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## ABSTRACT

Tax compliance decisions have attracted researchers' interest at least since the 1970s. Especially individual income tax decisions have been investigated from different perspectives. While early models explaining tax decisions and behaviour stem from economists and focus on factors such as audit probability, tax rates and fines, more recent research looks at this phenomenon from a psychological perspective. The Slippery Slope Framework (SSF) was developed in order to integrate findings on tax compliance behaviour from both disciplines. The framework summarizes the factors influencing tax compliance decisions by individual taxpayers along two dimensions: trust in tax authorities and power of tax authorities. A large body of literature confirms the main effects of these two factors on tax compliance. However, the dynamic interaction between trust and power of the authorities has been found to be more complex than assumed in the original framework. The goal of this review is to summarize the empirical evidence for the SSF, to analyse the dynamics between trust and power, and to identify knowledge gaps for further research.

## 5.1 THE BEGINNING OF THE SSF

The SSF (Kirchler, 2007; Kirchler, Hoelzl & Wahl, 2008) is a comprehensive frame that maps the field of tax compliance research and incorporates findings both from psychology and from economics. The SSF focusses on the interaction between taxpayers and tax authorities and allows for conclusions about the effects of the different interaction styles on compliance behaviours of taxpayers. In short, the SSF postulates that taxpayers comply either voluntarily or because they feel enforced to do so. The two different compliance motivations are strongly related to the interaction style between tax authorities and taxpayers, which can either be characterized by a cops-and-robbers mentality or shaped by the fact that the tax authorities are viewed as service providers and taxpayers as their customers.

The question what makes people pay their taxes according to the law has occupied researchers from different disciplines at least since the 1970s. The first model developed in order to explain tax compliance behaviour was the standard economic model by Allingham and Sandmo (1972) and Srinivasan (1973). The authors assume that compliance decisions are made strategically and depend on audit probability, fine rate and tax rate. When the expected payoff is larger for evasion than for compliance, individuals are expected to evade taxes. However, observed tax compliance levels are commonly much higher than what one would expect according to the standard economic model of income tax evasion, since audit probabilities in most countries are rather small (Andreoni, Erard & Feinstein, 1998).

While the traditional economic approach towards tax compliance assumes that taxpayers have the inherent predisposition to evade taxes, the Australian Taxation Office Compliance Model illustrates that a majority of the population is willing to pay their taxes voluntarily and only smaller proportions of the population try to resist the law or are completely disengaged from it (Braithwaite, 2003). The tax authorities need to establish a psychological contract with the taxpayers, which ensures cooperation and is based on transparent and fair political procedures that regulate tax collections and the provision of public goods (Feld & Frey, 2007).

Ensuring high compliance levels by the means of strong enforcement measures, such as frequent audits and strict fines bears high costs for the state. Some estimates yield to enforcement costs of approximately 5% to 10% of tax revenues (Yitzhaki & Vakneen, 1989). Finding ways to promote voluntary tax compliance by the citizens that does not rely on a strong enforcement machinery is therefore of great interest for governments.

Tax compliance decisions have been investigated from various perspectives. Early research has focussed on economic factors. Higher audit probabilities and stricter fines are postulated to lead to higher compliance rates. Findings on audit probabilities show weak positive effects on tax compliance (Slemrod, Blumenthal & Christian, 2001). However, results are inconsistent (e.g. Friedland, 1982; Spicer & Thomas, 1982). It can be assumed that subjective audit probabilities are of higher importance than the actual objective probabilities (Andreoni et al., 1998). As for audit rates studies investigating the influence of fines also show inconsistent results. Fine rates are predicted to have a positive influence on tax compliance (Allingham & Sandmo, 1972). Some studies can confirm this relationship (e.g. Park & Hyun, 2003); in other studies results are less clear (e.g. Friedland, 1982).

A large body of research informs us about the effects of psychological factors such as fairness perceptions, subjective knowledge about taxes and social norms on tax compliance behaviour. Research shows for example that lower complexity of the tax law and increased subjective tax knowledge are positively related to tax compliance (Kirchler & Maciejovsky, 2001; Park & Hyun, 2003). Furthermore, measures that increase procedural fairness and acceptance of tax laws such as direct democracy have been shown to influence compliance levels positively (Feld

& Kirchgassner, 2000). A number of studies have focussed on the role of social norms about taxes. Social norms in favour of tax compliance are positively related to tax compliance behaviour (Wenzel, 2005). In an experimental study, Alm and colleagues (Alm, McClelland & Schulze, 1999) were able to show that participants developed a strong social norm to comply with tax regulations that lead to the voluntary acceptance of stricter enforcement measures, by being able to communicate with each other.

The SSF is built on the large body of research, which is exemplified by the findings outlined above. By incorporating conclusions from economics and psychology, the framework provides a comprehensive overview of tax compliance research and allows for conclusions about tax compliance behaviour by individual taxpayers. Tax compliance behaviour is believed to be influenced by the two dimensions of trust and power. While a trustful relationship between taxpayers and tax authorities, based on services and respectful treatment, promotes voluntary tax compliance, the conventional approach of power exertion fosters compliance based on enforcement. This review aims at compiling empirical evidence for the proposed model, shedding light at the dynamic interaction between the two dimensions of trust and power and identifying research gaps that need further investigation.

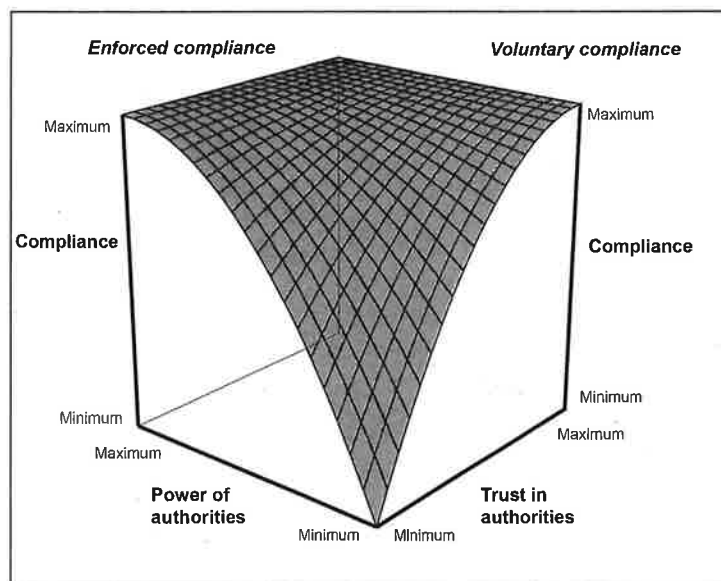
The following section introduces the components of the SSF and explains the assumptions of the model regarding the influence of its factors on tax compliance decisions.

## 5.2 THE COMPONENTS OF THE SSF

The SSF summarizes the factors that influence tax compliance behaviour along two dimensions: trust in the tax authorities and power of the tax authorities. The characterization of a state along these two dimensions determines the prevailing climate between tax authorities and taxpayers. The tax climate can vary on a continuum between an antagonistic climate, characterized by a cops-and-robbers mentality, and a synergistic climate, characterized by mutual trust and the provision of services by the tax authorities and cooperation with the taxpayers. In a state that relies mainly on enforcement measures such as frequent audits and strict fines, an antagonistic climate will most likely dominate. In such an environment taxpayers feel enforced to comply with the tax regulations. On the other hand, in a state that regards taxpayers as partners and focusses on cooperation by making procedures transparent and compliance easy, a synergistic climate is likely to be prevalent and taxpayers are more likely to cooperate voluntarily with the tax authorities. In a state that is neither perceived to have great enforcement capacities, nor to be particularly trustworthy, compliance levels are assumed to be low.

The label 'slippery slope framework' was coined by Henk Elffers at a conference organized by the Netherlands Tax and Customs Administration.<sup>1</sup> The term slippery slope stems from the assumption that compliance levels in a three-dimensional space, spanned by the dimensions trust, power and compliance, describe a flat that reaches its highest point when trust and power are at their maximum value and drops sharply when both dimensions are characterized by decreasing values at the same time (see Figure 5.1).

Figure 5.1 The slippery slope framework (adapted from Kirchler, 2007).



The power dimension refers to the tax authority's perceived capacity to detect and punish tax evasion correctly. Apart from the economic factors audit probability and fines, this dimension also comprises subjective perceptions of enforcement capacities, which are related to subjective tax knowledge and attitudes towards taxes. Social norms also influence how the enforcement capacities of the authorities are perceived by the taxpayers. Communication about tax audits for example influences compliance behaviour of uninvolved taxpayers (Alm, Jackson & McKee, 2009).

Trust refers to the general belief of the citizens that the tax authorities are benevolent and are associated with general positive evaluations. Tax authorities are trustworthy, when they are believed to work for the common good. A general

1. Managing and maintaining compliance conference organized by the Belastingdienst.

definition of trust comprises the components competence, benevolence and integrity (Mayer, Davis & Schoorman, 1995). Tax authorities are perceived as integer when there is no corruption and procedures are transparent and fair. Participation of the citizens in decision processes, for instance through direct democracy, has a positive impact on the trustworthiness of the authorities and therefore influences tax compliance positively (Feld & Kirchgassner, 2000). Subjective tax knowledge is also positively related to trust in the authorities. Research in an experimental setting could show that uncertainty about tax regulations decreases tax compliance (Alm, 2014). Furthermore, the trust dimension is related to social norms about taxes that influence how tax evasion is perceived by citizens. In a society in which tax evasion is considered a serious crime that is not socially accepted, trust in the tax authorities is more likely to be high.

The trust and power dimension are dynamically related to each other. Perceived trustworthiness of the tax authorities can support enforcement measures by enhancing their acceptance. Also, the observation that wrongdoers are punished might enhance trust among honest taxpayers, as they feel protected from free riders. On the other hand, the exertion of power can easily undermine trust in the authorities when it is perceived as unfair or randomly applied to compliant and non-compliant citizens. If trust in the authorities is already impaired, further enforcement measures are easily perceived as arbitrary and will create further distrust.

The relationship between trust, power and compliance levels is depicted in Figure 5.1. Compliance levels are plotted on the vertical axis, while levels of power of the authorities are plotted on the left-hand side horizontal axis and trust in the authorities is plotted on the right-hand side horizontal axis. As depicted by the flat, spanned by these three dimensions, compliance levels are highest when either power or trust or both dimensions are expressed at their maximum. Depending on the levels of trust and power, compliance motivations move on a continuum between enforced compliance and voluntary compliance.

### 5.2.1 The Extension of the SSF

The original formulation of the SSF remains silent on the specific dynamics between the trust and power dimensions. It says that the two dimensions influence each other but does not clarify in which specific circumstances they reinforce or degrade each other. An extension of the SSF was developed in order to better explain the dynamic interaction between trust and power (Gangl, Hofmann & Kirchler, 2015; Hofmann, Gangl, Kirchler & Stark, 2014).

The authors argue that the unclear effects of power on trust may be explained by different conceptualizations of power. They propose to distinguish between coercive power and legitimate power, referring to the basis of power by French & Raven (1959). Furthermore, they suggest differentiating between two different

forms of trust, namely reason-based trust and implicit trust (Castelfranchi & Falcone, 2010).

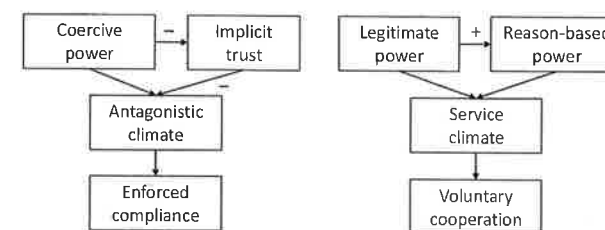
Power in general is commonly defined by the perceived capacity of a party to influence another party's behaviour (e.g. French & Raven, 1959). A widely acknowledged classification of forms of power by French and Raven (1959) differentiates between six different bases of social power. They can be sorted into two categories, namely harsh and soft forms of power. Harsh forms of power include coercive power and reward power and are referred to as coercive power in the framework. Coercive power is based on compulsion and works through monetary, physical, social or psychological costs that result from wrongdoing. In the context of taxation, monetary fines, imprisonment or public shaming are examples for exertion of coercive power. Soft forms of power include information power, expert power, legitimate power and referent power. They are referred to as legitimate power in the framework and are facilitated by the provision of information, identification of the citizens with the authorities, social norms, perceived expertise of the authorities, transparency and democratic participation. In the presence of legitimate power citizens defer to laws voluntarily, because they feel obligated to do so (Tyler, 1997). Coercive and legitimate power are regarded as two independent factors in the current framework, therefore they do not necessarily exclude each other, but can exist in combination.

Trust is defined as the acceptance to be vulnerable to the actions of another party (Lewis & Weigert, 1985). We accept this vulnerability because we expect the outcome to be positive. These expectations can be formed on different bases that lead to two different qualities of trust that are distinguished in the extension of the SSF. One can either trust, because of rational reasons to believe that the trustee (the person who is trusted) will perform for our benefit. Dependency of the trustee on the trustor (the person who trusts) can be such a rational reason (Castelfranchi & Falcone, 2010). The evaluation of internal factors of the trustee such as competence, harmlessness and the willingness to cooperate are further reasons to build trust (Castelfranchi & Falcone, 2010). This form of trust is referred to as reason-based trust. In contrast, implicit trust is formed automatically through affective processes (Castelfranchi & Falcone, 2010). Implicit trust is evoked by associations that are built on the basis of positive experiences with the trustee. Additionally, the perception that one is similar to the trustee or holds the same values can enhance implicit trust formation.

Taxpayers may develop reason-based trust towards the tax authorities based on the perception that they are competent and work for the common good. Implicit trust on the other hand may be evoked by a warm and customer friendly presentation of the tax authorities, such as well-designed brochures and friendly customer services. In the long run, reason-based trust can develop into implicit trust based on repeated positive experiences and habit.

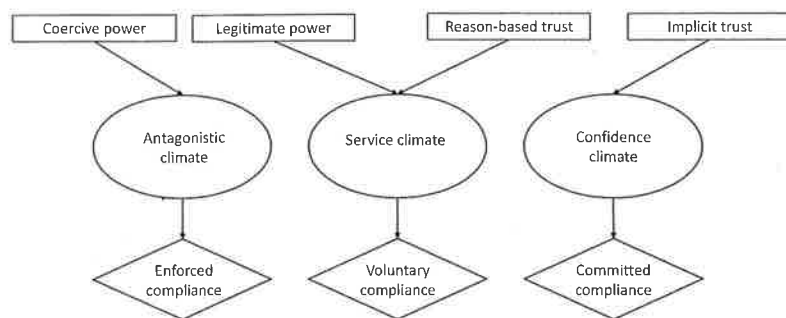
The distinction between the two forms of power and trust shall contribute to a better understanding of the dynamic interplay between trust and power in the SSF. This extension of the SSF was first mentioned in a paper by Hofmann et al. (2014). The dynamic interactions between the different forms of power and trust were further explained in a theoretical paper by Gangl et al. (2015). The model postulates that coercive power and implicit trust influence each other negatively, while legitimate power and reason-based trust enhance each other. The authors argue that perceptions of coercive measures erode implicit trust, because they foster negative experiences with the tax authorities. On the other hand, in the presence of implicit trust towards the tax authorities, enforcement measures might be perceived as misplaced and unnecessary. Legitimate power and reason-based trust however, are suggested to work closely together. Legitimacy perceptions are based on transparent procedures, beliefs that the authorities are competent and work for the common good. These factors are also sources of reason-based trust. The assumed relations between forms of trust and power are depicted in Figure 5.2.

Figure 5.2 The impact of coercive and legitimate power on trust, and their influence on the interaction climate and compliance according to the extension of the SSF (adapted from Hofmann et al., 2014).



Building on this theory the authors then further extended the original version of the SSF, which distinguishes only between an antagonistic and a synergistic climate, by separating the synergistic climate into two forms, namely the service and confidence climate (Gangl, Hofmann, & Kirchler, 2015, see Figure 5.3). As in the original version of the framework, coercive measures are believed to lead to an antagonistic climate in which taxpayers show enforced compliance. Legitimate power in combination with reason-based trust, is argued to lead to a service climate in which taxpayers comply voluntarily. Additionally, the authors describe a confidence climate, which is characterized by implicit trust and leads to committed cooperation.

Figure 5.3 Dynamics between power and trust affecting climates of cooperation and motivations to comply (adapted from Gangl et al., 2015).



While these theoretical considerations add to the understanding of the dynamics between trust and power, the empirical evidence presented in the next section shows that the distinction between the employed concepts such as legitimate power and trust is to some degree artificial and difficult to apply in practice. Practical implications are discussed in the last section.

### 5.3 EMPIRICAL EVIDENCE FOR THE SSF

Tax compliance behaviour is a phenomenon that is difficult for scientific research to grasp. Due to the sensitivity of the topic, actual compliance data is rarely accessible. And even in cases where researchers have access to the data of taxation offices, it lies in the nature of tax evasion that these cases often remain in the dark. Nevertheless, various methods have been developed to study tax compliance decisions of individuals which will be outlined in the following.

Laboratory studies are employed to mimic the situation of a taxpayer and observe compliance decisions. Decisions in these kinds of studies are usually incentivized in order to reduce social desirability effects in the artificial laboratory setting. The basic experimental procedure includes several rounds of a tax game, which is played in an anonymous environment on a laboratory computer. Each round represents a taxation period and begins with the earning of an income. This income can be a lump sum payment or might be influenced by the participants by their success in some kind of effort task. The tax game proceeds with the payment of required taxes. In some experiments participants can only decide to be either fully compliant or to fully evade income tax, in other experiments participants can decide on the specific sum of their tax payments. In most studies participants are informed about the audit probability and fine rates in the beginning of the experiment. However, experiments differ with regard to the timing of when they receive feedback whether they have been audited or not in a specific round. In some

experiments participants receive this information only at the end of the experiment and in others after each round. In this setting various experimental manipulations can be employed in order to study specific aspects of the compliance decision. In experimental studies that aim at testing the assumptions of the SSF, participants are randomly assigned to one or more experimental conditions, which correspond to the different combinations of trust and power characteristics of a state.

In each condition participants read a scenario that describes the characteristics of the state that they shall imagine to live, work and pay taxes in. Furthermore, the experimental setting in the laboratory allows also for the assessment of neurobiological data. In an experimental study using scenarios as described above, Gangl and colleagues additionally measured event-related potentials of the participants while they were making tax compliance decisions (Gangl, Pfabigan, Lamm, Kirchler & Hofmann, 2017). The results suggest that the presence of legitimate power of the authorities is related to higher cognitive demand during the compliance decision, due to greater decision conflict as compared to the presence of coercive power.

Scenarios that describe the characteristics of an imaginary country have also been employed in many survey studies either in paper-pencil format or online (Hofmann et al., 2014; Kaplanoglou, Rapanos & Daskalakis, 2016; Kogler et al., 2013; Lemoine & Roland-Lévy, 2013; Wahl, Kastlunger & Kirchler, 2010). As in the laboratory studies, participants are randomly assigned to one out of several conditions in which different versions of a scenario are presented. Different scenarios describing imaginary countries have been developed. In the scenario that describes the country Varosia, the factors trust and power are manipulated. In the high power condition, for example, the country is described as effectively pursuing tax evaders and that severe fines are to be expected. Tax audits are carried out frequently and the government is perceived to be very powerful. In the high-trust condition, Varosia is described as a country with democratic elections in which the government has a good reputation. The tax burden is distributed equitably among different occupation groups and the tax authorities offer qualified services in order to support taxpayers with their duties (Wahl et al., 2010).

The scenarios describing the countries Chomland and Tovland are developed to test the assumptions of the extended SSF. In these scenarios, the factors legitimate and coercive power are manipulated. In the version of high legitimate and high coercive power, for instance, the tax authorities of Chomland are described to carry out frequent tax audits and to employ strict enforcement measures such as high penalties for evasion. Taxpayers feel enforced to comply with the law. Furthermore, the tax authorities are described as being experts and offering professional advice (Hartl, Hofmann, Gangl, Hartner-Tiefenthaler & Kirchler, 2015).

In survey studies, these scenarios are combined with questions on tax compliance intentions. According to the theory of reasoned action (Ajzen & Fishbein, 1977), behavioural intentions are strongly related to behavioural outcomes, and

therefore a good approximation when we cannot observe the actual behaviour of interest, as it is the case for tax compliance behaviour. Tax compliance intentions are best assessed with the Tax Inventory (TAX-I, Kirchler & Wahl, 2010), a validated and highly reliable scale developed to differentiate between voluntary and enforced compliance intentions as well to assess motivations to avoid or evade taxes.

Studies that investigate the assumptions of the SSF with the scenario method are summarized in Table 5.1.

Table 5.1 Studies investigating the assumptions of the SSF with the scenario method

Study	Sample	Format	Independent Variable (Manipulation)	Effects of Trust on...				Effects of Power on...				Main finding
				C	VC	EC	C	VC	EC	C		
(Wahl et al., 2010)	N=120 Students Austria	Computer, Monetary incentive, Between-subject	Trust (low/high) Power (low/high)	0	+	-	+	0	0	+		Support for the SSF. Voluntary compliance is highest when authorities are trustworthy and powerful.
(Kogler et al., 2013)	N=127 Self-employed	Varosia Online Questionnaire, No incentive, Between-subject	Trust (low/high) Power (low/high)	+	+	-	+	0	0	+		Confirmation of the results from study one with self-employed taxpayers. Additionally, older participants indicated higher intentions to comply than younger participants.
(Kogler et al., 2013)	N=1,350 Students Austria (329) Hungary (280)	Varosia Paper-pencil, No incentive, Between-subject	Trust (low/high) Power (low/high)	+	+	-	+	0	0	+		Support for the SSF. The results indicate a main effect of the factor country, with tax compliance intentions being highest in Hungary and lowest in Russia. A significant interaction between trust and power indicates that com-





Study	Sample	Format	Independent Variable (Manipulation)	Effects of Trust				Effects of Power				Main finding	
				C	VC	EC	C	VC	EC	C	VC		EC
		Between-subject											
		<b>Chomland</b>											
	N=120 Students <b>Austria</b>	Computer Experiment, monetary incentive, Within-subject	Coercive Power (low/high)				CP: +						Tax payments are highest in the high coercive power condition compared to low coercive power.
	N=130 Students <b>Austria</b>	Computer Experiment, monetary incentive, Within-subject	Legitimate Power (low/high)				LP: +						Tax payments are highest in the high legitimate power condition compared to the low coercive power condition.
	N=368 Students <b>Austria</b>	Computer Experiment, monetary incentive, Within-subject	Coercive Power (low/high)				CP: + LP: +						Tax payments were lowest in the condition of low coercive and low legitimate power and highest when both power qualities were described as high.

Study	Sample	Format	Independent Variable (Manipulation)	Effects of Trust				Effects of Power				Main finding	
				C	VC	EC	C	VC	EC	C	VC		EC
		within-subject	Legitimate Power (low/high)										
		<b>Vari</b>											
(Kaplanoglou & Rapanos, 2015)	N=320 Students <b>Greece</b>	Paper-pencil, No incentive, Between-subject	Trust (low/high) Power (low/high)				+ 0						Support for the SSF. Trust is main driver of voluntary compliance while high power lowers voluntary compliance. Power is the main driver of enforced compliance.
		<b>Etiopia (Variosia)</b>											SSF verified to large extend. Trust is main driver of voluntary compliance while power is the main driver of enforced compliance. The main effect of power is positive only under conditions of high trust.
(Kaplanoglou et al., 2016)	N=542 Employees of SME <b>Greece</b>	Paper-pencil, No incentive, Between-subject	Trust (low/high) Power (low/high)				+ 0						Perceived change from coercive power (CP) to legitimate power (LP) leads to less voluntary cooperation. LP has a negative effect on enforced compliance and reactance is particularly strong after change from CP to LP. The change between
(Gangl et al., 2017)	N=80 <b>Austria</b>	Computer Experiment, monetary incentive, Within-subject	Coercive Power (low/high) Legitimate Power (low/high)				LP > CP LP > CP						LP > CP LP > CP



Study	Sample	Format	Independent Variable (Manipulation)	Effects of Trust on...				Effects of Power on...				Main finding
				C	VC	EC	C	VC	EC	C	VC	
	N=78 Austria	Computer Experiment, monetary incentive, Within-subject	Coercive Power (low/high) Legitimate Power (low/high)	0	LP > CP	CP > LP	0	LP > CP	CP > LP	+	+	LP and CP is the most important factor affecting enforced compliance and reactance. LP leads to slightly higher tax payments than CP. Confirmed most results from study one. LP leads to heightened cognitive control and disrupted attention processing compared to CP.
	N=120 Students Austria	Computer Experiment, monetary incentive, Between-subject	Coercive Power (low/high)	+	0	+	+	0	+	+	+	Coercive power (CP) has a negative impact on implicit trust and initiates an antagonistic climate and enforced compliance. Coercive power does not affect reason-based trust, service climate or voluntary compliance. High levels of legitimate power (LP) have a positive effect on reason-based trust, perception of service climate and voluntary cooperation.
(Hofmann, Hartl, Gangl, Hartner-Tiefenthaler & Kirchler, 2017)	N=130 Students Austria	Computer Experiment,	Legitimate Power (low/high)	+	+	+	+	+	+	+	+	

Study	Sample	Format	Independent Variable (Manipulation)	Effects of Trust on...				Effects of Power on...				Main finding
				C	VC	EC	C	VC	EC	C	VC	
	N=368 Students Austria	Computer Experiment, monetary incentive, Between-subject	Coercive Power (high/low) Legitimate Power (high/low)	CP: + LP: +	CP: 0 LP: +	CP: + LP: 0	CP: + LP: +	CP: 0 LP: +	CP: + LP: 0	+	+	High levels of LP increase perception of coercive power and enforced compliance, while the perception of an antagonistic climate are decreased. In the presence of high CP and LP at the same time an antagonistic climate and enforced compliance are prevalent. Higher LP induces reason-based trust, service climate and voluntary cooperation, while it decreases the antagonistic climate. The effect of LP on tax honesty intention is mediated by reason-based trust. CP impacts antagonistic climate and enforced compliance. LP has a positive impact on reason-based trust, perceptions of a service climate and voluntary cooperation. LP reduces the antagonistic climate.
	N=102 Students Austria	Online Experiment on Insurance organization, course credit incentive,	Coercive Power (high/low) Legitimate Power (high/low)	CP: 0 LP: +	CP: 0 LP: +	CP: 0 LP: 0	CP: 0 LP: +	CP: 0 LP: +	CP: + LP: 0	+	+	

Study	Sample	Format	Independent Variable (Manipulation)	Effects of Trust on...		Effects of Power on...		Main finding
				C	VC EC C	VC EC C		
Between-subject								

Note: The symbols + and – signify positive or negative effects that are significant on a 5% level of significance. Non-significant effects are indicated with 0.

Another method to investigate tax compliance decision-making and to test the assumptions of the SSF is to conduct cross-cultural survey studies. The World Value Survey (WVS) offers a rich source of data which measures a large variety of variables related to moral standards and personal values. The data set of the WVS also offers various variables that can be used as approximations for the factors relevant in the SSF. Ruiu and Lisi (2011), for instance, investigate the SSF by approximating tax evasion by the size of the shadow economy (available from Schneider & Buehn, 2009). Trust is measured by the WVS items assessing confidence in the government. Power is measured by the Kaufmann indicator for law enforcement that includes items assessing different aspects of the quality of enforcement measures taken by the state (Kaufmann, Kraay & Mastruzzi, 2004). A very rich cross-cultural data set has been collected in a large-scale study including data from 44 nations across five continents. The data show that while corruption indices and happiness scores differ significantly across countries, the effects of trust and power on compliance intentions are quite stable (Batrancea et al., in preparation; Olsen, Kogler, Kirchler, Batrancea & Nichita, in preparation).

In other survey studies researchers develop their own scales to assess perceptions of trust and power across different countries and combine these items with questions from the TAX-I to assess voluntary and enforced compliance intentions (e.g. Muehlbacher, Kirchler & Schwarzenberger, 2011). Survey studies investigating the assumptions of the SSF are summarized in Table 5.2.

In contrast to most experimental studies that are conducted in the laboratory, for survey studies it is much easier to recruit participants from the population of real taxpayers. Most experimental studies use student samples, due to availability. Some critics argue that students are not representative for the working population because they are younger, more educated and have little or no personal experience with paying taxes (Levitt & List, 2007). However, studies that compare results from experimental settings with student samples and results observed from real taxpayers find little differences (Alm, Bloomquist & Mckee, 2015).

Table 5.2 Survey studies investigating the assumptions of the SSF

Study	Sample	Independent variables	Other variables assessed	Dependent variable	Main effect of Trust	Main effect of Power	Main finding
(Fischer & Schneider, 2009)	N=83,000 From 73 different countries Data from the WVS	Trust: Individual's confidence in national government and national parliament Power: Government effectiveness, rule of law index	GDP, religion, region, education, age, trust in others, income, and marital status	Tax morale	+	+	Support for SSF Power and trust aggravate each other.
(Benk, Cakmak & Budak, 2011)	N=300 Self-employed taxpayers Turkey	Trust Power	Voluntary compliance Enforced compliance	Voluntary compliance Enforced compliance	+	0	Confirms the main assumptions of the SSF.
(Ruilu & Lisi, 2011)	N=46 Countries	Trust Power (proxy, i.e. law enforcement)	Tax morale, GDP per capita, religion, risk aversion, education level, employment status	Size of hidden economy	-	+	Support for SSF.
(Muehlbacher et al., 2011)	N=3,017 Taxpayers Austria, UK, and Czech Republic	Trust Power	Voluntary compliance Enforced compliance	Voluntary compliance Enforced compliance	+	+	Voluntary compliance depends on trust in authorities, enforced compliance on power attributed

Study	Sample	Independent variables	Other variables assessed	Dependent variable	Main effect of Trust	Main effect of Power	Main finding
(Lisi, 2012)	WVS data	Proxies for trust and power	GDP, tax morale	Size of hidden economy	-	-	Support for SSF.
(Gangl et al., 2013)	N=807 Private taxpayers N=1,377 Entrepreneurs Netherlands	Trust	Perceived service orientation, perceived audit probability, perceived severity of fines, personal norms, social norms, and societal norms	Tax compliance intentions	+		Perceived service orientation has a positive influence on tax compliance intentions, which is mediated by trustworthiness of authorities.
(Kastlunger, Lozza, Kirchner & Schabmann, 2013)	N=389 Self-employed taxpayers Italy	Trust Power: Coercive and legitimate	Voluntary compliance Enforced compliance	Voluntary compliance Enforced compliance	+	CP:- LP:+	Trust is positively related to voluntary compliance. Trust is positively related to legitimate power and voluntary compliance. Enforced compliance was shown

to tax authorities.  
Results show a positive interaction between trust and power.

Support for SSF.

Perceived service orientation has a positive influence on tax compliance intentions, which is mediated by trustworthiness of authorities.

Trust is positively related to voluntary compliance. Trust is positively related to legitimate power and voluntary compliance. Enforced compliance was shown

Study	Sample	Independent variables	Other variables assessed	Dependent variable	Main effect of Trust	Main effect of Power	Main finding
(Lozza, Kas-tlinger, Tagliabue & Kirchner, 2013)	N=272 Self-employed taxpayers Italy	<b>Trust</b> Power: Coercive and legitimate	Political preference	Voluntary compliance	+	CP: +	Left-wing taxpayers express higher voluntary compliance and express higher reactance to coercive power. Right-wing taxpayers express higher enforced compliance and are averse to trust.
(Niesiobędzka, 2014)	N=485 Taxpayers Poland	Institutional trust (in government, parliament, public administration, and tax administration)	Procedural fairness, tax scale, personal tax morale scale	Tax evasion	-		Procedural fairness affects trust and tax morale. Trust has a negative influence on tax evasion.
(Ali & Ahmad, 2014)	N=500 Young taxpayers Malaysia	<b>Trust</b> (in tax system, in tax authority)	Tax knowledge	Tax return intentions	+		Trust in tax authority has a positive influence on the tax return intention.

Study	Sample	Independent variables	Other variables assessed	Dependent variable	Main effect of Trust	Main effect of Power	Main finding
(Hauptman, Gürarda & Korez-Vide, 2015)	N=332 Taxpayers Slovenia	<b>Trust</b>	Social norms	Voluntary compliance	0		No consistent effects of trust on voluntary compliance were found.
(Mas'ud, Manaf & Saad, 2015)	N=37 Sub-Saharan countries	<b>Trust</b> (Corruption perception index) <b>Power</b> (rule of law)		Tax compliance	0	0	There is an association between trust, power and tax compliance, but there is no causing effect in Sub-Saharan countries.
(Kasper, Kogler & Kirchner, 2015)	N=487 Employees Austria	<b>Trust</b> <b>Power</b>		Intended tax compliance	+	+	Evidence of a link between trust, power, and tax compliance intentions in a real-world setting.
(Gobena & Van Dijke, 2016)	N=231 Business owners Ethiopia	<b>Trust</b> : Cognition-based and affect-based <b>Power</b> : Coercive and legitimate	Procedural justice, identification with the nation	Voluntary compliance Enforced compliance		GBT: + CP: +	Procedural justice associated with voluntary compliance when LP is low and CP is high. The positive effect of procedural justice on vol-

Study	Sample	Independent variables	Other variables assessed	Dependent variable	Main effect of		Main finding
					Trust	Power	
(Pukeliene & Kazemkaityte, 2016)	N=28 EU countries	Trust (government effectiveness) Power (role of law)	Economic development, VAT gap	Tax compliance (% of GDP)	+	+/-	untary compliance is mediated by cognition-based trust (CBT). The effect of CBT on voluntary compliance is moderated by LP. CP predicts enforced compliance.
(Gobena & Van Dijke, 2017)	N=217 Taxpayers Ethiopia	Trust	Procedural justice Identification with nation	Voluntary compliance Enforced compliance	0	0	The effect of different determinants varies greatly across countries. SSF determinants were found to have a significant impact on tax compliance. In a developing country, like Ethiopia, trust does not affect voluntary tax compliance.

Study	Sample	Independent variables	Other variables assessed	Dependent variable	Main effect of		Main finding
					Trust	Power	
(Tsikas, 2017)	N=200 Taxpayers U.S.	Trust	Procedural justice, identification with nation	Voluntary compliance Enforced compliance	+	-	In a developed country, like the US, trust affects voluntary and enforced tax compliance. Confirms the SSF on an aggregate level. Trust and power moderate each other, the lower trust, the greater is the positive influence of power on compliance.
	N=25 European countries Data from the WVS	Trust Power	GDP, unemployment, VAT full rate, and financial resources of tax administration	Tax compliance	+	+	

Note: The symbols + and - signify positive or negative effects that are significant on a 5% level of significance. Non-significant effects are indicated with 0.

Field studies are becoming more and more popular, especially in countries where the tax authorities actively seek cooperation with researchers as it is the case for example in some Scandinavian countries (Torgler, 2016). The advantage of field experiments is their high external validity. By collecting data from an experimental and a control group in a realistic setting, policy makers can directly evaluate the effectiveness of the employed measures. In a field experiment in Switzerland, Torgler (2013) sent out different kinds of letters in cooperation with the tax authorities to taxpayers in order to investigate the effects of moral suasion on compliance rates. Another field experiment conducted in Austria investigated the effect of early audits for newly founded firms (Gangl, Torgler, Kirchler & Hofmann, 2014). However, testing the assumptions of the SSF in a field experiment has not been attempted yet. It seems not feasible to manipulate the factors power of the tax authorities or trust in the authorities in a real-world setting and to randomly assign participants to one of the conditions. The assumptions about the effects of this kind of manipulation are too strong and the required changes in the administration too big to morally justify such an experiment. Therefore, field experiments have not yet been employed to verify the assumptions of the SSF.

A further method to investigate tax compliance decisions are simulation studies, generally conducted by economists (Hashimzade, Myles, Page & Rablen, 2014). Based on formalized models of the taxation environment (e.g. Prinz, Muehlbacher & Kirchler, 2014), the influence of certain factors is assessed by mathematically simulating the outcomes in accordance to change of single variables. Because in this review the focus lies on empirical results, we do not further elaborate on these kinds of studies.

#### 5.4 CONCLUSION FROM THE EMPIRICAL EVIDENCE

The assumptions of the SSF have been tested in a large range of studies with different methods and across a wide range of cultures across the world. Generally, the results presented above are in line with the predictions of the framework. Compliance rates are highest in situations with high power and trust. Societies that trust their tax authorities exhibit greater levels of voluntary compliance than those who rely on coercive measures. However, the results become more complicated when it comes to the interaction of trust and power.

Many studies have focussed on the effects of enforcement measures such as audits and fines. The standard economic approach to tax compliance behaviour assumes that enforcement is the most effective way to promote compliance, as it makes non-compliance unattractive. However, policy makers are interested to learn more about the size of the impact that can be expected from frequent audits and sanctions, because these measures are very costly.

Furthermore, regarding the effects of power, research has revealed a double-edged character of coercion (Gangl, Hofmann, Hartl & Kirchler, 2015). Audits, for

instance, can have backfiring effects when adopted too often (Mendoza, Wielhouwer & Kirchler, 2015). The authors argue that frequent audits might impair levels of voluntary compliance. A study conducted with real taxpayer data from the IRS in the US comes to similar results. While audits have a positive long-term impact on compliance for those who have been caught cheating, the group of taxpayers who has been audited but found to be compliant decreases their tax payments in subsequent years (Beer, Kasper, Kirchler & Erard, 2015). One explanation could be that the experience of coercion through the tax audit undermines their willingness to cooperate with the tax authorities. Mooijman and colleagues also come to this conclusion in their study on the effects of justifications of sanctions (Mooijman, van Dijk, van Dijk & Ellemers, 2016). They argue that the feeling of being distrusted by the authorities erodes the willingness to cooperate voluntarily.

On the other hand, the exertion of power can also enhance the feeling of trust in the authorities when taxpayers feel protected from free riders and perceive the authorities as competent. This double-edged nature of coercive power can be explained by the moderating influence of trust or perceived legitimacy of the authority. A study with self-employed taxpayers from Austria showed that there are inter-individual differences in how taxpayers perceive coercive power wielded by the authorities. For one group of individuals that perceive enforcement actions as legitimate, compliance is influenced positively. However, for another group of taxpayers, who perceive the enforcement measures as illegitimate, trust is undermined and voluntary compliance decreases (Gangl, Hofmann, Hartl, et al., 2015). These results suggest that perceived legitimacy or trust in the authorities moderates the effectiveness of coercive power. This paper also demonstrates the circumstance that subjective interpretations of actions taken by authorities are far more important than the objective strategy.

The moderating role of trust for the effectiveness of power in promoting cooperation could also be shown in a meta-analysis that includes data from 18 different societies (Balliet & Van Lange, 2013). In high-trust societies, non-cooperation is perceived as a violation of a social norm and punishment is accepted. In low-trust societies, punishment for non-cooperation might be perceived negatively, inducing anger and promoting retaliation. Also, in the context of procedural fairness, trust has been shown to be a necessary precondition for the development of voluntary cooperation (van Dijke & Verboon, 2010).

From these results we can conclude that coercive power must be wielded with caution in order to be perceived as legitimate by the taxpayers and be supported by trust as opposed to undermining trust and therefore voluntary compliance. The Australian Tax Office Model (Braithwaite, 2003) suggests that enforcement measures should be targeted at high-risk taxpayer groups, whereas the majority of taxpayers that is assumed to be committed to the tax law should be supported by services to make compliance easy. When coercive measures are applied randomly with a watering can, honest taxpayers feel treated like criminals and voluntary

cooperation is easily crowded out. However, when taxpayers believe that audits and fines are targeted at those who intentionally break the rules, they are more likely to feel safeguarded from free riders, and accept enforcement as a strategy to uphold social norms.

Throughout the discussion of the interaction effects between trust and power, it becomes clear that the concepts of trust and legitimate power are highly related to each other. The formulation of the extension of the SSF gives the impression that legitimate power and trust lie on two different dimensions. However, when we look at the definitions of trust and legitimacy, we see that it is difficult to sharply separate these two concepts. Legitimacy is defined as originating from two sources. The instrumental sources of legitimacy comprise outcome favourability and control, whereas relational sources of legitimacy comprise neutrality, trustworthiness and status recognition (Tyler, 1997). Tyler concludes that how one is treated by the authorities, the relational aspect of legitimacy, is more important than the instrumental aspects. According to Murphy (2004) trust in authorities depends on perceptions of procedural fairness, such as neutrality, respect, consultation and outcome favourability. Fair procedures seem to be an important precondition for both trust in the authorities and their perceived legitimacy. Procedures are perceived to be fair when citizens have an opportunity for voice and participation, when they are neutral and transparent, rules are applied consistently, rights are respected and citizens are treated with dignity and respect, and authorities are believed to follow trustworthy and benevolent motives (Tyler & De Cremer, 2005). Furthermore, the terms coercive and legitimate power suggest, that both are located on the power dimension and are independent from the trust dimension. Therefore, the conclusion that we can combine both forms of power with high- or low-trust conditions lies near. However, from the definition of legitimate, we see that legitimate power is not compatible with a low-trust environment and vice versa. It should be noted that trust and legitimate power are closely intertwined. Locating legitimate power on a different dimension from trust seems misleading.

The extension of the SSF predicts that in an environment of high-trust and legitimate power, coercive power will be unnecessary (Hofmann et al., 2014). However, the results from a survey study with self-employed taxpayers in Austria suggest that participants are not willing to trust an authority that wields no coercive power (Gangl, Hofmann, Hartl, et al., 2015), contradicting their theory. The results indicate that some form of power is needed in order for the authorities to be trusted. This finding is not surprising, since authorities without the means to enforce laws will be likely perceived as incompetent and not trustworthy. The assumption that coercive power is less effective or not relevant in the condition of high trust (Gangl, Hofmann, Hartl, et al., 2015), does not hold because the two dimensions interact dynamically and reinforce each other (Balliet & Van Lange, 2013).

The authors further argue that coercive power can erode trust when it is applied without competence, whereas it can strengthen trust when it is used com-

petently and in a targeted manner only against evaders. The distinction of these two cases are very similar to the definition of legitimacy. In other words, power when not legitimized, namely applied incompetently erodes trust, whereas power that is legitimately applied enhances trust.

#### 5.4.1 *Future Research*

In the extension of the SSF reason-based and implicit trust are distinguished (Hofmann et al., 2014). This distinction aims at capturing the underlying psychological processes that lead to certain compliance behaviours. Implicit trust, for instance is described as being affect-based and unconsciously influenced by former experiences. Further investigating the underlying psychological processes seems to be a promising approach to better understand individual tax compliance decisions. Evidence from research on the influence of procedural justice perceptions on compliance behaviour suggests that these processes are mediated by emotional responses to actions taken by authorities (Barkworth & Murphy, 2015; Murphy & Tyler, 2008). Some experimental studies have started to investigate the role of emotions in cooperation decisions (Coricelli, Rusconi & Villeval, 2014; Drouvelis & Grosskopf, 2016). However, this stream of research is still in its beginning and the influence of specific emotions on compliance decisions is yet to be investigated. Preliminary results from a study combining qualitative and quantitative methods with a representative sample of Austrian taxpayers indicate that specific emotional responses to interactions with the tax authorities play an important role in determining subsequent compliance decisions (Enachescu et al., in preparation).

The discussion of the interaction between trust and power indicates that especially coercive power can work in two directions. These effects might be supported by emotional responses. Strong coercive measures that are perceived as not transparent might induce fear or anger. On the other hand, taxpayers might feel safe and satisfied when perceived retributive fairness is high.

Another research gap that should be empirically addressed concerns the application of the framework in related fields. While the SSF was originally formulated based on findings concerning individual taxpayers and their interaction with the tax authorities, the question in how far these insights also apply to corporate taxpayers seems highly relevant regarding currently ongoing debates on international taxation, aggressive tax planning, and tax heavens. While the transfer of findings from the individual taxpayer to corporations still needs to be investigated, the OECD already refers to the socio-psychological findings presented above in their report on cooperative compliance strategies that mainly aim at fostering corporate tax compliance (OECD, 2013). Successful implementations of such cooperative compliance strategies that rely on mutual trust and transparency, suggest that the extension to corporate actors might be a promising path.



## 5.5 PRACTICAL IMPLICATIONS

The results from the research presented above demonstrate that enforcement alone does not suffice to promote and maintain high tax compliance levels. Research has shown that legitimacy and trust-building strategies are necessary in order to profit from the positive effects of coercion. Coercive power is a sensitive strategy as it can backfire and erode trust when unwisely applied. On the other hand, it can also enhance the trust in the authorities when applied with care, because taxpayers feel safeguarded against free riders and supports social norms.

As mentioned above, the OECD has acknowledged these findings and gives recommendations for policy makers that are summed up under the concept of cooperative compliance (OECD, 2013). In their report on cooperative compliance, the Forum on Tax Administration highlights the importance of increasing voluntary compliance in times of increased aggressive tax planning and global challenges, such as tax flight. Various cooperative compliance models are presented, such as the Horizontal Monitoring project in the Netherlands and in Austria, or the Compliance Assurance Process in the US to name just a few examples. These programmes have the aim in common to increase trust in the tax authorities and build a service climate in order to promote voluntary compliance. However, public perceptions of enforcement capacities of the tax authorities should not be underestimated. An evaluation of the first experiences with Horizontal Monitoring in Austria showed that caution is required. If the concept of Horizontal Monitoring and the goals of Horizontal Monitoring are not properly explained and understood by citizens, then the focus on cooperation and mutual trust-building strategies could be misperceived. Rather than interpreting Horizontal Monitoring as a paradigm that switches from command and control to mutual cooperation, mal-informed citizens might think of an invitation to corruption and sweet deals between taxpayers and tax authorities. This representation of Horizontal Monitoring would eventually erode trust in the tax authorities (Enachescu, Zieser, Hofmann & Kirchler, 2018). Hence, a balanced application of enforcement measures signalling protection from exploitative free riders, and the building of trustful mutual relationships, promoted by the provision of services and respectful fair interaction, are of paramount importance.

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## 6

## RESTORING TRUST IN THE 'FAIRNESS' OF CORPORATE TAXATION: INCREASED TRANSPARENCY AND THE NEED FOR INSTITUTIONAL REFORM

Judith Freedman\*

### ABSTRACT

This chapter examines the relationship between trust and transparency in the context of corporate taxation. It draws on the work of philosopher Professor Onora O'Neil to show that transparency will not always increase trust and might even undermine it. Sometimes this loss of trust will be deserved and might help to bring about change that is needed, but at other times transparency can lead to misunderstanding and inability to absorb or utilize the information that is being made available, with a consequential unjustified and unfortunate loss of trust. In such cases, increased transparency can actually lower tax morale and the willingness of taxpayers to pay their taxes voluntarily, with little or no corresponding benefit. The pressure for increased transparency to the public in the tax world arises largely from lack of trust not only in large multinational companies (MNCs) but also in governments, institutions generally and tax authorities in particular. It has become clear in recent years that bilateral tax treaties are inadequate to ensure that tax is collected in a way that the public (and many experts) perceive to be 'fair' and this has further undermined trust in the taxation of MNCs. This chapter argues that this widespread lack of trust in our tax system needs to be addressed through improved institutions and fundamental reform. There may be many views of what a 'fair' corporate tax would look like, and there should be public debate on this, but ultimately it is essential for trust to be restored in governments and tax authorities to design, impose and administer taxes on businesses in a way that the public perceive to be procedurally and administratively fair, whatever system is ultimately chosen for this purpose. It is institutional reform rather than increasingly detailed

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## PREFACE

On 2 and 3 October 2017, the Netherlands Tax and Customs Administration (NTCA) supported by several Dutch academics organized an international conference in Rotterdam, titled 'Tax and Trust'. The objective of this conference was to provide international researchers, international (tax) practitioners and higher management of tax administrations with the latest insights into (the concept of) trust in relation to taxation. The conference, however, focussed not solely on taxes but embraced a broader scientific perspective on the role of trust in government.

Societal trust in government declined with the onset of the global financial crisis in 2008. Although the economic recession that followed the crisis has ended in many countries, the level of trust is still low. As the OECD stated in its report *Trust and Public Policy, How Better Governance Can Help Rebuild Public Trust*, public trust is not something that comes naturally to government institutions and to tax administrations. It is crucial to realize that our day-to-day performance plays a key role in rebuilding public trust, by applying coherent strategies delivering public services and activities serving the needs and expectations of citizens.

A decade later, new challenges arise from digitalization and advanced technologies that have changed the world and the world of taxation. Trust in *institutions* such as a tax administration, in its *interaction* with citizens and its application of a variety of *instruments* is also key within this context. The contributions to the conference and this book provide insight into the backgrounds and context of these developments and challenges and point to ways to overcoming or dealing with them. As I express my thanks to the organizers of the conference, the contributors and the editors, I am confident that this book will inspire and help tax authorities to move forward in these challenging times.

Jaap Uijlenbroek

Director General of the NTCA