

# Development of an application to find bias efficiently

Group 8

Keyword

**Bias**



# 35 kinds of jam

BERRY MIX JAM  
ベリーミックスジャム

Kurogoma Jam  
琉球本場  
黒糖黒ごまジャム

Kurogoma Jam  
琉球本場  
黒糖白ごまジャム

琉球本場  
そとうきびの蜜  
100%

秋限定ジャム  
アップルラムレーズン  
St. Cousair

無添加ジャム

Milk Jam  
ミルクジャム

Sakuramomo Ichigo jam  
さくらももいちごジャム



# 7 kinds of jam



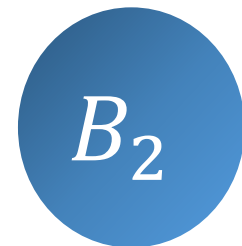
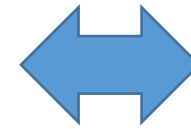


# Purpose

We detect bias using questions now.



Sex



Bias relation

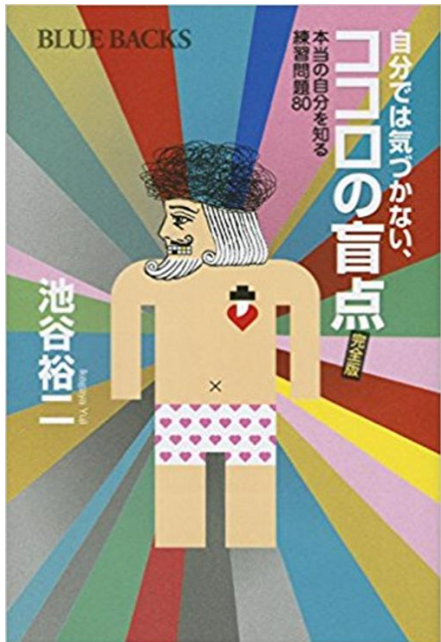


To detect bias efficiently



# Preliminary Experiment | Purpose

- How many biases our school's students have
- Factors we should focus on (ex: sex)



80 biases



1. Decision-making bias
2. Memory bias
3. Probability bias
4. Social bias

# Preliminary Experiment | Method

Method : Ask two questions from each category  
Answer the eight questions on the web

Subject : Our high school's 1<sup>st</sup> grade students

Note : We refer to the answer choices which reveal some bias as "mistakes"



# Preliminary Experiment | Result

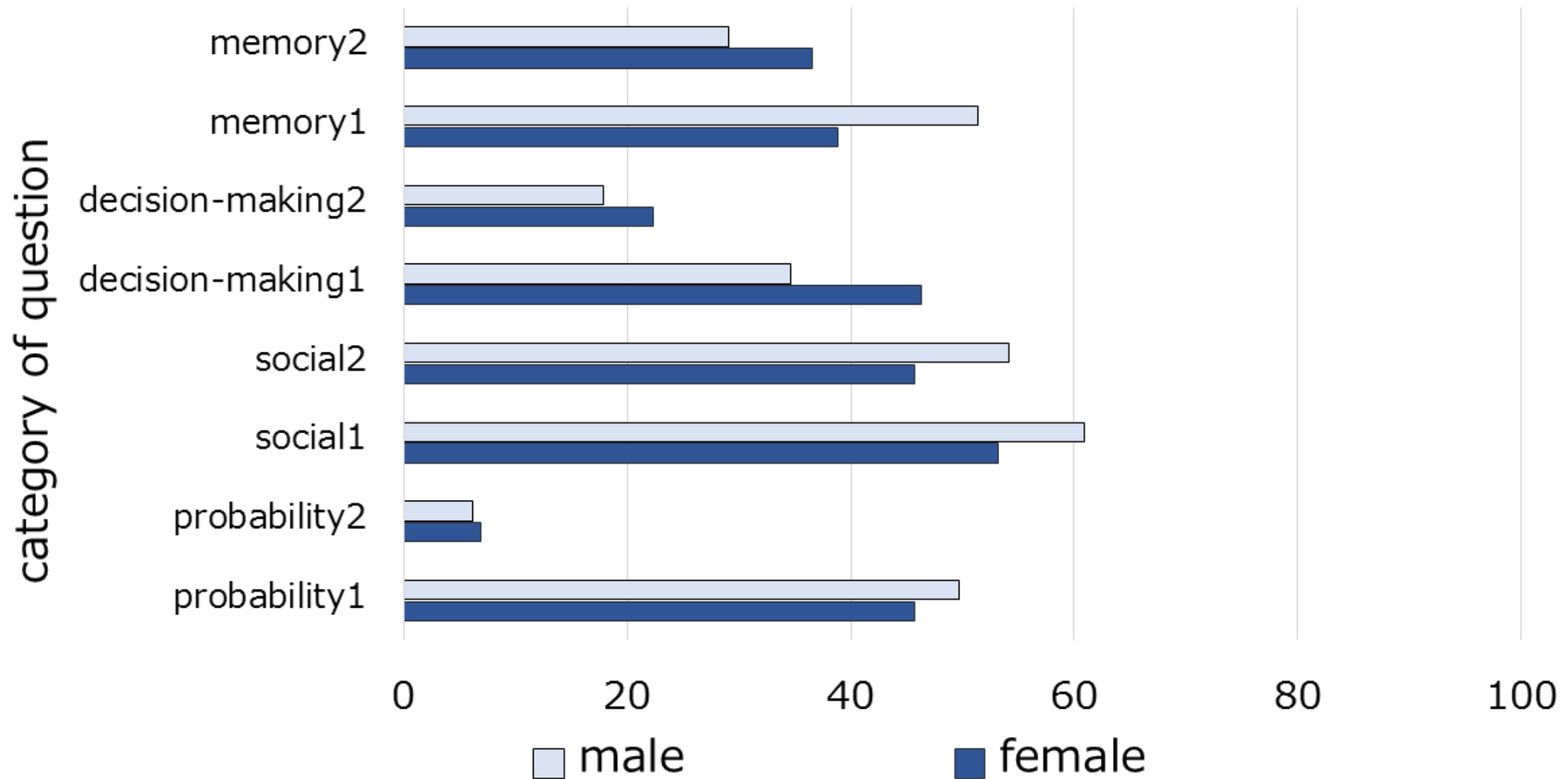


Fig.1 : Correct answer rate for each question(%)

# Experiment 1 | Purpose&Method

Purpose : Check the category of bias(accuracy)  
Look for correlation between biases

Method : Five questions from each category  
giving 20 questions to 1<sup>st</sup> grade  
students on the Web

# Experiment 1 | Result

Table 1 correlation coefficient between two questions

Number of data points	190
Max. positive correlation	0.300
Max. negative correlation	-0.180



# Experiment 1 | Summary

Could not find a correlation between biases only from analyzing the questions.



We get rid of

- difficult questions (low percentage of “right” answer)
- biases unhelpful to us

in experiment 2

# Experiment 2 | Purpose and method

Purpose : Classify people into groups  
by their answer patterns

Method : Four biases from each category  
Three similar questions

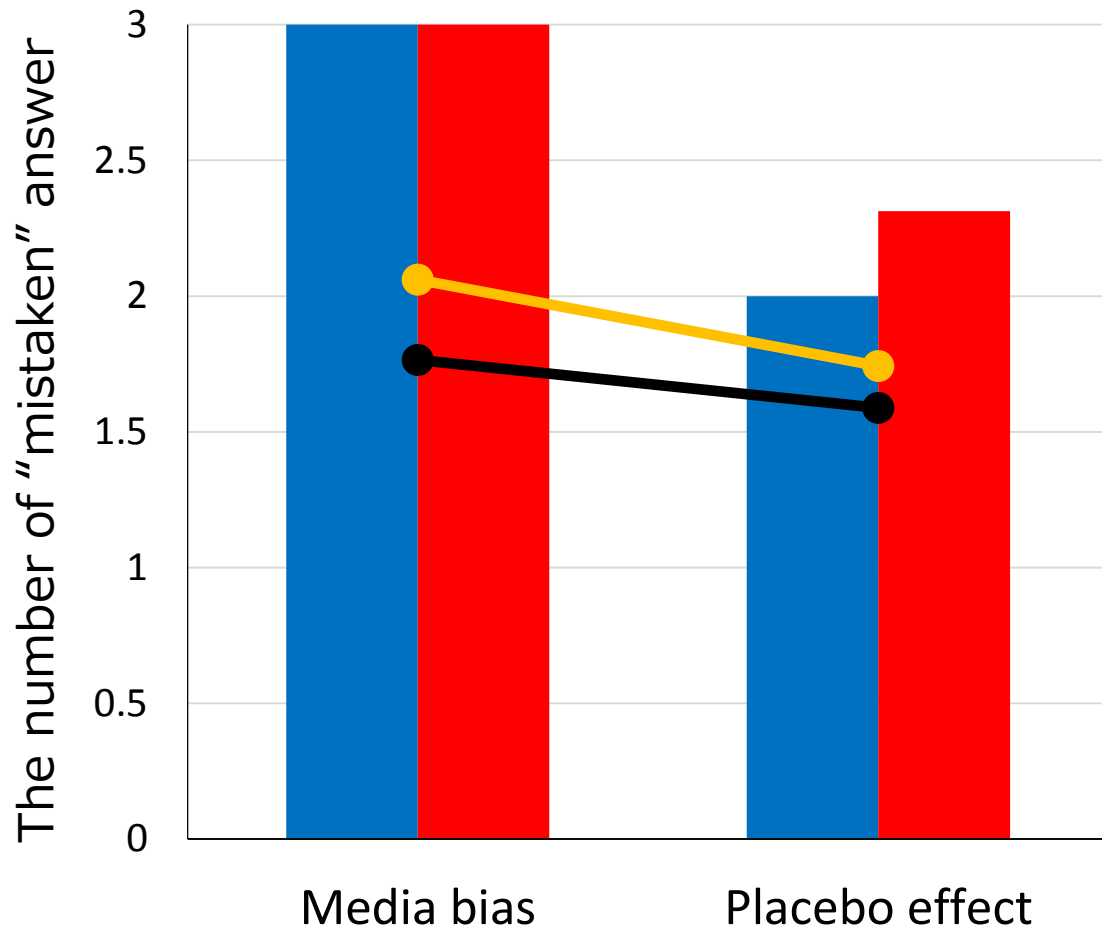
Subject : Our high school's 2<sup>nd</sup> grade students

# Experiment 2 | Result

■ Boy : 11 ■ Girl : 16 ● Boy avg. ● Girl avg.

■ Boy: 8 ■ Girl: 13 ● Boy avg. ● Girl avg.

“Media bias” mistake group



“Placebo effect” mistake group

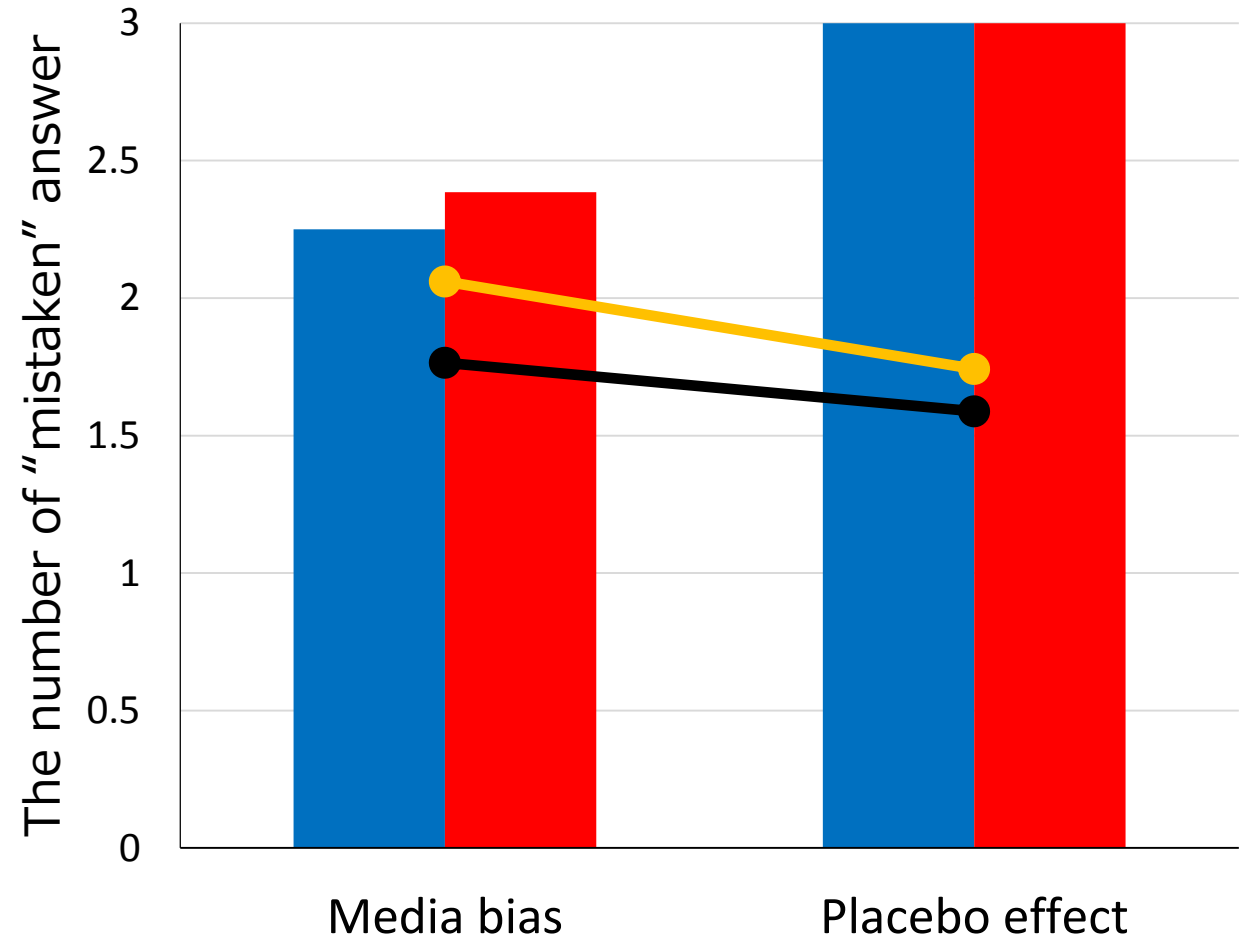


Fig.2 : The strongest correlation



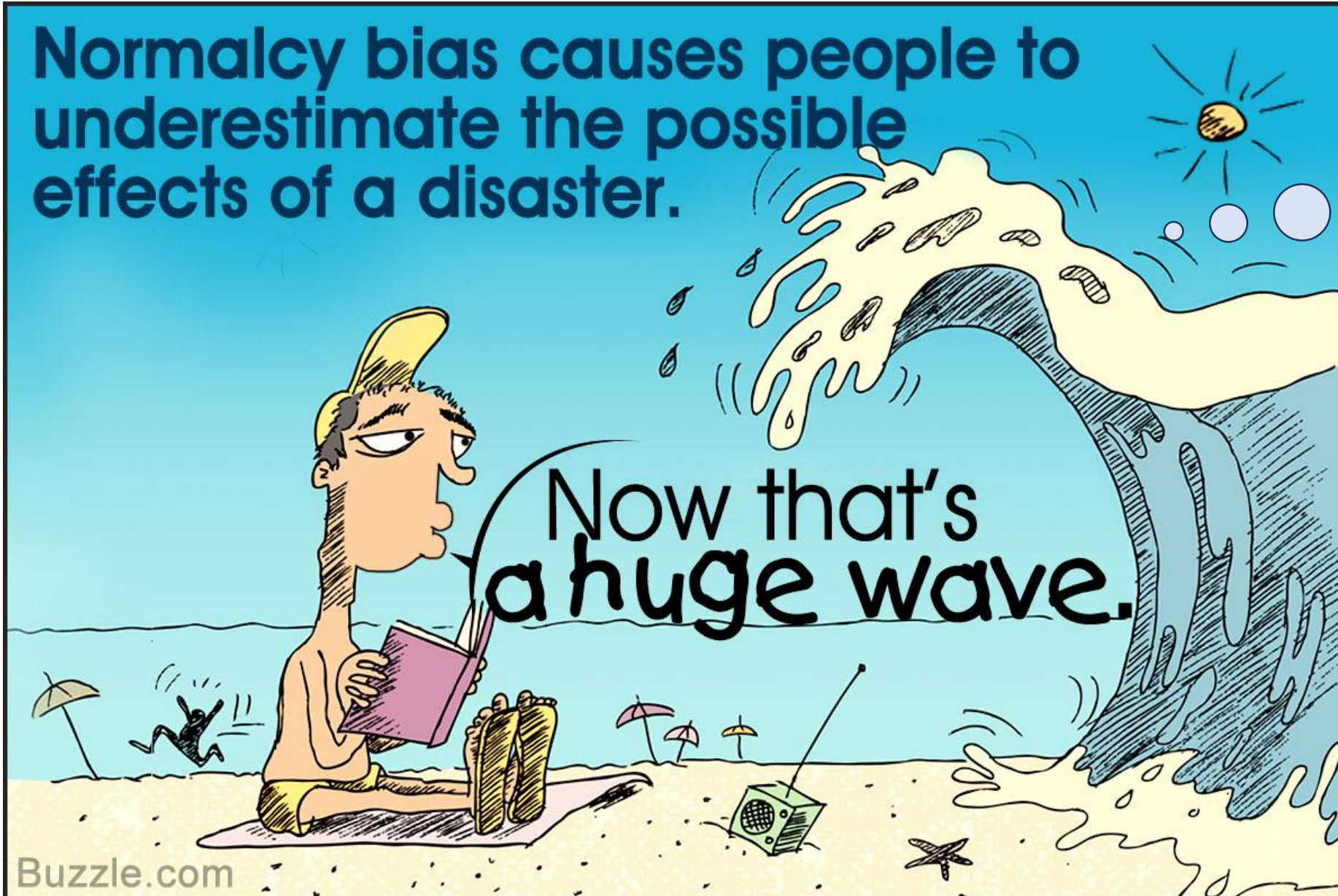
# Experiment 2 | Summary

- Look for correlation between biases
- Classify people into groups

NO CORRELATION BETWEEN BIASES  
**But**

# Experiment 2 | Summary

Normalcy bias causes people to underestimate the possible effects of a disaster.



I think that I will at least be all right.

Underestimate danger

Fail to escape

<https://psychologenie.com/insight-into-concept-of-normalcy-bias-in-psychology>

# Experiment 2 | Summary

- Look for correlation between biases
- Classify people into groups

Found "a Bias" most of us have

Using this data



Reduce the number of questions to detect biases



# Future plan

Application to detect biases efficiently



- Apply our data to this application
- Gather data from various age groups

# References

(1)池谷 裕二(2016)『自分では気づかない、ココロの盲点完全版 —本当の自分を知る練習問題80—』(ブルーバックス)講談社 / Yuji ikegaya(2016)”The blind spot of mind which we can't notice by ourselves.(perfect version) –Exercise80 to know real me.– (bluebacks) Kodunsha

(2)池谷裕二(2012)『脳には妙なクセがある』扶桑社 / Yuji ikegaya(2012)”Our brain have strange habits.–massousya

