



Powerful authorities and trusting citizens: The Slippery Slope Framework and tax compliance in Italy



Barbara Kastlunger^{a,*}, Edoardo Lozza^b, Erich Kirchler^a, Alfred Schabmann^a

^a University of Vienna, Faculty of Psychology, Universitaetsstrasse 7, A-1010 Vienna, Austria

^b Università Cattolica di Sacro Cuore Milano, Faculty of Psychology, Largo Gemelli, Milan, Italy

ARTICLE INFO

Article history:

Available online 2 December 2012

JEL classification:

H26
J16

PsycINFO classification:

3000
4200
2970

Keywords:

Tax compliance
Slippery Slope Framework
Trust in authorities
Power of authorities

ABSTRACT

The Slippery Slope Framework of tax compliance postulates that citizens' compliance depends on the power of the authorities to enforce compliance and/or trust in the authorities and voluntary cooperation. While trust is widely recognized as a strong determinant of cooperation, empirical evidence is less clear on power: severe fines may lead towards compliance or even have the opposite effect. We propose a thorough investigation of the nature of power (coercive versus legitimate) within the theoretical framework of tax compliance to shed light on the ambiguous results and to clarify the complex relation between power and trust. We use structural equation modeling to test the assumptions of the Slippery Slope Framework by taking into account coercive power and legitimate power on a sample of $N = 389$ self-employed Italian taxpayers and entrepreneurs. We found evidence that trust is positively related to voluntary tax compliance. Trust was found to be negatively related to coercive power and positively related to legitimate power. Both coercive power and legitimate power were correlated with enforced compliance. However, the effect of enforced compliance leads to increased evasion. The results evidence the multifaceted nature of power and trust and their relation with tax compliance, and the importance of power and trust in political regulatory strategies.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction

The shadow economy and tax non-compliance have increased over the last decades and, thus, gained attention in policy making and research. For example, in Italy the shadow economy and tax evasion have reached an estimated €176 billion in 2010 (http://www.professionefinanza.com/viwe_archivio.php?id=3096, Retrieved 21.05.11). Tax authorities in various countries respond to rising tax crimes with more severe prosecution. In the classic economic approach, frequent and efficient audits and severe fines appear as the most powerful strategies to combat tax crime (Allingham & Sandmo, 1972; Srinivasan, 1973). Assuming that taxpayers behave as rational agents, in the case of tax evasion their decisions to comply depend on the risk of being caught. Despite the straightforward assumptions of the economic theory of crime, it was early recognized that

[...] a government compliance strategy based only on detection and punishment may well be a reasonable starting point but not a good ending point. Instead what is needed is a multi-faceted approach that emphasizes enforcement, as well as such things as

* Corresponding author.

E-mail addresses: barbara.kastlunger@univie.ac.at (B. Kastlunger), edoardo.lozza@unicatt.it (E. Lozza), erich.kirchler@univie.ac.at (E. Kirchler), alfred.schabmann@univie.ac.at (A. Schabmann).

positive rewards from greater tax compliance, the wise use of taxpayer dollars, and the social obligation of paying one's taxes. (Alm, Sanchez, & De Juan, 1995, p. 15).

Kirchler (2007) and Kirchler, Hoelzl, and Wahl (2008) proposed a theoretical concept which integrates the economic assumptions of tax compliance as well as the psychological and sociological determinants. The Slippery Slope Framework starts from the assumption that the interaction climate between the authorities and taxpayers may at the one extreme be antagonistic, and at the other synergistic. Depending on the climate, citizens either need to be enforced to comply or they cooperate voluntarily. Tax compliance is assumed to depend on the power of the authorities and on citizens' trust in the authorities. Audit probability and fines are important to regulate citizens' behavior, but so also are the fairness of the distribution of the tax burden across income groups and participation in public goods, fairness of procedures, and social norms. However, recent empirical evidence shows contradictory results regarding the influence of power and enforced compliance on tax evasion (Wahl, Kastlunger, & Kirchler, 2010). It was argued that to heavy prosecution and coercion leads to increased strategic tax paying behavior. Taxpayers pay if they suspect to be detected but evade as soon as they perceive a possibility of not getting caught. The Slippery Slope Framework differentiates between coercive and legitimate power. From a theoretical point of view power of authorities can be defined as capacity of coercion implementing punishment and prosecution as determinants of tax compliance (theory of crime; Becker, 1968), as well as referring to Tyler (2006) who highlights the importance of legitimate power as correct, legitimized and effective regulation of behavior. This differentiation was discussed by Gangl, Hofmann, Pollai, and Kirchler (2012) who conceptualized the two types of power (coercive and legitimate) in the Slippery Slope Framework referring to French and Raven (1959) and Raven, Schwarzwald, and Koslowsky (1998).

Although, the single relationships between the model variables are well documented, the whole framework misses an explicit empirical model testing. Furthermore, due to inconsistency regarding the impact of power within the model and its relevance for further formalization, the present study investigates the assumptions of the Slippery Slope Framework by a model testing and enriches existing evidence on the framework by differentiating coercive power from legitimate power. In the following sections the Slippery Slope Framework and empirical evidence is presented, followed by a differentiation between coercive and legitimate power. Subsequently, the relevance of Italian taxpayers as a sample of interest is emphasized, and the empirical study is described.

1.1. The Slippery Slope Framework – power and trust

The economic model of tax evasion is based on Becker's theory of crime (1968). Tax paying decisions are pictured as rational decision problems. Taxpayers decide to comply if it does not pay to evade due to the possible audits and fines. This rational view on taxpayers' behavior was praised but also criticized for ignoring factors like fairness and social norms, tax morale, and the relation between taxpayer and tax authorities (Kirchler, 2007). The Slippery Slope Framework starts with economic assumptions on tax compliance and integrates the psychological and sociological perspectives of taxpayers' cooperation. According to the framework, to achieve cooperation within a society, two different paths are possible. The first path stresses the authorities' power to regulate citizens' behavior. Tax compliance is enhanced by external incentives, predominantly by audits and fines. The second path stresses taxpayers' and the authorities' interaction style, mutual trust, and commitment to the society in which they live. Trust is defined as a relational variable providing the base for voluntary cooperation. If trust is high, taxpayers perceive a duty in fulfilling societal needs.

Both approaches promise high tax contributions, either by exerting power or by strengthening trust. Taxpayers' behavior outcomes might be similar – in both cases they pay their share – however, the underlying quality of tax compliance differs. In the first case compliance is enforced; in the second case it is voluntary. Voluntary compliance is desirable as it neither pushes citizens into the roles of opponents of authority nor requires costly measures of control.

Empirical investigation of the assumptions of the Slippery Slope Framework started only recently. A first empirical test by Wahl et al. (2010) adopted an experimental approach using the scenario technique. A fictitious country was presented with tax authorities having high or low power over citizens and citizens trusting or distrusting the authorities. High power and high trust led to higher tax payments and the underlying motives were “commitment” in the case of high trust and “resistance” in the case of high power (Braithwaite, 2003). Further confirmation of the framework was reported by Kirchler and Wahl (2010) and Muehlbacher and Kirchler (2010; see also Kirchler, Muehlbacher, Kastlunger, & Wahl, 2010). Van Dijke and Verboon (2010) investigated the moderating effect of trust on the relation between fairness and voluntary compliance and found that trust is crucial when the authorities focus on fairness to increase voluntary compliance. An econometric formalization of the framework was recently proposed by Prinz, Muehlbacher, and Kirchler (2010), and by Lisi (2011) who extended it in the light of the benchmark macroeconomic model of the labor market.

Although empirical studies confirm the relevance of power and trust, these two dimensions are not independent but in complex interaction. On the one hand, power can fuel trust, while on the other it can also corrupt trust. In an antagonistic climate with the authorities not being trusted, power may be most effective in increasing compliance. However, in a synergistic climate of cooperation, power may either not provide any surplus or even have the opposite than intended effect by crowding out trust (Feld & Frey, 2002a, 2002b). Verboon and van Dijke (2011), however, found severe sanctions to be more effective in enhancing compliance than mild sanctions only when procedural fairness (a key-determinant of trust) was perceived to be high. These ambiguous findings show a need for a theoretical clarification of power and a thorough analysis of the effects of different types of power.

In accordance with the classical economic model, increased power of the authorities leads to less tax evasion, however “brute deterrence might backfire” especially when taxpayers’ perceptions are not considered (Sheffrin & Triest, 1992). Extensive external enforcement crowds out intrinsic motivation to cooperate and might therefore lead to converse outcomes (Feld & Frey, 2002a, 2002b; Gneezy & Rustichini, 2000) and undermine trust (Cialdini, 1996). Power of the authorities is multifaceted. The authorities that lack power to control tax evasion in a society are likely also to be perceived as less trustworthy as they are unable to protect honest taxpayers from exploitation by free-riders. The power to combat tax evasion may increase trust in the cooperative behavior of others within a social group and trust may generally be associated with the authorities securing cooperation (e.g. Mulder, van Dijk, De Cremer, & Wilke, 2006).

Power adopted to protect cooperative citizens from free-riding may be perceived as efficient and legitimate rather than coercive and punishing. Indeed, Turner (2005) differentiates between coercive and legitimate power. When citizens accept an authority they are likely to voluntarily cooperate. Power is perceived as legitimate and power strategies are adopted when necessary. When trust is low and the power of the authorities is perceived as oppressive, taxpayers feel enforced to stick to the rules. Rather than being legitimate, power is likely to be perceived as coercive. Legitimate power can fuel trust, while coercive power reduces trust in the authorities. We assume a positive relation between trust and legitimate power and a negative relation between trust and coercive power.

A first theoretical conceptualization and differentiation of the two forms of power within the Slippery Slope Framework was recently provided by Gangl et al. (2012) by referring to French & Raven’s bases of power (1959) and Raven et al. (1998) clustering in harsh and soft forms of power. According to Gangl et al. (2012), the harsh cluster corresponds to coercive power and the soft cluster to legitimate power in the Slippery Slope Framework. The first cluster includes French and Raven’s (1959) coercive and reward power. French and Raven (1959) defined coercive power from the perspective of the influenced person as the expectation that the influencing part will punish non-compliance. Analyzing the left edge of the Slippery Slope Framework not only French & Raven’s coercive power is relevant but also reward power. The ability to provide rewards influences the rational choice of the taxpayers’ decision. The soft cluster is composed by legitimate, expert, referent and information power.

Basing on these assumptions, coercive power is characterized by force and non-compliant actors have to take the risk of monetary, physical, social, or psychological costs. Legitimate power is not based on pressure and force but on legitimization, knowledge, ability and identification with the powerful party. Legitimization, knowledge and ability of tax authorities lead to efficacy in doing their job, and foster authorities’ trustworthiness (Gangl et al., 2012).

In the present study, we adopt the aspect of force, pressure and compulsion for coercive power and define legitimate power as the authorities’ efficacy (due to its expertise and ability) to ensure cooperation and differentiate it from coercive power (see Gangl et al., 2012). On one hand, legitimate power is perceived high if tax crimes are detected in a reasonable way and tax authorities combat tax crimes efficiently without harassment but due to their competence. On the other hand, coercive power is perceived as high, if tax authorities combat tax evasion primarily by draconic control and enforcement, if investigations are long and severe and the only aim of adopted processes is to detect findings.

1.2. Tax behavior in Italy

Italy faces high levels of shadow-economy activity and tax evasion. According to recent estimates (Feld & Schneider, 2010; Schneider, 2005), Italy’s shadow economy has one of the highest scores among OECD countries, second only to Greece. Nevertheless, from the perspective of fiscal psychology, Italy has received scarce attention so far. For an exception see Lewis, Carrera, Cullis, and Jones (2009) who found more inclination to evade in Italy than in the UK, and Berti and Kirchler (2001) who, studying the social representations of taxes held by different occupational groups, found that tax evaders are evaluated rather positively. These results lead to the assumption that Italian taxpayers, perceiving themselves as part of a social group with behavioral norms that regulate individuals’ behavior (Sigala, Burgoyne, & Webley, 1999), do not perceive honest tax filing as a strong social norm. When people know or make assumptions about the level of tax compliance in their reference group, the group level becomes a norm which individual taxpayers adopt (Fortin, Lacroix, & Villeval, 2007). If tax evasion is seen as a peccadillo, unsurprisingly, the probability of evasion is high.

Italy not only impresses by high levels of shadow-economy activity, despite a seemingly high tax morale observed by Alm and Torgler (2006), but appears an interesting country for the study of tax behavior also because of the heterogeneous tax evasion patterns across the regions. Brosio, Cassone, and Ricciuti (2002) speculate that different evasion patterns may be the result of expressions of different levels of disagreement with the state and its provision of public goods. In particular, evasion is negatively correlated to per capita regional gross product. In poorer southern regions, tax evasion is approximately three times higher than in richer northern regions (Bordignon, & Zanardi, 1997; Fiorio, & Zanardi, 2007, p. 5).

In the following empirical study, we test the Slippery Slope Framework in different Italian regions and postulate the strong validity of the framework if results in different regions are similar. Fig. 1 presents the postulated relationships between the concepts referred to in the framework. According to the theoretical assumptions we assume the intent to evade taxes to be low in cases of enforced and in cases of voluntary cooperation. While enforced compliance should be high if power is perceived as coercive, voluntary cooperation should be fueled by trust and legitimate power. Furthermore, we assume legitimate power positively related and coercive power negatively related with trust (see Gangl et al., 2012).

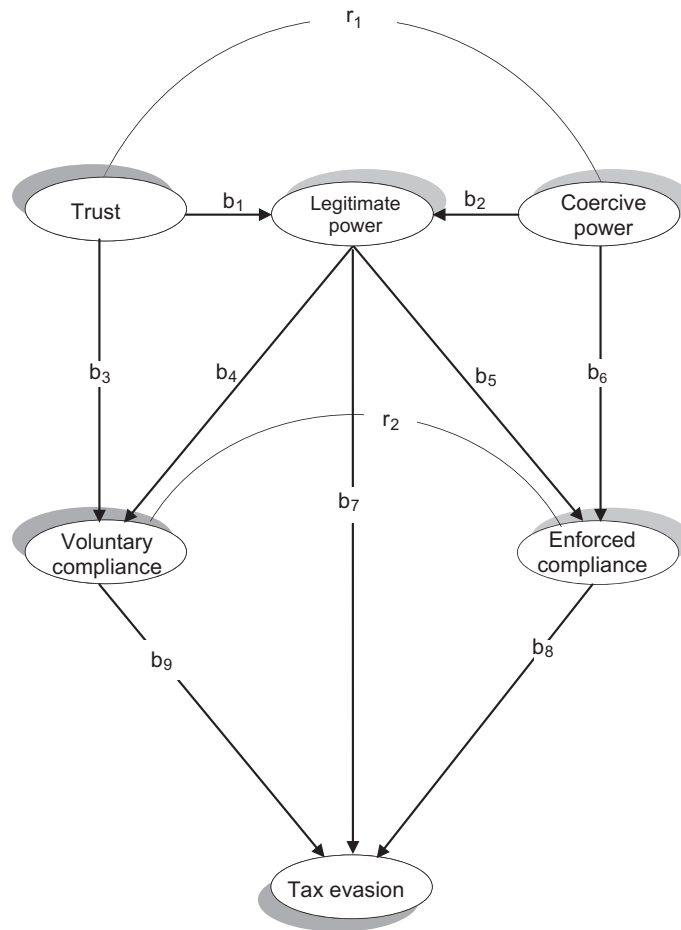


Fig. 1. Structure of the Slippery Slope Framework.

2. Method

2.1. Sample

Data were collected from the self-employed and entrepreneurs in four Italian regions (two regions in the north-center, north-west, middle-south). In Lombardia $n = 188$ taxpayers participated, in Abruzzo $n = 102$, in Veneto $n = 54$ and in Trentino-Alto Adige $n = 45$. Due to the small sample sizes and strong cultural similarities, the data of Veneto and Trentino-Alto Adige were combined. Details of the socio-demographics are presented in Table 1.

The ages of participants followed a similar distribution in the three sub-samples. In Trentino-Alto Adige and Veneto the sample comprised more male taxpayers compared to Abruzzo, and the level of education and income was higher. Half of the respondents from Abruzzo indicated that they did not have A-levels and had an annual income below €20,000. The majority of the respondents interviewed in Lombardia at least had A-levels, half of them a university degree. Besides gender, the socio-demographic characteristics are similarly distributed as in the populations of the regions. A MANOVA with gender, education and monthly income as independent factors and the variables referred to in the Slippery Slope Framework (trust, coercive power, legitimate power, voluntary compliance, enforced compliance, and evasion) as dependent variables, yielded no significant results (education \times income \times gender: $F(36, 1848) = 1.06$; $p = .37$; education \times income: $F(36, 1848) = .97$; $p = .52$; education \times gender: $F(12, 608) = 1.10$; $p = .36$; income \times gender: $F(18, 915) = 1.10$; $p = .35$; education: $F(12, 608) = 1.55$; $p = .10$; income: $F(18, 915) = 1.04$; $p = .41$; gender: $F(6, 303) = .89$, $p = .50$). Thus, differences in socio-demographic characteristics across the regions need not be considered in further analyses.

2.2. Material

In 2009, a pre-test was conducted to validate the scales of the Tax Compliance Inventory (TAX-I; Kirchler & Wahl, 2010), translated from German to Italian and back translated. Furthermore, items were developed to assess trust in the authorities,

Table 1
Socio-demographic characteristics of the total sample and regional sub-samples.

	Total N = 389	Veneto/Trentino-Alto Adige n = 99	Lombardia n = 188	Abruzzo n = 102
Gender		$\chi^2(2, n = 383) = 9.90; p < .001$		
Women (%)	33.4	21.2	35.7	41.4
Men (%)	66.6	78.8	64.3	58.6
Age groups		$\chi^2(6, n = 374) = 1.72; p = .94$		
<30 years (%)	14.9	17.2	14.7	13.2
31–40 years (%)	27.3	26.3	26.6	29.7
41–50 years (%)	26.0	23.2	26.1	28.6
Over 50 years (%)	31.8	33.3	32.6	28.6
Education		$\chi^2(4, n = 378) = 52.4, p < .01$		
Elementary school/technical school (%)	25.9	18.4	16.6	50.5
A-levels (%)	35.4	45.9	32.6	30.3
University degree (%)	38.6	35.7	50.8	19.2
Yearly income		$\chi^2(6, n = 348) = 50.01; p < .01$		
<€20,000 (%)	27.0	13.6	21.7	48.9
€20,001 – 40,000 (%)	36.8	42.0	33.1	38.3
€40,001 – 60,000 (%)	14.4	12.5	18.1	9.6
>€60,000 (%)	21.8	31.8	27.1	3.2

coercive power, and legitimate power. An online-questionnaire (LimeSurvey version 1.85+) was used for data collection in Alto Adige, a bilingual province in the north of Italy. The sample was recruited through e-mail addresses provided by the local Chamber of Commerce. Overall, 171 respondents completed the original German version, and 45 the translated Italian version of the questionnaire. All items in the Italian scales of TAX-I were found suitable. For assessing trust, coercive power, and legitimate power, five items of the newly developed items were selected per scale. Legitimate (EV = 4.19, % = 42) and coercive power (EV = 2.78, % = 28) show to be two distinctive factors in the factor analysis.¹ Details on the validation of the Italian questionnaire are available from Berti, Kastlunger, and Kirchler (in press). Descriptions of the items, reliabilities and results from factor analysis of the scales are presented in Table 2.

2.3. Procedure

The questionnaire was distributed in 2010. In Abruzzo a paper-version of the questionnaire was used, while in the other regions data were collected online.² The link to the online-questionnaire was sent out by e-mail to addresses of self-employed taxpayers and entrepreneurs provided by local Chambers of Commerce, and to an online-panel provided by a marketing research agency in Lombardia. The final sample consisted of 389 participants (Veneto and Trentino-Alto Adige: $n = 99$; Lombardia: $n = 188$; Abruzzo: $n = 102$).

3. Results

3.1. Analyses of the structure of the items in the three regional sub-samples

We applied a structural equation model (AMOS 7; Arbuckle, 2006) to assess the structure of the questionnaire in the three regions. For each scale, a constrained measurement model with factor loadings and co-variances assumed to be equal across regions was computed and results compared with an unconstrained measurement model with factor loadings and co-variances allowed to differentiate. An insignificant model comparison test indicates that the three sub-samples interpret the items and scales similarly. For the scales, tax evasion, voluntary compliance and enforced compliance, models were computed allowing the same co-variances of the manifest variables as in the original scales (Kirchler & Wahl, 2010). The item structures of most scales did not differ across the three sub-samples and revealed satisfactory fits (Table 3). Negligible differences resulted between the constrained and unconstrained models for the trust scale and marginally for the voluntary compliance scale.

The structure of the Slippery Slope Framework (Fig. 1) in the three sub-samples was also tested using linear equation modeling and by testing a constrained model (i.e. parameters assumed to be equal) against an unconstrained model. The model fit was assessed by using the following goodness of fit indices: comparative fit index (CFI), root mean square error of approximation (RMSEA), and Tucker-Lewis index (TLI) for model comparison. While the CFI should be close to 1, acceptable if ≥ 0.90 (Bentler & Bonett, 1980), RMSEA should be close to 0, acceptable if ≤ 0.05 (Byrne, 2001). TLI indicates differences between the sub-samples if the differences of TLI across the tested models are $TLI_{\Delta} \geq .05$ (Byrne, 2001).

¹ Including five coercive and five legitimate power items; principal components method, varimax rotation, eigenvalues greater than 1.

² Empirical evidence suggests that using online-questionnaires leads to comparable results as paper questionnaires (Davis, 1999; Noyes, & Garland, 2008).

Table 2
Descriptions of scales and items in the TAX-I, trust, coercive and legitimate power.

Scales/item codes	N	M	Md	SD	Factor loadings ^a
<i>Tax evasion</i>					
$\alpha = .85$					EV = 3.14; % = 62.9
TE3	388	4.51	5.00	3.01	0.87
TE4	388	4.23	4.00	2.94	0.87
TE5	388	3.69	2.00	2.94	0.86
TE7	388	3.59	2.00	2.87	0.87
TE9	388	3.96	3.00	2.82	0.84
<i>Enforced tax compliance</i>					
$\alpha = .88$					EV = 3.48; % = 69.6
ETC2	386	5.45	6.00	2.82	1.00
ETC4	386	5.28	5.00	2.78	1.06
ETC5	386	5.35	5.00	2.76	0.89
ETC6	386	5.51	6.00	2.89	0.77
ETC7	386	3.94	3.00	2.96	0.26
<i>Voluntary tax compliance</i>					
$\alpha = .86$					EV = 3.24; % = 64.9
VTC3	388	6.89	7.00	2.15	0.77
VTC5	388	5.87	6.00	2.52	0.83
VTC6	388	5.47	5.00	2.56	0.82
VTC7	388	6.02	6.00	2.61	0.83
VTC8	388	7.06	8.00	2.27	0.78
<i>Legitimate power</i>					
$\alpha = .91$					EV = 3.72; % = 74.5
ELP1	389	3.63	3.00	2.47	0.87
ELP2	388	3.62	3.00	2.44	0.87
ELP3	389	3.69	3.00	2.37	0.86
ELP4	387	4.17	4.00	2.48	0.87
ELP5	388	3.61	3.00	2.45	0.84
<i>Coercive power</i>					
$\alpha = .85$					EV = 3.17; % = 63.3
CP1	385	5.83	6.00	2.56	0.74
CP2	385	5.98	6.00	2.59	0.81
CP3	385	5.21	5.00	2.58	0.81
CP5	385	5.23	5.00	2.97	0.79
CP6	385	5.33	5.00	2.82	0.83
<i>Trust</i>					
$\alpha = .91$					EV = 3.69; % = 73.8
TR2	388	3.98	4.00	2.31	1.00
TR3	388	3.51	3.00	2.27	0.93
TR5	388	3.70	3.00	2.25	0.96
TR7	388	3.85	4.00	2.27	1.38
TR8	388	3.81	4.00	2.38	1.45

Note: Wording of items is given in [Appendices A and B](#).

^a Factor analysis conducted separately for each scale.

As the item structure did not differ between the three sub-samples, the factor loadings and co-variances of the single items on each latent variable were fixed (i.e. equal for the regions), while the model parameters were allowed to vary between the examined groups in the parameter-unconstrained model, $\chi^2(1223) = 2011.55$, $p < .01$, $\chi^2/df = 1.65$, $CFI = 0.90$, $RMSEA = 0.04$, $TLI = 0.89$. In the *constrained model* all regression paths and correlations between the latent variables were assumed to be equal and held constant across the groups, $\chi^2(1245) = 2024.64$, $p < .01$, $\chi^2/df = 1.63$, $CFI = 0.90$, $RMSEA = 0.04$, $TLI = 0.89$. No differences resulted between the two models (model comparison: $\chi^2(22) = 13.09$, $p = 0.93$). As the model structure does not differ between the three sub-samples, data were pooled in the subsequent analyses.

3.2. Testing the Slippery Slope Framework

A simple structural equation model was calculated using again AMOS 7. The model fitted the data well ($\chi^2(387) = 766.45$, $p < 0.01$, $\chi^2/df = 1.98$, $CFI = 0.95$, $RMSEA = 0.05$). The results are presented in [Fig. 2](#). In accordance with the assumptions of the Slippery Slope Framework, tax evasion was negatively influenced by voluntary tax compliance. The more taxpayers feel a moral obligation to pay taxes, the less they indicated the likelihood to evade tax. Voluntary tax compliance was positively influenced by trust in the authorities and negatively influenced by legitimate power. However, the relation between trust and legitimate power as well as between coercive power and legitimate power was positive. Trust and coercive power influenced taxpayers' perceptions of the efficacy of the authorities' power. In other words, legitimate power was positively related with both, while trust was negatively related with coercive power. This result highlights the complexity of the

Table 3
Measure models per scale constrained and unconstrained by region.

Model per scale	χ^2	df	p	χ^2/df	CFI	RMSEA	PCLOSE
Evasion unconstrained	40.49	12	<.01	3.37	.97	.08	.04
Evasion constrained	43.56	22	<.01	1.98	.98	.05	.46
Evasion – model comparison	3.07	10	.98				
Enforced compliance unconstrained	61.06	15	<.01	4.07	.97	.09	.003
Enforced compliance constrained	70.65	23	<.01	3.07	.97	.07	.02
Enforced compliance – model comparison	9.59	8	.30				
Voluntary compliance unconstrained	19.02	9	.03	2.11	.99	.05	.38
Voluntary compliance constrained	41.24	21	.05	1.96	.98	.05	.47
Voluntary compliance – model comparison ^a	22.21	12	.04				
Coercive power unconstrained	66.43	15	<.01	4.43	.93	.09	.001
Coercive power constrained	74.26	23	<.01	3.23	.94	.08	.001
Coercive power – model comparison	7.83	8	.45				
Legitimate power unconstrained	45.07	15	<.01	3.00	.98	.07	.06
Legitimate power constrained	51.24	23	<.01	2.23	.98	.06	.28
Legitimate power – model comparison	6.17	8	.63				
Trust unconstrained	14.85	9	.10	1.65	1.00	.04	.61
Trust constrained	45.28	21	<.01	2	.99	.05	.45
Trust – model comparison ^a	26.00	12	<.01				

^a Albeit the constrained model differs significantly from the unconstrained model, indicating that the factor-structure differs between the groups, the differences are negligible.

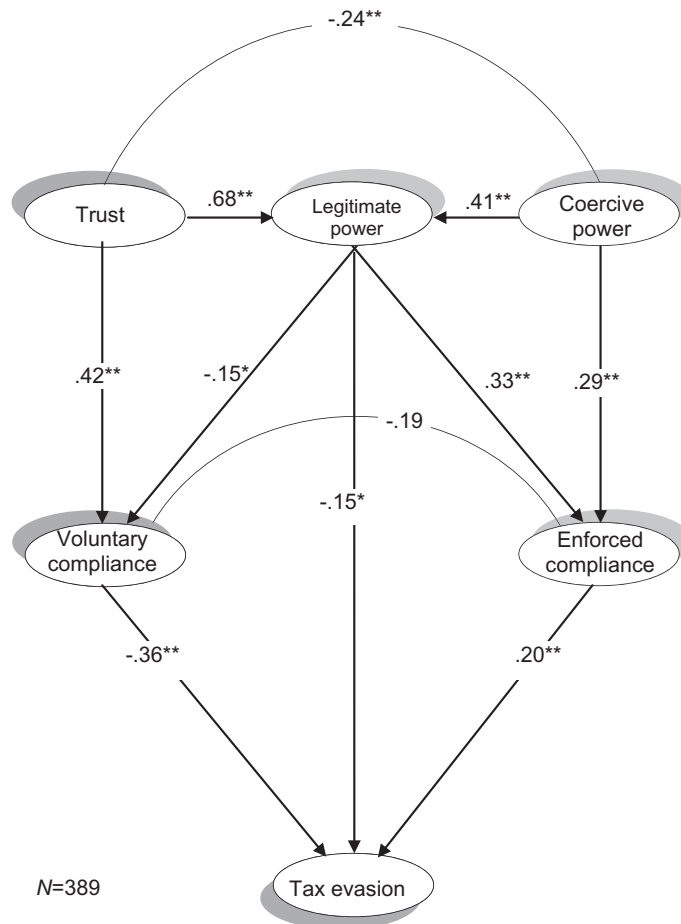


Fig. 2. Results of the structural equation model test of the Slippery Slope Framework.

relation between trust and power. On one hand, the authorities need to possess power to maintain order within society and to gain trust. On the other hand, if power is perceived as coercive and arbitrary then it is negatively related with trust and corrodes it. In accordance with the assumptions of the framework, coercive power leads to increased enforced compliance

and – in an extension to the original framework – legitimate power influences enforced compliance positively. Contrary to the framework assumptions, but similar to prior empirical results (Wahl et al., 2010) enforced compliance leads to increased tax evasion. The more taxpayers feel enforced to pay their taxes, the more they try to evade them as soon as they perceive a chance.

4. Discussion

The aim of the present study was to test the Slippery Slope Framework (Kirchler, 2007; Kirchler et al., 2008) by differentiating between two types of power (coercive and legitimate) on three Italian samples of taxpayers, living in the north, north-east, or south of the country. Data were collected in different Italian regions to account for the intra-national differences in tax compliance (Brosio et al., 2002). It was necessary to ensure that the respondents of the different regions had the same understanding of the translated scales and the newly developed items. Therefore, as a first step, measurement models were tested. Factor loadings did not strongly differ across the sub-samples, confirming the hypothesized invariant factorial structures per scale.

Overall, the results of the multiple group analysis in AMOS indicated that the model fitted the data well. Trust enhanced voluntary tax compliance. Voluntary tax compliance itself was negatively related to tax evasion. According to the assumptions of the framework, coercive power affected enforced tax compliance. Voluntary compliance and enforced compliance, as well as trust and coercive power, were negatively related.

Enriching existing empirical evidence on the Slippery Slope Framework (Muehlbacher & Kirchler, 2010; Wahl et al., 2010), this study differentiated between coercive power and legitimate power (see Gangl et al., 2012; Tyler, 2006). While coercive power was assessed as power to set punishment and to impose severe fines, legitimate power was assessed as the efficacy of the tax authorities' interventions (due to its expertise and ability) in reducing tax crimes. According to the theoretical assumptions of Kirchler et al. (2008) coercive power was found to be negatively related to trust, while legitimate power was positively connected to trust in the authorities. However, both trust and coercive power were positively related with legitimate power. Legitimate power, in the sense of efficacy of crime reduction was therefore assumed to depend on trust and coercive power. If citizens trusted the authorities, they perceived effective authorities as strong and powerful. However, if citizens did not trust the authorities they perceived the same strength as coercive and enforcing.

A counterintuitive result was the slight but significant positive influence of enforced compliance on tax evasion. The more taxpayers felt enforced to pay their taxes, the more they tried to evade. This assumption is explained by examining the scale *Tax Evasion* of the TAX-I in detail. The items assess tax evasion in strategic advantageous situations, i.e. in situations where the authorities do not exhibit their full power of surveillance. Therefore, the positive influence of enforced compliance on evasion seems quite plausible. When taxpayers feel observed and enforced they pay their taxes, whereas they will take advantage of the situation when they perceive a possibility to escape the law. Moreover, the positive relation between enforced compliance and evasion is not strong. Therefore, we suspect that there might be different strategies that taxpayers adopt. Some might be intimidated if they feel enforced and do not evade, while others feel defiant and due to reactance they evade even more (strategic taxpaying behavior, see for example Wahl et al., 2010).

Literature which threats tax compliance in Italy confirms that regional heterogeneities are relevant when studying tax compliance (Brosio et al., 2002; Fiorio & Zanardi, 2007). Our results indicate that the structure of the model is valid across the regional sub-samples, which adds to the robustness of the framework. However, the structural similarity does not mean that tax compliance is similar across the regions in absolute terms: On the contrary, results observed across the considered regions (see Appendix B) are consistent with reported regional differences in Italy, where southern regions show higher levels of tax evasion and shadow economy. There might be differences in absolute levels of trust, perceived power and propensity to evade taxes between the regions, however, the interdependency of these factors and the structure of influences are similar. This strengthens also the claim of external validity of this model testing. The following step in research would be to test the Slippery Slope Framework also in other countries.

Limitations of the study are given due to the fact that we assessed tax evasion by self descriptions in a survey presented online and as a paper version which on the other hand might lead to questionable validity of the results (Hessing, Elffers, & Weigel, 1988). However, the authors of the used questionnaire Kirchler and Wahl (2010) argue that by using a rather indirect technique, i.e. fictitious cases for assessing tax evasion, the problem of social desirability could be reduced (Suhling, Löbmann, & Greve, 2005). In that way respondents do fear less to reveal their criminal behavior. Furthermore, self reports are a well established method in empirical research on tax compliance (see for example Braithwaite, 2003) and self reports are seen as a proxy for behavior (Fishbein & Ajzen, 1975). However, we are confident on the value of these results because the different Italian regions under scrutiny have shown different propensity in tax cheating (i.e., the scores in the evasion scale of the TAX-I see Appendix B) and those differences are very coherent with tax evasion patterns reported by Italian authorities across regions.

The present study assumes an applied psychological approach and is not interested in describing absolute levels of tax evasion. For this scope, comparison with behavioral data and a representative sample would be necessary. Moreover, this study is not aiming at analyzing cultural differences in tax evasion between different regions, but in studying relationships between the theoretically important variables in heterogeneous contexts. The fact that there are no structural differences between the regions corroborates the external validity of this study: despite the heterogeneity between the Italian regions

in terms of tax evasion and shadow economy, the structural model and the relationships between power, trust and tax compliance are the same. Nevertheless, generalization of the results on different samples should be made with caution. Therefore, we recommend further testings in other countries, belonging to different socio-cultural contexts.

Acknowledgments

Special thanks are due to Chiara Berti, Massimo Martini, Marylin Riedl and Emma Summa for data collection in Abruzzo, Veneto and Trentino–Alto Adige, Italy, and to the Chamber of Commerce of Bolzano, of Verona and of Milan, Italy, as well as to for their support.

Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.joep.2012.11.007>.

References

- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1, 323–338.
- Alm, J., Sanchez, I., & De Juan, A. (1995). Economic and noneconomic factors in tax compliance. *Kyklos*, 48, 3–18.
- Alm, J., & Torgler, B. (2006). Culture differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27, 224–246.
- Arbuckle, J. L. (2006). Amos 7.0 user's guide. Spring House, PA: AMOS Development Corporation.
- Becker, G. (1968). Crime and punishment: An economic approach. *The Journal of Political Economy*, 76, 169–217.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588–606.
- Berti, C., Kastlunger, B., & Kirchler, E. (in press). La china scivolosa del comportamento fiscale: un contributo alla costruzione di uno strumento per la ricerca sulla compliance. *Giornale italiano di psicologia*. [The slippery slope of tax behavior: A contribution to the construction of a TAX Compliance Inventory. Italian Journal of Psychology].
- Berti, C., & Kirchler, E. (2001). Contributi e contribuenti: Una ricerca sulle rappresentazioni del sistema fiscale. *Giornale Italiano di Psicologia*, 28, 595–607 [Contributors and contributions: A study on representations on the tax system. Italian Journal of Psychology].
- Bordignon, M., & Zanardi, A. (1997). Tax evasion in Italy. *Giornale degli Economisti e Annali di Economia*. Bocconi University, 56, 169–210 [Journal of Economists and annals of economy].
- Braithwaite, V. (2003). Dancing with tax authorities: Motivational postures and non-compliant actions. In V. Braithwaite (Ed.), *Taxing democracy. Understanding tax avoidance and tax evasion*. Aldershot, UK: Ashgate.
- Brosio, G., Cassone, A., & Ricciuti, R. (2002). Tax evasion across Italy: Rational noncompliance or inadequate civic concern? *Public Choice*, 112, 259–273.
- Byrne, B. M. (2001). *Structural equation modeling with Amos: Basic concepts, applications, and programming*. Mahwah, NJ: Erlbaum.
- Cialdini, R. B. (1996). The triple tumor structure of organizational behavior. In D. M. Messick & A. E. Tenbrunsel (Eds.), *Codes of conduct* (pp. 44–58). New York: Sage.
- Davis, R. N. (1999). Web-based administration of a personality questionnaire: Comparison with traditional methods. *Behavior Research Methods*, 31(4), 572–577.
- Feld, L. P., & Frey, B. S. (2002a). *The tax authority and the taxpayer: Exploratory analysis*. Working Paper.
- Feld, L. P., & Frey, B. S. (2002b). Trust breeds trust: How taxpayers are treated. IEW – Working Papers iewwp098, Institute for Empirical Research in Economics – University of Zurich.
- Feld, L. P., & Schneider, F. (2010). Survey on the shadow economy and undeclared earnings in OECD countries. *German Economic Review*, 11, 109–149.
- Fiorio, C. V., & Zanardi, A. (2007). "It's a lute but let it stay" How tax evasion is perceived across Italy" UNIMI – Research Papers in Economics, Business, and Statistics 1048. University of Milano.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading: Addison-Wesley.
- Fortin, B., Lacroix, G., & Villeval, M.-C. (2007). Tax evasion and social interactions. *Journal of Public Economics*, 91, 2089–2112.
- French, J., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp. 150–167). Ann Arbor: University of Michigan.
- Gangl, K., Hofmann, E., Pollai, M., & Kirchler, E. (2012). *The dynamics of power and trust in the "Slippery Slope Framework" and its impact on the tax climate*. SSRN working paper. <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2024946>. Retrieved 06.12 from SSRN.
- Gneezy, U., & Rustichini, A. (2000). A fine is a price. *Journal of Legal Studies*, 29, 1–17.
- Hessing, D. J., Elffers, H., & Weigel, R. H. (1988). Exploring the limits of self-reports and reasoned action: An investigation of the psychology of tax evasion behavior. *Journal of Personality and Social Psychology*, 54(3), 405–413. <http://www.professionefinanza.com/viwe_archivio.php?id=3096>. Retrieved 21.05.11.
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge: Cambridge University Press.
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance. The "Slippery Slope" framework. *Journal of Economic Psychology*, 29, 210–225.
- Kirchler, E., Muehlbacher, S., Kastlunger, B., & Wahl, I. (2010). Why pay taxes? A review of tax compliance decisions. In J. Alm, J. Martinez-Vazquez, & B. Torgler (Eds.), *Developing alternative frameworks for explaining tax compliance* (pp. 15–31). Abingdon, Oxon: Routledge.
- Kirchler, E., & Wahl, I. (2010). Tax compliance inventory TAX-I: Designing an inventory for surveys of tax compliance. *Journal of Economic Psychology*, 31, 331–346.
- Lewis, A., Carrera, S., Cullis, J., & Jones, P. (2009). Individual, cognitive and cultural differences in tax compliance. UK and Italy compared. *Journal of Economic Psychology*, 30, 431–445.
- Lisi, G. (2011). Job search theory and the slippery slope framework: An attempt to integration. No. 2011–02, Working Papers, University of Cassino, Department of Economic Sciences.
- Muehlbacher, S., & Kirchler, E. (2010). Tax compliance by trust and power of authorities. *International Economic Journal*, 24, 607–610.
- Mulder, L. B., van Dijk, E., De Cremer, D., & Wilke, H. A. M. (2006). Undermining trust and cooperation: The paradox of sanctioning systems in social dilemmas. *Journal of Experimental Social Psychology*, 42, 147–162.
- Noyes, J. M., & Garland, K. J. (2008). Computer- vs. paper-based tasks: Are they equivalent? *Ergonomics*, 51, 1352–1375.
- Prinz, A., Muehlbacher, S., & Kirchler, E. (2010). *The slippery slope framework: An attempt to formalization*. Working Paper: University of Vienna.
- Raven, B. H., Schwarzwald, J., & Koslowsky, M. (1998). Conceptualizing and measuring a power/interaction model of interpersonal influence. *Journal of Applied Social Psychology*, 28, 307–332.
- Schneider, F. (2005). Shadow economies around the world: What do we really know? *European Journal of Political Economy*, 21, 598–642.
- Sheffrin, S. M., & Triest, R. K. (1992). Can brute deterrence backfire? Perceptions and attitudes in taxpayer compliance. In J. Slemrod (Ed.), *Why people pay taxes: Tax compliance and enforcement* (pp. 193–222). Ann Arbor: University of Michigan Press.

- Sigala, M., Burgoyne, C. B., & Webley, P. (1999). Tax communication and social influence. Evidence from a British sample. *Journal of Community and Applied Social Psychology*, 9, 237–241.
- Srinivasan, T. N. (1973). Tax evasion: A model. *Journal of Public Economics*, 2, 339–346.
- Suhling, S., Löbmann, R., & Greve, W. (2005). Zur Messung von Strafeinstellungen. *Zeitschrift für Sozialpsychologie*, 36(4), 203–213.
- Turner, J. C. (2005). Explaining the nature of power: A three-process theory. *European Journal of Social Psychology*, 35, 1–22.
- Tyler, T. R. (2006). *Why people obey the law*. Princeton, USA: Princeton University Press.
- Van Dijke, M., & Verboon, P. (2010). Trust in authorities as a boundary condition to procedural fairness effects on tax compliance. *Journal of Economic Psychology*, 31, 80–91.
- Verboon, P., & van Dijke, M. (2011). When do severe sanctions enhance compliance? The role of procedural fairness. *Journal of Economic Psychology*, 32, 120–130.
- Wahl, I., Kastlunger, B., & Kirchler, E. (2010). Trust in authorities and power to enforce tax compliance. An empirical analysis of the “Slippery Slope Framework”. *Law & Policy*, 32, 383–406.