

Procedural Fairness and Tax Compliance

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Abstract: For taxpayers it is important to be treated in a procedurally fair and respectful manner, especially when being committed to pay their share of taxes and feeling identified with the nation. In case of perceived unfair treatment and processes of unfair decision making, taxpayers resist paying the whole amount of their taxes due. In this article the relationship between taxpayers' treatment by tax authorities and non-compliance was further investigated. Based on the group engagement model (Tyler and Blader 2000, 2003), it was shown that procedural justice positively affects motivational postures of deference (Braithwaite 2003) and negatively affects motivational postures of defiance (Braithwaite 2003). Additionally, this relationship was partly mediated by national identity judgments. Regarding the influence on actual tax behavior, only a significant effect from motivational postures of defiance on non-compliance was obtained from the current data.

I. INTRODUCTION

The collection of tax revenues is essential for a government to ensure its funding. For this reason, the issue of the efficiency of tax collection is not new. However, there have been several ways to address this issue, one of which is particularly noteworthy.

In the traditional deterrence approach, taxpayers were considered as purely self-interested rational agents (Allingham and Sandmo 1972), and consequently, compliance was enforced by measures such as audits and sanctions. In the late nineties, a new method of regulation was proposed. This approach, the responsive regulation (Ayres and Braithwaite 1992), integrated the various measures to ensure compliance (i.e., education, persuasion and sanctions) and required tax authorities to adjust their regulatory efforts to the behavior of taxpayers by choosing when to punish and when to persuade (Braithwaite, Murphy and Reinhart 2007, Murphy 2004). It was recommended to use a cooperative and persuasive approach as the default option; only in cases of continuous non-compliance should the fiscal authority use more constraining enforcement strategies (Ayres and Braithwaite 1992). Punishment is expensive

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and may even be counterproductive. Therefore, it was suggested that this approach may be more effective in ensuring the long-term sustainability of the tax system by increasing the self-regulation of taxpayers (Braithwaite, Murphy and Reinhart 2007, Murphy 2004).

In accordance with the introduced responsive regulation approach, the model of tax compliance was developed. This model takes the attitudes of taxpayers (i.e., motivational postures) such as commitment, resistance, disengagement, capitulation, or game playing into account (cf., Braithwaite, Schneider, Reinhart and Murphy 2003) and also considers the environment in which tax (non-)compliance occurs, such as business profile (e.g. business age), industry-specific factors (e.g., cost structures), sociological (e.g., reciprocity), macro-economic (e.g., interest rates), and psychological (e.g., fairness) factors (Murphy 2004).

In taking a psychological perspective, the authors focus on aspects of fairness or justice influencing tax compliance. People's behavior is strongly connected to their views about justice (Tyler, Boeckmann, Smith and Huo 1997). Although the influence of fairness perceptions on tax compliance has often been mentioned in the tax literature (e.g., Andreoni, Erard and Feinstein 1998, Bordignon 1993, Spicer and Becker 1980, for a review see Kirchler 2007), the vast majority of tax compliance literature incorporating fairness issues focuses on aspects of distributive justice. However, recently attention has been drawn to procedural justice in the tax context (Fujii, Kitamura and Suda 2004, Murphy 2005, Pearce 2007, Wenzel 2002).

Murphy (2003) demonstrated that sanctions or punishments used as strategy of first choice to obtain tax compliance can undermine the regulators' legitimacy when perceived as being procedurally unfair. In a further study she (2005) showed that those taxpayers, who were less satisfied with their tax authority's treatment, were more likely to question its legitimacy and hold resistant views towards the authority. However, in line with the model of responsive regulation she does not recommend the total abandonment of sanctions and penalties, since some people would take advantages of a regulatory strategy based purely on cooperation. Her proposition is to use a regulatory strategy based on mutual respect and cooperation in the first instance, but concurrently, to ensure that the threat of punishment is still in the background for those who resist initial appeals for cooperation. Considering these results, the current article aims to further investigate the link between taxpayers' perceptions of procedural justice and their motivations to comply or not to comply with taxation policies as well as its consequent influence on tax compliance.

II. THEORETICAL FRAMEWORK

1. Procedural Justice

In early research, procedural justice was primarily linked to procedures of decision making processes in order to obtain equitable outcomes or, in other words, people desire fair procedures because they believe that this would lead to fair distributions (Thibaut and Walker 1975). However, in more recent research the meaning of procedural justice has evolved towards the inclusion of quality of interpersonal treatment¹. For example, Tyler (1987) argues that the sole opportunity to express one's opinion (i.e., 'voice') contributes to a 'value-expressive' worth

¹ Bies and Moag (1986) argued that interactional justice should be separated from procedural justice.

even when it is not connected to any influence over the decisions made. Thus, it is important for people to obtain voice not just for shaping the decision-making process, but also to feel respected. Consequently, Tyler and Blader's group engagement model (Tyler and Blader 2000, 2003) encompasses both aspects, the process of decision making as well as the quality of treatment that group members receive. The group engagement model aims at providing an understanding of the antecedents of cooperation in groups and is based on the theories of social identity (Tajfel and Turner 1986) and self-categorization (Turner, Hogg, Oakes, Reicher and Wetherell 1987). Accordingly, people categorize themselves in terms of different social groups such as gender, occupation group or nation in order to derive a positive social identity and hence a positive sense of the self.

The group engagement model integrates the formerly defined group value model of procedural justice (Lind and Tyler 1988) and the relational model of authority (Tyler and Lind 1992). All three models are based on the social identity approach. However, they differ in respect to the issues addressed. The group value model has its focus in people's fairness judgments. The relational model of authority focuses on why people accept decisions made by third party authorities and the group engagement model is concerned with why people cooperate.

Tax compliance can be understood in terms of cooperation with the national group. Therefore the group engagement model will be explained in more detail. Basically, this model implies that procedures are important because they shape people's social identity within groups, and social identity in turn influences attitudes, values, and consequently behaviors (*social identity mediation hypothesis*). More precisely, respectful and fair treatment as well as a fair decision making procedure is important for respondents who identify with a group, because it is indicative of their inclusion and standing in their social group (i.e., identity judgments), and is therefore relevant to self-esteem. Engagement for the group one identifies with is promoted by fair treatment that leads to feelings of respect and acceptance. Additionally, identity judgments are also shaped by the standing of the whole group. When people feel that their group has a high status, they feel good about themselves by virtue of their association with the group. Concluding, if the authority is categorized as a group member and people are proud to be in this group, then people are more willing to accept its decisions as legitimate, and to cooperate, in case the treatment is perceived as procedurally fair.

According to the group engagement model, identity judgments are also shaped by deriving information from resource judgments which encompass distributive justice and favorability of outcome. Distributive justice is defined as 'the perceived fairness of resources received' (Cropanzano and Ambrose 2001, p. 121) and outcome favorability refers to 'whether one receives a positive rather than a negative result' (Skitka, Winqvist, and Hutchinson 2003, p. 311). In addition to the net benefit of profitable outcome, the resources offered by the group also inform group members about their own standing in the group (i.e., respect) as well as the standing of the group (i.e., pride). However, Tyler and Blader (2003) argue that particularly elements of procedural justice rather than resource judgments carry the most social identity-relevant information.

Contrary to the group engagement model, the group value model has already been tested in the tax context (Wenzel 2002). The group value model says that relational aspects of people's fairness evaluations of group authorities tend to be more strongly related to their attitudes and

behaviors than instrumental, outcome-oriented aspects of these evaluations. Accordingly, if people feel they are fairly treated, they will be satisfied with less favorable outcomes. Wenzel (2002) tested the group value model with a sample of Australian taxpayers and demonstrated that people are more concerned about procedural justice (i.e., respect, trustworthiness and neutrality) and less about personal outcomes when identifying highly with their nation and experiencing fair and respectful treatment by the tax authorities. However, this effect was only obtained for two (i.e., non-pay income reporting and deductions) forms of tax compliance. The other two forms (i.e., pay income reporting and tax minimization) were determined by outcome variables.

Concluding, when testing the group value model unexpected results occurred. Therefore, it is aimed to look further into the relations between procedural justice, national identity and cooperative behavior. Since the group engagement model is based on similar assumptions as the group value model and is explicitly designed to explain why people cooperate, it is seen as a suitable tool for this aim.

The group engagement model proposes that the degree of identification with a group shapes the degree to which people develop supportive attitudes, values, and consequently behavior. In the tax context these supportive attitudes and values could be understood similarly to the concept of the motivational postures (Braithwaite 2003) which will be explained in more detail.

2. *Motivational Postures*

Authorities are in a position where they can impose laws on their subordinates and demand the obedience of these legal rules. Since this may be perceived as threatening, subordinates might place social distance between themselves and the authority, in order to prevent themselves from the threat (Braithwaite, Murphy and Reinhart 2007). In the context of taxation, motivational postures are said to account for the self-positioning of taxpayers in relation to their relevant authority, i.e., the tax office (Braithwaite 2003).

Motivational postures are attitudinal in nature and based on evaluations about the performance and the attribution of the relevant authority (Braithwaite 2003). At first, these evaluations are merely intuitive, but over time, they are strengthened by rationalizations and justifications. Through social communication they are shared, challenged and become more elaborated. The resulting

‘interconnected set of beliefs and attitudes that are consciously held and openly shared with others are called motivational postures’ (Braithwaite 2003, p. 18).

Five postures have been distinguished ranging from rather compliance-oriented (i.e., commitment and capitulation) to rather non-compliance-oriented stances (i.e., resistance, disengagement and a further stance of game-playing), (Braithwaite 2003, Braithwaite, Murphy and Reinhart 2007). *Commitment* refers to feelings of a moral obligation to comply with the law and to pursue the interest of the collective (Braithwaite 2003, p. 18). *Capitulation* describes the acceptance of the tax-office as a legitimate power whose decisions have to be followed in order to get along with them. In contrast to the two deference-oriented motivational postures described, *resistance* reflects a sense of distrust towards the intentions of the tax authority and a rather oppositional stance. However, taxpayers holding the motivational posture of resistance still remain in the

system and stay available for persuasive messages by the tax office. Most social distance to the tax authority is reflected in the motivational posture of *disengagement*, where taxpayers consider themselves outside the system. The last one, *game playing*, can be described as attitude towards legal rules, i.e., the perception of laws as something to be interpreted in ways suitable for the own purpose. Motivational postures are not incompatible, but they can co-exist, such as commitment and capitulation (i.e., deference) on the one side and resistance, disengagement, and game-playing (i.e., defiance) on the other side (Braithwaite 2003).

Motivational postures are rather broad and attitudinal than specific and behavioral. Therefore, they are not directly related to behavior (Braithwaite 2003). However, even when they may not directly lead to a certain behavior, they may precede behavior. Braithwaite and her colleagues (Braithwaite, Schneider, Reinhart and Murphy 2003) showed that among those who were engaged in cash economy, disengagement was higher and commitment was lower than among those not engaged in cash economy.

3. Incorporation of Motivational Postures in Group Engagement Model

In the current article it is aimed to test the group engagement model of Tyler and Blader (2000, 2003) in the tax context. As extension of this model, it seems promising to include the motivational postures. These taxpayers' attitudes towards the tax authority are considered to precede behavior and communicate the perceived relation to the tax authority. Thus, it is hypothesized that procedural justice, distributive justice and outcome favorability (i.e., exogenous factors) influence identity judgments, which in turn influence the deference postures positively and the defiance postures negatively. Subsequently, deference postures are expected to affect tax non-compliance negatively, whereas the defiance postures should have a positive effect on tax non-compliance.

III. METHOD

1. Participants

Data were taken from the Community, Hopes, Fears, and Actions Survey (Braithwaite 2001, Braithwaite, Reinhart, Mearns and Graham 2001) and the Australian Tax System – Fair or Not Survey (Braithwaite and Reinhart 2005). They comprise two waves of data collection (i.e., in year 2000 and 2001-02) with Australian citizens from the Australian electoral roll.

In the first wave of data collection, 2040 out of 7003 taxpayers (i.e., 29 %) responded to a self-completion questionnaire. The second wave comprises three groups: (i) 1161 out of 2040 people (i.e., 57 %) participating in wave 1, (ii) 195 out of 1496 (i.e., 13 %) from a random sample of the primary non-respondents, and (iii) 970 out of 2562 people (i.e., 38 %) representing a new group.

In wave 1, participants were between 18 and 93 years old ($M = 48.4$, $SD = 15.6$) and in wave 2, they were between 18 and 82 years old ($M = 47.0$, $SD = 13.7$), 46.5 % [57.8 %]² were male and 52.6 % [41.5 %] female. The average family income was 48,688 [61,312] Australian dollars and their average personal income was 27,826 [38,051] Australian dollars. In regard

² Demographic numbers of wave 2 in brackets.

Table 1: Items of Exogenous Factors, that is, Procedural Justice, Distributive Justice and Outcome Favorability

		M Wave1	SD Wave1	M Wave2	SD Wave2
Procedural Justice (PJ) , Cronbach’s alpha = 0.87/ 0.89					
PJ treatment	Treating you as honest in your tax affairs unless you act otherwise (1 = almost never to 5 = almost always)	3.92	1.03	3.64	1.13
	The Tax Office treats people as if they can be trusted to do the right thing (1 = strongly disagree to 5 = strongly agree)	3.37	0.98	3.19	1.04
	Tax Office respects the individual’s rights as a citizen (1 = strongly disagree to 5 = strongly agree)	3.45	0.92	3.41	0.96
PJ decision making	Explaining to you the decisions they make about your tax affairs (1 = almost never to 5 = almost always)	3.34	1.26	3.22	1.20
	Giving you advice and information that you can rely on (1 = almost never to 5 = almost always)	3.34	1.16	3.23	1.13
	Giving you the right to an independent review from outside the Tax Office (1 = almost never to 5 = almost always)	3.34	1.23	3.14	1.14
PJ representativeness	The Tax Office consults widely about how they might change things to make it easier for taxpayers to meet their obligations (1 = strongly disagree to 5 = strongly agree)	2.74	0.89	2.68	0.92
	The Tax Office is concerned about protecting the average citizen’s rights (1 = strongly disagree to 5 = strongly agree)	2.99	0.93	3.03	0.96
	Tax Office considers the concerns of average citizens when making decisions (1 = strongly disagree to 5 = strongly agree)	2.84	0.93	2.75	0.96
	The Tax Office goes to great lengths to consult with the community over changes to their system (1 = strongly disagree to 5 = strongly agree)	2.65	0.96	2.61	0.97
Distributive Justice (DJ) (1 = much more!! To 5 = much less!), Cronbach’s alpha = 0.84/ 0.83					
Now think of the following groups. Do they pay their fair share of tax in your view?					
DJ ‘the Poor’	... Waitresses	2.44	0.67	2.40	0.68
	... Farm laborers	2.34	0.73	2.27	0.73
	... Unskilled factory workers	2.28	0.73	2.26	0.75
DJ ‘the Rich’	... Surgeons	2.02	0.75	2.01	0.77
	... Chief executives of large national corporations	1.55	0.70	1.55	0.71
	... Doctors in general practice (GPs)	2.14	0.73	2.21	0.71
	... Senior judges and barristers	1.91	0.77	1.71	0.75
Outcome favorability (1 = almost never to 5 = almost always)					
How often are the decisions of the Tax Office favorable to you?		3.48	1.20	2.91	1.04

Table 2: Items of National Identity Judgments and Motivational Postures

		M	SD	M	SD
		Wave1	Wave1	Wave2	Wave2
National identity judgments					
(1 = do not agree at all to 7 = agree completely), $r = 0.86 / 0.79$					
	<i>Being a member of the Australian community is important to me.</i>	5.81	1.19	6.35	1.13
	<i>I feel a sense of pride in being a member of the Australian community.</i>	5.80	1.26	6.31	1.12
Motivational Postures (MP) – Deference					
(1=strongly disagree to 5 = strongly agree), Cronbach's alpha = 0.74 / 0.76					
MP Commitment	<i>Overall, I pay my tax with good will.</i>	3.90	0.77	3.97	0.83
	<i>I resent paying tax. (reversed)</i>	3.57	0.98	3.58	1.03
	<i>I think of taxpaying as helping the government do worthwhile things.</i>	3.52	0.96	3.60	1.01
	<i>Paying tax is the right thing to do.</i>	4.00	0.60	4.11	0.69
	<i>Paying my tax ultimately advantages everyone.</i>	3.73	0.84	3.88	0.88
MP Capitulation	<i>The Tax Office is encouraging to those who have difficulty meeting their obligations through no fault of their own.</i>	3.05	0.88	2.95	0.96
	<i>If you cooperate with the Tax Office, they are likely to be cooperative with you.</i>	3.66	0.74	3.72	0.85
	<i>The tax system may not be perfect, but it works well enough for most of us.</i>	3.41	0.89	3.40	0.95
Motivational Postures (MP) – Defiance					
(1=strongly disagree to 5 = strongly agree), Cronbach's alpha = 0.65 / 0.67					
MP Resistance	<i>The Tax Office is more interested in catching you for doing the wrong thing, than helping you do the right thing.</i>	3.15	1.02	3.26	1.08
	<i>Once the Tax Office has you branded as a noncompliant taxpayer, they will never change their mind.</i>	3.04	0.80	3.14	0.85
	<i>As a society we need more people willing to take a stand against the Tax Office.</i>	2.72	0.87	2.76	1.03
MP Disengagement	<i>I don't care if I am not doing the right thing by the Tax Office.</i>	2.01	0.78	1.96	0.85
	<i>If I find out that I am not doing what the Tax Office wants, I'm not going to lose any sleep over it.</i>	2.56	0.84	2.56	0.88
MP Game-playing	<i>I like the game of finding the grey area of tax law.</i>	2.38	0.97	2.33	0.95
	<i>I enjoy talking to friends about loopholes in the tax system.</i>	2.21	0.86	2.22	0.91
	<i>I enjoy the challenge of minimizing the tax I have to pay.</i>	2.76	0.87	2.90	0.99

to occupation, 41.7 % [53.8 %] were employed full time, 17.2 % [16.3 %] were employed part time, 4.5 % [5.3 %] were unemployed, 18.6 % [15.8 %] had retired from work, 2.6 % [1.7 %] were full-time students, and 13.4 % [5.5 %] were keeping house. For further details regarding the data collection see Mearns and Braithwaite (2001) for wave 1 and Braithwaite and Reinhart (2005) for wave 2.

2. *Material*

The present article incorporates those questions from the survey which deal with the theoretical concepts of procedural justice, distributive justice, outcome favorability, national identity judgments, motivational postures, and tax non-compliance.

Reliability coefficients (i.e., Cronbach alpha) of procedural justice, distributive justice and outcome favorability scales and items used with mean value and standard deviation are presented in *Table 1*. The items regarding national identity judgments and motivational postures are demonstrated in *Table 2*.

There are different forms of tax compliance (e.g., overstating deductions or concealing various forms of income) which are not highly correlated with each other (Braithwaite 2003). Therefore, a different measure than calculating means was opted for to receive an index for non compliance. The three kinds of tax compliance were dichotomized into 0 for being compliant and 1 for being non-compliant which was done previously for tax compliance measures (e.g., Wenzel 2004). Consequently, the numbers of pay income, non-pay income and deductions were added so that a range from 0 (i.e., compliant) to 3 (i.e., non-compliant) was obtained. Percentages of cases of being non-compliant are presented in *Table 3*.

IV. RESULTS

1. *Treatment of Missing Values*

Due to the extensive survey and the sensitivity of the topic ‘tax evasion’, there are missing values throughout the survey. In an attempt to limit this number of missing values, the single imputation method by hot decking with Solas 3.2 was chosen. This method uses a case that resembles the case with the missing values in certain variables and copies the values of the similar case in order to fill in the missing values. Resemblance was estimated by up to five variables of a certain scale that showed a correlation higher than $r = 0.30$ to the variable to be imputed. When more resembling cases were found, one case was selected randomly. When no case was found or when correlations were below $r = 0.20$ no imputation took place.

After the estimation of the missing data, there were still missing values which could not be imputed by the given values. Therefore, cases with remaining missing values were deleted. Additionally, data from people indicating that they did not prepare their income tax return themselves and did not know whether deductions were exaggerated were excluded from the analyses. Respondents who completed both surveys (i.e., wave 1 and 2) were also excluded since it was aimed to have an independent sample in wave 2.

After deletion, the sample sizes resulted in 1173 cases for wave 1 and 742 cases for wave 2 (i.e., sample C). For purpose of cross-validation, the data of wave 1 was split randomly into

two and resulted in 581 cases (i.e., sample A) for the exploration sample and 592 cases for the first validation sample (i.e., sample B).

Table 3: Items of Tax Non-Compliance

		f Wave1	f Wave2
<i>Tax Non-Compliance</i>			
Number of being non-compliant in percent			
Income: 'Think about each of the sources of income listed below, and select the response that best describes your 1998-99 income tax return.' (1 = received none to 5 = declared all)			
Pay Income	... Salary, wages	2.3%	2.8%
	... Honorariums, allowances, tips, bonuses, director's fees	3.7%	4.2%
Non-pay Income	... Eligible termination payments	1.2%	1.2%
	... Australian government allowances like Youth Allowance, Austudy, Newstart	1.2%	1.5%
	... Australian government pensions, superannuation pensions, and other pensions or annuities	1.0%	1.5%
	... Interest	5.0%	5.3%
	... Dividends	1.9%	2.6%
Deductions	As far as you know, did you exaggerate the amount of deductions or rebates in your 1998-99 [wave 2: most recent] income tax return? (1 = a lot to 5 = not at all), (reversed)	10.6%	12.3%
	Think of the deductions and rebates you claimed in your 1998-99 [Wave 2: most recent] income tax return. Would you say you were ... (1 = absolutely confident that they were all legitimate to 3 = Pretty unsure about quite a lot)	9.8%	11.3%

2. Data Analysis

In order to test the causal structure of the hypothesized group engagement model, structural equation modeling (SEM) using Amos 5 was opted for. We computed: (i) measurement models for the evaluation of the construct validity of the predictors and (ii) structural equation models to test the relationships between predictors and criterion variable as described above. In order to evaluate the model fit four criteria were used: chi-square test, the comparative fit index (CFI, Bentler 1990), the adjusted goodness of fit index (AGFI), which takes into account the degrees of freedom, and the root mean squared error of approximation (RMSEA, Steiger 1990). Non-significant chi-square values indicate good model fit. However, chi-square is known to be sensitive to sample size, therefore CFI, AGFI and RMSEA indices of fit were important to examine also. CFI and AGFI range from 0 to 1.00 with values above 0.95 indicating good fit. RMSEA ranges from 0 to ∞ , with values below 0.05 indicating good fit.

3. Measurement Models

First of all, the items representing procedural justice, distributive justice, and motivational postures of deference and defiance were analyzed by independent factor analyses in order to select the relevant items for scale construction of the latent constructs. Consequently, to check whether the items for each scale load equally or differently on the latent constructs in all three groups [wave 1: exploration sample (A) and validation sample (B), wave 2: additional validation sample (C)], two measurement models were computed for each latent construct by using a multi-group approach. In model 1, the item loadings were set free and were allowed to be different between all three groups (i.e., no constraints), whereas in model 2 the loadings were also set free, but constrained to be the same across the three groups (i.e., with constraints). Overall, model comparison indicates that the latent constructs were measured equally valid in all three groups.

For *procedural justice* the fits of model 1 (i.e., no constraints) with $\chi^2(96) = 388.78$, CFI = 0.966, RMSEA 0.040 and model 2 (i.e., with constraints) with $\chi^2(110) = 407.09$, CFI = 0.965, RMSEA 0.038 were good. Item loadings did not differ significantly with $\Delta\chi^2(14) = 18.32$, $p = 0.19$ across the three groups.

For *distributive justice* the fits of model 1 with $\chi^2(39) = 232.74$, CFI = 0.966, RMSEA 0.051 and model 2 with $\chi^2(49) = 250.59$, CFI = 0.965, RMSEA 0.046 were good. Item loadings did not differ significantly with $\Delta\chi^2(10) = 17.85$, $p = 0.06$ across the three groups.

Regarding *motivational deference postures* the fits were good with $\chi^2(57) = 195.36$, CFI = 0.95, RMSEA 0.04 for model 1 and with $\chi^2(69) = 211.64$, CFI = 0.95, RMSEA 0.03 for model 2. Item loadings did not differ significantly $\Delta\chi^2(12) = 16.28$, $p = 0.18$ across the three groups.

Finally, for *motivational defiance postures* the fits of model 1 and 2 were also good (model 1: $\chi^2(51) = 134.60$, CFI = 0.960, RMSEA 0.029; model 2: $\chi^2(61) = 146.20$, CFI = 0.959, RMSEA 0.027) and item loadings did not differ significantly across the three groups ($\Delta\chi^2(10) = 11.61$, $p = 0.31$).

After having shown the validity of the measurement instruments the items were subsequently weighted by their corresponding factor score weights.

4. Structural Models

First of all, the proposed causal structure was tested with the exploration sample (A) to obtain a model that adequately represents the causal structure between procedural and distributive justice, outcome favorability, identity judgments, motivational postures of deference and defiance, and tax compliance. In order to improve the fit of the model, estimates of covariance between procedural and distributive justice, as well as between the measurement errors of procedural justice and motivational postures were included (cf., Byrne 2001). In regard to the latter action it is seen as reasonable that the motivational posture of resistance may be provoked by low procedural justice. Overall, the resulting model showed a good fit with $\chi^2(56) = 167.36$, CFI = 0.974, AGFI = 0.929 and RMSEA 0.059 (see *table 4* for standardized regression weights). However, there were some causal paths which had low and non-significant regression weights. Consequently, variables with less than three significant causal paths to other variables were

removed from further analysis, i.e., outcome favorability and distributive justice. The modified causal structure indicates a relatively well-fitting model $\chi^2(66) = 327.16$, CFI=0.939, AGFI = 0.885 and RMSEA 0.083.

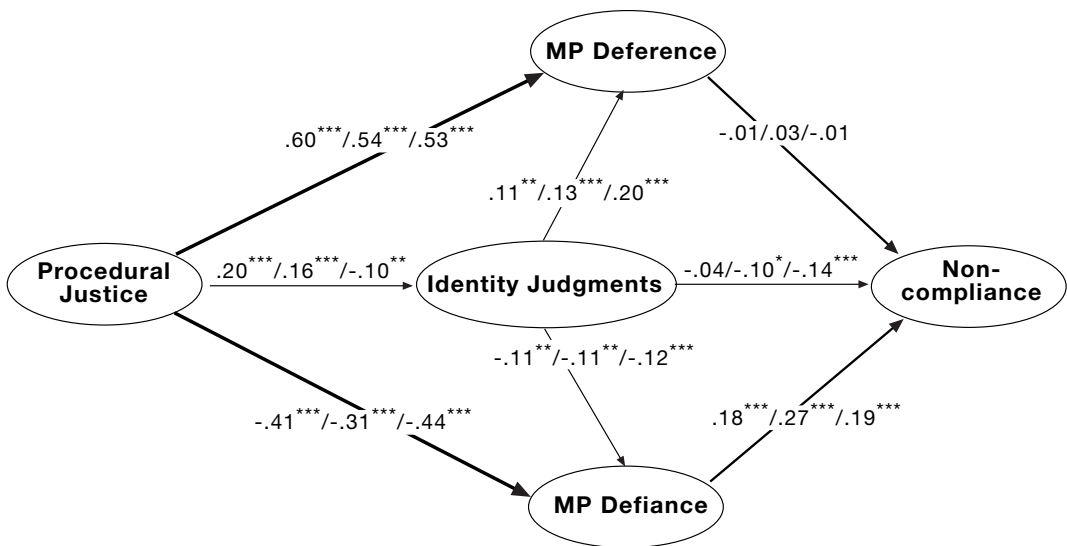
Subsequently, it was tested whether the model that was proved to explain the exploration sample A, may also explain the data from both of the validation samples (i.e., samples B and C). Similarly as above, two models using the multi-group approach were computed. In model 1, all parameters were set free and allowed to be different across the three samples (i.e., no constraints), whereas in model 2, the parameters were set free, but constrained to be the same across the three samples (i.e., with constraints). Results showed that the freely estimated ($\chi^2(105) = 910.31$, CFI = 0.939, AGFI = 0.856 and RMSEA 0.063) and the constrained model ($\chi^2(117) = 927.41$, CFI = 0.939, AGFI = 0.868 and RMSEA 0.060) did not differ significantly with $\Delta\chi^2(12) = 17.10$ and $p = 0.15$.

Table 4: Standardized Regression Weights of Exploration Sample A

<i>Standardized regression weights of exploration sample A</i>			
National identity judgments	<---	Procedural justice	0.21
National identity judgments	<---	Outcome favorability	0.02
National identity judgments	<---	Distributive justice	-0.03
MP Deference	<---	National identity judgments	0.11
MP Deference	<---	Outcome favorability	0.13
MP Deference	<---	Distributive justice	0.13
MP Deference	<---	Procedural justice	0.51
MP Defiance	<---	National identity judgments	-0.09
MP Defiance	<---	Outcome favorability	-0.13
MP Defiance	<---	Distributive justice	0.03
MP Defiance	<---	Procedural justice	-0.37
Tax non-compliance	<---	Procedural justice	0.04
Tax non-compliance	<---	Outcome favorability	-0.08
Tax non-compliance	<---	Distributive justice	0.03
Tax non-compliance	<---	MP Deference	-0.02
Tax non-compliance	<---	MP Defiance	0.17
Tax non-compliance	<---	National identity judgments	-0.07
PJ treatment	<---	Procedural justice	0.94
PJ decision making	<---	Procedural justice	0.86
PJ representativeness	<---	Procedural justice	0.85
DJ 'the poor'	<---	Distributive justice	0.66
DJ 'the rich'	<---	Distributive justice	0.81
Outcome favorability	<---	Outcome favorability	1.00
Importance of being member	<---	National identity judgments	0.86
Pride of being a member	<---	National identity judgments	0.98
MP Commitment	<---	MP Deference	0.79
MP Capitulation	<---	MP Deference	0.96
MP Resistance	<---	MP Defiance	0.66
MP Disengagement	<---	MP Defiance	0.95
MP Game-playing	<---	MP Defiance	0.66
Tax non-compliance	<---	Tax non-compliance	1.00

In the following, the causal structure between procedural justice, social identity, motivational postures (i.e., deference and defiance) as well as tax non-compliance will be described in more detail. As can be seen in Figure I, *procedural justice* was found to exert strong positive influence on motivational postures of *deference*, as indicated by highly significant standardized regression weights in all three samples ($b(IJ) = 0.60^{***}$ in sample A, $b(IJ) = 0.54^{***}$ in sample B, and $b(IJ) = 0.53^{***}$ in sample C). The more participants perceived the Australian tax office to act and to decide in a procedurally fair manner, the more they developed favorable postures associated with paying taxes. However, in contrast to our predictions it could not be shown in the current analysis that positive attitudes towards taxes are related to real behavior of taxpayers. In addition to its effect on deference, procedural justice also has a strong negative effect on motivational postures of *defiance* ($b(IJ) = -0.41^{***}$ in A, $b(IJ) = -0.31^{***}$ in B, and $b(IJ) = -0.44^{***}$ in C), revealing that when taxpayers do not feel that the tax office acts and decides in a procedurally fair manner, they develop negative attitudes towards taxation. These are significantly ($p < 0.001$) and positively related to tax non-compliance, which shows that in the present model negative attitudes have behavioral consequences while positive attitudes have none.

Figure 1: Multi-Group Structural Equation Model Across All Three Groups⁴



³ * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

⁴ Standardized regression weights of exploration sample A/ validation sample B/ validation sample C; * $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

In line with the group engagement model (Tyler and Blader 2000, 2003) the higher procedural justice, the higher were identity judgments, albeit the relation was not particularly strong ($b(IJ) = 0.20^{***}$ in A, $b(IJ) = 0.16^{***}$ in B, and $b(IJ) = 0.10^{**}$ in C). High national identification (i.e., identity judgments) itself is positively related to motivational postures of deference ($b(IJ) = 0.11^{**}$ in A, $b(IJ) = 0.13^{***}$ in B, and $b(IJ) = 0.20^{***}$ in C) and negatively related to those of defiance ($b(IJ) = -0.11^{**}$ in A, $b(IJ) = -0.11^{**}$ in B, and $b(IJ) = -0.12^{***}$ in C). This illustrates that taxpayers highly identified with Australia rather hold positive than negative attitudes towards paying taxes. The relation of identity judgments with tax non-compliance is even smaller than with the other latent constructs and statistically significant only for sample B and C. Regarding the influence on tax non-compliance only the negative attitudes towards taxation (i.e., motivational postures of defiance) led to corresponding (evasion) behaviors ($b(IJ) = 0.18^{***}$ in A, $b(IJ) = 0.27^{***}$ in B, and $b(IJ) = 0.19^{***}$ in C).

V. CONCLUSION

The present study is aimed at contributing to research about the relationship between government, tax authorities, and taxpayers. The relationship of Australian taxpayers with their government was assessed by identity judgments whereas their relationship with tax authorities was measured through questions regarding their perceived procedural justice.

In order to depict the relations of those constructs, the group engagement model (Tyler and Blader 2003) derived from the organizational context was applied for the present context of tax compliance. This model explains the links between procedural justice, resource judgments (i.e., distributive justice and outcome favorability), identity judgments, and engagement (i.e., psychological and behavioral). Procedural justice and identity judgments address the relationship between government, tax authorities, and taxpayers as explained above. Resource judgments refer to evaluations about the outcome and behavioral engagement is defined here as the actual tax (non-)compliance. In regard to psychological engagement the model was extended by the motivational postures (Braithwaite 2003). There are two kinds of motivational postures which precede behavior. Deference postures (i.e., commitment and capitulation), on the one hand side, increase tax compliance and defiance postures (i.e., resistance, disengagement, and game-playing), on the other side, reduce tax compliance. Motivational postures, in turn, are affected by identity judgments, procedural justice, and resource judgments. These proposed relations were tested by structural equation modeling.

For the purpose of increased validity, the causal paths were tested with three different samples, two of which were taken from the Community, Hopes, Fears, and Actions Survey (Braithwaite 2001, Braithwaite, Reinhart, Mearns and Graham 2001) and one of which was taken from the 'Australian tax System – Fair or not Survey' (Braithwaite and Reinhart 2005).

The first sample served as exploration sample, whereas the second and third samples were used to test the stability of the results obtained from the first sample. Based on the results analyzing the exploration sample, it was decided to exclude resource judgments from the further analysis.

Overall, and despite the limitations of the findings in terms of extrapolability, the analysis shows a clear direct effect of procedural justice on motivational postures with all

three samples. When people feel treated in a procedurally fair manner by the tax authority and procedurally fair decision rules are employed, motivational postures of deference increase whereas motivational postures of defiance decrease. This effect is additionally mediated by national identity judgments. Receiving fair treatment and fair decision making processes communicate identity relevant information regarding peoples' status within the group (i.e., respect) as well as the status of the group (i.e., pride). These identity judgments, in turn, affect motivational postures of deference positively and those of defiance negatively. The results also indicate that defiance-oriented motivational postures are associated with tax non-compliance. However, the assumed negative influence of deference-oriented motivational postures on tax non-compliance could not be shown. A possible interpretation for this unexpected result might be that unfavorable attitudes towards taxation have a stronger impact on behavior than favorable attitudes.

The statistically non-significant path between deference postures and tax non-compliance just as a low weighted path between identity judgments and tax non-compliance could be due to the ground effect for tax non-compliance or the ceiling effect for identity judgments, respectively. In both waves of the survey, only a relatively small minority admitted non-compliant tax behavior and the grand majority of participants indicated a high identification with Australia. This ceiling effect of identity judgments also makes it difficult to fully clarify whether identity judgments mediate the relationship between procedural justice and tax compliance as proposed by the group engagement or rather moderate this relationship as reported by Wenzel (2002).

A further limitation of the data samples was the considerable amount of missing data despite imputation with hot deck method using SOLAS 3.2. However, most missing data refer to tax non-compliance due to the sensitivity of the topic. Since the different forms of non-compliance did not correlate with each other, it does not seem appropriate to impute one form of tax compliance from the other one.

Summing up, the present study integrates assumptions of the group engagement model of cooperation with the concept of motivational postures. This approach showed to be particularly fruitful since non-compliance is a very sensitive issue both for taxpayers and governments. By incorporating motivational postures as attitudinal measures of tax paying behavior, it was possible to depict the indirect effect of procedural justice on tax (non-)compliance.

In line with the results obtained, the responsive regulation approach proposes that governments adjust regulatory efforts to the behavior of taxpayers. People highly identified with the nation and committed to pay their fair share of taxes want to be treated in a respectful and fair manner in order to honestly declare taxes. Alternatively, the consequences for trust in institutions and readiness to contribute to their funding could be dramatic.

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