



Motivation or rationalisation? Causal relations between ethics, norms and tax compliance

Michael Wenzel *

Research School of Social Sciences, Australian National University, Canberra, ACT 0200, Australia

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Abstract

This study investigated whether tax ethics and social norms constitute true motivations for tax compliance, or whether they are mere rationalisations of self-interested behaviour. Cross-lagged panel analyses were applied to data from a two-wave survey with 1161 Australian citizens. First, results showed that tax ethics causally affected tax compliance and were affected by levels of compliance. Second, perceived social norms causally affected personally held tax ethics, but only for respondents who identified strongly with the respective group. At the same time, personal ethics were also projected onto the perceived normative beliefs of the social group. Third, perceived norms causally affected tax compliance, partly mediated by their effect on personal ethics. Conversely, tax compliance also affected the perception of norms. Overall, the study provides evidence for a complex role of individual ethics and social norms in tax-paying behaviour.

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* Tel.: +61 2 612 50537; fax: +61 2 612 58503.

E-mail address: michael.wenzel@anu.edu.au

1. Introduction

The dominant view in research and practice of tax administration is that tax compliance is largely a function of taxpayers' rational pursuit of their self-interests. From this perspective, taxes are costs for taxpayers that they try to avoid or reduce. Taxpayers are thus likely to evade tax unless the probability that their evasion is detected and the severity of the expected penalties render tax evasion an unattractive option. Therefore, it is assumed deterrence is the only means of generating compliance (Allingham & Sandmo, 1972; Cowell, 1985; see Andreoni, Erard, & Feinstein, 1998). However, this self-interest perspective to tax compliance has been criticised as being too narrow. Given the actual low rates of audit and rather mild penalties, it has been argued that deterrence cannot account for the generally high level of compliance (Alm, McClelland, & Schulze, 1992). More social motivations rather than mere selfishness, it is assumed, affect taxpaying behaviour, such as ethical concerns and social norms, perceptions of fairness and legitimacy (James, Hasseldine, Hite, & Toumi, 2001; see Tyler, 1990). Rather than just being extrinsically motivated by material incentives, intrinsic motivations largely determine tax compliance (see Carroll, 1987).

There is indeed empirical evidence suggesting that *tax ethics* – defined here as one's belief that there is a moral imperative that one should be honest in one's tax dealings – are related to taxpaying behaviour. However, most of the evidence stems from survey studies and is only of correlational nature (e.g., Grasmick & Bursik, 1990; Reckers, Sanders, & Roark, 1994; Sheffrin & Triest, 1992). It is therefore not clear from these studies whether tax ethics do causally affect taxpaying decisions, or whether they are mere justifications and neutralisations for otherwise self-interested, extrinsically motivated behaviour (see Thurman, St. John, & Riggs, 1984). The same is true for *social norms* which have usually been studied as the perceived prevalence or acceptance of tax evasion among a reference group (e.g., DeJuan, Lasheras, & Mayo, 1994; Porcano, 1988; Webley, Cole, & Eidjar, 2001); or as naturally varying between different cultural or subcultural groups (e.g., Alm, Sanchez, & DeJuan, 1995). In either case, the evidence is only of a correlational nature and we do not know whether social norms causally affect one's taxpaying behaviour or whether social norms are constructed so as to explain and justify the behaviour.

Of course, a methodology that would yield clearer evidence for the causal relation between tax ethics and compliance is the experimental approach. However, tax ethics and social norms are not easily manipulated experimentally. Laboratory experiments that provided evidence for the role of ethics often used rather indirect manipulations; their implications for ethical concerns are more presumed than evident (e.g., Alm, McClelland, & Schulze, 1999; Bosco & Mittone, 1997). In contrast, in a field-experimental study, Schwartz and Orleans (1967) used an implicit appeal to taxpayers' conscience and indeed found some effects on tax-reporting behaviour compared to control groups. Similarly, based on the assumption that perceived widespread acceptance of tax cheating (i.e., the social norm) could affect one's own tax compliance, I conducted a field-experiment that attempted to counteract or correct such a misperception of the norm (Wenzel, 2001a). The intervention was indeed successful in reducing actual deduction claims and thus presumably increasing compliance (see

also Blumenthal, Christian, & Slemrod, 2001; Coleman, 1997). However, the exact process and the causal mediating role of tax ethics could only be inferred, with some help from a questionnaire-based prestudy (Wenzel, 2001b). Also, experiments usually focus on one causal direction, but even supportive evidence does not rule out that the reverse causality can also be true.

The present study addresses the question of the causal role of tax ethics and social norms in taxpaying behaviour by adopting a different methodological approach; namely cross-lagged panel designs for longitudinal data (Kenny, 1979; Plewis, 1985). Cross-lagged designs require measurement of the same concepts at two different points in time. The presumed criterion variable measured at Time 2 is regressed onto the presumed predictor variable at Time 1, while controlling for Time 1 variation in the criterion variable. This way, it is estimated whether the predictor significantly explains change in the criterion variable from Time 1 to Time 2. Such an effect, it is assumed, indicates that the predictor causally affects the criterion variable (because the predictor precedes the change).

In this research, personal tax ethics and perceived social norms both refer to injunctive norms (Cialdini, Kallgren, & Reno, 1991), that is normative prescriptions regarding tax compliance or, conversely, the normative acceptability of noncompliance. While tax ethics refer to respondents' own personal beliefs about the normative appropriateness of tax compliance or noncompliance, social norms refer to their perceptions of what most other people believe is appropriate.

2. Ethics, norms and compliance

What is the causal role of tax ethics in taxpaying behaviour? Are ethics a causal determinant of compliance, or are they mere rationalisations for otherwise self-interested behaviour? And what about perceived social norms? Do they, internalised by taxpayers, causally affect their own tax ethics, or do taxpayers merely project their own views onto other people and construe social norms to support their own views? Moreover, do social norms affect tax compliance through a process of internalisation, or are they again construed so as to rationalise tax evasion after the fact?

These questions contrast the view of taxpayers as profit-maximising rational actors with the alternative view of taxpayers as moral/social actors. We will derive from these two perspectives a set of contrasting hypotheses. However, it should be noted that the differing causalities predicted in the alternative hypotheses are not mutually exclusive. Both causal directions can coexist, and each will be tested independently from the other.

First, it is clear that the moral/social actor perspective assumes that taxpayers base their taxpaying decisions on their moral and ethical beliefs:

H1(a) Taxpayer ethics have a causal impact on tax compliance.

In contrast, from a rational actor perspective, it could be argued that the maximisation of self-interest is the primary motivation for tax evasion and that

ethical views are only brought in line with one's behaviour after the fact, in order to rationalise and justify it, or – which would add a more social dimension to this view – in order to maintain cognitive consistency (Festinger, 1957). That is,

H1(b) Tax compliance has a causal impact on tax ethics.

If tax ethics have a causal effect on taxpaying behaviour, what is the position of the moral/social actor perspective on where these ethical views come from? Rather than being a construction of the individual mind (serving individual interests), the moral/social actor view assumes that ethics are largely a social product. They are based on the social norms of relevant reference groups. More specifically, it can be argued that, in a given context, people categorise themselves through a process of identification as a member of a social group, which they regard then as a relevant reference group whose prototypical views they regard as valid norms in the situation (Turner, 1991; Wenzel, 2004). Therefore, taxpayers can be expected to adopt the norms of a social group, internalise them and regard them as their own ethical views, if or when they identify with that group.

H2(a) Social norms have a causal impact on tax ethics, when taxpayers identify with the social group that is considered to hold the social norms.

In contrast, from an individualist rational actor perspective, it could be argued that perceived social norms are largely constructions of the individual to rationalise and support their own views. Such causality would correspond to what is known in social psychology as social projection or a false consensus effect (Ross, Greene, & House, 1977; see Marks & Miller, 1987). Taxpayers may generalise from their own personal views to the views of the larger group. The basis of the false consensus effect may be cognitive or motivational. People may project their views because they have little insight into the prevalent social norms, while they know very well about the ethical views of one exemplar of that group, namely themselves. Or, they may actively seek social support for their own views and thus be motivated to perceive the social norm as being consistent with their own view (Marks & Miller, 1987).

In this sense, the predicted causal effect of ethics on norms may not be so asocial after all. That is, people may project their own views onto others because they are concerned about appearing to be within the norm; and they may specifically seek support of the group with which they identify and which they regard as a reference group (Mullen, Dovidio, Johnson, & Copper, 1992). Thus, it could be the case that the predicted causal effect of personal ethics on social norms is more accentuated when people identify with the respective group.

H2(b) Personal tax ethics have a causal impact on the perception of social norms, when taxpayers identify with the social group to which the social norms are attributed.

Following the logic of the moral/social actor view, social norms should influence taxpaying behaviour, when they are internalised through a process of identification with the relevant social group (Wenzel, 2004). That is, perceived social norms will causally affect tax compliance when taxpayers identify with the group to which the norms are attributed. The casual effect will be mediated by the internalisation of social norms through which they become part of the taxpayer's own individual make-up. When the internalisation process is accounted for, that is, personal ethics are statistically controlled, the effect of social norms should disappear.

H3(a) (i) Social norms causally affect taxpayers' compliance levels, when taxpayers identify strongly with the relevant social group (and thus internalise the norms). (ii) The social norm effect will disappear when personal ethics are statistically controlled (thus accounting for the internalisation process).

In contrast, from the rational actor perspective, taxpayers may rationalise their own self-interested behaviour (noncompliance) by arguing that tax evasion is very common; that most people do it or endorse such behaviour to some extent. Therefore, if they evade tax they only do what everybody does; if they did otherwise they would carry everybody else's burden and would be taken advantage of (i.e., they would be a 'sucker', to use the term from social dilemma research).

H3(b) Tax compliance has a causal impact on the perception of social norms.

3. Method

3.1. Participants

The data were taken from a longitudinal survey of Australian citizens (Braithwaite, 2000, 2001). Respondents were first contacted in 2000 and asked to fill in a survey. The self-completion questionnaire was sent to a sample of 7754 Australian citizens drawn from the Australian electoral roll. Subtracting cases where the mail was returned to sender, addressees were deceased, etc., 7003 questionnaires were effectively sent out (for procedural details, see Mearns & Braithwaite, 2001). After repeated appeals for participation, 2040 respondents, or 29%, returned their questionnaires. Compared to census data, the sample proved broadly representative for the Australian population, but, as in most surveys, it tended to underrepresent people younger than 35, and to overrepresent people between 40 and 65 years of age as well as the better educated (Mearns & Braithwaite, 2001). The 2040 respondents were then contacted again in 2001/2002 and asked to fill in a follow-up survey. In total, 1161 respondents complied with this request and returned a usable questionnaire.

However, the compliance measures at Time 2 referred to the respondent's most recent tax return. For a truly longitudinal design, the financial year that respondents referred to at Time 2 should be different and later than the financial year 1998/1999 referred to at Time 1. Therefore, 125 respondents who indicated at Time 2 that their most recent tax return was for the financial year 1998/1999 or earlier were excluded from the analyses. (Respondents with missing values for this question, however, were maintained for the analyses.) This left a sample size of 1036.

Further, it should be noted that 206 respondents did not have valid data on any of the taxpaying measures at Time 1, and 183 respondents had no valid data for taxpaying measures at Time 2. In total, 299 cases were without valid data on the compliance measures for Time 1 or Time 2. To some extent respondents probably had not lodged a tax return in recent years (e.g., 86 out of the 183 at Time 2 failed to indicate when they last lodged a tax return). A large majority of these may not have been required to lodge a return or they left it to their partners. However, at Time 2 for instance, 97 cases (11%) out of 864 respondents who positively stated that they had lodged a return either for 2001/2002 or 2000/2001 did not provide valid answers to tax compliance questions. This rate of nonresponse is higher than for other dependent variables (around 1–3%) and suggests some reservations to answer openly question about tax compliance.

The listwise valid n thus varied between analyses, most importantly depending on whether compliance measures were included in the analysis or not. The participants in the overall valid sample ($N = 1036$) were between 18 and 88 years old ($Mdn = 49$); 49% were male, 51% were female.

3.2. Questionnaire

3.2.1. Tax compliance

A number of items with different response formats were used to measure three forms of tax noncompliance (see Wenzel, 2002, 2004). At Time 1, questions referred to the 1998/1999 tax return; at Time 2, questions referred to respondents' most recent tax return (which had to be 1999/2000 or later to be included in the data analysis). For each form of noncompliance, scores were transformed into dichotomous values (0 = *compliant*, 1 = *noncompliant*); these values were added across the three different forms to receive a total score of noncompliance (from 0 to 3). The final measure thus captured a respondent's self-reported number of noncompliant taxpaying behaviours (Time 1: $M = 0.34$; $S.D. = 0.61$; Time 2: $M = 0.28$; $S.D. = 0.57$). These behaviours were measured as follows:

Pay income. Two items measured whether or not respondents declared all their pay income. If respondents had a score of 0 for all of the following questions, they were defined as fully compliant (0); otherwise they were defined as not fully compliant or noncompliant (1): "As far as you know, did you report all the money you earned in your [1998–1999; most recent] income tax return?" (0 = *yes*, 1 = *no*); "Have you worked for cash-in-hand payments in the last 12 months? By cash-in-hand we mean cash money that tax is not paid on." (1 = *yes*, 2 = *no*, recoded into 1 and 0, respectively). At Time 1, 69 respondents (7.6%) indicated not having reported all their pay income; at Time 2, it was 63 (6.6%).

Nonpay income. Five items measured underreporting of nonpay income. “People earn income from many different sources, [...] Think about each of the sources of income listed below, and select the response that best describes your [1998–1999; most recent] income tax return” (1 = *received none*, 2 = *did not declare it*, 3 = *declared some*, 4 = *declared most*, 5 = *declared all*; recoded into 0, 1, 1, 1, and 0, respectively): (1) Eligible termination payments; (2) Australian government allowances like Youth Allowance, Austudy, Newstart; (3) Australian government pension, superannuation pensions, and other pensions and annuities; (4) Interest; (5) Dividends. If respondents had a score of 0 for all the above questions, they were defined as fully reporting their nonpay income and thus were deemed to be compliant (0); otherwise they were defined as not fully compliant or noncompliant (1). At Time 1, 58 respondents (6.7%) and, at Time 2, 50 respondents (5.7%) reported they had not declared all their nonpay income.

Deductions. Two questions addressed respondents’ deduction claims: “As far as you know, did you exaggerate the amount of deductions or rebates in your [1998–1999; most recent] income tax return?” (1 = *a lot*, 2 = *quite a bit*, 3 = *somewhat*, 4 = *a little*, 5 = *not at all*; recoded into 1, 1, 1, 1, and 0, respectively); “Think of the deductions and rebates you claimed in your [1998–1999; most recent] income tax return. Would you say you were ...” (1 = *...absolutely confident that they were all legitimate*, 2 = *a bit unsure about some of them*, 3 = *pretty unsure about quite a lot*, 4 = *haven’t a clue, someone else did it*; recoded into 0, 1, 1, and 1, respectively). If respondents had a score of 0 for both questions, they were defined as fully compliant (0); otherwise they were coded as not fully compliant or noncompliant (1). At Time 1, 168 respondents (18.7%) reported exaggerated deduction claims; at Time 2, it was 150 (16.0%) respondents.

3.2.2. Identification

At Time 1, two ratings measured identification with Australians, which should approximate the group to which the perceived social norms (see below) might be attributed: “Being a member of the Australian community is important to me”, and “I feel a sense of pride in being a member of the Australian community” (1 = *do not agree at all*, 7 = *agree completely*). The items were highly correlated ($r = 0.84$) and scores were averaged to obtain a measure of social identification. It should be noted that the measure was clearly skewed towards a high level of identification ($M = 5.90$; S.D. = 1.15), and thus mainly differentiated between more or less highly identified respondents.

3.2.3. Norms

Social norm. The social norm referred to the perceived injunctive norms of “most people” and were measured by three items using five-point scales (1 = *no!!*, 5 = *yes!!*): “Do MOST PEOPLE think they should honestly declare cash earnings on their tax return?”; “Do MOST PEOPLE think it is acceptable to overstate tax deductions on their tax return?” (reverse-coded); and “Do MOST PEOPLE think working for cash-in-hand payments without paying tax is a trivial offence?” (reverse-coded). The items showed rather low, but acceptable internal consistencies (Time 1:

$\alpha = 0.56$; Time 2: $\alpha = 0.60$). Scores were averaged to obtain a measure of the social norm (Time 1: $M = 2.57$, S.D. = 0.69; Time 2: $M = 2.58$, S.D. = 0.76).

Personal norm. The personal norm referred to one's own injunctive norms concerning taxpaying and were measured by equivalent three items (1 = *no!!*, 5 = *yes!!*): “Do YOU think you should honestly declare cash earnings on your tax return?”; “Do YOU think it is acceptable to overstate tax deductions on your tax return?” (reverse-coded); and “Do YOU think working for cash-in-hand payments without paying tax is a trivial offence?” (reverse-coded). Again, the items showed rather low, but sufficient, internal consistencies (Time 1: $\alpha = 0.56$; Time 2: $\alpha = 0.55$), and scores were averaged to obtain measures of the personal norm (Time 1: $M = 3.70$, S.D. = 0.73; Time 2: $M = 3.72$, S.D. = 0.71).

3.2.4. Background variables

Respondents were asked to indicate their age, sex (0 = *male*, 1 = *female*), family income (from *none*, 5, 10, 15, etc. to 75, 100, 250 + *thousand dollars*), education level (1 = *no formal schooling*, to 8 = *post-graduate degree*), country of birth (coded as 0 = *other than Australia*, 1 = *Australia*), and whether or not they used services of a tax agent for their tax returns (0 = *no*, 1 = *yes*). These control variables were all used as recorded at Time 1.

4. Results

All hypotheses were tested by multiple regression analyses. Each cross-lagged panel involves a regression of the designated criterion variable at Time 2 on itself at Time 1 and the predictor variable of interest at Time 1. A number of background characteristics were also controlled (sex, age, family income, education level, country of birth and tax agent use) in order to exclude as much as possible the eventuality that the relationship between predictor and criterion variables is only due to their shared relationship with a third variable and thus not a causal relationship. Of course, as with any regression analysis, there is the problem of omitted variables. We can only measure and include in our analyses a limited number of control variables, and there is a risk that a variable has been omitted that can account for (part of) the shared variation between the predictor variable at Time 1 and change in the criterion variable. For descriptive statistics and correlations see [Table 1](#).

4.1. Personal ethics and compliance

The first set of hypotheses was tested by (a) regressing self-reported tax compliance at Time 2 on personal tax ethics at Time 1 (while controlling for Time 1 tax compliance and all control variables), and (b) regressing personal tax ethics at Time 2 on self-reported compliance at Time 1 (while controlling for Time 1 tax ethics and all control variables). The results are displayed in [Table 2](#). Next to some effects of control variables, which will not be discussed in detail here, there were substantive auto-regression effects in either case, indicating that tax compliance as well as tax

Table 1
Descriptive statistics and correlations

Variable	<i>M</i>	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Sex	0.51	0.50	–												
2. Age	49.16	14.68	–0.14***	–											
3. Family income	52.05	37.40	–0.06†	–0.10**	–										
4. Education	4.84	1.76	–0.09**	–0.20***	0.29***	–									
5. Country of birth	0.78	0.42	0.03	–0.16***	0.06†	–0.04	–								
6. Tax agent	0.72	0.45	–0.05†	0.06*	0.11***	–0.00	0.05	–							
7. Identification	5.90	1.15	0.01	0.16***	–0.01	–0.11***	0.06†	0.05†	–						
8. Tax ethics 1	3.70	0.73	–0.06†	0.20***	0.08*	0.08**	–0.02	–0.03	0.06*	–					
9. Social norms 1	2.57	0.69	–0.10**	0.12***	–0.12***	–0.07*	–0.12***	–0.03	0.01	0.08*	–				
10. Tax noncomp. 1	0.34	0.61	–0.05	–0.14***	–0.00	0.08*	–0.04	–0.03	–0.10**	–0.32***	–0.06	–			
11. Tax ethics 2	3.72	0.71	–0.02	0.17***	0.09**	0.06†	0.00	–0.06	0.06†	0.51***	0.04	–0.25***	–		
12. Social norms 2	2.58	0.76	–0.01	0.06*	0.00	–0.04	–0.07*	0.00	0.07*	0.11***	0.41***	–0.08*	0.17***	–	
13. Tax noncomp. 2	0.28	0.57	–0.10**	–0.15***	–0.03	0.03	–0.05	–0.05	–0.08*	–0.25***	–0.03	0.44***	–0.27***	–0.06†	–

Note. Tax nonc. = Tax noncompliance.

†*p* < 0.10. **p* < 0.05. ***p* < 0.01. ****p* < 0.001.

Table 2

Cross-lagged regressions between self-reported tax noncompliance and personal tax ethics

Predictors	Dependent variable: Tax noncompliance 2 β	Dependent variable: Tax ethics 2 β
Sex	–0.10**	–0.01
Age	–0.09*	0.06 [†]
Family income	–0.01	0.06 [†]
Education	–0.01	0.02
Country of birth	–0.05	0.02
Tax agent	0.00	–0.07*
Tax noncompliance 1	0.40***	–0.11***
Tax ethics 1	–0.10*	0.45***
	$R^2 = 0.23$	$R^2 = 0.29$
	$F = 25.20^{***}$	$F = 37.42^{***}$
	df = 8; 678	df = 8; 744

[†] $p < 0.10$. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

ethics were moderately stable over time. Further, consistent with Hypothesis 1a, Time 1 tax ethics were significantly negatively related to Time 2 tax evasion, suggesting that personal morals do causally affect taxpaying behaviour. However, at the same time, there was also a significant effect of tax noncompliance at Time 1 on tax ethics at Time 2, consistent with Hypothesis 1b. It seems that tax ethics are also causally affected by, and thus used to rationalise, taxpaying behaviour.

Hence, there is empirical evidence for both processes. Tax ethics have a significant effect on tax compliance in line with a true ethical motivation; and tax compliance has a significant effect on tax ethics, consistent with a rationalisation effect or attempt to maintain cognitive consistency.

4.2. *Personal ethics and social norms*

The second set of hypotheses was tested by hierarchical regression analyses where interaction terms involving identification were included in a second step. In a first step (a) personal tax ethics at Time 2 were regressed on social norms at Time 1 (while controlling for Time 1 tax ethics, identification and all control variables), and (b) social norms at Time 2 were regressed on personal tax ethics at Time 1 (while controlling for Time 1 social norms, identification and all control variables). In a second step, the interaction terms of (a) social norms and identification and (b) tax ethics and identification were included, respectively. Note that all variables were first standardised and interaction terms were based on the product of the respective standardised variables. The unstandardised solution yielded the appropriate standardised coefficients, while the constants could be nonzero (Aiken & West, 1991).

The results are displayed in Table 3. There were some effects of control variables, but only so for tax ethics as the criterion. Again, there were substantive auto-regression effects in both regression models, indicating that tax ethics and social norms were moderately stable over time. Further, while there was no main effect of Time

Table 3

Cross-lagged regressions between personal tax ethics and perceived social norms

Predictors	Dependent variable: Tax ethics 2		Dependent variable: Social norms 2	
	Step 1 (β)	Step 2 (β)	Step 1 (β)	Step 2 (β)
Sex	0.02	0.02	0.04	0.04
Age	0.09**	0.10**	−0.03	−0.03
Income	0.08*	0.08*	0.02	0.02
Education	−0.00	−0.00	0.01	0.01
Country of birth	0.01	0.01	0.00	0.01
Tax agent	−0.07*	−0.07*	0.02	0.02
Tax ethics 1	0.50***	0.50***	0.08*	0.08*
Social norms 1	0.02	0.01	0.44***	0.44***
Identification	0.05	0.05 [†]	0.05	0.05
Social norms \times Identification	–	0.06 [†]	–	–
Tax ethics \times Identification	–	–	–	0.03
Constant	0.00	0.00	−0.00	−0.00
ΔR^2	0.30	0.00	0.20	0.00
ΔF	41.55***	3.79 [†]	23.90***	1.57
df	9; 867	1; 866	9; 869	1; 868

[†] $p < 0.10$. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

1 social norms on Time 2 tax ethics, consistent with Hypothesis 2a, social norms and identification interacted in their effects on tax ethics (the interaction was close to significant, $p = 0.052$). Simple slope analyses for -1 and $+1$ standard deviation of identification (Aiken & West, 1991) showed that social norms did not affect tax ethics when identification was low ($\beta = -0.04$, ns), but social norms did have a marginally significant effect when identification was strong ($\beta = 0.07$, $p = 0.072$; see Fig. 1).

Conversely, for the regression of Time 2 social norms on tax ethics, the interaction effect was not significant, however the main effect of tax ethics was. Tax ethics at Time 1 seemed to causally affect the perception of social norms, consistent with Hypothesis 2b. However, unexpectedly, this was not moderated by level of identification. Thus, personally held tax ethics seemed to be projected onto the social group.

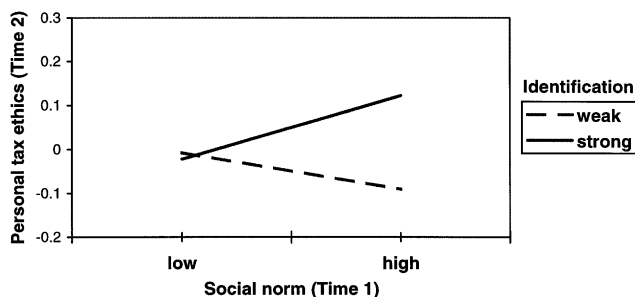


Fig. 1. Simple slopes for the effects of social norms on personal tax ethics at low versus high levels of identification.

4.3. Tax compliance and social norms

The third set of hypotheses was tested in two stages. Hypothesis 3a first required a test for the interaction effect between identification and social norms on tax evasion, introduced at the second step of a hierarchical regression. Second, if a significant effect of social norms were found, it needed to be tested whether these were mediated by personal tax ethics, which were thus introduced at the second step of a follow-up regression model. While Hypothesis 3b did not make such a complex prediction, for the sake of completeness the same sequence of analyses was used for Time 2 social norms as criterion variable.

First, two hierarchical regression analyses were conducted where (a) tax evasion at Time 2 was regressed on social norms at Time 1 (while controlling for Time 1 tax evasion, identification and all control variables), and the interaction between identification and social norms in the second step; and (b) social norms at Time 2 were regressed on tax evasion at Time 1 (while controlling for Time 1 social norms, identification and all control variables), and the interaction between tax noncompliance and identification in the second step. The results are shown in Table 4.

As in the earlier analysis involving tax compliance as dependent variable, there were some effects of control variables, while there were none for social norms as the criterion variable. Also, tax compliance and perceived social norms showed again moderate stability over time. More importantly, Time 1 social norms significantly affected Time 2 tax evasion. While this effect was consistent with Hypothesis 3a, the

Table 4

Cross-lagged hierarchical regressions between self-reported tax noncompliance and social norms, including the interaction between social norms and identification at Step 2

Predictors	Dependent variable: Tax noncompliance 2		Dependent variable: Social norms 2	
	Step 1 (β)	Step 2 (β)	Step 1 (β)	Step 2 (β)
Sex	–0.11**	–0.11**	0.02	0.02
Age	–0.10**	0.10**	–0.03	–0.03
Income	–0.03	–0.03	0.02	0.02
Education	–0.02	–0.01	0.03	0.02
Country of birth	–0.05	–0.05	0.00	0.00
Tax agent	0.01	0.01	0.03	0.03
Tax noncompliance 1	0.43***	0.43***	–0.08*	–0.08*
Social norms 1	–0.08*	–0.08*	0.42***	0.42***
Identification	–0.00	0.00	0.04	0.04
Social norms \times Identification	–	–0.03	–	–
Tax noncomp. \times Identification	–	–	–	0.03
Constant	0.00	–0.00	0.00	0.00
ΔR^2	0.23	0.00	0.18	0.00
ΔF	21.64***	0.56	18.08***	0.57
df	9; 660	1; 669	9; 737	1; 736

† $p < 0.10$. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

effect was unexpectedly not further moderated by identification. Thus, strong social norms in favour of tax honesty seemed to encourage taxpayers to be more compliant in their tax returns.

As for Time 2 social norms as dependent variable, the interaction between tax compliance and identification was not significant. Rather, consistent with Hypothesis 3b, Time 1 tax evasion had a significant negative effect on perceived social norms. This indicates that social norm perceptions are also used after the fact to rationalise one's taxpaying behaviour.

Second, two hierarchical regression analyses tested whether the effects of social norms and tax evasion, respectively, were mediated by personal tax ethics. Time 2 tax ethics were thus introduced in a second step. If they had significant effects and their inclusion reduced the earlier effects, this would indicate that they mediated the effects. The results are shown in Table 5.

Indeed, personal tax ethics were significantly related to social norms and tax evasion. Further, the inclusion of tax ethics in the models meant that the effect of Time 1 social norms on Time 2 tax compliance was somewhat reduced (even though it was still marginally significant). Likewise, the effect of Time 1 tax evasion on Time 2 social norms was also reduced (to the degree that it was no longer significant).

To sum up, social norms seem to causally affect taxpaying behaviour, at least partly mediated by their internalisation as personal tax ethics. However, the moderation of this effect by identification did not receive further support. Conversely, social norms also seem to be affected by taxpaying behaviour, suggesting that norms are construed in order to rationalise one's behavioural choices. Again, there was evidence that this effect was mediated by personal tax ethics. It would appear that, first, taxpayers bring their own tax ethics in line with their taxpaying behaviour, to justify

Table 5

Cross-lagged hierarchical regressions between self-reported tax noncompliance and social norms, including personal tax ethics as potential mediator at Step 2

Predictors	Dependent variable: Tax noncompliance 2		Dependent variable: Social norms 2	
	Step 1 (β)	Step 2 (β)	Step 1 (β)	Step 2 (β)
Sex	-0.11**	-0.11**	0.01	0.01
Age	-0.11**	-0.07*	-0.04	-0.06
Income	-0.03	-0.01	0.03	0.02
Education	-0.02	-0.01	0.02	0.01
Country of birth	-0.05	-0.05	-0.01	-0.01
Tax agent	0.01	-0.01	0.03	0.04
Tax noncompliance 1	0.42***	0.38***	-0.08*	-0.04
Social norms 1	-0.07*	-0.06†	0.41***	0.40***
Tax ethics 2	–	-0.20***	–	0.17***
ΔR^2	0.23	0.03	0.18	0.03
ΔF	24.60***	31.11***	19.75***	23.92***
df	8; 677	1; 676	8; 744	1; 743

Note. Equivalent results are obtained if Tax ethics 1 is used as a mediating variable in Step 3.

† $p < 0.10$. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

and rationalise it or reduce cognitive inconsistency. Then, they generalise and project these personal ethics to other people, presumably for the sake of further rationalisation and the construction of social support.

5. Discussion

Tax compliance research has been largely dominated by the economic rational actor view that taxpayers seek to maximise their individual benefit and thus try to evade tax where the threat of sanctions does not outweigh the benefits of evasion. They thus rationally, and without concerns for right and wrong, choose the option that promises greatest profits. This perspective has been challenged by the view that taxpayers are concerned about what they (and/or others) consider is right and wrong. According to this perspective, taxpayers act on the basis of their moral and ethical beliefs and are influenced by social consensus about the ethicality or acceptability of tax evasion. However, the rational actor counter-argument could be that personal ethics and perceptions of social norms are only post-hoc constructions to rationalise and neutralise behaviour that is essentially driven by profit-seeking.

The present study tried to shed light on the causal role of ethics and norms in tax-paying behaviour by employing cross-lagged panel analyses for data from a two-wave survey. On the whole, the study provides evidence for both perspectives. Ethics and social norms do affect tax compliance, and they are affected by tax compliance. On the one hand, ethical concerns seem to be based on the internalised social norms of one's reference group, and tax ethics motivate taxpaying behaviour. On the other hand, ethical concerns as well as perceptions of social norms are influenced by one's engagement in tax evasion. Personal ethics, it seems, are made consistent with one's taxpaying behaviour to rationalise and justify it on moral grounds. Likewise, perceptions of social norms not only affect taxpaying behaviour, but are also construed so as to be consistent with one's behaviour and ethics, in order to rationalise and claim social support for these.

The study yielded some evidence that social norms are internalised as personal ethics only when people identify with the group to which the norms are attributed; and statistically controlling for personal ethics reduced the effect of social norms on tax compliance (Wenzel, 2004). However, social norm effects on compliance seemed to be only partly mediated by their internalisation as personal norms. In fact, it could be the case that the perception of social norms as being permissive of tax evasion also affects a rational cost-benefit analysis underlying one's taxpaying choice, which is independent from identification with the group. That is, perceiving others as accepting tax evasion (and thus as probably engaging in tax evasion), taxpayers may conclude that their own taxes would be badly invested; that they would be the few who pay for goods and services shared by many. They may also conclude that the risk of detection is rather low, or that others would not react negatively or sanction them informally if their evasion were found out (Wenzel, *in press*). Thus, social norms in themselves may give rise to ethical as well as rational considerations.

On the other hand, the data also indicated that the causal effect of taxpaying behaviour on social norms was also mediated by personal taxpaying ethics. Thus, it seems social norms are not directly construed in a way to rationalise tax evasion, as, for instance, in a tit-for-tat argument. Rather, taxpayers seem to adjust their own beliefs so as to justify their behaviour as right and ethical. They then generalise these views to others, presumably to gain further social support. Thus, the rationalisation of tax evasion or compliance refers first and foremost to moral concerns, rather than social exchange considerations. As it seems, even the rational actor cannot live or act without concerns for ethics, even if they come after the fact.

These results thus seem to indicate, in a more sophisticated way, that the rational and the moral/social actor perspectives overlap and are interrelated. This is consistent with the dominant finding of the present study, namely that both causal directions of the relationship between ethics/norms and compliance found empirical support. Rational and social/moral actor perspectives thus do not seem to be mutually exclusive; neither is sufficient to explain taxpaying behaviour. Rather, there is evidence for a bi-directional causality between ethics/norms and compliance, with ethics being as much a true motivation to comply or not comply with the laws as they are a post-hoc construction to rationalise and justify compliant or noncompliant behaviour. These results thus call for approaches to tax compliance that integrate the rational actor and the social/moral actor perspectives (Cullis & Lewis, 1997).

While the present findings seem to suggest a positive feedback loop as it were, with greater compliance leading to more ethical beliefs and more ethical beliefs leading to more compliance, there is reason to caution against the conclusion that deterrence and appeals to ethics cannot interfere negatively with each other. A heavy-handed deterrence approach applied to taxpayers who would have been, or think they have been, compliant for ethical reasons could lead to reactance (Brehm & Brehm, 1981; Murphy, 2002) and undermine intrinsic ethical motivation (Frey, 1997). Conversely, strong ethical views about paying taxes honestly might make deterrence ineffective or superfluous (Paternoster & Simpson, 1996; Wenzel, *in press*).

Yet, while the interactions between deterrence and ethics/norms may be more complex, involving mutually reinforcing as well as inhibiting processes (Wenzel, *in press*), it seems clear from the present study that neither the rational actor nor the moral/social actor approach has all the answers. Indeed, further progress in the area of tax administration, and regulation more generally, requires that their mutual interplay is better understood and conceptualised (James *et al.*, 2001).

The present study has some limitations. First, the standardised regression weights were usually (except for auto-correlations) no greater than 0.10 and, thus, effects were, by common conventions, small or very small (see Smithson, 2000). While we should therefore be careful not to overclaim any practical significance of the findings, it needs to be noted that in the area of taxation even a small percentage increase in compliance can mean a substantial gain in tax revenue. Further, because individual tax returns are lodged annually, an interval of one year between measurement points was a minimum requirement for a cross-lagged panel design. However, empirical relationships between variables could decline over such a long time span and, thus,

the present findings may underestimate the relevant causal relationships between ethics, norms and compliance. Finally, it should be noted that the present effect sizes apply to ethics, norms and compliance only as they were operationalised in the present study. These concepts are hard to measure, and limitations of the measures in terms of reliability and validity also affect the degree of their observed relationships, which thus may be underestimated.

Related to this point, however, is a second limitation of the study: all variables were based on self-reports and thus may have limited validity. Self-reports can be biased by motivations so as to (a) appear logically consistent, (b) comply with norms of social desirability or (c), specifically for compliance variables, not incriminate oneself. It needs to be emphasised therefore that the present findings hold for self-report data and cannot be automatically generalised to behavioural compliance (see [Hessing, Elffers, & Weigel, 1988](#)). Future research could extend the present cross-lagged panel design to actual taxpaying behaviour. However, this would require the combination of data from objective tax records with survey data on tax ethics and perceived norms – a procedure which would pose challenges from the perspective of research ethics.

A third limitation of this study pertains to the cross-lagged panel method itself, which has its critics ([Rogosa, 1980](#)). For instance, as discussed before, we cannot be absolutely certain that all relevant third variables were controlled for and that the observed relationships between ethics/norms and compliance were definitely non-spurious. However, this criticism basically applies to all regression methods which, nonetheless, are widely accepted in the social sciences. Because all empirical approaches have their inherent weaknesses, the present findings should be understood as pieces of empirical evidence in a cumulative multi-methodological attempt to shed light on issues of compliance and regulation ([Wenzel & Taylor, 2003](#)). Bearing this in mind, the present evidence indicates that ethics and norms can be both motivations and rationalisations for taxpaying behaviour.

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