

Analysing the Perception-Choice Process in Situational Action Theory: A Randomized Scenario Study

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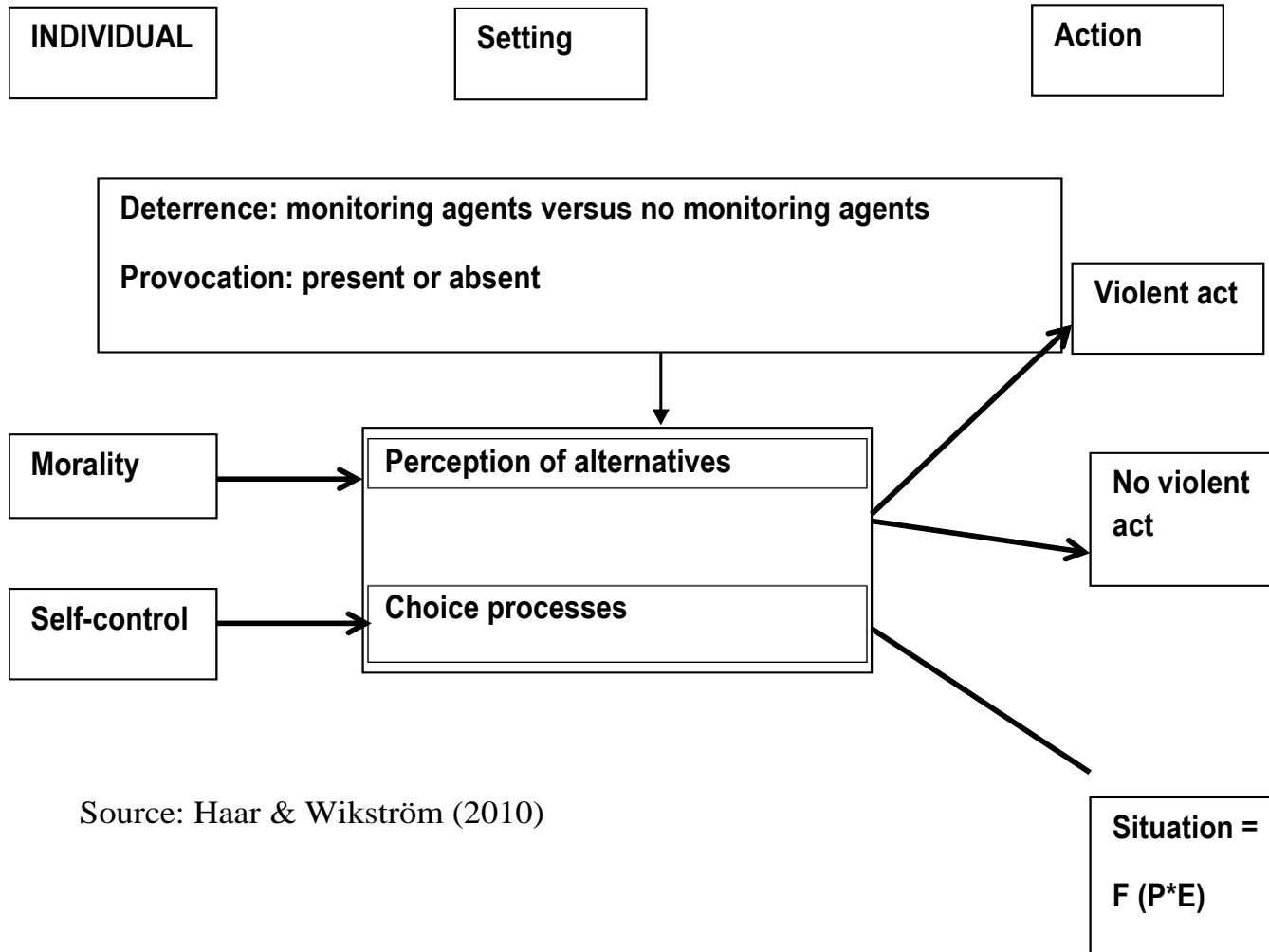
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Introduction

- If acts of violence are the result of person*environment interactions, then the question that immediately follows is:
- **IS CHOOSING A VIOLENT RESPONSE A RESULT OF PERSON-ENVIRONMENT INTERACTIONS?**
- This is a less tested hypothesis derived from SAT (Wikström, 2010; Wikström et al. 2012)
 - *Action= the commitment of an act of crime after a certain process of deliberation or habituation*
 - *Assumed is a REASONABLE (but myopic) actor and using dual process theory (see Kahneman, 2011)*
 - *Human nature: rule-guided actors (Wikström, 2004)*



Source: Haar & Wikström (2010)

Methodology: a vignette study

- Factorial design:
- *Less frequently used in crime causation studies in comparison to SRD-studies* (Eifler, 2007; Haar & Wikström, 2010; Wikström et al. 2012)
- Replication study -> There is a shortage of replica studies in social sciences (Joannidis,2005)

Methodology: a vignette study

- Fictitious descriptions of situations or objects = **“vignettes.”**
- Characteristics varying across vignettes = **“dimensions.”**
- Values of these dimensions = **“levels.”**
- All possible vignettes (combinations of levels) = **“vignette universe.”**
- The number of vignettes increases exponentially with the number of dimensions and levels (Sauer et al, 2009).

Methodology

- **Integration of 2 randomized vignettes into questionnaire**
- **Each vignette is created as a single question, randomly distributed (Sauer et al, 2009; Sauer et al. 2011; Wallander, 2009)**
- 2 vignettes per respondent: bus stop scenario & class room scenario

DATA & SCENARIOS

- Online student survey + factorial survey (online: end of March 2015-beginning of June 2015).
- E-mail to school principals in Flanders and universities and university colleges (1st bachelor year)
- Incentive: Win an i-Pad
- 1021 students filled out an online survey (almost 2,5 months online)
- **Online version of the scenario survey:**
- Random distribution of scenarios from the scenario universe using a *randomizer algorithm* (Matsumoto & Nishimura, 1998)
- **Mersenne Twister** (mt_rand in Php code) pseudorandom number generator was used to randomize the online scenario study
- Randomizer was pretested. 1000 trials result in 25% per scenario (4 categories)

INTRODUCTION	Louise is waiting for the bus at a bus stop. She is listening to her iPod		
DIMENSION	LEVEL	WORDING	
Provocation	Pushed and ignored	Suddenly a girl who walks by pushes her. When Louise asks her why she pushed her the girl just ignores her.	
	Pushed twice and iPad broken	Suddenly a girl who walks by pushes her so she drops her iPod to the ground and it breaks. When Louise asks her why she pushed her the girl pushes her once again	
Monitoring	Police officers	There are two police officers walking on the other side of the street	
	None	There are no other people at the bus stop	
OUTCOME	Violence	If you were Louise, how likely do you think it is that you would hit or push the girl that pushed you?	
JUDGEMENT		Very likely Likely. Unlikely Very Unlikely	
Scenario Universe		Monitoring	
		Police officers	No-one
Provocation	Pushed and ignored	A	B
	Pushed twice and iPod broken	C	D

INTRODUCTION	It is break between two lessons. David is standing in the school corridor together with a group of other pupils		
DIMENSION	LEVEL	WORDING	
Provocation	False accusation	Steve comes up to David and falsely accuses him of having stolen some money	
	False accusation and push	Steve comes up to David and falsely accuses him of having stolen some money and pushes him to the ground so that he hurts his back.	
Monitoring	Teachers	There are several teachers around who can see what is going on.	
	No teachers	There are no teachers or other adults around who can see what is going on.	
OUTCOME	Violence	What would you do if you were David? Would you hit Steve?	
JUDGEMENT		Yes, I would hit Steve. No, I would just tell Steve he is an idiot. No, I would tell a teacher about it. No, I would do nothing.	
Scenario Universe		Monitoring	
		Teachers	No teachers
Provocation	False accusation	A	B
	False accusation and push	C	D

Analytical strategy

- **Categorical outcome**: choosing the violent alternative
- **Single-level logistic models**:
- (multi-level models require more scenarios per respondent -> too few scenarios)
- Studying **interactions** between context of action and personal characteristics

Measures

- PADS+ **Morality scale** (moral beliefs + moral emotions such as shame and guilt- See Wikström et al 2012)
- PADS+ **Capacity to exercise self-control** scale (shortened version of Grasmick & Bursick scale- including thrill-seeking, impulsiveness)
- **SCENARIO SETTING CHARACTERISTICS:**
- Absence or presence of **provocation**
- Absence or presence of **monitoring agents**

Method issues randomization in the sample

scenario criminogeneity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no provocation, monitoring	301	25.1	25.7	25.7
	no provocation, no monitoring	286	23.8	24.4	50.0
	provocation, monitoring	295	24.6	25.1	75.2
	provocation, no monitoring	291	24.2	24.8	100.0
	Total	1173	97.7	100.0	
Missing	System	28	2.3		
Total		1201	100.0		

scenario criminogeneity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no provocation, monitoring	292	24.3	24.9	24.9
	no provocation, no monitoring	317	26.4	27.0	51.9
	provocation, monitoring	285	23.7	24.3	76.2
	provocation, no monitoring	279	23.2	23.8	100.0
	Total	1173	97.7	100.0	
Missing	System	28	2.3		
Total		1201	100.0		

PREDICTIVE VALIDITY OF SCENARIO RESPONSE

Self-reported offending (past 12 months)	Scenario 1 (violence in the class room) Incidence Rate Ratio	Scenario 2 (violence at the bus-stop) Incidence Rate Ratio
Graffiti	1.648*	1.270*
Destroying something	1.772**	1.453*
Theft (>5euro)	1.494**	1.192 ns
Buying stolen goods	1.469**	1.515*
Stolen something (general)	2.232**	2.669**
Threatened some-one	1.989**	1.844**
Hitting some-one on the streets	5.879**	5.772**
Hitting some-one so that person was wounded	4.398**	4.326**
Threatening with knife	5.253**	1.877**

RESULTS

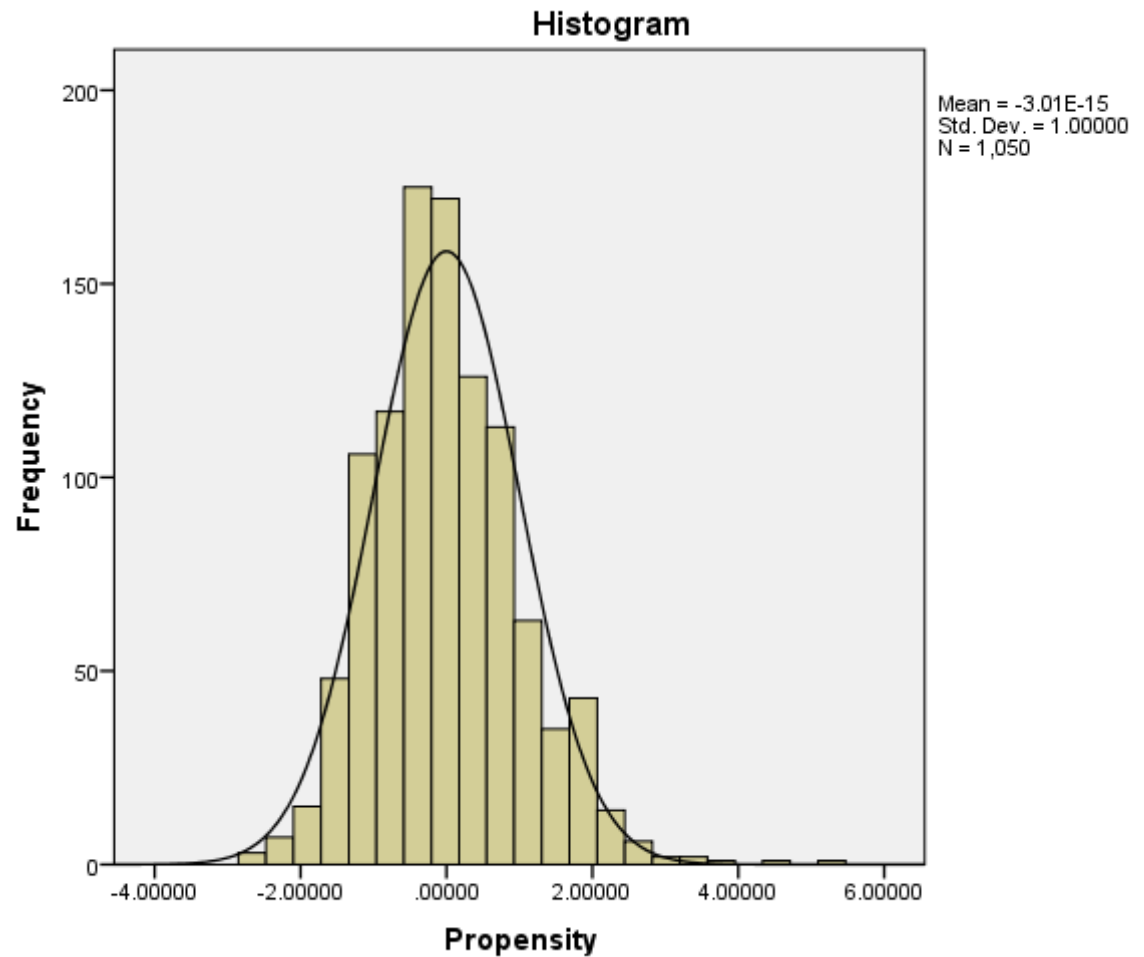


Descriptives

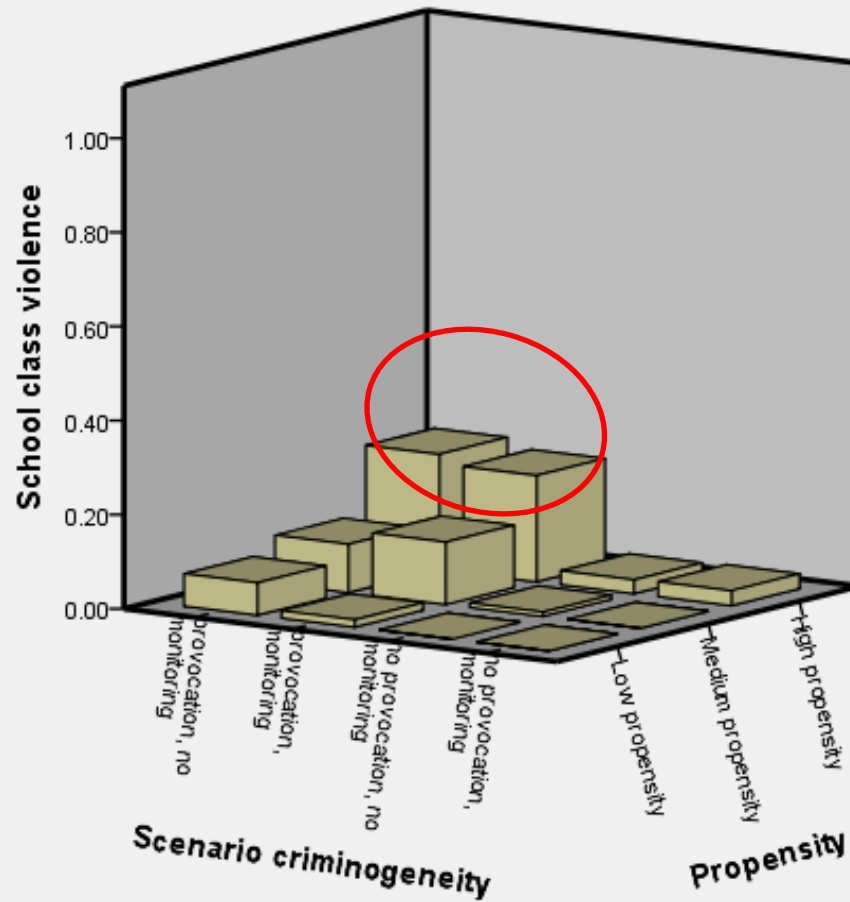
		Valid Percent
Valid	-16	26.9
	16 -18	44.2
	18 +	28.9
	Total	100.0

	N	%
Classroom violence	1173	7,25%
Bus-stop violence	1173	13,55%

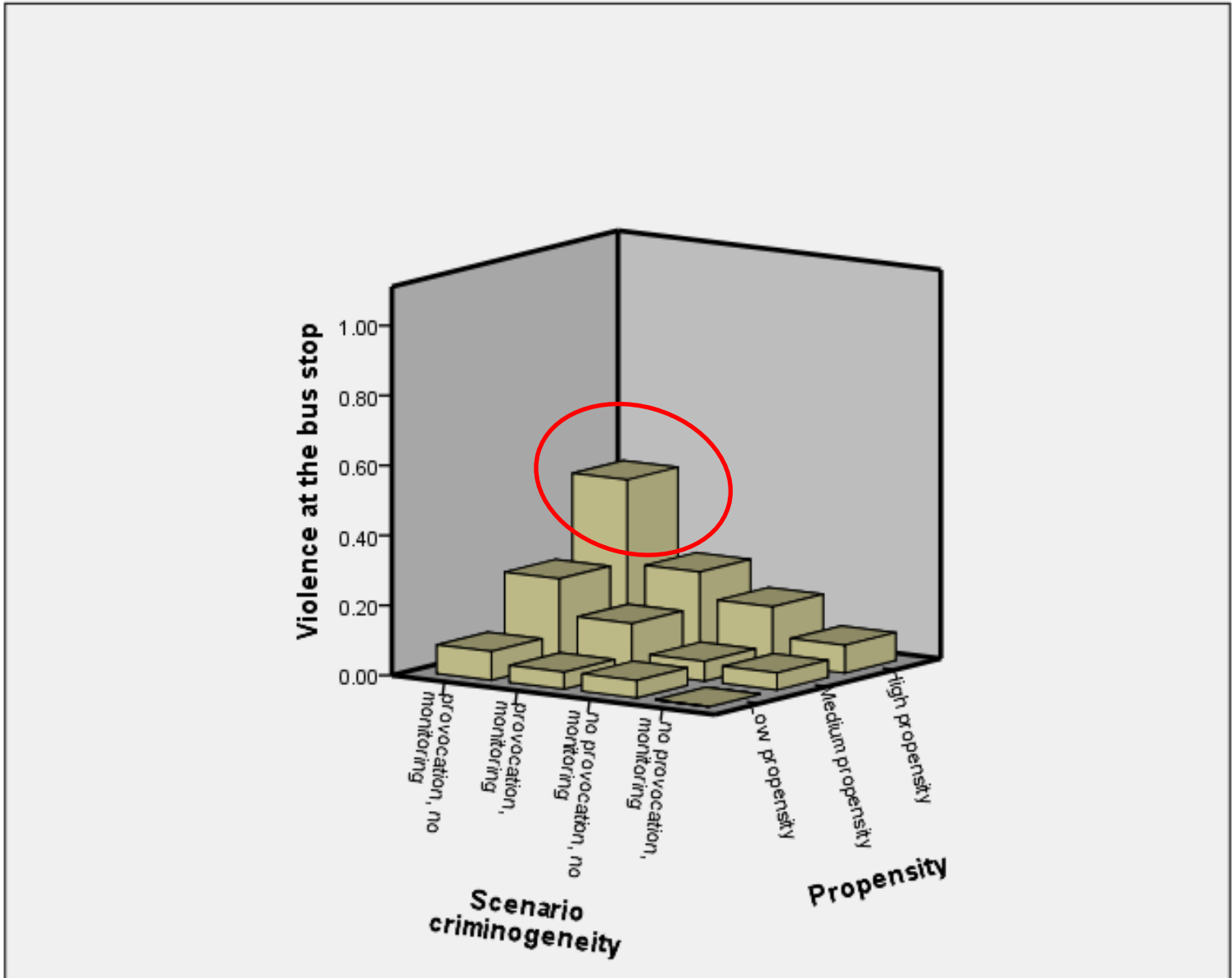
		Frequency	Valid Percent
Valid	Female	770	64.7
	Male	421	35.3
	Total	1191	100.0



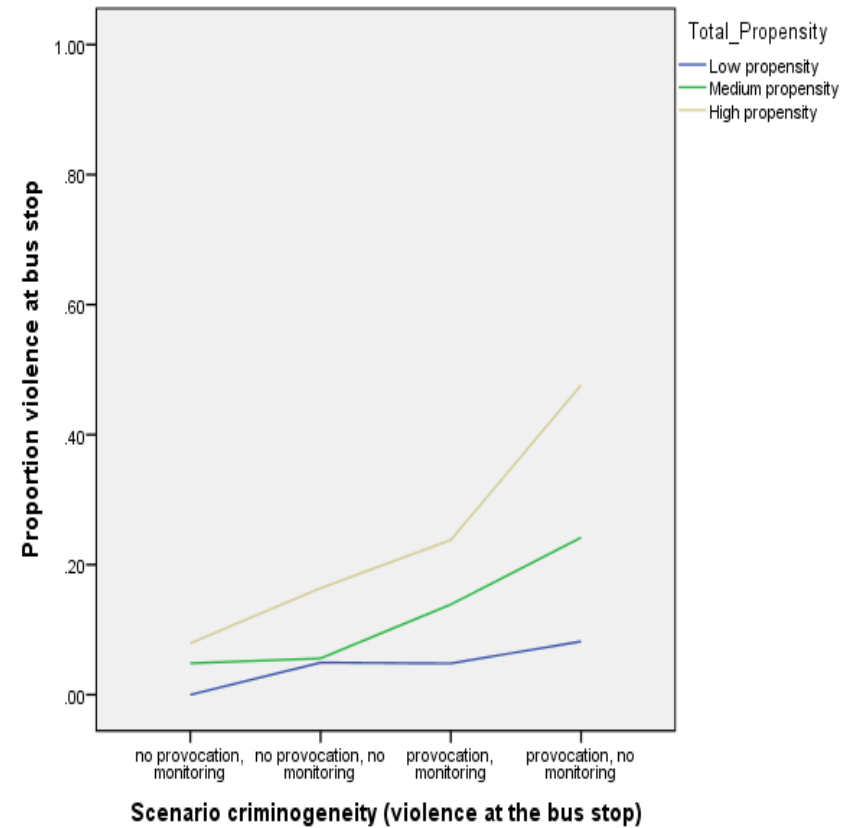
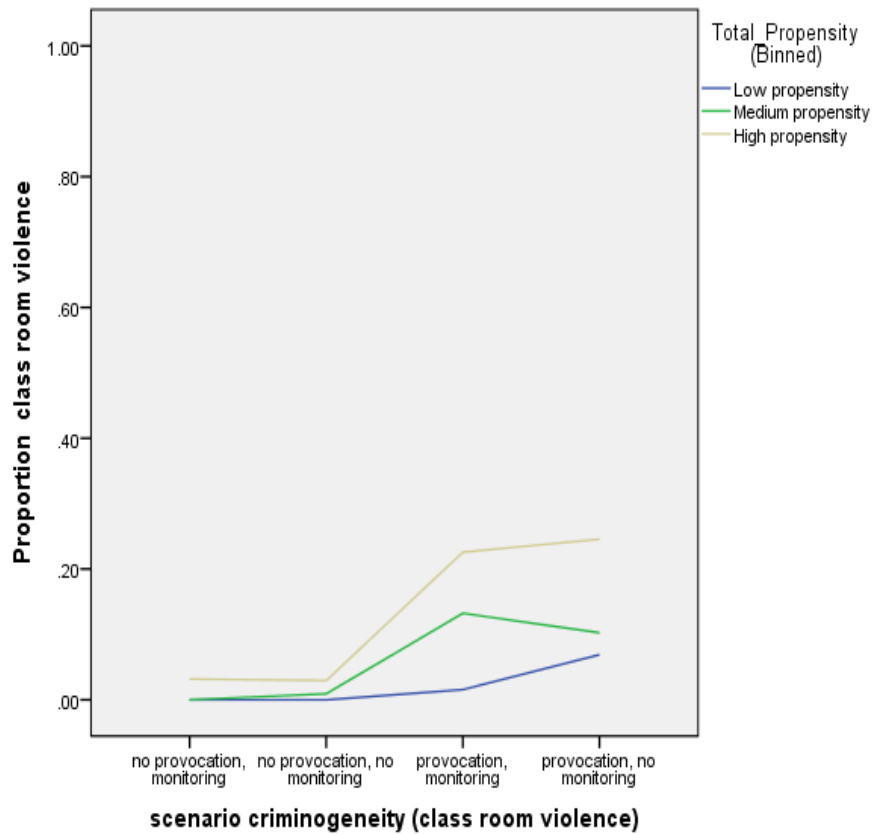
PCEA Hypothesis



PCEA Hypothesis



PCEA Hypothesis



Dependent variable: bus-stop violence	Odds Ratio
Gender	1.929**
Age *	
-16 (ref.)	--
16-18	0.502
18+	0.789
Overall propensity	2.103***
Scenario criminogeneity	
Monitoring, no provocation (ref)	--
No Monitoring, no provocation	2.150***
Monitoring, provocation	4.422***
No monitoring, provocation	9.985***
Nagelkerke Pseudo R square: 0.238	23.8%
Classification	
Correct predictions violent response: Correct no violent response:	13.7%
Overall:	98.5%
	87.8%

Table : Scenario criminogeneity, propensity and choosing the violent response at the bus stop

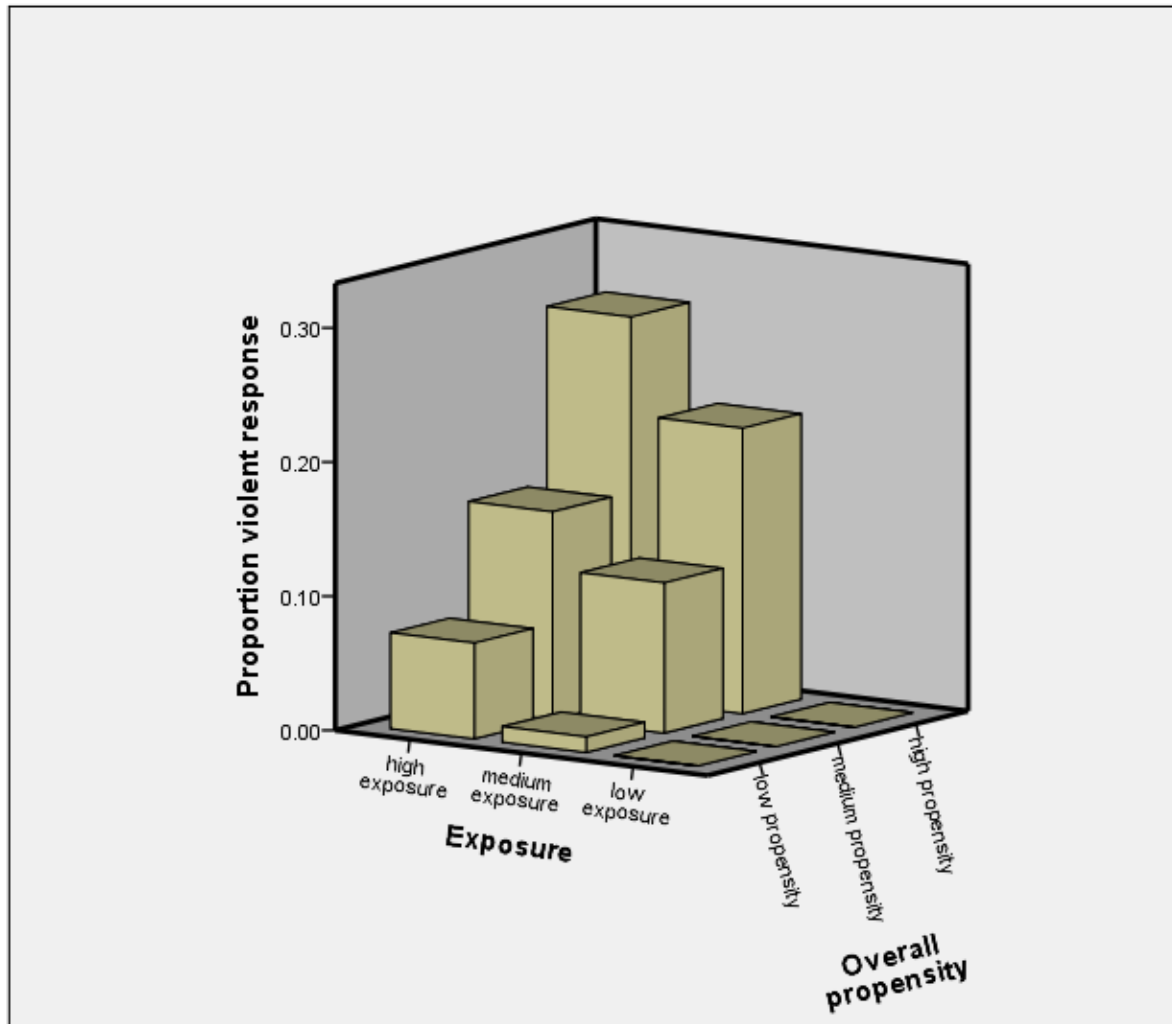
*= p <0.05 ** = p < 0.05 *** = p < 0.001

Dependent variable: Violent response (class room violence)	Odds Ratio
Gender (Males)	1.90*
Age	
-16 (ref.)	--
16-18	-0.36**
18+	-0.47*
Overall propensity	2.59***
Scenario criminogeneity	
Monitoring, no provocation (ref)	--
No Monitoring, no provocation	1.76
Monitoring, provocation	25.53***
No monitoring, provocation	30.36***
Nagelkerke R square	31.4%
% correct predictions	
No violent response	99.6%
Violent response	14.3%
Overall	93.8%

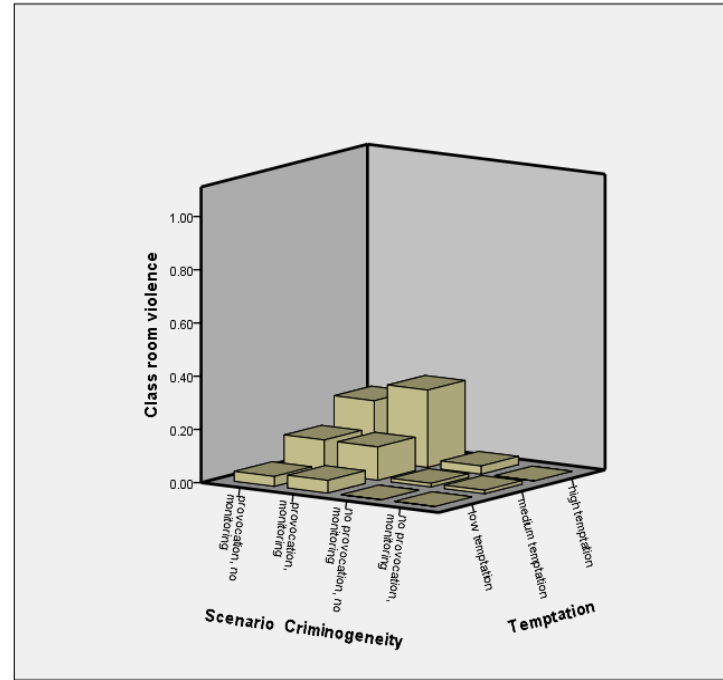
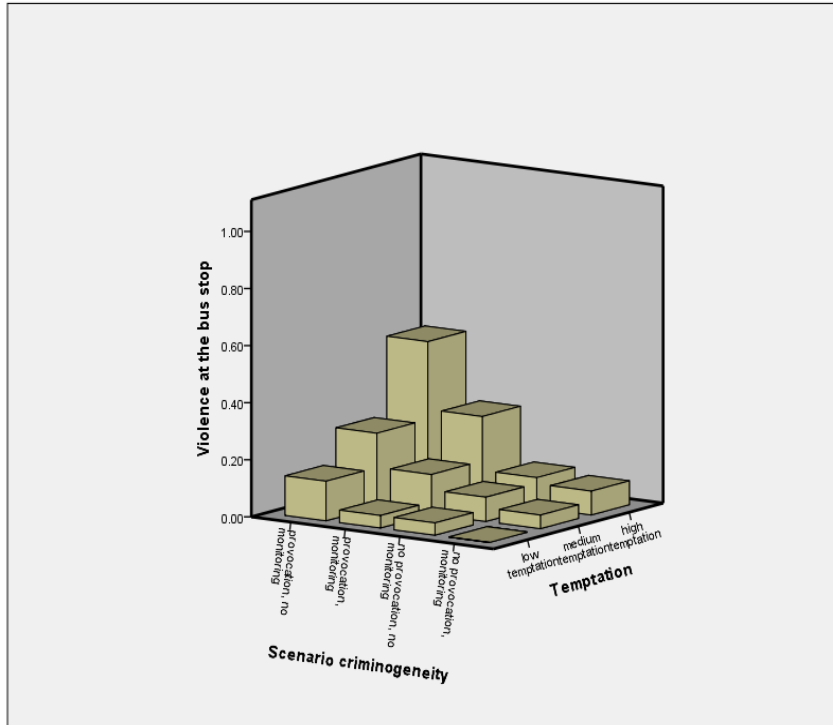
Table : Scenario criminogeneity, propensity and choosing the violent response in the class room

*= p <0.05 ** = p < 0.05 *** = p < 0.001

IS THE INTERACTION EFFECT STABLE ACROSS MEASURES?



Choosing the violent response as a function of scenario criminogeneity and perceived temptation



Discussion and conclusion

- **Key propositions derived from SAT are corroborated in a Belgian randomized scenario study of pupils and students**
- **Key interactions between scenario criminegeneity and propensity characteristics are similar using (1) different scenarios and (2) different measures!**
- **To increase our understanding of the context of action and the mechanisms that bring about action, the factorial survey is highly valuable and deserves deeper exploration**
- **Critical question: do we really disentangle perception-choice? Can we do better in analyzing the choice process (deliberation vs habituation? See also Kroneberg et al. 2010, Beier, 2016)**
- **Future plans:**
 - **disentangling the effects of moral emotions and beliefs**
 - **Context of development and the perception-choice process**

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