

# Taxpayers' Motivations Relating to Tax Compliance: Evidence from Two Representative Samples of Austrian and Dutch Self-Employed Taxpayers

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## Abstract

Tax compliance is assumed to be shaped by three main motivations to comply: enforced, voluntary, and committed motivation. Taxpayers, who hold an enforced motivation to comply, only pay taxes because of audits and fines for non-compliance. Voluntary motivated taxpayers respect the law and pay taxes because it is the easiest option. Committed motivation represents an intrinsic motivation, whereby taxpayers feel a moral obligation and responsibility to be honest. However, little and inconsistent empirical research exists on the relationship between motivations and tax compliance. The present paper empirically examines the connection between motivations and reported tax compliance based on data from two representative samples of 500 self-employed Austrian taxpayers and 1,377 Dutch entrepreneurs. Results show that an enforced motivation is negatively related to tax compliance, whereas a committed motivation is positively related to compliance. Contrary to expectations, voluntary motivation is not related to tax compliance. Based on the present outcomes it is suggested that tax authorities should present themselves as legitimate and benevolent in order to decrease enforced motivations and to foster committed motivations and subsequent high tax compliance.

## INTRODUCTION

Taxpayers differ in their motivation to pay taxes (Braithwaite, 2003a; Kirchler, Hoelzl, & Wahl, 2008). Whereas some might be motivated to pay taxes because of audits and severe fines, others might pay taxes because they feel a moral obligation to contribute their fair share. Theoretically, it is assumed that these different motivations also determine differences in tax compliance (Braithwaite, 2003a; Kirchler et al., 2008; Kirchler, Kogler, & Muehlbacher, 2014). Taxpayers with dismissive motivations are expected to see it as less important to pay taxes correctly than taxpayers who are morally motivated to comply with the tax law (Braithwaite, Murphy, & Reinhart, 2007). However, little empirical research has been conducted on the relationship between motivation and tax compliance and in addition, this research is contradictory (Hartner, Rechberger, Kirchler, & Schabmann, 2008; Kirchler & Wahl, 2010).

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Consequently, it cannot be determined if and how tax authorities should respond to taxpayers' motivations. The present paper sheds light on the relationship between motivations and reported tax compliance by examining data of two representative samples of self-employed taxpayers in order to determine the relevance of taxpayers' motivations for tax authorities' policies.

The slippery slope framework originally differentiated between enforced and voluntary motivation (Kirchler, 2007; Kirchler et al., 2008) and after an extension, now distinguishes between three different qualities of tax compliance motivations defined as enforced, voluntary and committed motivation (Gangl, Hofmann, & Kirchler, 2015). This categorization corresponds to research on general psychological reactions towards influence differentiating between compliance, identification, and internalization (Kelman, 2006). Enforced, voluntary, and committed motivation could be seen as representing a continuum between the two broad angles of extrinsic and intrinsic motivation (Feld & Frey, 2007; Frey & Jegen, 2001; Ryan & Deci, 2000). Extrinsic motivation emphasizes outcomes of behavior, e.g., working for pay, whereas intrinsic motivation reflects an inherent interest in the actual activity, e.g., working because of curiosity (Ryan & Deci, 2000). Generally, it is assumed that tax compliance motivations develop within individuals based on their experiences, attitudes, and feelings towards taxpaying and the tax authority (Braithwaite, 2003a; Kirchler, 2007). This implies that tax authorities, through their activity, may also influence and change taxpayers' motivations (Feld & Frey, 2002; Gangl et al., 2015; Kirchler et al., 2008). In the following, the three main motivations of tax compliance are presented according to the slippery slope framework (Gangl et al., 2015).

### **Motivations of tax compliance**

Enforced motivation is based on the deterrent effect of audits and fines (Kirchler, 2007; Kirchler et al., 2008). Taxpayers holding an enforced motivation only pay taxes when they fear audits and fines and therefore think there is no alternative to compliance. Such a motivation is related to the broader concept of extrinsic motivation (Ryan & Deci, 2000). Taxpayers comply because it leads to a comparatively better financial outcome than non-compliance, i.e., not being fined (Ryan & Deci, 2000). Enforced motivated taxpayers feel a large social distance between themselves and the tax authorities and the state (Braithwaite, 2003a). Consequently, enforced motivated taxpayers likely have negative attitudes and feelings towards paying taxes (Kirchler, 1998). They may even condemn the tax collecting state as a thief (Sloterdijk, 2010). The state and its tax authorities are perceived as taking money in terms of taxes from taxpayers with the help of coercion and force (Kirchler et al., 2008).

Voluntary motivation to pay taxes is based on positive reciprocity (Gangl et al., 2015; Kelman, 2006). The tax law is respected and tax authorities are perceived as service providers who should assist taxpayers to comply with the law. Taxpayers in turn reciprocate and are voluntarily motivated to pay their taxes without the need of enforcement. However, the voluntary motivation does not represent a true intrinsic motivation to be compliant (Ryan & Deci, 2000). Taxpayers do not value the tax system itself, they rather accept its necessity, give in and capitulate (Braithwaite, 2003a). Voluntary motivation reflects a view that taxpayers are

compliant because of the law and because of tax authorities who collect taxes within a professional bureaucratic system. Taxes are paid voluntarily because this is easier than to evade them (Gangl et al., 2015). Nonetheless, voluntary motivated taxpayers are interested in engaging in tax avoidance and in reducing their tax payments within the legal framework.

Committed motivation is an intrinsic motivation to be tax compliant (Feld & Frey, 2002; Gangl et al., 2015; Kelman, 2006). Tax compliance is internalized and seen as a moral obligation. Tax authorities are perceived to share the same values as the citizens and the way taxes are collected and spent is appreciated. Taxpayers feel committed to the tax system and have the feeling that they actively contribute to societies' well-being. Committed taxpayers do not need explicit rules and strict bureaucracy, because they follow the spirit of the law and not just the letter of the law (Gangl et al., 2015). For committed taxpayers honest taxpaying is seen as a natural and automatic activity.

### **Relationship of tax motivations to tax compliance**

The different qualities of taxpayers' motivations are assumed to be related to different types of tax compliance (Braithwaite, 2003a; Kirchler et al., 2008). Tax compliance can be defined as the opinion that one should cooperate with tax authorities and that it is important to pay taxes honestly and in time (OECD, 2001). Taxpayers with an enforced and dismissive motivation are assumed to be not tax compliant. They feel it is not important to cooperate with the tax authorities, to pay taxes honestly or in time. In contrast, voluntarily motivated and committed taxpayers in particular want to pay taxes honestly and thus, should show high tax compliance (Braithwaite, 2003a; Gangl et al., 2015). Survey studies in different countries showed that taxpayers differ in their reported motivations to pay taxes (Braithwaite et al., 2007; Muehlbacher, Kirchler, & Schwarzenberger, 2011). However, little empirical research exists that relates different motivations of taxpayers to tax compliance (Hartner et al., 2008; Kirchler & Wahl, 2010). Moreover, research has inconsistent results. A survey study among 300 self-employed Austrian taxpayers indicated that both voluntary and committed motivations are positively related to tax compliance. No relation between enforced motivation and tax compliance was found (Kirchler & Wahl, 2010). In contrast, in two survey studies, conducted among more than 2,000 Australian citizens, enforced motivations assessed as defiance motivations towards tax paying were negatively related to tax compliance whereas committed motivations were not associated with tax compliance (Hartner et al., 2008). Hence, it is neither clear whether enforced, voluntary, and committed motivations are at all related to tax compliance nor which of these motivations might have negative or positive connections to the willingness to comply with tax obligations.

Insights into the relation between tax motivations and tax compliance have a high practical relevance for tax authorities. If the exact relation between motivations and tax compliance is known, tax authorities could apply their strategies in a more efficient and tailored way, as suggested by the responsive regulation theory (Braithwaite, 2003b) and the slippery slope framework (Kirchler et al., 2008). The responsive regulation theory argues that taxpayers should be treated differently by tax authorities depending on their motivation, i.e., applying audits and fines for

enforced motivated taxpayers and assistance and respect for voluntary and committed motivated taxpayers (Braithwaite, 2003b). As most taxpayers are assumed to be voluntarily and committed motivated, tax authorities' major task is to be perceived as service-oriented and respectful (Braithwaite, 2003a). The slippery slope framework claims that tax authorities should apply a specific mix of coercive power and legitimate power to reduce enforced and to enhance voluntary and committed motivations among taxpayers (Gangl et al., 2015; Hofmann, Gangl, Kirchler, & Stark, 2014; Kirchler et al., 2008). However, as it is not clear whether motivations are at all relevant for tax compliance, it cannot be determined whether tax authorities should respond to motivations or should influence motivations of taxpayers.

The aim of the present study is to examine the relation between different motivations to pay taxes and tax compliance. We seek to gain robust results by conducting two studies in countries, which are similar concerning tax compliance measured by the extent of the shadow-economy (Buehn & Schneider, 2012). Further, to gain results with high external validity we used representative samples of self-employed taxpayers. In contrast to employed taxpayers whose taxes are often deducted by the employers, self-employed taxpayers have to provide all relevant information themselves. Hence, they are more experienced regarding tax paying and have more opportunities to engage in tax avoidance and tax evasion than employed taxpayers (Antonides & Robben, 1995). We assessed motivations towards taxpaying with two different methods. In Study 1, we examine the relationship between enforced motivation, voluntary motivation, committed motivation and tax compliance in a representative sample of 500 self-employed Austrian taxpayers. In Study 2, we confirm results of Study 1 in a representative sample of 1,377 Dutch entrepreneurs by using the variables "Something is taken from me" as a proxy for enforced motivation, "I give up something" as a proxy for voluntary motivation and "I contribute something" as a proxy for committed motivation.

## **STUDY 1**

### **Sample**

The sample consisted of 500 self-employed taxpayers representative for the Austrian population of self-employed with respect to sex (49.9% women) and age ( $M = 44.46$ ,  $SD = 10.55$ ). Table 1 presents a detailed description of the sample concerning socio-demographic characteristics.

### **Procedure and material**

A market research agency sent out an online questionnaire to self-employed Austrians who received 1.50 EUR (approximately 2 US-Dollar) for participation. The questionnaire consisted of several scales on tax-related issues. Four of them are used in the present paper: tax compliance intention, enforced compliance, voluntary cooperation, and committed cooperation. Tax compliance intention was assessed with the average of answers to six questions from Gangl et al. (2013) following the OECD (2001) definition of tax compliance (e.g., "To what extent do you think it is important that the Tax Administration receives correct and

complete tax returns?"; 1 = very important, 7 = absolutely not important; Cronbach  $\alpha = .77$ ,  $M = 5.44$ ,  $SD = 1.11$ ). Scales to measure tax motivations were adapted from Hofmann et al. (2014). Enforced compliance was assessed with the average of answers to four items ("When I pay taxes, I do so because a great many tax audits are carried out," "When I pay taxes, I do so because I know I will be audited," "When I pay taxes, I do so because the tax authority often carries out audits," "When I pay taxes, I do so because I feel forced to pay my taxes"; Cronbach  $\alpha = .87$ ). Voluntary cooperation was also assessed with the average of answers to four items ("When I pay taxes, I do so because the tax authority will probably reciprocate my cooperation," "When I pay taxes, I do so because the tax authority treats me correctly as long as I admit mistakes," "When I pay taxes, I do so because the tax authority supports taxpayers who make unintentional mistakes," "When I pay taxes, I do so, because it is easier than to deceive the tax authority"; Cronbach  $\alpha = .79$ ). Finally, committed cooperation was assessed with four items ("When I pay taxes, I do so because it is the right thing to do," "When I pay taxes, I do so because it is ultimately in everyone's interest," "When I pay taxes, I do so because I feel a moral obligation to pay taxes," "When I pay taxes, I do so, because it is an important civic duty"; Cronbach  $\alpha = .92$ ;  $M = 5.04$ ,  $SD = 1.56$ ). All questions on tax motivations were assessed on seven-point Likert scales with labeled endpoints 1 (I totally disagree) and 7 (I totally agree).

**Table 1: The relation between motivations and compliance intention in the Austrian sample**

	$f/M(SD)$	Block 1	Block 2	$r$
		$\beta$	$\beta$	
Female	49.0%	0.11*	0.10*	0.08
Age	44.46 (10.55)	0.19***	0.16***	0.18***
Low education	2.6%	-0.02	-0.02	-0.04
Medium education	66.8%	0.04	0.04	0.02
0- 25,000 Euro turnover	35.6%	0.00	0.03	0.02
25,001– 50,000 Euro turnover	26.2%	-0.01	-0.00	0.01
50,001 – 100,000 Euro turnover	15.0%	0.00	-0.01	0.01
100,000 – 1,000,000 Euro turnover	18.0%	-0.05	-0.06	-0.04
1-4 employees	19.2%	0.05	0.05	0.02
5-49 employees	5.2%	0.02	0.02	-0.01
50 < employees	0.4%	-0.07	-0.04	-0.09
Information technology	10.6%	0.01	0.00	-0.04
Tourism	7.0%	-0.03	-0.01	-0.04
Creative industries	6.4%	0.02	0.01	0.01
Education	5.8%	0.10*	0.08*	0.10*
Financial services	5.6%	0.06	0.10	0.06
Consulting & engineering	3.2%	-0.01	-0.04	-0.01
Enforced motivation	3.83 (1.61)		-0.13***	-0.15**
Voluntary motivation	3.56 (1.43)		0.04	0.05
Committed motivation	5.04 (1.56)		0.47***	0.48***
$R^2$		0.07	0.31	
$\Delta R^2$			0.23***	
$F$		2.18**	10.55***	
$\Delta F$			53.91***	
Max. VIF		6.06	6.06	

Note: Reference groups: male, high education, turnover of more than 1 million Euro, no employees, other sectors;  $f$  = frequency,  $M$  = mean,  $SD$  = standard deviation,  $r$  = Spearman or Pearson correlation;  $\Delta R^2$  and  $\Delta F$  refer to a change in  $R^2$  and  $F$  statistics; max. VIF refers to the largest variance inflation factor; asterisks denote significance at the 0.1% (\*\*\*) , 1% (\*\*), and 5% (\*) level.

## Results

To examine the relation between personal motivations and tax compliance intention an OLS regression analysis was conducted. In a first step, we included socio-demographic characteristics of entrepreneurs as control variables (Block 1) into the regression model and in a second step, enforced motivation, voluntary motivation, and committed motivation (Block 2) to explain the tax compliance intention from motivations. Results in Table 1 show that enforced compliance was associated with lower tax compliance intentions whereas committed cooperation was related to higher tax compliance intentions. Voluntary cooperation was not related to tax compliance intentions.

## STUDY 2

### Sample

The sample consisted of 1,377 entrepreneurs representative of the Dutch population of entrepreneurs with respect to sex (31.7% woman), age ( $M = 48.67$ ,  $SD = 11.22$ ), number of employees, and startups versus existing companies. A detailed sample description can be found in Table 2 and in Gangl et al. (2013).

### Procedure and material

Within the Dutch Fiscal Monitor 2010, mostly conducted via online questionnaires, entrepreneurs were asked to indicate their motivation to pay taxes ("Which describes your personal feeling about paying taxes best?") by choosing one of three statements: "Something is taken from me" (15.9%), "I give up something" (46.6%), and "I contribute something" (37.5%). Tax compliance intention was assessed with the same six items as in Study 1 except that a five-point Likert scale (1 = very unimportant, 5 = very important) was used ( $M = 4.07$ ,  $SD = 0.60$ ). This tax compliance scale was used in a previously published study (Gangl et al., 2013), where detailed descriptions of the scale can be found. Sex, age, education, turn-over, number of employees, and sector were included as socio-demographics (Table 2).

## Results

To examine the relation between personal motivations and tax compliance intention an OLS regression analysis was conducted. In a first step, we included socio-demographic characteristics of entrepreneurs as control variables (Block 1) into the regression model and in a second step the motivations to pay taxes (Block 2) to predict the tax compliance intention by motivations. Results in Table 2 show, similar to Study 1, that an enforced motivation measured with the feeling "Something is taken from me" was negatively related to tax compliance intentions. Likewise, the feeling "I contribute something" as a proxy for committed cooperation was positively related to tax compliance intentions.

**Table 2: The relation between motivations and tax compliance intention in the Dutch sample**

	<i>f</i> / <i>M</i> ( <i>SD</i> )	Block 1	Block 2	<i>r</i>
		$\beta$	$\beta$	
Female	31.7%	.01	0.01	-0.01
Age	48.67 (11.22)	0.06*	0.02	0.06*
Low education	7.6%	-0.00	0.01	-0.01
Medium education	41.8%	-0.02	-0.00	-0.04
0- 25,000 euro turnover	28.5%	-0.07	-0.07	-0.01
25,001– 50,000 Euro turnover	11.3%	-0.04	-0.04	0.00
50,001 – 100,000 Euro turnover	12.1%	-0.03	-0.04	0.01
100,000 – 1,000,000 Euro turnover	29.6%	-0.08*	-0.08*	-0.04
1-4 employees	26.4%	-0.19*	-0.16 <sup>+</sup>	0.01
5-49 employees	19.1%	-0.15 <sup>+</sup>	-0.13	-0.01
50 < employees	2.7%	-0.16*	-0.14*	-0.02
Financial services	26.9%	0.07*	0.07*	0.09**
Retail	26.9%	0.01	0.01	0.01
Health care	7.0%	0-.01	-.01	-0.01
Construction	6.4%	-0.03	-0.03	-0.03
Agriculture	4.9%	-0.08**	-0.08**	-0.10***
Something is taken from me	15.9%		-0.11***	-0.15***
I contribute something	37.5%		0.09**	0.14***
$R^2$		0.03	0.05	
$\Delta R^2$			0.03	
<i>F</i>		2.38**	4.14***	
$\Delta F$			17.77***	
<i>Max. VIF</i>		12.10	12.11	

Note: Reference groups: male, high education, turnover of more than 1 million, no employees, other sectors, I give up something; *f* = frequency, *M* = mean, *SD* = standard deviation, *r* = Spearman or Pearson correlation;  $\Delta R^2$  and  $\Delta F$  refer to a change in  $R^2$  and *F* statistics; max. VIF refers to the largest variance inflation factor; asterisks denote significance at the 0.1% (\*\*\*), 1% (\*\*), 5% (\*), and 10% (†) level.

## DISCUSSION

The present paper shows that different motivations to pay taxes correspond to different levels of reported tax compliance. As predicted, negative feelings related to dismissive and enforced motivations seem to correspond to lower tax compliance than positive feelings related to committed motivations (Braithwaite, 2009; Braithwaite & Braithwaite, 2001; Kirchler et al., 2008). In contrast with existing studies (Hartner et al., 2008; Kirchler & Wahl, 2010), the present outcomes suggest that both enforced and committed motivations relate to tax compliance, the former in a negative and the latter in a positive way. Voluntary motivation was unrelated to tax compliance. Therefore, the present paper suggests that enforced and committed motivations play an important role for tax decisions and should be considered by tax authorities.

As expected, taxpayers holding an enforced motivation to pay taxes also report being less tax compliant (Braithwaite, 2003a; Kirchler et al., 2008). They seem to pay taxes only if they are forced to do so. The present results on voluntary motivation and tax compliance suggest that the relation between voluntary motivation and tax compliance could be two-fold. Voluntary motivation might lead to both positive and negative correlations with tax compliance which in turn mutually dissolve each other. Voluntary motivated taxpayers may pay taxes

according to the law but at the same time try to utilize legal tax holes if possible. Hence, overall there might be no connection between voluntary motivation and tax compliance. Committed motivation as an intrinsic acceptance of taxpaying and a felt responsibility seems to be the only motivational force which increases tax compliance in the present study. This outcome suggests that initiatives which reduce enforced motivations and foster committed motivation seem to be important factors to enhance tax compliance.

The present result extends previous theoretical and empirical findings. As predicted by the responsive regulation theory, taxpayers holding an enforced motivation likely need more audits and fines to pay taxes than voluntarily, or committed motivated taxpayers (Braithwaite, 2003b). As assumed by the slippery slope framework, it seems a worthwhile strategy of tax authorities to change motivations in order to increase tax compliance (Gangl et al., 2015; Kirchler et al., 2008). Experiments indicate that severe audits and fines which are perceived as applied by illegitimate and unfair authorities produce enforced motivations whereas audits and fines which are applied by legitimate, fair and trusted tax authorities lead to voluntary motivations (Hartl, Hofmann, Gangl, Hartner-Tiefentahler, & Kirchler, 2015; Hofmann, Hartl, Gangl, Hartner-Tiefentahler, & Kirchler, 2014; Kirchler & Wahl, 2010; Verboon & van Dijke, 2011). Thus, the present results strengthen the assumptions of previous research and suggest that tax authorities should react to different motivations with tailored enforcement programs and should apply strategies in such a way that voluntary and especially committed motivations are enhanced.

To change taxpayers' motivations, the slippery slope framework suggests application of a tailored mix of coercive power (i.e., audits and fines) and legitimate power (i.e., fair procedures, information services, etc.). Tax authorities should apply coercive audits and fines in a legitimate and fair way to enforced motivated taxpayers in order to change their motivation into voluntary motivation (Hofmann, Gangl, et al., 2014). Tax authorities should avoid coercive audits and fines for voluntary and committed motivated taxpayers and should focus on legitimate services procedures to maintain and foster the positive motivations of these taxpayers. Examples of initiatives which foster committed motivations are fair procedures of tax collection and tax spending, enhanced service initiatives (telephone hotlines, websites, etc.), communication strategies presenting public goods such as schools which are financed with tax money, and the establishment of trust-based relationships with taxpayers (Alm & Torgler, 2011; Gangl et al., 2015; Gangl et al., 2013). In the enhanced relationship program of the OECD (2013), tax authorities dispense with auditing taxpayers going back for several years. Instead, they try to resolve and settle uncertainties on tax issues immediately when taxpayers ask for advice. On the other hand, taxpayers agree to fully disclose their tax files and to sign a voluntary contract of fair play in which they agree to refrain from aggressive tax planning (OECD, 2013). This enhanced relationship involves trust, which can be harmed. However, it pays off in lower costs of auditing for tax authorities and importantly in enhanced planning reliability for taxpayers. As a consequence, taxpayers are assumed to feel respected as honest taxpayers and gain trust towards the tax authorities (Gangl et al., 2015). Thereby, taxpayers are assumed to develop a committed motivation to



pay taxes, which means a felt responsibility to be tax compliant. The present results provide evidence for these assumptions.

The present paper has limitations. The present results only apply to developed countries with relatively high rates of tax compliance. To confirm and expand the generalizability of the present results, future studies should investigate the relationship between motivations and tax compliance in developed countries with relatively low rates of tax compliance. The explained variance of tax compliance differs in the Austrian and in the Dutch study. A reason for this difference might be the different way in which motivations were assessed. In the Austrian study seven-point Likert scales were used for each motivation whereas participants in the Dutch study had to choose between one of the three motivations. However, the direction of results is the same in both studies and the different measures applied to assess motivations also indicate that motivations have a robust relationship to tax compliance.

Based on two studies on representative samples the present paper indicates that the distinction between different motivations to pay taxes seems to be a relevant factor for tax compliance. Tax authorities can be recommended to avoid actions which produce an enforced motivation and to foster initiatives which enhance a committed motivation to pay taxes in order to increase the number of citizens that comply.

## REFERENCES

- Alm, J., & Torgler, B. (2011). Do ethics matter? Tax compliance and morality. *Journal of Business Ethics*, 101, 635-651.
- Antonides, G., & Robben, H. (1995). True positives and false alarms in the detection of tax evasion. *Journal of Economic Psychology*, 16(4), 617-640.
- Braithwaite, V. (2003a). Dancing with tax authorities: Motivational postures and non-compliance actors. In V. Braithwaite (Ed.), *Taxing Democracy* (pp. 15-39). Hants, UK: Ashgate.
- Braithwaite, V. (2003b). A new approach to tax compliance. In V. Braithwaite (Ed.), *Taxing democracy. Understanding tax avoidance and tax evasion* (pp. 1-11). Hants, UK: Ashgate.
- Braithwaite, V. (2009). The expression and management of motivational postures. In V. Braithwaite (Ed.), *Defiance in taxation and governance: Resisting and dismissing authority in a democracy* (pp. 60-100). Cheltenham, UK: Edward Elgar.
- Braithwaite, V., & Braithwaite, J. (2001). An evolving compliance model for tax enforcement. In N. Shover & J. P. Wright (Eds.), *Crimes of privilege: Readings in white collar crime* (pp. 405-419). New York: Oxford University Press.
- Braithwaite, V., Murphy, K., & Reinhart, M. (2007). Taxation threat, motivational postures, and responsive regulation. *Law & Policy*, 29(1), 137-158.
- Buehn, A., & Schneider, F. (2012). Shadow economies around the world: Novel insights, accepted knowledge, and new estimates. *International Tax Public Finance*, 19, 139-171.
- Feld, L. P., & Frey, B. S. (2002). Trust breeds trust: How taxpayers are treated. *Economics of Governance*, 3(2), 87-99.
- Feld, L. P., & Frey, B. S. (2007). Tax compliance as the result of a psychological tax contract: The role of incentives and responsive regulation. *Law & Policy*, 29(1), 102-120.
- Frey, B. S., & Jegen, R. (2001). Motivation crowding theory. *Journal of Economic Surveys*, 15(5), 589-611.
- Gangl, K., Hofmann, E., & Kirchler, E. (2015). Tax authorities' interaction with taxpayers: A conception of compliance in social dilemmas by power and trust. *New Ideas in Psychology*, 37, 13-23.
- Gangl, K., Muehlbacher, S., de Groot, M., Goslinga, S., Hofmann, E., Kogler, C., Kirchler, E. (2013). "How can I help you? Perceived service orientation of tax authorities and tax compliance". *FinanzArchiv*, 69(4), 487-510.
- Hartl, B., Hofmann, E., Gangl, K., Hartner-Tiefenthaler, M., & Kirchler, E. (2015). Does the description of a tax authority affect tax evasion? – The impact of displayed coercive and legitimate power. *PLOS ONE*, 10(4): e0123355.
- Hartner, M., Rechberger, S., Kirchler, E., & Schabmann, A. (2008). Procedural fairness and tax compliance. *Economic Analysis & Policy*, 38.
- Hofmann, E., Gangl, K., Kirchler, E., & Stark, J. (2014). Enhancing tax compliance through coercive and legitimate power of authorities by concurrently diminishing or facilitating trust in tax authorities. *Law & Policy*, 36, 290-313.

- Hofmann, E., Hartl, B., Gangl, K., Hartner-Tiefentahler, M., & Kirchler, E. (2014). *Steuerehrlichkeit durch strenge Strafen oder hilfreiche Unterstützung? Die Auswirkung von coerciver und legitimer Macht auf psychologische Prozesse zur Kooperation [Tax compliance through strict penalties or helpful support? The impact of coercive and legitimate power on psychological processes of cooperation.]*. Paper presented at the 11. Tagung Österreichische Gesellschaft für Psychologie (Conference of the Austrian Association of Psychology.), Vienna, Austria.
- Kelman, C. H. (2006). Interests, relationships, identities: Three central issues for individuals and groups in negotiating their social environment. *Annual Review of Psychology*, 57, 1-26.
- Kirchler, E. (1998). Differential representations of taxes: Analysis of free associations and judgments of five employment groups. *Journal of Socio-Economics*, 27(1), 117-131.
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. 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., Kogler, C., & Muehlbacher, S. (2014). Cooperative tax compliance: From deterrence to deference. *Current Directions in Psychological Science*, 23, 87-92.
- 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.
- Muehlbacher, S., Kirchler, E., & Schwarzenberger, H. (2011). Voluntary versus enforced tax compliance: Empirical evidence for the "slippery slope" framework. *European Journal of Law and Economics*, 32(1), 89-97.
- OECD. (2001). *General administrative principles - GAP004 compliance measurement*. Tax guidance series. Retrieved from <http://www.oecd.org/dataoecd/36/1/1908448.pdf>
- OECD. (2013). Co-operative compliance: A Framework. From enhanced relationship to co-operative compliance.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67.
- Sloterdijk, P. (2010). *Die nehmende Hand und die gebende Seite*. [The grasping hand.]. Berlin: Suhrkamp.
- Verboon, P., & van Dijke, M. (2011). When do severe sanctions enhance compliance? The role of procedural fairness. *Journal of Economic Psychology*, 32(1), 120-130.