

# Abstract Collection

## Identifying the Determinants of (Non-)Replicability: The Theory of Planned Behavior

Oct. 17-19, 2018

Trier, Germany

### **Control Interactions in the Theory of Planned Behavior**

Francesco La Barbera, Federico II University of Naples

#### **Background**

The theory of planned behavior - TPB (Ajzen, 1991, 2012) posits that perceived behavioral control (PBC) moderates the intention-behavior relation. In addition, from a theoretical perspective, PBC should interact with ATT and SN in determining intention (INT). Most research on the TPB has focused on the additive effect of PBC. Fishbein and Ajzen (2010) pointed to a methodological difficulty in studying such moderating effects due to the sensitivity of interaction tests to the distribution of the predictor variables. Furthermore, the TPB constructs are usually intercorrelated, reducing the effect size of potential interactions (McClelland & Judd, 1993). Nevertheless, not including interaction effects in TPB models may lead to misunderstanding of the processes underlying the formation of intentions and their effects on behavior, and it may also foster inconsistencies across studies. A review of the literature shows that the moderating effect of PBC on the intention-behavior relation has received a certain amount of attention, but only a few studies have addressed the effect of PBC on the predictive validity of ATT and SN in relation to INT (Armitage & Conner, 2001; Hukkelberg et al., 2014; Yang Wallentin et al., 2004; Yzer & Van Den Putte, 2014).

#### **Objectives and hypotheses**

The aim of the current research was to study the moderating effects of PBC on the ATT-INT and SN-INT relations, with replication in different behavioral domains. In the former case, we expected a positive effect: the higher PBC, the stronger the effect of attitude on intention. Regarding the latter, PBC could, arguably, have either a positive or a negative effect. A negative impact would be expected if a sense of self-efficacy (high PBC) obviates the need to rely on social norms in forming an intention. We therefore studied this effect in an exploratory fashion.

## **Method**

In three studies we tried to predict intention to vote in favor of greater EU integration (Study 1, N = 402), and to reduce household food waste (Studies 2 and 3, N = 282 and N = 200, respectively). We assessed ATT, SN, PBC, and INT and used stepwise regression analysis to test for the two interactions (PBC\*ATT, PBC\*SN).

## **Results**

Studies 1 and 3 showed a positive interaction between ATT and PBC while in Study 2, this effect was not significant. Regarding the SN\*PBC interaction, all three studies revealed a significant negative interaction: SN had a weaker influence on intention when PBC was high. In Study 3, this negative effect was evident for both injunctive and descriptive norms.

## **Conclusions and implications**

Our findings show that PBC can strengthen the effect of ATT on INT and they offer robust support for the idea that PBC can negatively affect the influence of SN on intention. Further research is needed to replicate these findings in other behavioral domains and to explore the conditions under which PBC can be expected to have a positive as opposed to a negative effect on the SN-INT relation.

## **Applications of the Theory of Planned Behavior (TPB) and the Situational Action Theory (SAT) in the Context of Criminological Research**

Jost Reinecke, University of Bielefeld

The Theory of Planned Behavior (TPB) was applied within the German prospective study "Crime in the Modern City" (CrimoC, see for details [www.crimoc.org](http://www.crimoc.org)) due to the prediction of the specific delinquent behavior "shoplifting". The CrimoC study is designed to observe and explain the emergence and development of delinquent behavior throughout the phase of adolescence and young adulthood within a medium-size Western German city (Münster) and a large Western German city (Duisburg).

The pilot study in Münster was conducted between 2000 and 2003 and contains panel data of four waves. Students from 7th grade to 10th grade from all available secondary school types (low grammar up to high school) were considered. The main study in Duisburg was initiated 2002 with a cohort sample, that initially consisted also of students from 7th grades. Data collection were proceeded annually until 2009 and biannully from 2009 to 2017.

The study will conduct data of the last panel wave in 2019 (Wave 13) at the end of the period of young adulthood (Age 30). On average the 7th graders were of age 13, marking the beginning of the observational period as early adolescence.

In this project the TPB is part of a so-called "structural dynamic model" which consists of three levels of longitudinal analysis. Besides an individual level with attitudinal and behavioural components (e. g. TPB), it distinguishes further between the level of social structure and the level of social control (see Boers et al., 2010). Data regarding the measurements of the TPB were conducted within the pilot study and the main study. The model of the TPB was tested with two-wave panel data as well as three-wave panel data with latent variables controlling random measurement errors (Wittenberg et al., 2009).

The analyses support the importance of the consequences of delinquent behavior, the risk of detection and the behavioral intention, as it is hypothesized by the proposed model of the TPB for shoplifting.

Situational Action Theory (SAT, Wikström 2006, 2009) includes a series of propositions on the interaction between crime propensity, criminogenic exposure and crime involvement. These reflections are condensed into the principle of the conditional relevance of controls and the principle of moral correspondence. In the panel study "The Emergence and Development of Deviant and Delinquent Behavior over the Life Course and its Significance for Processes of Social Inequality" (see for details <<https://sfb882.uni-bielefeld.de/en/projects/a2.html>>) the interplay of controls and moral forces is tested within the framework of structural equation modelling. Survey data from two cohorts of students in the German cities of Dortmund and Nuremberg serve as the empirical base. By using multiple group comparisons, the influences of self-control and deterrence on self-reported delinquency are examined simultaneously for four different subgroups of respondents formed on the basis of their levels of crime propensity and criminogenic exposure. The analyses provide support for a conditional relevance of controls, but produce only mixed evidence for the principle of moral correspondence. Controls are more important when the moral filter is weak, but fail to lose their explanatory power among adolescents characterized by both high propensity and strong exposure. Our findings furthermore suggest that self-control appears to matter particularly when the moral context encourages crime and deterrence seems to be influential especially when personal morality encourages crime (Schepers, 2017a; Schepers, 2017b, Schepers and Reinecke, 2018).

Both, TPB and SAT are viewed as action theories which can be used to explain behaviors in different substantial domains and can also be integrated in more broader sociological frameworks (e. g. the dual frame concept, see Esser and Kroneberg, 2015).

# **Testing the Theory of Planned Behavior and Reasoned Action Approach: A Meta-Analytic Structural Equation Modeling Approach**

Martin S. Hagger, Curtin University and University of Jyväskylä

The theory of planned behavior has been applied to predict and understand behaviors across multiple domains and populations. Primary research has revealed theoretically-predictable patterns of associations among the theory constructs. Specifically, there is a critical mass of research demonstrating correlations between intentions, attitudes, subjective norms, perceived behavioral control, intentions, and behavior, and associations between the underlying sets of beliefs associated with the direct measures of the theory constructs. There has also been research demonstrating the mediation of the effects of direct measures of attitudes, subjective norms, and perceived behavioral control on behavior mediated by intentions. However, this process has seldom been tested meta-analytically. In this presentation, I will report a number of research syntheses adopting meta-analytic path analyses and structural equation modeling testing this mechanism. In addition, I also report tests of the independent effects of additional variables such as self-efficacy and past behavior in the model using these meta-analytic data, as well as the direct and indirect effects of these on additional constructs on behavior through intentions. Taken together these data provide robust support for the pattern of effects among constructs across behaviors, domains, and populations, and also for suggested extensions of the model. However, the data also indicate considerable unexplained heterogeneity in effects which is not explained by moderators such as behavior type and population. I will summarize these findings and outline their implications for replicability and future research.