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Article

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Ekonomický časopis

Provided in Cooperation with:
Slovak Academy of Sciences, Bratislava

Reference: Olexová, Cecília/Sudzina, František (2019). Does personality influence willingness to pay taxes?. In: Ekonomický časopis 67 (10), S. 1055 - 1069.

Does Personality Influence Willingness to Pay Taxes?[1]

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Abstract

Governments rely on income from taxes to function. Tax evasion therefore affects them directly. Although tax compliance has been studied, the literature does not exhaustively elucidate the factors that affect tax compliance and tax morale. The article contributes to closing the gap by investigating whether personality is a factor influencing tax morale. Personality traits were measured using the Big Five Inventory 2 and the measure of Honesty-Humility from HEX--ACO-PI-R. Ordinary least squares regression was used for estimation; the explained variable was the amount that respondents would be willing to pay in taxes (given the full amount), and explanatory variables were personality traits in the first model and facets in the second model. The findings suggest that the personality traits of conscientiousness (responsibility and/or productiveness) and honesty (modesty and/or greed avoidance), along with demographic factors, have a significant impact on the attitude towards paying more taxes.

Keywords: *tax morale, tax compliance, tax evasion, personality traits, empirical research*

JEL Classification: H26, D91

Introduction

Attitudes towards paying taxes have been a common subject of research. Most taxpayers tend to pay taxes, although there is a small probability that tax evasion would be revealed (Fonseca and Myles, 2012a; Torgler and Schneider,

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[1] This work was supported by the Slovak Research and Development Agency under grant No. APVV-16-0160 *Tax evasion and tax avoidance (motivation factors, formation and elimination).*

2005). Despite this, the extent of tax evasion is still considerable. The value added tax (VAT) has the most notable share in the tax gap, along with the highest proportion in the structure of state budget revenue. Tax fraud can also be hidden more easily in the case of VAT. Needless to say, the tax gap includes not only evasion caused by carousel fraud (Zídková and Pavel, 2016), but also tax evasion arising from other taxes within the shadow economy, possible errors, as well as unpaid taxes due to insolvency. The tendency to pay or avoid paying taxes has been the subject of several studies (Blanthorne and Kaplan, 2008; Hallsworth et al., 2017; Heinemann, 2011; Kim and Im, 2017; Konrad and Qari, 2012; Putniņš and Sauka, 2011; Torgler, 2012), but the question has not been exhaustively answered yet.

Tax compliance is a complex behavioural issue (Cummings et al., 2006). Understanding the processes through which individuals make a compliance decision is important in designing effective policies and tools for reducing tax evasion and tax avoidance. It does appear, though, that tax compliance is positively related to tax morale (Hug and Spörri, 2011). Tax morale can be defined as 'the intrinsic motivation to pay taxes that arises from the moral obligation to pay taxes or the belief in contributing to society by paying taxes' (Cummings et al., 2006); the same definition is used by Torgler and Schneider (2007). According to Weck (1983), there is a strong relationship between tax morale and the size of the shadow economy. This was confirmed by Torgler (2003a), who concluded that tax morale significantly reduced tax evasion, and by Alm and Torgler (2006), who found a strong negative correlation between the size of the shadow economy and the degree of tax morale in selected countries (the United States and 16 European countries).

A sufficient determination of the factors that have an impact on tax morale is still lacking. Hanousek and Palda (2004) concluded that tax evasion is lowest among those who believe that they are getting good quality government services for the taxes they pay. Alm and Torgler (2006) argue that tax morale is likely to be influenced by factors such as perceptions of fairness, trust in the institutions of government, the nature of the fiscal exchange between taxpayers and government and a range of individual characteristics, and that tax morale is likely to differ across countries because of cultural differences across those countries. Their empirical research was aimed at cultural differences, as have been other surveys (Hofmann, Voracek and Kirchler, 2017; Strielkowski and Čábelková, 2015; Torgler, 2003b; Torgler and Schneider, 2005). Slovakia has had a middling level of tax morale over time (Babčák, 2017), the level of tax gap, expressed in percentage of GDP, was 7.3%, which is less than the average level in the EU (28 countries), 10.7% (Raczkowski, 2015). Strümpel (1969) and Schmölders

(1960; 1970), from the Cologne school of tax psychology, have tried to explain economic phenomena not only by economic factors but also from the point of view of social psychology, and they conducted research focused on tax morale. Both researchers examined the factors influencing tax morale, such as tax morale among self-employed workers and among employees, as well as different tax systems in various countries. Overall tax morale in different countries, dependent on culture and the attitude of people towards tax compliance, should also be taken into consideration. Some of the studies also considered church attendance (e.g. Alm and Torgler, 2006; Strielkowski and Čábelková, 2015) and proved a highly significant positive effect on tax morale.

Enormous effort to distil the sociological and social psychological influences on tax compliance was manifested by Kirchler (2007) in the publication *The Economic Psychology of Tax Behaviour* and later Kirchler and Wahl (2010) by providing the tax compliance inventory TAX-I. The research gap focused on personal characteristics in the tax morale literature still remains. The organisational approach based on comprehending the act of economic crime as a collective act, dominates the research on economic crime; only a few studies have examined what personality type characterises the economic criminal. The results suggest that there is a clear tendency towards economic criminality in at least these personality types – the positive extrovert, the disagreeable and the neurotic – while there are two personalities related to law-abiding behaviour – the conceited and agreeable (Alalehto, 2003). Self-control, which is a trait associated in the Big Five Inventory to Conscientiousness, is one of variables in predicting criminal behaviour and it explains between 10% and 16% of the variance in committing crimes (Vazsonyi et al., 2001).

Another predictive variable is neuroticism (Agnew et al., 2002). The use of personality in economics is still in its early stages, however, and more research is needed to examine relationships between personality traits and compliance (e.g. Alalehto, 2003; Kirchler, 2007; Malezieux, 2017). To move to the individual level, the topic of tax morale leads to the question of how personality influences attitudes towards paying taxes.

This paper provides new insight into the factors that have an impact on tax morale. The objective of this paper is to find the extent to which a person's personality affects the paying or avoiding of taxes, as well as which personality traits from the Big Five Model (Costa and McCrae, 1992) and Honesty-Humility (H) of the HEXACO model (Ashton and Lee, 2009) are involved. As tax compliance attitudes may differ across countries, this paper contributes to the knowledge of the situation in the Slovak Republic, which is missing in the literature, by describing the cultural specifics of Slovak taxpayers.

The paper is organised as follows: after the introduction, the methodology and data used section contains the description of the data, their collection and analysis methods. Results are presented in the following section. The discussion and conclusions are provided in the final sections, including implications and directions for future research.

1. Methodology and Data Used

Respondents to the survey were students of the master's program in Corporate Financial Management at the University of Economics in Bratislava, Slovakia. The sample of respondents was selected based on the possible influence of respondents in tax decisions after graduating university and becoming entrepreneurs or employees of corporations. Tax compliance is generally desirable, so taxpayers are not likely to admit tax evasion or tax avoidance behaviour. This creates a problem in eliciting honest answers about dishonest behaviour (Mascagni, 2018), even in the anonymous surveys. For example, in the research by Alalehto (2003), the interviews with businessmen, who acted as informants providing subjective data about the business activities of a close friend or colleague (an individual) were used. The purpose of this technique was to maintain anonymity and avoid the fear of revealing the people on whom they were reporting.

In our research, students were the subjects of the research. Students are expected to respond more honestly, as they have no concern about self-embarrassment or other negative consequences. According to Fonseca and Myles (2012a), who presented the results of a behavioural study of tax evasion in which they used a subject pool with about equal numbers of undergraduate students and workers, students may approximate the behaviour of taxpayers who are not attitudinally compliant. They therefore represent a useful source of information about tax compliance.

Students of the study programme (262 enrolled students at regular and external study at the second level of the programme) were asked to complete questionnaires during seminars on the topic of personality, with the motivation of examining their personality traits. All of the students attending the particular seminar about personality showed an interest in finding out about their traits and agreed for their questionnaires to be used in the present research. All of the respondents were given the same paper-based questionnaires: there were no modifications, and there was no manipulation involved. In total, there were 209 students who completed and returned the questionnaires (80% return rate), of whom 205 (55 male and 150 female) answered all relevant questions. Data were collected in September 2018.

Personality traits were measured using the Big Five Inventory 2, a 60-item version of the questionnaire for the Big Five Inventory, developed by Soto and John (2017). Personality traits from the Big Five Model include five factors forming the basic dimensions of individual differences: neuroticism, extraversion, conscientiousness, agreeableness, and openness to experience (Costa and McCrae, 1992).The instruction was to rate 'How well do the following statements describe your personality?' with statements 'I see myself as someone who...' on a 5-point Likert-type scale (where 1 means strongly disagree and 5 means strongly agree). The Slovak translation of the questions was used following the Slovak translation of BFI-2 items by Halama and Kohút (2017), as was published on the official website of the authors of BFI-2.

Moral emotions can explain evasion behaviour better than any other personality questionnaire (Malezieux, 2017). Thus, Honesty-Humility (H), one of the dimensions of the HEXACO model of personality structure (Ashton and Lee, 2009) was used, as this scale assesses an important personality construct that is only partially expressed in measures of the Big Five (Lee and Ashton, 2018). Items for the Honesty-Humility measure from the Slovak version of the 100-item version of the HEXACO-PI-R scales (Lee and Ashton, 2018) were used: sincerity, fairness, greed-avoidance and modesty. Each respondent was asked to indicate his/her response in terms of how much he/she agrees or disagrees with the statements using a 5-point Likert-type scale, with response options given from 1 (strongly disagree) to 5 (strongly agree). The respondents were asked to answer every statement, even if they were not completely sure of the response.

All of these personality traits consist of facets (subdimensions), which were calculated from the same statements as traits. In the next section, models using traits are provided first, followed by models based on facets. An advantage of testing also facets as explanatory variables is that two facets of the same trait could possibly influence the explained variable in opposite directions making thetrait as a whole not significant. The analysis has shown that this was not a case in this investigation. A disadvantage of testing facets as explanatory variables is that they are correlated to other facets within the same trait. The correlation matrix for traits and facets is provided at: <https://www.dropbox.com/s/dhqhajoux4y53ps/correlation_matrix_tax_BFI2_H.xlsx?dl=0>.

To find out the intention to comply or avoid complying with tax regulations, a scenario from an experimental study on tax compliance (Gangl, Torgler and Kirchler, 2016) was used. Use of this scenario was endorsed by the conclusion of Mascagni (2018) that researchers of tax compliance should endeavour to achieve comparability across studies. This scenario was adjusted to conditions in the Slovak Republic: instead of a 40% tax, a 19% income tax was used; instead of an absolute tax amount EUR 83,330, the scenario used EUR 4,000. The 17%

probability of a tax audit was kept. The actual wording was as follows: 'Imagine you have to pay a 19% tax on self-employment income (EUR 4,000 in tax), with an audit probability of 17% and a tax evasion fine equal to the amount of the tax evaded', followed by an open-ended question 'What tax would you be willing to pay?' This was used as the dependent variable.

Besides gender, the respondents also provided information as to whether they live with their parents, live with parents but at the dorm or in a rented apartment while studying or live in their own household. These variables were used as independent variables in the model, along with personality traits or facets. One of the related factors, church attendance (Alm and Torgler, 2006) was avoided. Although church attendance is perceived as socially desirable in the United States, it is considered to be a delicate matter of personal concern and unwillingness to respond to such a question was expected. Limited socio-demographic characteristics were used to achieve the anonymity. Descriptions of all variables used are presented in Table 1.

T a b l e 1

Description of Variables

Variables	Mean	Std. Deviation
Tax	3639.2390	999.71294
Gender	.2683	.44416
Live with parents	.4927	.50117
Live also with parents but during studies at the dorm or in a rented apartment	.4098	.49299
Honesty	3.3646	.57732
Sincerity	3.2744	.80365
Fairness	3.4902	.90065
Greed avoidance	3.2232	.88382
Modesty	3.4707	.79813
Extraversion	3.4831	.58479
Sociability	3.4846	.81518
Assertiveness	3.2841	.70062
Energy Level	3.6793	.67328
Agreeableness	3.7167	.53871
Compassion	3.9805	.68213
Respectfulness	3.9329	.67615
Trust	3.2366	.64417
Conscientiousness	3.5004	.64267
Organization	3.5463	.85049
Productiveness	3.4012	.75913
Responsibility	3.5537	.62243
Neuroticism	2.8435	.62475
Anxiety	3.0000	.75041
Depression	2.5451	.77260
Emotional Volatility	2.9854	.78460
Openness to experience	3.4988	.61655
Intellectual Curiosity	3.5098	.66229
Aesthetic Sensitivity	3.3329	1.00267
Creative Imagination	3.6537	.66342

Source: Own calculations.

The questionnaire also contained additional questions that were not used in the analysis presented in this paper. Ordinary least squares regression was employed for the lin-lin model with dummy variables; IBM SPSS 22 was used for the analysis.

2. Results

Parameter estimates for the model explaining how much tax a respondent would pay given the respondent's demographic factors and personality traits are provided in Table 2.

T a b l e 2

Parameter Estimates for the Full Model with Personality Traits

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2 652.647	1055.477		2.513	.013
[Gender = male]	–384.386	161.883	–.171	–2.374	.019
[Live = with parents]	1 095.874	233.408	.549	4.695	.000
[Live = with parents but during studies at the dorm or in a rented apartment]	1 120.292	239.936	.552	4.669	.000
Honesty	238.456	125.090	.138	1.906	.058
Extraversion	–14.934	126.437	–.009	–.118	.906
Agreeableness	40.256	161.824	.022	.249	.804
Conscientiousness	–232.910	129.661	–.150	–1.796	.074
Neuroticism	–15.440	126.660	–.010	–.122	.903
Openness to experience	14.297	121.947	.009	.117	.907

Source: Own calculations.

The model per se is significant (p-value < .001). With regard to the explanatory power, $R^2 = .152$, $R^2_{adj} = .113$.

T a b l e 3

Parameter Estimates for the Streamlined Model with Personality Traits

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2 622.592	606.816		4.322	.000
[Gender = male]	–386.626	154.535	–.172	–2.502	.013
[Live = with parents]	1 097.040	229.684	.550	4.776	.000
[Live = with parents but during studies at the dorm or in a rented apartment]	1 130.519	235.880	.557	4.793	.000
Honesty	253.762	116.609	.147	2.176	.031
Conscientiousness	–210.596	104.644	–.135	–2.013	.046

Source: Own calculations.

Demographic factors and honesty are significant at the .05 level. Among other personality traits, only conscientiousness is significant at the .1 level. Parameter estimates for the model with only honesty and conscientiousness and no other personality traits are provided in Table 3.

The model per se is significant (p-value < .001). With regard to the explanatory power, R^2 = .152, R^2_{adj} = .131. In the streamlined model, conscientiousness is significant at the .05 level.

Personality traits consist of facets. To better understand what influences how much tax a respondent would pay, it is possible to go a level deeper. Parameter estimates for the model explaining how much tax a respondent would pay given the respondent's demographic factors and facets are provided in Table 4.

T a b l e 4

Parameter Estimates for the Full Model with Facets

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2 372.697	1 238.767		1.915	.057
[Gender = male]	–464.015	171.714	–.206	–2.702	.008
[Live = with parents]	1025.540	240.500	.514	4.264	.000
[Live = with parents but during studies at the dorm or in a rented apartment]	1 095.582	246.943	.540	4.437	.000
Sincerity	103.821	90.650	.083	1.145	.254
Fairness	–125.723	89.653	–.113	–1.402	.163
Greed avoidance	74.565	95.550	.066	.780	.436
Modesty	193.819	105.508	.155	1.837	.068
Sociability	–209.761	105.967	–.171	–1.979	.049
Assertiveness	91.914	131.507	.064	.699	.485
Energy Level	219.878	146.213	.148	1.504	.134
Compassion	278.331	140.031	.190	1.988	.048
Respectfulness	–110.417	160.781	–.075	–.687	.493
Trust	–24.949	127.718	–.016	–.195	.845
Organization	125.603	116.723	.107	1.076	.283
Productiveness	–162.888	138.460	–.124	–1.176	.241
Responsibility	–306.439	168.978	–.191	–1.813	.071
Anxiety	–156.944	119.246	–.118	–1.316	.190
Depression	60.905	133.092	.047	.458	.648
Emotional Volatility	86.128	120.163	.068	.717	.474
Intellectual Curiosity	–178.464	139.517	–.118	–1.279	.202
Aesthetic Sensitivity	83.781	81.762	.084	1.025	.307
Creative Imagination	69.316	145.862	.046	.475	.635

Source: Own calculations.

The model per se is significant (p-value < .001). With regard to the explanatory power, R^2 = .241, R^2_{adj} = .149.

In the full model, the demographic factors sociability (a facet of extraversion) and compassion (a facet of agreeableness) are significant at the .05 level; modesty (a facet of honesty) and responsibility (a facet of conscientiousness) are

significant at the .1 level. If alongside demographic factors only sociability and compassion were included in a model, their p-values would be .374 and .313, respectively. Therefore, further analysis was needed. Multiple sub-models were tested, and parameter estimates for the best sub-model (with all variables significant at the .05 level) are provided in Table 5.

T a b l e 5

Parameter Estimates for the Streamlined Model with Facets

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2688.482	556.098		4.835	.000
[Gender = male]	–382.699	153.443	–.170	–2.494	.013
[Live = with parents]	989.198	226.362	.496	4.370	.000
[Live = with parents but during studies at the dorm or in a rented apartment]	1091.660	230.917	.538	4.728	.000
Modesty	255.071	84.559	.204	3.016	.003
Responsibility	–215.701	107.817	–.134	–2.001	.047

Source: Own calculations.

The model per se is significant (p-value < .001). With regard to the explanatory power, $R^2 = .173$, $R^2_{adj} = .152$. If sociability and compassion were included in the streamlined model, their p-values would be .412 and .150, respectively.

Since facets belonging to one trait are correlated, and therefore there is an inherent issue of collinearity, additional analysis was conducted without considering modesty and responsibility - multiple sub-models were tested, and parameter estimates for the best sub-model (with all variables significant at the .05 level) are provided in Table 6.

T a b l e 6

Parameter Estimates for the Streamlined Model with Facets

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2842.702	452.963		6.276	.000
[Gender = male]	–396.909	150.631	–.176	–2.635	.009
[Live = with parents]	1106.830	229.747	.555	4.818	.000
[Live = with parents but during studies at the dorm or in a rented apartment]	1111.443	234.655	.548	4.736	.000
Greed Avoidance	44.459	18.725	.157	2.374	.019
Productiveness	–197.255	87.269	–.150	–2.260	.025

Source: Own calculations.

The model per se is significant (p-value < .001). With regard to the explanatory power, R^2 = .157, R^2_{adj} = .136. If sociability and compassion were included in the streamlined model, their p-values would be .557 and .150, respectively.

After repeating the same process again without considering modesty, greed avoidance, responsibility, and productiveness, it was not possible to create a model with any significant facets. With regards to the explanatory power, it may appear that the there is a difference between the full model (R^2 = .241, R^2_{adj} = .149) and streamlined models (R^2 = .173, R^2_{adj} = .152 and R^2 = .157, R^2_{adj} = .136) but it is important to focus more on R^2_{adj} than on R^2 as such. Additionally, both streamlined facet-level models marginally outperform the streamlined trait-level model (R^2 = .152, R^2_{adj} = .131).

To sum up, the findings from the streamlined models are consistent with the model from Table 3: along with demographic factors, it is modesty and/or greed avoidance (from the Honesty-Humility measure) and responsibility and/or productiveness (from conscientiousness in the Big Five) that impact how much tax a respondent would pay. Women, students who live with their parents and more modest and less responsible respondents are willing to pay more taxes.

3. Discussion

Attitudes towards paying taxes are difficult to clarify; there are likely various unrelated factors in play. Because personality factors are probably involved in the explanation of tax morale – along with other aspects – personality traits and their facets were examined in relation to tax morale.

Conscientiousness was determined to influence willingness to pay taxes. The same result was found by Almlund et al. (2011), who stated that conscientiousness and agreeableness are protective factors involved in the decision to commit criminal activity, and conscientiousness was explained by its association with self-control. Delving a little deeper into our results, responsibility and/or productiveness are facets of conscientiousness that influence how much tax a person would be willing to pay. This concurs with the prevailing opinions in the discussion among participants in the international scientific conference 'I. Slovak--Czech Days of Tax Law: Tax Evasion and Tax Avoidance', held October 2017 in Košice, based on the experience of tax officers and employees of the Financial Administration of the Slovak Republic and Academy of the Police Force. The profile of tax fraudsters was discussed in general. The common tax fraudster is a responsible, consistent, precise and organised person, who is also well educated and has extensive experience in accounting and taxes. This can partly explain the relationship between responsibility and tax morale, and responsibility may be

considered a predisposition for the tendency to avoid taxes. This explanation also accords with the view of Edwin Sutherland (Geis and Goff, 1983), who emphasised that economic crime was the concern of upper class, socially well-adjusted and healthy people who executed it regardless of whether acting on behalf of a company or against a company. In any case, the responsibility facet links to balancing one's own budget rather than to being responsible on a societal level, and it is understood in this way. Still, replication would be useful to find out the significance of this facet due to a p-value close to .05.

Among other personality traits, extraversion and agreeableness were significant at the .05 level, what is comparable with the results presented by Alalehto (2003). Sociability, a facet of extraversion, decreases the amount of tax paid, which corresponds with the positive influence of extroversion as a personality type on the tendency towards tax evasion presented by Alalehto (2003). Agreeableness was considered to be a factor influencing law-abiding behaviour, in the same way as compassion in our study, which is a facet of agreeableness.

The Honesty-Humility scale was used to examine the relationship to tax morale; this scale has also been used in predicting moral behaviour by, for example, Vranka and Bahník (2018), specifically in the prediction of bribe taking and corruption. Modesty and/or greed avoidance, as facets of honesty, are not surprisingly related to tax morale. More modest persons have a tendency to pay more taxes, consistent with the characteristics of modesty and its positive association with desirable traits, such as being unassuming and not breaking rules for personal profit.

Besides the personality traits, a significant relationship was confirmed between gender and tax morale. Similar to the results of other studies (e.g. Baldry, 1987; Fonseca and Myles, 2012b; Hanousek and Palda, 2004; Hofmann, Voracek and Kirchler, 2017), this study found that women tend to comply more with tax duties than men.

Students who are supported by their parents and still live with them are willing to pay more taxes. The motives for this remain unclear, however; it may be due to the predomination of the parents' rules or to the fact that the students are not under heavy pressure to support themselves, so they do not think about tax non-compliance as a solution. We conjecture that students living in their own household would be more in compliance with one of the two characteristic personality types that have the tendency towards economic criminality as defined by Alalehto (2003). The first is the person who wants to compete and assert him- or herself; the second type is a person in a desperate economic situation (e.g. bankruptcy or threat of foreclosure) and is ready to commit crime to save his or her position as a businessperson.

It should also be noted that the results of the research should be viewed rather as the first iteration, a pilot survey conducted on a limited sample of respondents due to the limitations of the authors and without high costs (similarly small samples or samples of students were used e.g. in surveys of Alalehto, 2003; Cummings et al., 2006; Gangl, Torgler and Kirchler, 2016). Nevertheless, the results cannot be considered biased because they are the results of real primary research. The importance of this research is also methodological, as the results have shown that there were such students among the respondents who admitted to the intention of tax evasion despite the sensitivity of the topic. Therefore, it makes sense to conduct further research on a large group of students, including comparison with other countries.

Conclusions

Tax morale in Slovakia, a country that represents central Europe not only from a geographical but also from political and economic points of view, was studied to fill the gap in the tax compliance and tax avoidance research. Although one of the factors that affects tax compliance is tax policy, with all its means (Červená and Cakoci, 2018), the study of tax morale from the personality perspective supplements the understanding of individuals' attitudes towards paying taxes and confirms the results of Alalehto (2003) that personality does matter in economic crime.

Responsibility and/or productiveness (facets of conscientiousness) and modesty and/or greed avoidance (facets of honesty) were found to have an impact on willingness to pay taxes. The model with facets presented in the paper therefore explains willingness to pay taxes more satisfactorily than the model with personality traits alone, while relying on fewer statements. Future surveys might therefore focus only on statements for modesty and responsibility (along with demographic factors), which would also account for other independent variables, to shorten the questionnaire without a significant loss of explanatory power. Sociodemographic characteristics should be controlled for in tax compliance research, but if future research is again based on a student sample, it is probably not necessary to distinguish between students who live with their parents during the semester and students who live with parents but in a dorm or rented apartment during the school year; it is probably sufficient to distinguish between students who live with their parents and those who live in their own household.

Future qualitative research should investigate why responsibility (or conscientiousness in general) leads to a lower willingness to pay taxes. The parameter estimate for responsibility would have the same sign and approximately the same

size, even if modesty is excluded from the model – that is, it does not compensate for a particular feature of modesty. This research could be combined with an experiment using different scenarios with changes in the probability of a tax audit and the size of the tax evasion fine (see Fonseca and Myles, 2012a) and could be moved away from a student subject base.

The motives for tax evasion, opportunity for crime and risk aversion are other factors that could activate economic crime behaviour in addition to personality traits and should be examined in future research. The focus of this study has been personal income tax, not least because psychology is better able to analyse individual rather than institutional behaviour (see, e.g. Webley and Ashby, 2010). But the inclination towards tax compliance in a company can be partly explained by the attitude of individuals, so the results could still be generalisable.

The results presented are of more than just academic interest and can be used, for example, in the recruitment process to fill the posts of business leaders, economic and financial managers, or in investigating economic crime. Understanding of the factors that affect payment of taxes can also lead to better governance of taxpayers and would ensure higher rates of tax collection.

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