

Judgment & Decision Making

Type 1 Thinking Introduction

Dr. Padilla

Fast Thinking (Type 1)



What is going on here?

Slow Thinking (Type 2)

$$17 \times 24 = 408$$

Type 1: Fast, easy, automatic

Type 2: Allocates attention, is slow and effortful
- Monitoring behavior

Type1: Adaptive
Game (left or right?)



Type1: Adaptive
Game (left or right?)



Type1: Adaptive
Game (left or right?)



Type1: Shared animals
from early age



Type1: Maladaptive Game



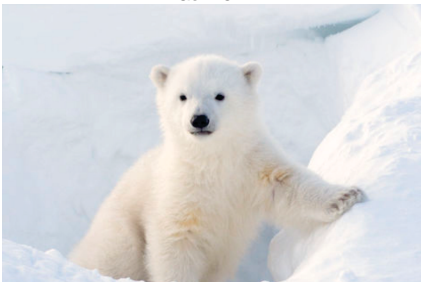
Type1: Maladaptive Game



Type1: Maladaptive Game



Type1: Maladaptive Game



Type1: Maladaptive
Game



Type1: Maladaptive
Game



Type1: Maladaptive
Game

What does a cow drink?

not milk

Type1: Maladaptive
Who is the librarian?



Type1: Maladaptive
Who has been to prison?



Type1: Maladaptive
Who is the scientist?



Kathrin Barboza Marquez:
award winning Bolivian biologist

Stock photo

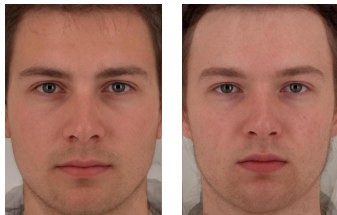
Type1: Maladaptive
Who would make a better president?



Fictional character from
the West Wing

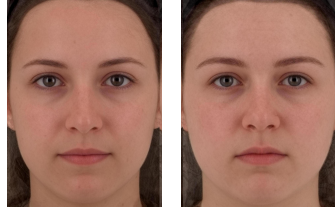
XS

Type1:
Who is smarter?
(left or right)



Blinded by Beauty: Attractiveness Bias and Accurate Perceptions of Academic Performance. Talmass, Mavor and Perrett (2016)

Type1:
Who is smarter?
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Blinded by Beauty: Attractiveness Bias and Accurate Perceptions of Academic Performance. Talmaz, Mavor and Perrett (2016)

Limitations: Type1

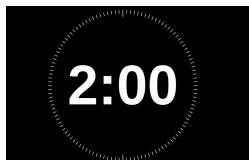
- Limited understanding of logic and statics
- It can't be turned off
- It is easy controlled by outside forces

Key points

Type1: Fast, easy, automatic
limited understanding of logic and statics
is easy controlled by outside forces

Type 2: Allocates attention
slow, effortful

2 min discussion



Judgment & Decision Making

Type 2 Thinking Introduction

Type 2: Effortful, slow, deliberate, and lazy

- Responsible for the allocation of attention
- Identify by the feeling of agency, choice and concentration

Selective Attention Test

from Simons & Chabris (1999)

Selective Attention Test
from Simons & Chabris (1999)

This video shows a participant from a 1998 study by Daniel Simons & Daniel Levin.

Type 1:
Stroop Test
Aligned

Red

Type 1:
Stroop Test
Aligned

Green

Type 1:
Stroop Test
Aligned

Orange

Type 1:
Stroop Test
Aligned

Blue

Type 1:
Stroop Test
Aligned

Pink

Type 2:
Stroop Test
Conflict

Red

Type 2:
Stroop Test
Conflict

Green

Type 2:
Stroop Test
Conflict

Orange

Type 2:
Stroop Test
Conflict

Blue

Type 2:
Stroop Test
Conflict

Yellow

Type 2: Effortful, slow, deliberate, and lazy
- Responsible for the **allocation of attention**
- Associated with '*Working Memory*' - effort system

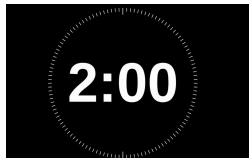
Type 2:
Working Memory
Pupil Dilation



Working Memory

- Limited in capacity
- Involves holding information in the mind for a short time
- Different people have various amounts of working memory capacity

2 min discussion



Judgment & Decision Making

Effort and Self Control

THE MARSHMALLOW
TEST



IGNITERMEDIA.COM

Self-control requires effort

-We have less self-control when we have less working memory capacity available

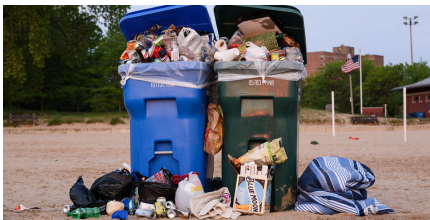
When we are under high cognitive load we have less working memory to allocation to Type 2 thinking.

Therefore, Type 1 is more likely to drive our decisions.

Stereotyping



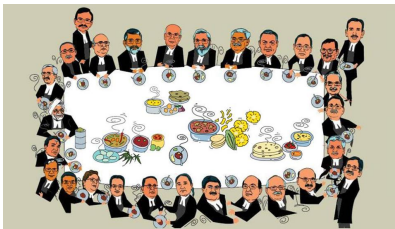
Selfish Decisions



Lack of Inhibition

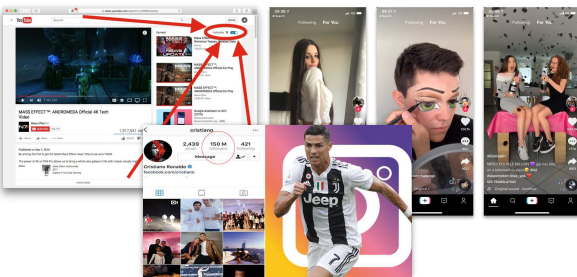


favorable rulings drop from around 65% to nearly 0 before lunch then return to normal after the break



Danziger, S., Levav, J., & Avnaim-Pesso, L. (2011). Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences*, 108(17), 6889-6892.

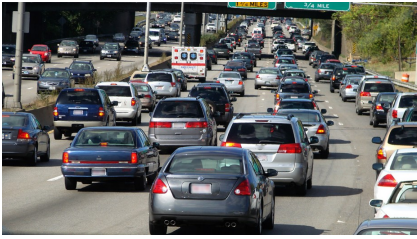
Immediate Gratification



When do we have less self control?

When working memory is taxed by: under time pressure, stress, lack of food, and doing hard tasks

How does this influence different groups of people?







Type 2 thinking is lazy

A bat and ball costs \$1.10
The bat costs one dollar more than the ball
How much does the ball cost?

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How much does the ball cost?

~50% of Ivy League students
~80% from other schools

$$\$1 + \$0.10 = \$1.10$$



A bat and ball costs \$1.10
The bat costs one dollar more than the ball
How much does the ball cost?

$$\$1.10 + \$0.10 = \$1.20$$



A bat and ball costs \$1.10
The bat costs one dollar more than the ball
How much does the ball cost?

~50% of Ivy League students
~80% from other schools

$$\$1.05 + \$0.05 = \$1.10$$



Type 2 thinking is lazy

People will (unconsciously) try to avoid Type 2 because it requires effort.

2 min discussion

