System 2 vs. transitivity of preferences. Rational decisions and strategy selection between multi-attributes options.

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Introduction

Rational choice within Utility Theory

Weight*Utility

Rational decision

Optimal decision

Choice with the highest global evaluation of the weighted sum

Linear Model – MAU

Axioms

- Completeness
- Symmetry
- **Transitivity**
- And so on

Bounded Rationality (H.Simon)

Satisficing Rule

Rational decision

Satisfaction – Not Optimization

Chosen option must meet all criteria on the satisficing level

Saticficing/Conjunctive Rule – *CON*

Dual Process Theories

System 1	System 2	Measurements
Intuitive Affect-full	Rational Analytic	Self-declarative inventries (REI-24, Pacini, Epstein, 1999)
Context-related Qick	Logical Slow	task-solving tests (CRT, Frederick, 2005)

Decision Strategies

MAU	LEX	CON
Global Evaluation	Lexicographic	Conjunctive/ Satisficing Rule
Weight x Utility	One attribute choice	Fulfil our aspiration
Compensation Trade-offs	Non-compensatory No trade-offs	Non-compensatory No trade-offs

Aims

validation: *CRT* & *REI* with transitivity of preferences

if *CRT* and *REI* are good measurements of rationality

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link between S1/S2 and applied strategy

Study 1 & Study 2

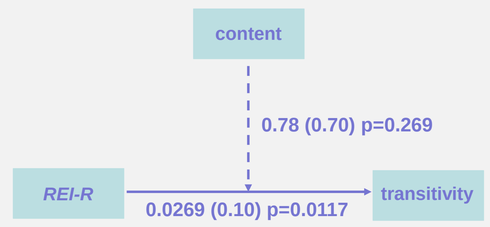
Abstract and specific content: choice of an apartment

Method

- 26 abstract or specific content choices between 2 options
- A choice indicated decision strategy
- Rationality – measured by transitivity
- Dominant information system:
  - REI short-24 Inventory by Pacini and Epstein (1999): Dual Process Theories
  - CRT
- Motivation: there is always better option – you can win 300 PLN (80$)

Results

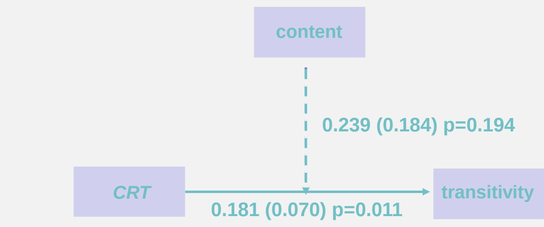
Transitivity and System 2



Conditional effect of X on Y at values of the moderator(s):

content	Efekt	se	t	p	LLCI	ULCI
abstract	0.027	0.011	2.544	0.012	0.006	0.048
apartments	0.005	0.012	0.376	0.707	-0.019	0.028

Transitivity and System 2



Conditional effect of X on Y at values of the moderator(s):

content	Efekt	se	t	p	LLCI	ULCI
abstract	0.181	0.070	2.575	0.011	0.043	0.320
apartments	-0.057	0.069	- 0.822	0.412	-0.192	0.079

Results

Transitivity and decision strategies

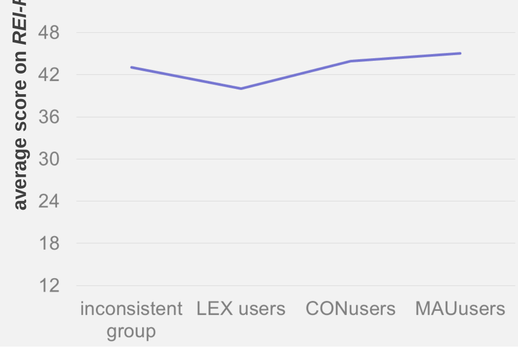
Significant differences in the score on transitivity among users of specific strategies

$F_{(3,184)}=12.71$, $p<0.001$, $h_p^2=0.172$

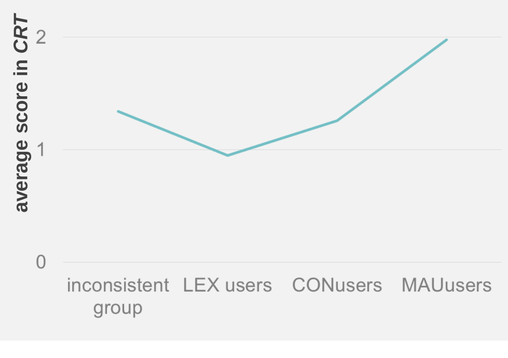
Index of transitivity (out of 7) for specific strategy users

	Inconsistant	LEX	CON	MAU
5	29.6%	15%	5.1%	4.9%
6	40.8%	45%	17.9%	29.5%
7	29.6%	40%	76.9%	65.6%

REI-R and decision strategies



CRT and decision strategies



Conclusions

- ***REI-R* and *CRT* are good predictors of transitivity of preferences but only on the abstract study**
- **There is relation between applied strategies and: *CRT*, *REI-R* and transitivity of preferences**
- ***CON*-users and *MAU*-users have the highest score on transitivity and *REI-R***
- ***MAU*-users have the highest score in *CRT***

References

Fishburn, P. C. (1970). *Utility Theory for Decision Making*. New York: Wiley.

Pacini, R., Epstein, S. (1999). The relation of rational and experiential information processing styles to personality, basic beliefs, and the ratio-bias phenomenon. *Journal of Personality and Social Psychology, 76*, 972–987.

Simon, H. A. (1957) *Models of man.* New York: Wiley.