

# Personal preferences for rationality or intuition

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\* Diagnostic Decision Making

## Introduction

People differ in how they habitually respond to decision situations (Stanovich and West, 2000). We focus on a person's tendency to be a more intuitive or a more deliberative decision maker (cf. e.g. Kahneman, 2003). We administered two self-report questionnaires that measure rationality and intuition: the Rational Experiential Inventory (REI; Pacini and Epstein, 1999) and the Preference for Intuition versus Deliberation (PID) scale (Betsch, 2004).

### Intuitive processing style

fast decisions, based on  
- first feelings  
- associations

open people?



### Deliberative processing style

slow decisions, based on  
- deliberating on pros and cons  
- rules

conscientious people?



## Results 1

### Confirmatory factor analysis of the REI

Goodness of Fit Index of restrictive model (loadings on Rational resp. Experiential factor free, 0 for the other factor) = .77, Adjusted GFI = .74.

Minimum fit function chi-square = 2039.41, df = 739,  $p = 0.0$

Cronbach's alpha (n = 431) of REI-E = .916 and of REI-R = .864

### Confirmatory factor analysis of the PID

Goodness of Fit Index of restrictive model (loadings on Intuition resp. Deliberation factor free, 0 for the other factor) = .88, Adjusted GFI = .85.

Minimum fit function chi-square = 476.63, df = 134,  $p = 0.0$

Cronbach's alpha (n = 405) of PID-D = .85 and of PID-I = .87

Both questionnaires measure two different thinking style preferences

Correlations between the PID-subcales and the REI-subcales (N = 405)

	REI-R	REI-E	PID-I
REI-E	-.059		
PID-I	-.095	.835**	
PID-D	.514**	-.119*	-.023

Note: REI-R = REI-rationality, REI-E = REI-experientiality, PID-I = PID-Intuition, PID-D = PID-Deliberation

Rationality overlaps less with Deliberation than Experientiality with Intuition

## Results 2

Correlations between scale scores for reasoning style and Big-Five personality traits (N = 403)

	REI-R	REI-E	PID-D	PID-I	E	A	C	N
E	.094	.135**	-.148**	.062				
A	.189**	.129**	.128**	.126*	.271**			
C	.353**	-.132**	.542**	-.142**	-.108*	.154**		
N	.075	.084	-.219**	-.085	.443**	.279**	-.049	
O	.320**	.182**	.163**	.229**	.192**	.282**	.035	.057

Note: E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Emotional Stability (= inverse of Neuroticism), O = Openness to Experience

Big-Five scores in relation to scores for reasoning styles: standardized regression weights ( $\beta$ ), t-values, and squared semi partial correlations ( $sp^2$ ).

	REI						PID					
	Rationality			Experientiality			Deliberation			Intuition		
	$\beta$	t	$sp^2$	$\beta$	t	$sp^2$	$\beta$	t	$sp^2$	$\beta$	T	$sp^2$
E	.05	.94	.00	.06	1.06	.00	-.05	-1.15	.00	.04	.73	.00
A	.03	.58	.00	.09	1.62	.01	.09	1.79	.01	.13	2.46*	.01
C	.35	7.66**	.11	-.14	-2.88**	.02	.51	12.38**	.25	-.17	-3.53**	.03
N	.05	.92	.00	.02	.33	.00	-.20	-4.40**	.03	-.16	-2.94**	.02
O	.29	6.20**	.07	.15	2.93**	.02	.14	3.41**	.02	.20	3.99**	.04
Adj. R <sup>2</sup>	.22			.06			.35			.09		

- Conscientiousness consistent predictor, positively for REI-R and PID-D, and negatively for REI-E and PID-I
- Openness equally good predictor of rational and intuitive subscales of both questionnaires
- Experientiality/Intuition not as predictable from Big 5 as Deliberation/Rationality

## Further Research

In further studies we will try to catch the general preferences, in combination with the personality characteristics, in the decision act.

We will look at situations that place different demands on the decision maker, e.g. time pressure and accountability, and with decision tasks in which they are more or less experienced. Very experienced people may respond intuitively in familiar situations, even when in general they prefer to proceed rationally. And we will include equal numbers of women and men, and participants with both a social and an exact background.

If people have a measurable preference for either thinking style, it seems plausible that this is somehow related to their personality characteristics. Intuitive people may be more open, and deliberate people more conscientious.

In order to check the relationship with more general dimensions of personality structure, we also administered a questionnaire that measures the Big Five (QB5; Vermulst & Gerris, 2006).

## Research Questions

- 1 Do the two self-report questionnaires (REI and PID) give comparable measures of people's preferences for intuitive or analytical reasoning?
- 2 How are these preferences related to more general dimensions of personality structure?

## Participants

431 students, age {17, 25}; 410 female and 21 male, of the Faculty of Social Sciences

## Instruments

**REI** The REI includes two reliable, independent constructs. The rational dimension or REI-R is measured with 20 items, for example: "I don't like to have to do a lot of thinking". The experiential dimension or REI-E is measured by 20 items, for example "I believe in trusting my hunches". Respondents score each item on a 5-point scale, from 1 = completely false to 5 = completely true.

**PID** The PID contains statements that measure intuition (PID-I) and deliberation (PID-D), respectively, with for example: "I like situations in which I have to rely on my intuition", or: "I think before I act", to be answered on a 5-point scale, from 1 = I don't agree to 5 = I completely agree.

**QB5** The Quick Big Five is a Dutch self-report questionnaire that contains 30 adjectives describing personality characteristics, e.g. irritable, careful, withdrawn: six for each dimension. Subjects score these adjectives on a scale from 1 to 7, indicating to what extent they apply to them.

## Procedure

The three questionnaires were made available on the web, in the order REI, PID and QB5. It was possible to quit the session after completing the first or the second questionnaire. Only 28 participants stopped after the REI.

## References

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