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# Money stimuli and prosocial behavior

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Guest lecture Webster University, Thailand

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# Outline

1. Introduction – general thoughts about money
2. Theories and methods
3. Study in detail
4. Follow up studies
5. Outlook

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# Associations with money

*“For the love of money is the root of all evil”... ?*

*Bible, Timothy 6:10*

*A kind man who makes good use of wealth is rightly said to possess a great treasure  
but the miser who hoards up his riches will have no profit.*

Gautama Buddha

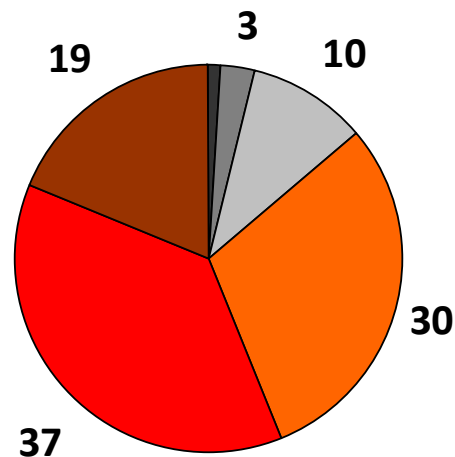
- rich = stingy
- Which impact does money really have on people?



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# Importance of money

Considering everything in life, how important are the topics of money and investing to you?



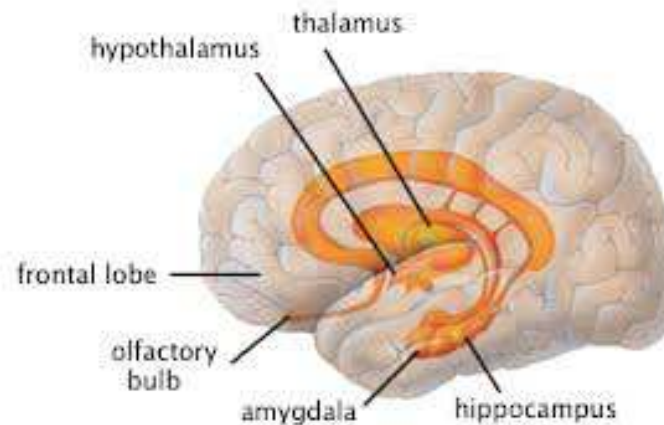
■ not important at all ■ 2 ■ 3 ■ 4 ■ 5 ■ very important

N = 1000 US citizens, representative online sample (iMatchative, 2014)

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# Theories of money

- Self-sufficiency theory (Vohs, Mead & Goode, 2006).
- Goal attainment theory
- Neuroeconomics: Money stimulus activates reward area and reduces pain.



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## Two souls, alas in my breast



Materialistic modus



Social modus

Framing

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# Methodical background - Priming

- *Priming* describes a passive, not intentional product of internal willingness due to recent or present experiences (Bargh & Chartrand 2000).
- **Conceptual Priming**
  - Activating mental representations
  - E.g. Scrambled Sentence Test
- **Mindset Priming**
  - Activating the way of thinking
  - E.g. Focus on similarities and differences

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## Optimistic application, how can people get more social?

- Social priming?
- Combination of social and money priming?
- Cross-cultural differences?
- Series of experiments conducted.



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# Hypotheses

## *Hypothesis I*

- Participants exposed to a social stimulus are primed towards the social system. They are less machiavellian, show more social responsibility and are willing to donate more money as compared to participants in the monetary stimulus condition.

## *Hypothesis II*

- For participants who are confronted with a monetary and a social stimulus, direction of choice (degree of machiavellianism, degree of social responsibility, amount of charitable donation) depends on their previous stimulus preference.

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# Method

## *Procedure*

### Cover story / Priming

*My university is conducting a short survey about the perception of its next poster. Can you please tell me which one you prefer, A or B?*

### Dependent variables

1. Items from Machiavellianism scale, subscale amorality (Dahling, Whitaker & Levi, 2009)
2. Items from Social responsibility scale (Berkowitz & Luttermann, 1968)
3. Charity

### Demographic data

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A

Money (conceptual priming)

B



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A

Social (conceptual priming)



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B



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A

Combined (mindset priming)

B



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# Questionnaire

## **Machiavellianism scale**

*(on a scale from 1 = strongly agree to 5 = strongly disagree)*

1. I am willing to be unethical if I believe it will help me succeed.
2. I am willing to sabotage the efforts of other people if they threaten my own goals.
3. I would cheat if there was a low chance of getting caught.
4. I believe that lying is necessary to maintain a competitive advantage over others.
5. The only good reason to talk to others is to get information that I can use to my benefit.

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# Questionnaire

## Social responsibility scale

*(1 = strongly agree to 5 = strongly disagree)*

1. It is no use worrying about current events or public affairs; I can't do anything about them anyway.
2. Every person should give some of his time for the good of his town or country.
3. Our country would be a lot better off if we didn't have so many elections and people didn't have to vote so often.
4. Letting your friends down is not so bad because you can't do good all the time for everybody.
5. It is the duty of each person to do his job the very best he can.
6. People would be a lot better off if they could live far away from other people and never have to do anything for them.
7. At school I usually volunteered for special projects.
8. I feel very bad when I have failed to finish a job I promised I would do.



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# Questionnaire

## *Donation of money*

- In Euro, how much money should a person like you donate to charity each year? *Euro* \_\_\_\_\_



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# Results

## Demographics

*N* = 332 (two cases excluded)

53% male, 47% female

Age, *M* = 23.02 (*SD* = 5.91)

Conditions	<i>N</i>
Money	126
Social	110
Combined	96

## Reliability of scales

Machiavellianism Scale

- Cronbach's  $\alpha$  = .78

Social Responsibility Scale

- Cronbach's  $\alpha$  = .66

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## Results

condition	Machiavellianism (trait)	
	$M_{Mac}$	(SD)
money	<b>3.16</b>	(.91)
social	<b>3.41</b>	(.82)
combined	3.33	(.97)

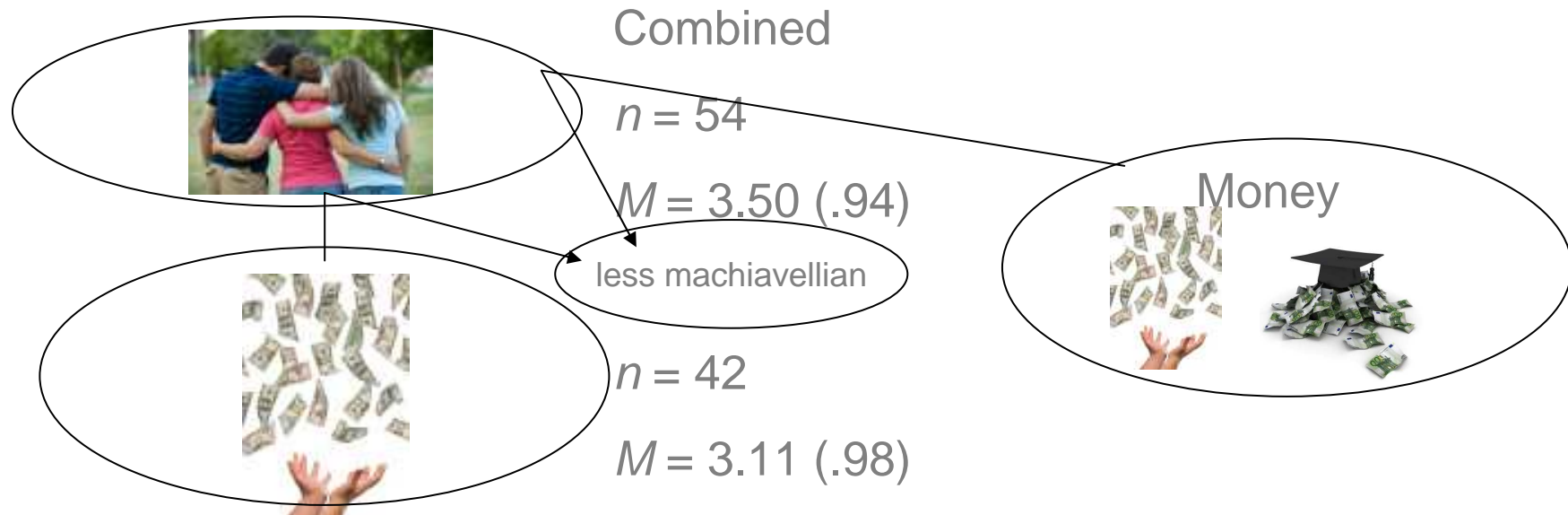
$F(2, 325) = 2.3, p = .10 \eta^2 = .01$

LSD Post-Hoc  $p = .04$

- Participants who judged about social pictures gave less egoistic answers on the Machiavellianism scale than the ones who judged about the money pictures.



# Results



- Participants who preferred social picture ( $M = 3.50 (.94)$ ) were less machiavellian than those who preferred money picture ( $M = 3.11 (.98)$ )  $t(92) = 1.96$ ;  $p = .05$
- Participants who preferred social picture in the combined condition were less machiavellian than participants of money condition.

ANOVA Machiavellianism  $F(2,284) = 3.69$ ;  $p = .03$ ;  $\eta^2 = .03$  (LSD Post-Hoc  $p = .02$ )

# Results

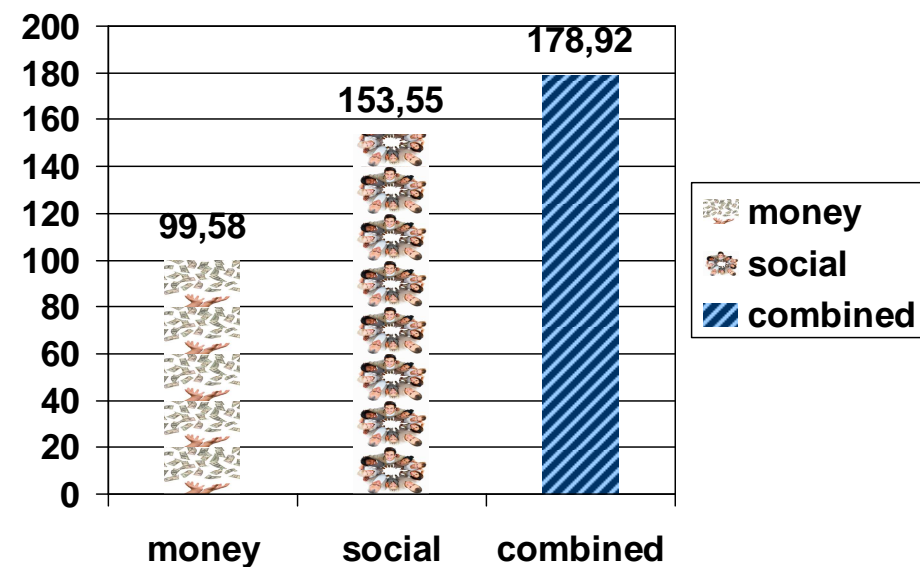
## Social Responsibility (general behavioural norm)

*M (SD)*

Money	<b>3.51</b>	(.64)
Social	3.59	(.66)
Combined	<b>3.72</b>	(.62)

$F(2, 320) = 2.97, p = .05, \eta^2 = .02$   
LSD Post-Hoc  $p = .02$

## Charitable donation (Specific behavioural norm)



$F(2, 282) = 3.11; p < .05; \eta^2 = .02$   
LSD Post-Hoc  $p = .02$

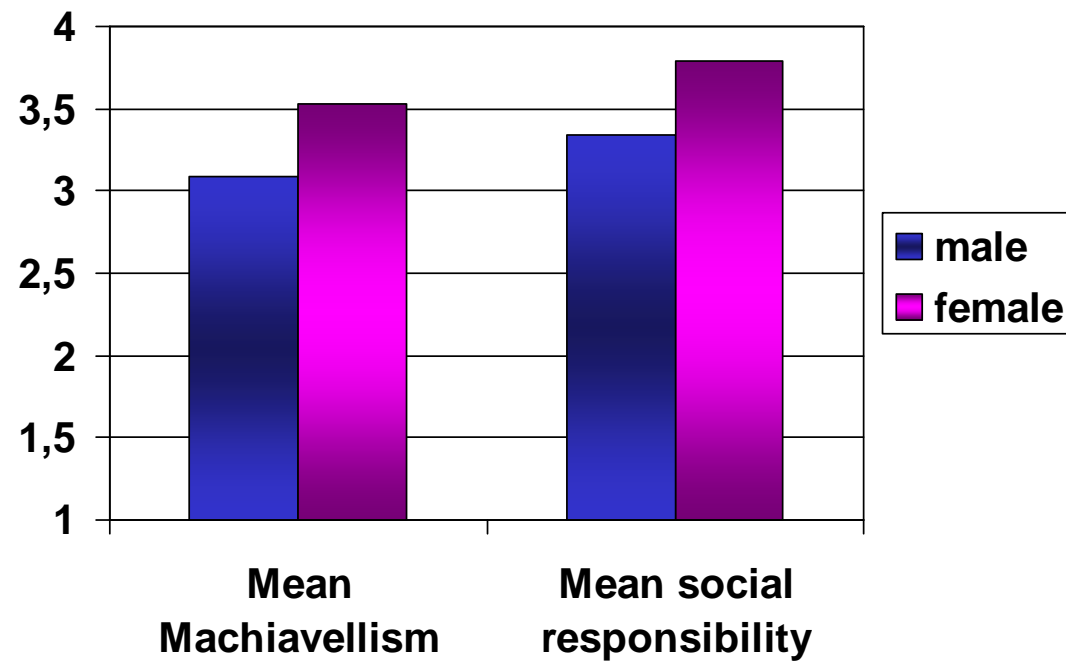
- Combined condition participants are more socially responsible than money condition participants.

- Combined condition participants donated more than money condition participants.

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## Gender and age effects

- Significant differences between



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## Summary - Interpretation

- *Social condition* participants are **less machiavellian** than *money condition* participants (confirms hypothesis I).
- *Social condition* participants do not significantly differ in social responsibility and charitable donation (disconfirms hypothesis I).
- *Combined condition* participants preferring social picture are **less machiavellian** than those preferring money picture and less machiavellian than *money condition* participants (confirms hypothesis II).
- *Combined condition* participants only are more **socially responsible** than *money condition* participants (new finding!)
- *Combined condition* participants make higher **charitable donation** than *money condition* participants (new finding!)

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# Interpretation

- The trait (Machiavellianism) is changed only by **conceptual money priming**. Conceptual priming has been found to influence trait concepts (Bargh & Chartrand, 2000).
- The general behavioral norms (social responsibility) are changed only by **mindset priming**. Thinking and reflecting processes about picture preference are carried over to the decision how socially responsible people should be.
- The specific behavioural norm (charitable donation) is influenced only by **mindset priming**. Reflection about picture preference is carried over to a specific decision about donation for charity.

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## Conclusion / Outlook

- Results partly confirm previous findings, partly add novel insights.
- Follow-up study needed: additional evidence for impact of mindset priming versus conceptual priming by exploring decision-making process.
- Combined monetary and social priming may be most effective to increase social awareness.



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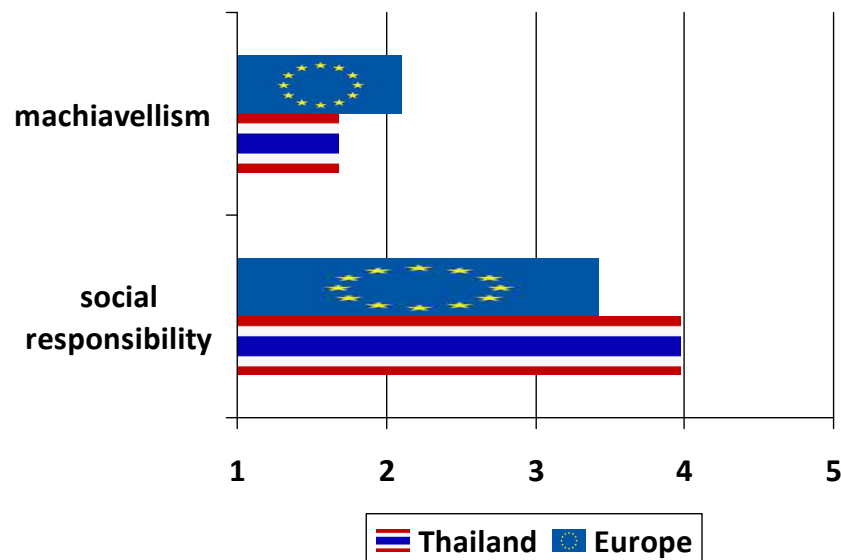
## Follow up studies

- Study with N = 92 participants in Salzburg to analyze reasons for picture evaluations.
  - Participants in combined condition had more content-related associations.
- N = 85 online / N = 70 paper/pencil in Vienna, to show that evaluation is more based on aesthetics than content in money condition versus combined condition

## Follow up studies

Thailand: N = 167 (71 online / 96 paper-pencil)

→ No significant impact of priming on social responsibility or social behavior



→ Thais less machiavellian and more socially responsible in general.

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## Webster Thanksgiving charity donation

€ 120 (4,656 THB)



€ 162.50 (6,305 THB)





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Thank you!

