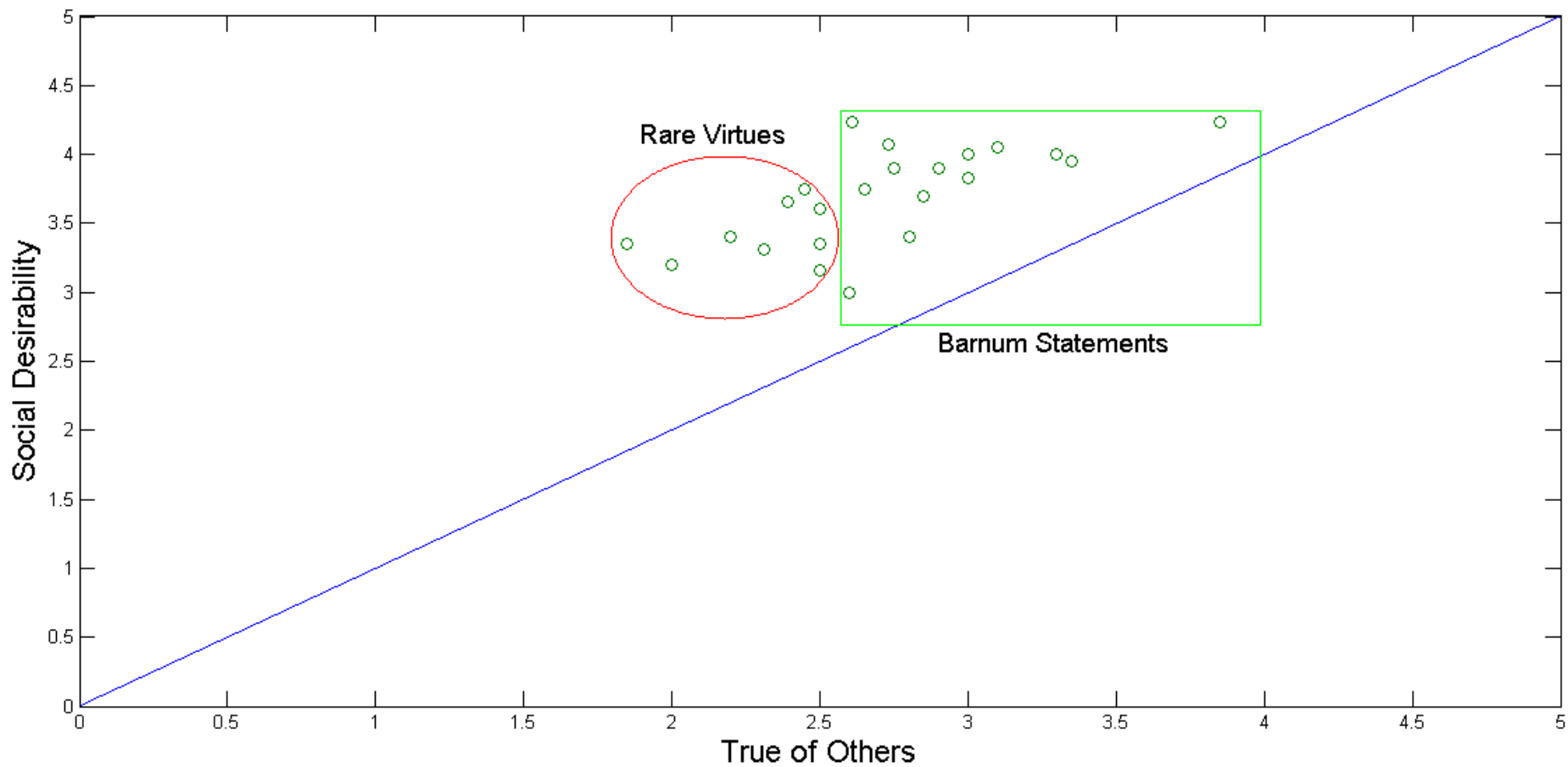
# Experiment 1

- Aim - Investigate whether any correlation exists between social desirability and base rate. If not then collect statements that satisfy the criteria of rare virtues.
- Experiment:
  - 48 (male and female) subjects filled an online survey of about 20 candidate personality traits
  - They had to rate each one of them on three different scales
    - Highly to least socially desirable
    - Highly to least true of self
    - Highly to least true of others
  - Rare virtues shall be the items with a high rating on scale 1 (above 50%) but low on scale 2 or 3 (below 50%) for most of the subjects.

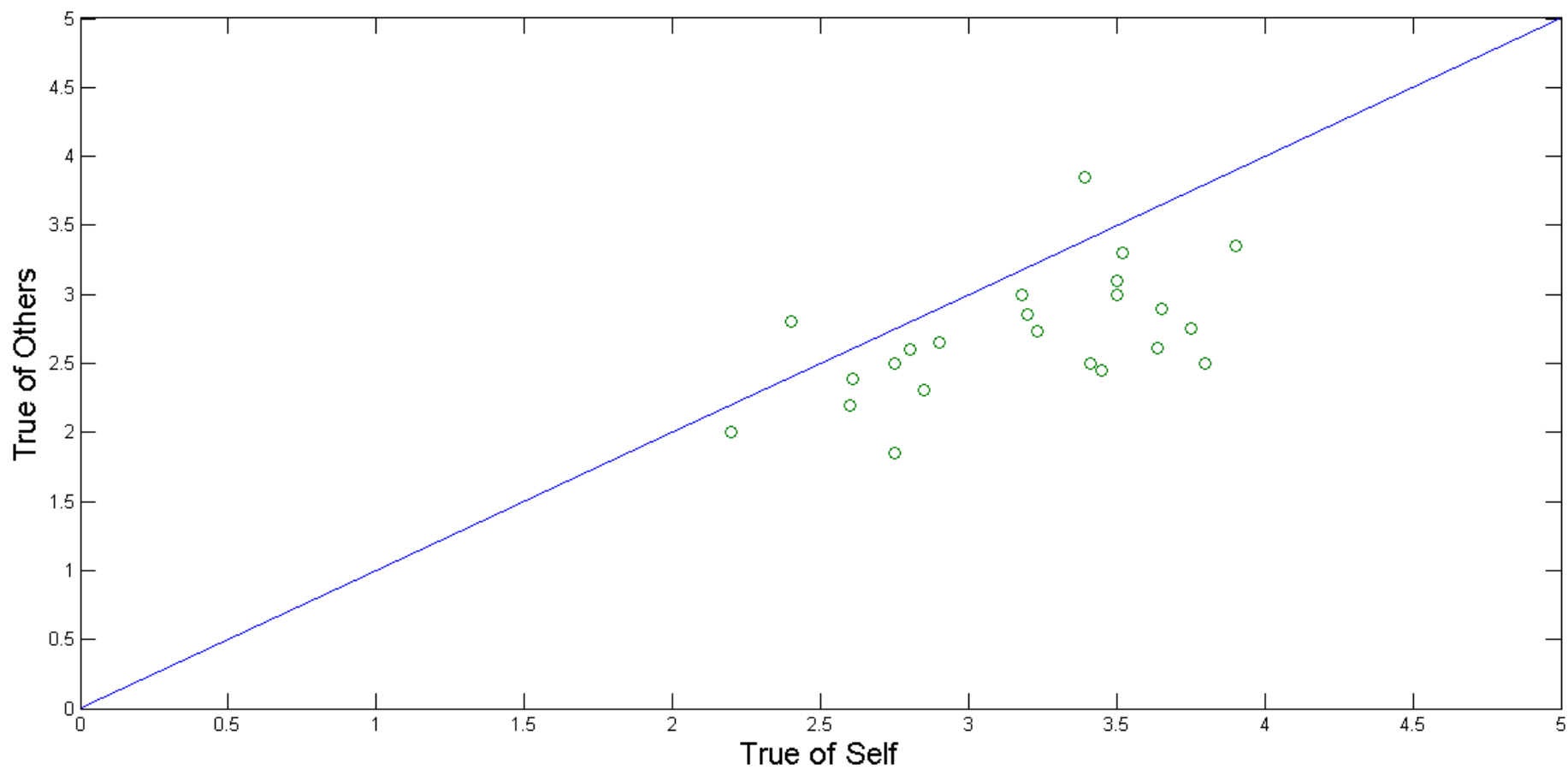
# Results



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## Some Rare Virtues found

Personality Traits	Social Desirability	True of Others
1. You never get irritated when things don't go your way	3.2	2
2. If you see trash in street, you pick it up and throw it away	3.35	1.85
3. You never gossip about people behind their backs	3.4	2.2
4. When you offer help you expect nothing in return	3.31	2.31
5. You are a very punctual person	3.66	2.39
6. You find it easy to understand other people's point of view even if they disagree with you.	3.75	2.45



# Experiment 2

- Aim - To study Barnum effect and influence of social desirability, base rate and personalization
- Experiment:
  - 36 Subjects were told that the experiment concerned with evaluating a personality predicting software.
  - Everyone was given 15 minutes to complete a personality test (Goldberg Personality Questionnaire).
  - After the test, subjects were presented with their personality reports.
  - There were 6 different reports: Personalized and non-personalized versions of Barnum reports, common faults and rare virtues.
  - Each subject was then asked to rate how accurately the report defined their personality on a scale of 0 (absolutely rubbish) to 5 (extremely accurate).

# Experiment 2

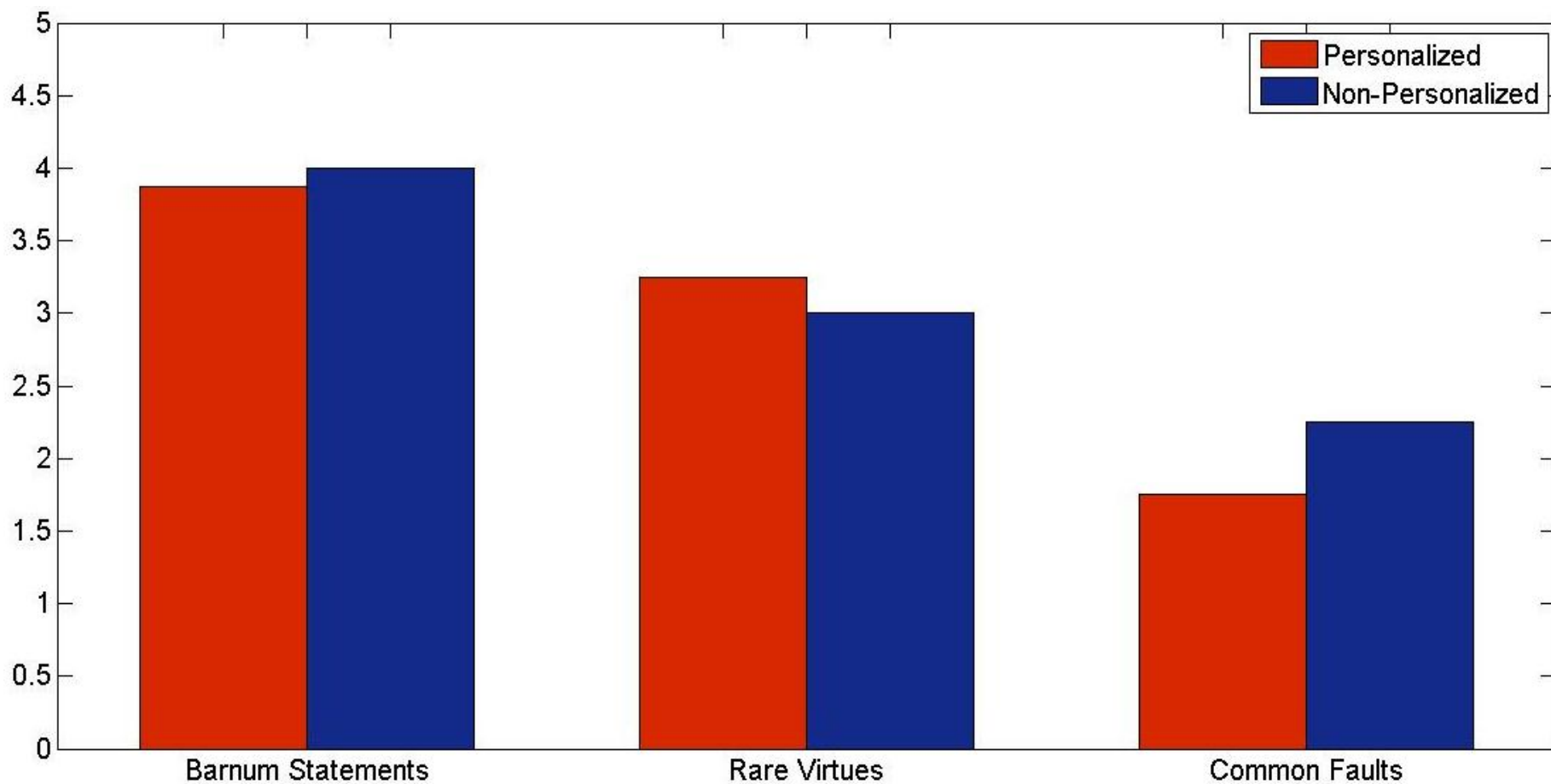
- Some Barnum Statements used:
  - Fairness is an important value for you.
  - You value people who allow you to be yourself without judgment.
  - At times you are extroverted, affable, sociable, while at other times you are introverted, wary, reserved.
- Some Rare Virtues used:
  - You seldom get irritated when things don't go your way.
  - You never gossip about people behind their backs.
  - When you offer help you expect nothing in return.
- Some Common Faults used:
  - You don't always know the reasons why you do what you do.
  - There have been times you felt like rebelling against authorities, even though you knew they were right.
  - Occasionally you have come to class unprepared for an exam.

# Results

Personalization	Barnum(SD)	Rare Virtues(SD)	Common Faults(SD)
Personalized	3.87(0.76)	3.25(0.96)	1.75(0.5)
Non - Personalized	4.00(0.55)	3.00(1.16)	2.25(0.96)

- No profile got the rating '0'
- Greatest acceptance of Barnum Profiles, least for Common Faults
- No significant effect of Personalization in case of Barnum statements
- Greater acceptance of Non-Personalized Common Faults while vice-versa for Rare Virtues
- High Standard Deviation in case of Rare Virtues and Common Faults

# Results



# References

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