



Should Personality Traits Be Included in Rational Choice Explanations? The Example of Collective Action

Prof. Karl-Dieter Opp

University of Leipzig (Germany), Dept. of Sociology (Emeritus)
University of Washington (Seattle), Dept. of Sociology (Affiliate Professor)
opp@sozio.uni-leipzig.de / oppkd@u.washington.edu

Based on the paper (submitted):

Hermann Brandstätter and Karl-Dieter Opp:
Political Protest and Personality Traits. A Neglected Link



Arguments for answering the question in the affirmative:

- n Personality traits (PTs) are mentioned in the rational choice literature as relevant:
 - .. Heap et al. (1992: The Theory of Choice. A Critical Guide) argue that **if players form their own preferences "personality enters the theory of games"** (96). How this may happen is not clear.
 - .. Some **strategies in games apparently depend on** personality characteristics such as optimism or pessimism. In the maximin strategy, each player "pessimistically believes that the other will try to be as nasty as possible, so that the best he can do is to limit the damage." (Heap et al., p. 103).




Thus:

- n PTs influence **preferences** and

- n PTs influence **behavior**.

Not clear, what exactly the effects are – along with incentives.

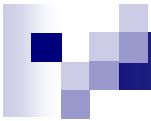


n **Everyday explanations** abound with PTs. Example: Warum ist der Kölner Straßenkarneval dem anderer Regionen überlegen? "Die Kölner sind maßloser, in ihrer Herzlichkeit und Begeisterungsfähigkeit ebenso wie in ihrer Unzuverlässigkeit. Und in ihrer Selbstsicherheit." Herzlichkeit, Begeisterungsfähigkeit, Unzuverlässigkeit und Selbstsicherheit are PTs (DIE WELT, 4.2.2008, S. 28, Verfasser Ansgar Graw).

n There are numerous **empirical studies** that show that various PTs affect political participation (and many other phenomena).

The latter seems to be the **strongest argument** for including in rational choice explanations. BUT

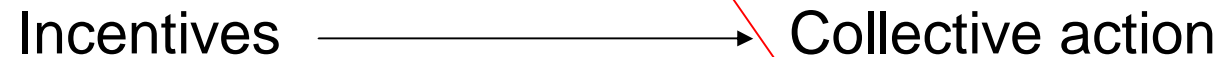
Question: If such empirical effects of PTs have been found: Does this imply that PTs are causes of collective action, in addition to costs and benefits?



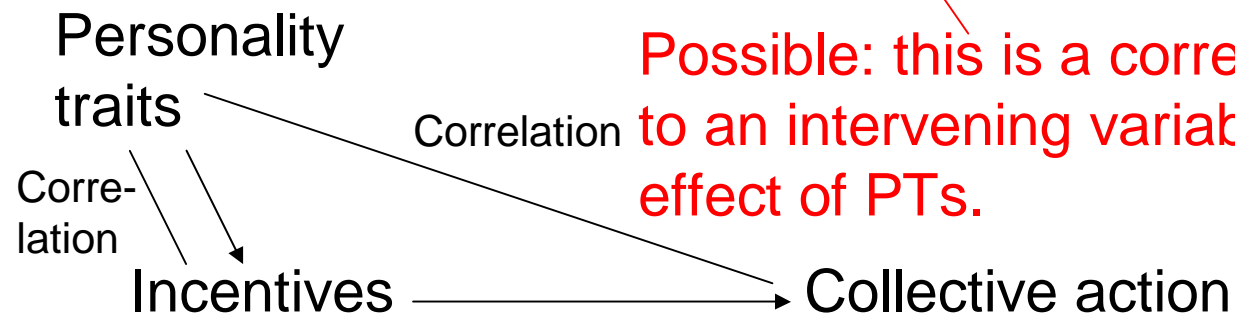
Assume it has been found:




Does this invalidate RC explanations which read:



No. A possible model could be:



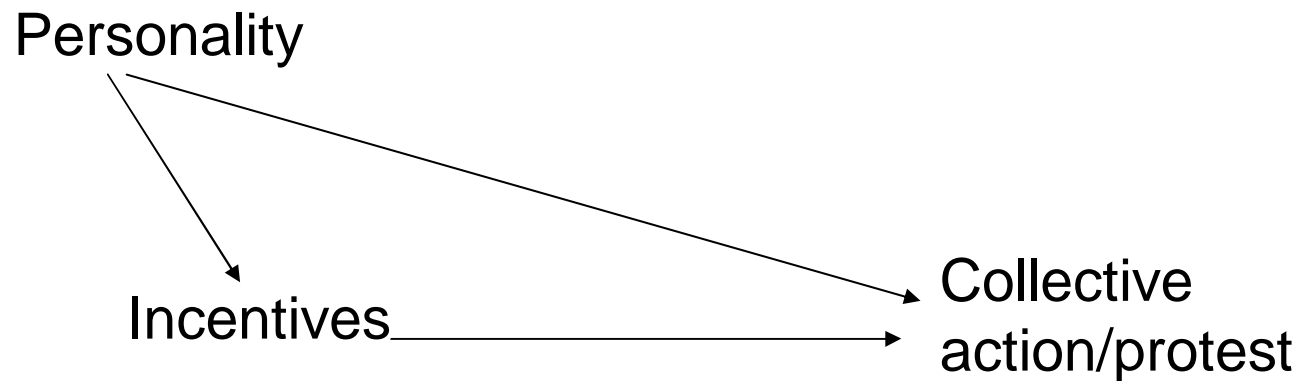
Possible: this is a correlation due to an intervening variable = indirect effect of PTs.



In other words: in order to find out whether personality traits must be included in rational choice explanations a **comparative test** of the influence of personality and rational choice variables must be conducted.

This has never been done!

In order to carry out such a comparative research we tested the following model:



AND: we conducted a **panel study** to test this model.



Testing this model requires to answer the following questions:

- n What are the **incentives** for collective action? I.e., the explanatory model must be specified.

- n What are the **personality traits** to be included AND
 - .. how do they influence collective action
 - .. and the incentives,
 - .. i.e., what is the explanatory model?



Incentives for Political Action

Starting point is the theory of collective action by Mancur Olson (1965) ...

The protest model – based on previous research – reads:

- n Public goods incentives
 - .. Political Discontent (= preferences for public goods)
 - .. Efficacy (perceived!) of contributions (such as protest)
- n Selective Incentives
 - .. Acceptance of a protest norm
 - .. Membership in protest encouraging groups
 - .. Evaluation of protest by significant others
 - .. Critical friends
 - .. Critical colleagues.



The Personality Traits (PTs): The “Big Five”

There is a vast number of personality traits whose effects on various behaviors, attitudes etc. have been tested.

We decided to select the "**Big Five.**" This expression refers to five global (orthogonal, i.e., statistically independent) dimensions. Historically, they are based on R. B. Cattell's personality factors (Cattell, 1970, Cattell & Schuerger 2003).

There is widespread **consensus that these factors are a good summary measure of numerous other personality tests**, i.e., provide a unifying reference frame for the great variety of personality scales (Costa & McCrae, 1998; Ostendorf & Angleitner, 2005). It therefore seems plausible to assume that **if personality traits matter for protest behavior we should find effects of the "Big Five."**



The “Big Five” read:

- n **Openness (Offenheit)** - appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experience
- n **Conscientiousness (Gewissenhaftigkeit)** - a tendency to show self-discipline, act dutifully, and aim for achievement; planned rather than spontaneous behaviour
- n **Extraversion** - energy, positive emotions, surgency, and the tendency to seek stimulation and the company of others
- n **Agreeableness (Verträglichkeit)** - a tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others.
- n **Neuroticism (Neurotizismus)** - a tendency to experience unpleasant emotions easily, such as anger, anxiety, depression, or vulnerability; sometimes called emotional instability.

The acronym is OCEAN referring to the first letter of each dimension.



How Might the PTs Influence Protest?

There is **no theory** that specifies how the Big Five affect protest or any other phenomena!

We formulated propositions on plausibility grounds.
Justifiable as a first step in order to find out whether there are effects!



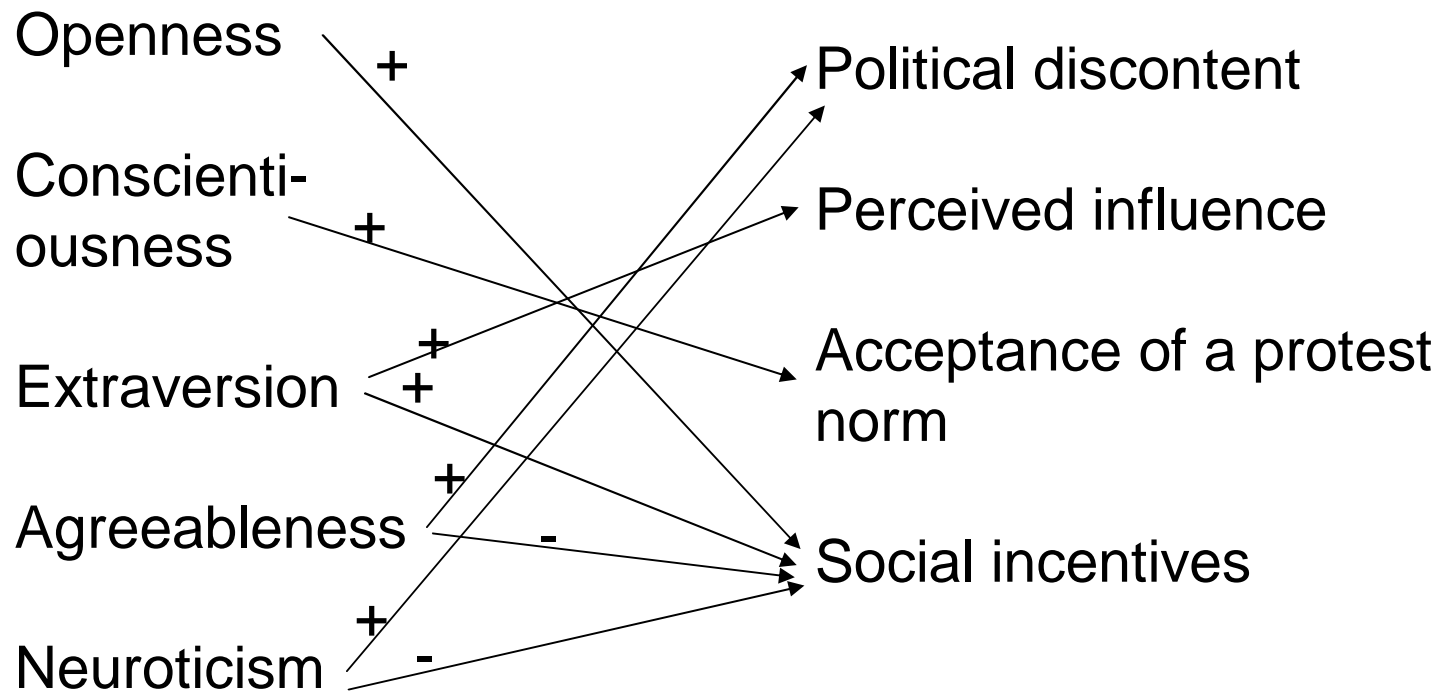
We generated hypotheses on plausibility grounds:

- n **Openness?** (Appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experience) → **positive effect on protest**
- n **Conscientiousness?** (A tendency to show self-discipline, act dutifully, and aim for achievement; planned rather than spontaneous behaviour) → **positive effect on protest**
- n **Extraversion?** (Energy, positive emotions, surgency, and the tendency to seek stimulation and the company of others) → **positive effect on protest**
- n **Agreeableness?** (A tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others) → **negative effect on protest**
- n **Neuroticism?** (A tendency to experience unpleasant emotions easily, such as anger, anxiety, depression, or vulnerability; sometimes called emotional instability) → **negative effect on protest**

How Might the PTs Influence Incentives?

As before: there is **no theory** that specifies how the Big Five affect protest or any other phenomena!

As before, we developed hypotheses on plausibility grounds:





Research Design and Measurement

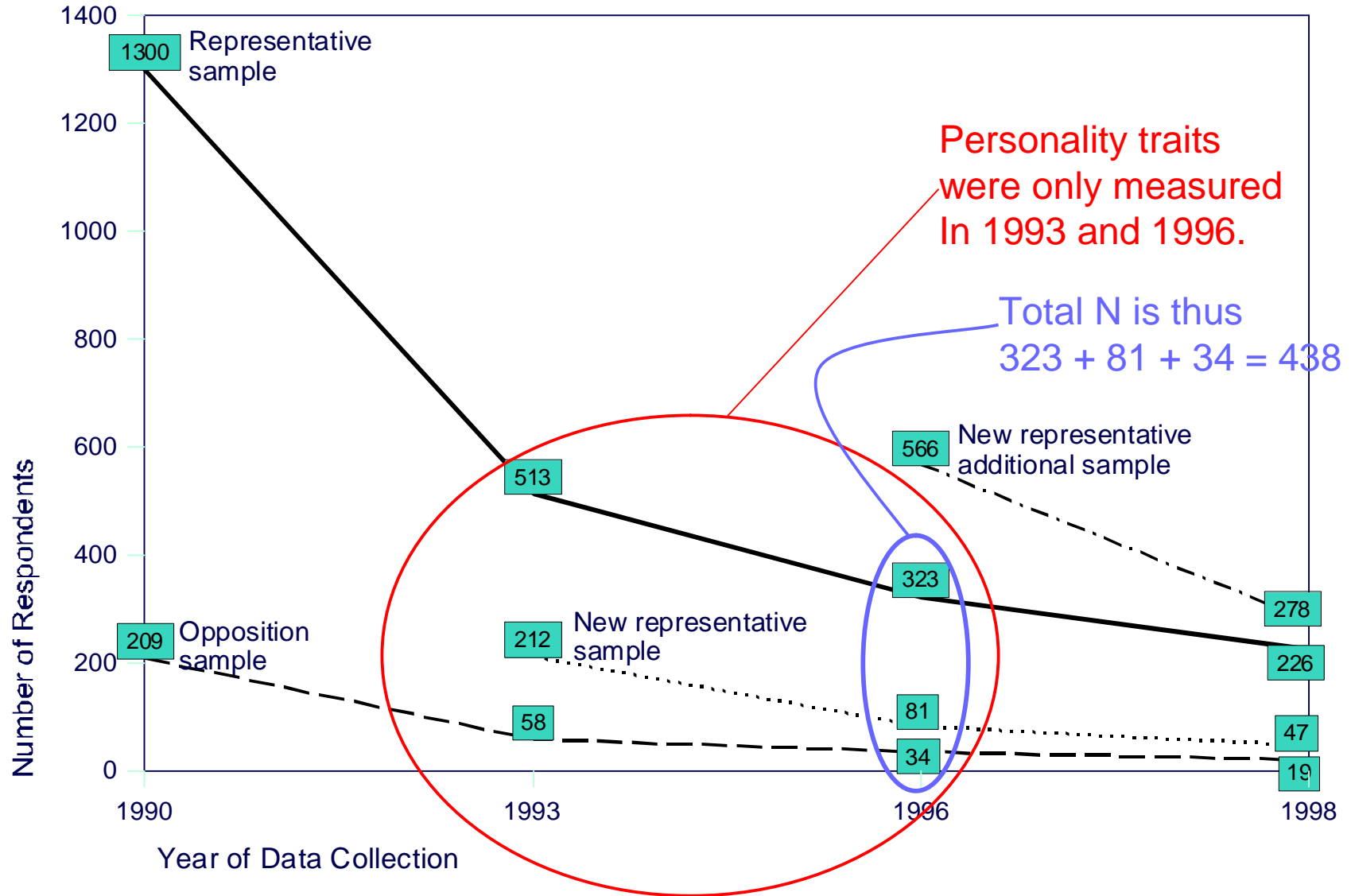
The data used to test the previous propositions are based on a **four wave panel survey study**, conducted between 1990 and 1998 in **Leipzig**.

The **goal of the project** was the explanation of political protest over time before and after the revolutionary events in 1989 in east Germany.

The project was **supported by** the Deutsche Forschungsgemeinschaft (German National Science Foundation).

The project consists of several surveys:

Project on the Dynamics of the Peaceful Revolution



**Political Participation in East Germany 1989 bis 1996
The Samples of a Panel Study in Leipzig**

Wave 1: 1990 (November/December)	Welle 2: 1993 (June/August)	Wave 3: 1995/1996 (Nov. 95/January 96)	Wave 4: 1998 (March/August 1998)
Interview questions refer to the time between October 1989 and March 18, 1990	Interview questions refer to the time after March 18, 1990 until the time of the interview.	Interview questions refer to the time after 1993 until the time of the interview.	Interview questions refer to the time after 1996 until the time of the interview.
Representative sample of Leipzig N=1300	← Same population N=513	← Same population N=323	← Same population N=226
Opposition sample N=209	← Same population N=58	← Same population N=34	← Same population N=19
	Additional sample, re- representative for Leipzig (Sept./Oct. 93) N=212	← Same population N=81	← Same population N=47
		New sample, represen- tative for Leipzig N=566	← Same population N=278
Unstructured interviews 16 personal interviews 1 group discussion (3 participants).	← Same population 13 personal interviews New: 2 group discus- sions (10 und 6 persons)	17 new unstructured interviews	17 new unstructured interviews

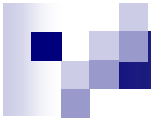


Table 1
Sample Attrition

Kind of Sample	Year of data collection		
	1990	1993	1996
First representative sample	1300	513	323
Opposition sample	209	58	34
Second representative sample		212	81
N			438

Table 2
*Respondent Characteristics of 1990 across the Three Waves of the Leipzig Panel Study,
 Respondents of the First Representative and the Opposition Study*

Demographic Variables	Year of data collection and kind of sample					
	1990		1993		1996	
	Repre- -sen-t ative	Opposi- tion	Repre-se ntative	Opposi- tion	Repre -senta tive	Opposi- tion
Percent male 1990	48.5 %	51.2 %	48.9 %	46.7 %	49.8 %	44.1 %
Average age 1990	43.7	33.3	43.5	37.0	43.3	38.5
Average years of schooling 1990	9.5	10.9	9.6	11.0	9.7	11.0
Average household income 1990 (in DM)	1580.5	1450.6	1699.9	1694.2	1723.2	1789.1
Percent married or living with a partner 1990	70.2 %	62.7 %	75.8 %	76.0 %	78.0 %	82.0 %
Percent with no religious affiliation 1990	75.8 %	60.4 %	75.8 %	56.9 %	77.2 %	50.0 %
Number of respondents	1300	209	513	58	323	34

Note. Dates of data collection: November/December 1990; June to August 1993; November 1995 to January 1996.

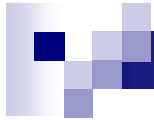


Table 3
The Measurement of Protest; Incentives, and Personality Traits, Wave 1 and 2

PROTEST, 1993 and 1996: Collecting signatures or signing petitions, organizing or participating in demonstrations, writing letters to newspapers or members of parliaments, working with or founding a citizen initiative. There were four answer categories for each item: had not taken the action into account [code 1], had thought about performing the action but had not performed it [code 2], had engaged in that action once [code 3] or several times [code 4]).

INCENTIVES, 1993 and 1996:

Perceived personal influence by participating in protest activities, 1993 and 1996: Respondents were asked to what extent it was likely (five categories, from "very unlikely" [code 1] to "very likely" [code 5]) that they could have changed the situation in the new states (i.e. East Germany) by each of the activities listed under "political protest" before.

Political discontent, 1993 and 1996: Discontent with unification of East and West Germany, possibility of free speech, policy of the federal government regarding asylum seekers, violence against foreigners by rightist radicals, work of the "Treuhand" (privatization agency), adopting the laws of the former West German State for the new Germany after unification. Five categories, "very satisfied" with code 1 to "very dissatisfied" with code 4.

Norm of protest (i.e., moral incentives), 1993 and 1996: Agreement to nine items such as: protest is a duty in case of high discontent, in case of expected success one should participate even if one runs a risk, in case of high discontent participation is a duty even in case of personal disadvantages. Five categories, from "fully disagree" to "fully agree."

Membership in protest-encouraging groups, 1993 and 1996: Number of groups a respondent is member of that encourage, according to the respondent's assessment, participation in legal political action.

Evaluation of protest by significant others, 1993 and 1996: respondents were asked to what extent important others value his or her protest positively. Five categories, from "very negatively" to "very positively."

Critical friends, 1993 and 1996: This is an additive scale, consisting of (1) the number of friends the respondent reports as being critical of the new states, and (2) the number of friends who have participated in protests. Answer categories 1 (nobody) to 4 (almost all).

Critical colleagues, 1993 and 1996: Number of colleagues at work who have participated in protests. Answer categories 1 (nobody) to 4 (almost all).

PERSONALITY TRAITS, 1993 and 1996 (we list the most characteristic polarities – see the text – that are used to measure each trait – the second part of the polarities always means a high value of the trait):

Openness, 1993 and 1996: tough-minded - tender-minded; creature of habit - open to changes.

Conscientiousness, 1993 and 1996: light-hearted – meticulous; little self-control – disciplined.

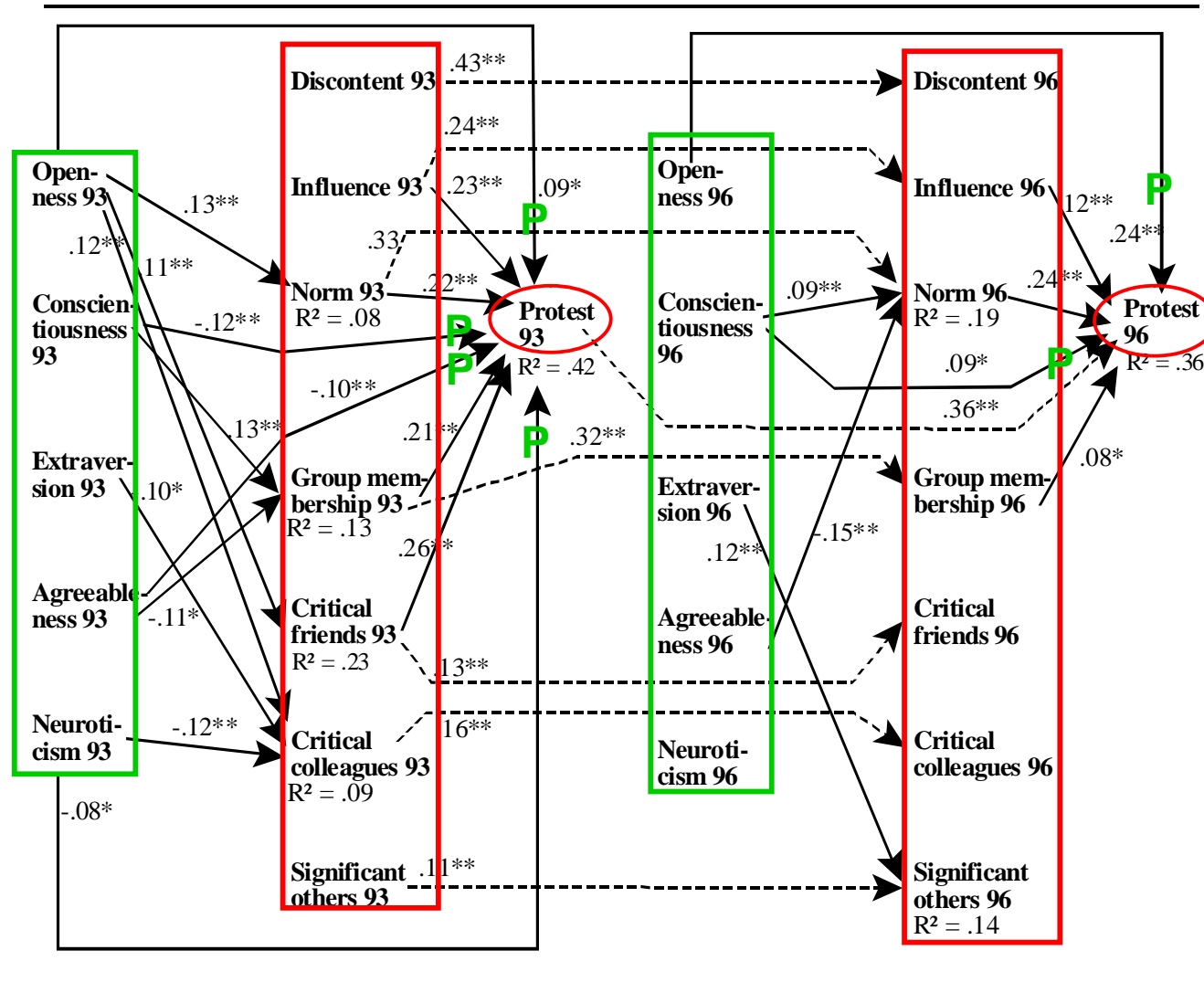
Extraversion, 1993 and 1996: reserved – sociable; shy – daring.

Agreeableness, 1993 and 1996: stubborn – accommodating; suspicious – trusting.

Neuroticism, 1993 and 1996: emotionally stable - easily get worried; well balanced – irritable.

Note: the four variables "membership in protest-encouraging groups" to "critical colleagues" are types of social incentives.

Figure 2: Personality Traits, Incentives and Protest: Findings



Note: The figure shows standardized coefficients and explained variances. The model was estimated as a structural equation model with the Lisrel program. Quality of the model: Chi-square = 227.16; degrees of freedom 197; p-value = .07; RMSEA = .019.

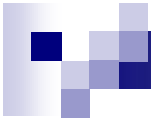


Table 4
*Comparing the Effects of Incentives and Personality Traits on Protest,
(Multiple Regressions, Based on the Model of Figure 2)*

Independent variables (single incentives and personality traits from Figure 1)	Dependent Variables	
	Protest 93	Protest 96
Incentives	.39	.32
Personality traits	.06	.08
Incentives and personality traits	.41	.38

Note: The coefficients in this table are *adjusted* R-squares. The reason is that the number of variables differ in the models, and a fair comparison should take the number of variables into account. Therefore, we use adjusted R-squares in this table.



Conclusion

- n PTs affect protest, but incentives have stronger effects;
- n effects of PTs differ in the two waves;
- n PTs have effects on incentives.



Discussion

Has “Rational Choice”-Theory (RCT) been falsified?

- n **Argument 1:** As long as RC variables have effects, the theory is confirmed – i.e., RCT does not claim that only incentives matter. Thus, RCT is not falsified.
- n **Argument 2:** RCT does maintain that only costs and benefits matter (= argument 1). The more they matter, the better RCT is confirmed. There are thus degrees of falsification.
Present research: good confirmation and extension (explaining preferences).



Are the PTs really non-incentives? Actually, they refer to general kinds of preferences. Here is again slide 8:

- n **Openness (Offenheit)** - appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experience
- n **Conscientiousness (Gewissenhaftigkeit)** - a tendency to show self-discipline, act dutifully, and aim for achievement; planned rather than spontaneous behaviour
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Are such general preferences relevant for explaining behavior?

No: RCT consists of specific incentives
(see also principle of compatibility by I. Ajzen)

However, in a survey such general preferences may capture aspects of specific incentives that have not been measured.

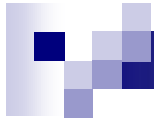
It is thus not surprising that PTs have some effects on behavior.



Are other PTs more fruitful and, if so, which ones?

Perhaps M. Rokeach: Open and Closed mind (authoritarianism) might affect cognitive and normative beliefs!

Perhaps the most fruitful line of research is to try to explain preferences or beliefs by using personality traits.



**Danke für Ihre
Aufmerksamkeit!**