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Measuring Tax Compliance Attitudes: What surveys can tell us about tax compliance behaviour

Diana Onu
University of Exeter

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**Measuring Tax Compliance Attitudes: What surveys can
tell us about tax compliance behaviour**

Summary

This brief paper discusses the relevance of conducting surveys that measure people's attitudes for understanding fiscal behaviour. While many surveys assess people's attitudes towards paying taxes (for example, by asking people to what extent they believe tax evasion is ever justified), it is less clear whether people's responses to such survey questions are indicative of the way they would behave in reality. We present a very brief overview of the way attitudes have been assessed in tax surveys and then discuss existing evidence to support a link between these attitude measures and actual compliance behaviour. We conclude by making a series of recommendations for measuring attitudes and interpreting attitude surveys in order to maximise the extent to which attitude measures are able to predict behaviour.

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1. Introduction: tax compliance attitudes

Broadly defined, attitudes refer to people's evaluations (favour or disfavour) of objects, persons, groups, or behaviours. People hold attitudes that are relatively stable towards many aspects of social life, including the society they live in, its system of government, and indeed about the tax system and their obligation to pay taxes. Some people may develop a chronic dislike of the tax system, while others may hold particularly favourable attitudes.

Given that attitudes are theorised to be relatively stable across individuals' lifespan (Ajzen & Fishbein, 1977), and may be useful indicators of the actions people take (such as tax compliance or noncompliance), it is not surprising that many studies looking at tax behaviour have focused on measuring attitudes, particularly survey research. Whether they look at attitudes towards tax compliance (e.g., Webley, Cole, & Eidjar, 2001), 'tax dodgers' (e.g., Kirchler, 1998), the tax system (e.g., Chan, Troutman, & O'Bryan, 2000), or the tax authority (e.g., Hartner, Rechberger, Kirchler, & Schabmann, 2008), many survey studies attempt to capture people's evaluations (whether researchers label these evaluations as 'attitudes' or not).

For the most part, the motivation of researchers in surveying attitudes is that they are indicative of behaviour. For instance, they rest on the assumption that if people say that they feel strongly against tax evasion, they are less likely to evade taxes. However, the relationship between attitudes and behaviour is rarely straightforward (Ajzen & Fishbein, 1980). In many cases, people do not necessarily do 'what they preach'. While it may seem counterintuitive, it is not unusual for people to favour a certain action (such as complying with tax obligations) but act in the opposite way. This inconsistency occurs because many other factors apart from attitudes are involved in determining behaviour, such as people's ability to perform the action, or external circumstances such as peer pressure.

There is a long research tradition, particularly in social psychology, of investigating the link between attitudes and behaviour (see for example Olson & Zanna, 1993). While it became apparent early on in this research tradition that attitudes are sometimes completely unrelated to behaviour (so that people often

say one thing but do another), advances over the last decades have focused on determining those circumstances that make people most likely to act in accordance with their attitudes. In this paper, we employ these research results to understand the area of tax behaviour, and in particular to understand when attitudes related to tax are relevant for tax behaviour. Although some may question the extent to which attitudes are at all relevant to understanding tax behaviour (e.g., Hessing, Elffers, & Weigel, 1988), our position is that attitude measurement can be useful, but it will be enhanced by understanding **when** attitudes are most likely to be indicative of behaviour. Rather than questioning the usefulness of measuring tax attitudes per se, we are concerned with providing some pointers on how to measure attitudes and interpret the results of attitude measurements in order to maximise their relevance for predicting tax behaviour. In the remainder of the paper, we present a brief overview of the nature of attitudes and how they have been assessed in the tax literature, and then investigate the link between tax attitudes and tax behaviour (particularly tax compliance). We conclude by discussing the implications for carrying out and interpreting tax compliance surveys.

2. Tax attitudes research – brief overview

Attitudes are often defined as evaluations in relation to a particular object, person, behaviour, etc. (e.g., Ajzen, 1991). They are complex psychological constructs that are theorised to have several components: cognitive components (the beliefs that accompany an attitude), affective components (the emotional response related to an evaluation), and a behavioural component (the behavioural tendencies associated with an attitude). People may hold attitudes towards objects (for instance, towards mobile phones), other people or categories of people (for example, attitudes towards people belonging to a specific profession), towards certain behaviours (such as recycling), etc. Attitudes are thought to aid individuals to relate to the outside world, and are involved in many aspects of life from problem-solving to maintain a sense of personal identity (Pratkanis & Greenwald, 1989). While attitudes are broad evaluations, they are thought to impact specific behavioural intentions (see Ajzen & Fishbein, 1980); for example, a general favourable attitude towards academic achievement may impact a wide range of specific behaviours throughout a person's life, from performance in early school years to interest in adult evening classes or professional development courses. Because attitudes are thought to be relatively stable over time, psychologists have

been interested in measuring these attitudes because they are believed to be informative of a range of specific behaviours. Applied to the realm of tax behaviour, a researcher may be interested to measure a person's general attitude towards paying taxes because this stable general attitude may be indicative of a wide range of specific behaviours, such as underreporting income in any given year, filing a tax return on time, cooperating with the authorities, etc.

Given this apparent value in measuring broad attitudes, a wide range of tax compliance studies have assessed attitudes, even if they do not necessarily label it as such. For instance, in early research looking at the social and psychological determinants of tax compliance, Schmolders (1959) was interested in what he called people's 'tax mentality', their general favourable or unfavourable stance toward paying taxes, a concept akin to attitudes. Another example is the literature on 'tax morale', defined as 'intrinsic motivation' to pay taxes (Alm & Torgler, 2006), a generalised stance that is akin to the attitude concept, in particular its behavioural component. Reviewing taxpaying attitudes research, Kirchler (2007) notes that the wide variety of tax behaviour studies focus on concepts similar to attitudes, although they may not explicitly use the term 'attitude'. What varies across studies though is the object of these attitudes – while some may refer to 'paying or evading taxes' (e.g., Alm & Torgler, 2006), others refer to the 'tax system' (e.g., Schmolders, 1959), attitudes towards 'tax authorities' (e.g., Braithwaite, 2009), or even 'tax evaders' (e.g., Kirchler, 1998).

Some studies investigating attitudes have focused on attitudes towards the state in general, or the tax system in particular. For instance, in his pioneering work on tax compliance, Schmolders (1959) surveyed people's attitudes towards the state and the fairness of the tax system. More recent surveys also include measures of tax system fairness beliefs (e.g., Chan et al., 2000; Groenland & van Veldhoven, 1983; Stalans, Kinsey, & Smith, 1991; Vogel, 1974; Zahid, 2012), beliefs which underlie people's attitudes about the tax system (Bobek & Hatfield, 2003). A related area of attitude research is the investigation of attitudes towards tax authorities, such as the fairness of their approach (e.g., Hartner et al., 2008; Murphy, 2004; Vogel, 1974; Wallschutzky, 1984; Webley et al., 2001). Braithwaite (2003, 2009) argues that these attitudes underlie people's motivation to cooperate with or defy tax authorities.

A large proportion of studies that include attitude measures focused on attitudes towards the behaviour of tax evasion (e.g., Barham & Fox, 2011; Bobek & Hatfield, 2003; Eriksen & Fallan, 1996; Groenland & van Veldhoven, 1983; Hessing et al., 1988; Lewis, 1982; Niemiowski, Wearing, Baldwin, Leonard, & Mobbs, 2002; Orviska & Hudson, 2003; Porcano, 1988; Song & Yarbrough, 1978; Vogel, 1974; Wärneryd & Walerud, 1982; Webley et al., 2001). Many of these studies look at the relationship between people's attitudes towards evasion, on the one hand, and intentions to evade or self-reported compliance, on the other. We discuss these findings in the following section.

An area related to evasion attitudes research is the investigation of tax morale. Defined as intrinsic motivation to pay taxes (Frey & Torgler, 2007), tax morale is a construct often used to explain inter-individual and inter-group (e.g., cross-national) cultural differences in tax compliance. Many studies that rely on survey data measures of tax morale (e.g., Alm & Torgler, 2006; Cummings, Martinez-Vazquez, & McKee, 2001; Frey & Torgler, 2007; Torgler, 2005a, 2005b; Torgler & Schneider, 2002) employ a measure of tax morale extracted from the World Values Survey, a single question asking people to rate 'cheating on tax payments' from 'never justified' to 'always justified'. Although these authors do not use the term 'attitude', the construct and measurement of tax morale is similar to that of tax evasion attitudes.

Finally, some studies investigating tax-related attitudes have focused on attitudes towards others who evade (e.g., Eriksen & Fallan, 1996; Kirchler, 1998), asking respondents to evaluate tax evaders on various dimensions. It is beyond the scope of this brief paper to review the results of all of these studies.

The succinct outline above of some of the main results in tax attitude research aims to showcase the diversity and heterogeneity of approaches to tax-related attitudes. It is important to note that definitions of attitudes in tax compliance research vary widely, and that many important research streams are directly relevant to attitude research, although they may not use the term 'attitude' (for a discussion, see also Kirchler, 2007). It is also important to note that while many studies investigate attitudes related to taxes, the object of these attitudes varies from attitudes towards the state, tax system, tax authorities, evasion behaviour (in its many forms), tax evaders, etc. A number of researchers have also attempted to create composite attitude scores to measure general tax-related attitudes by aggregating attitudes with different

objects (i.e., towards the tax system, towards evasion, etc.) (e.g., Groenland & van Veldhoven, 1983; Lewis, 1982).

Given this variety of approaches to attitudes, the **measurement of attitudes** also varies greatly across studies. While some may employ simple single-question measures to capture attitudes, a number of studies provide more complex and theoretically-driven measures. In their study on the validity of tax evasion self-reports, Hessing and colleagues (1988) created an index to measure compliance attitudes by combining three attitude questions: attitudes towards underreporting income, attitudes towards unjustified deductions, and general attitudes towards evasion. They employed a widely used method for measuring attitudes towards a particular behaviour: a *semantic differentials* rating scale. In this rating system commonly used to assess attitudes (Eagly & Chaiken, 1993), participants are asked to evaluate behaviours on scales ranging from negative to positive evaluations (e.g., bad-good, unfair-fair, very disgraceful-not at all disgraceful). Semantic differentials were also employed by Kirchler (1998), who used a previously developed set of differentials (Peabody, 1985) to assess the difference in attitudes towards tax evaders and honest taxpayers. An interesting approach to evaluating attitudes was employed by Kirchler, Maciejovsky, and Schneider (2003), who investigated attitudes towards the behaviours of tax evasion, tax avoidance, and tax flight. They asked participants to produce as many spontaneous associations as possible to scenarios depicting the three tax evasion behaviours (for example, common associations were ‘clever’, ‘fraud’, ‘black money’, etc.), and then asked participants to evaluate these associations on a continuum from ‘very negative’ to ‘very positive’. Using this method, the authors managed to capture attitudes using scenarios rather than asking people to think about abstract behaviours such as ‘concealing income’. Finally, another approach to measuring attitudes was employed by Bobek and Hatfield (2003), drawing on psychological theory on the nature of attitudes (Ajzen & Fishbein, 1980). The authors rely on the conceptualisation of attitudes towards evasion as the sum of all potential outcomes from engaging in evasion, weighted by the perceived likelihood that those outcomes will occur. Specifically, they investigated participants’ beliefs about favourable and unfavourable outcomes from engaging in evasion, and found five categories of beliefs regarding the outcome of evasion: minimize taxes paid, engage in illegal behaviour, feel guilty, incur penalty, and affect fairness of taxes paid. The final attitude score was

computed as the sum of participants' beliefs about these outcomes related to engaging in evasion (for a detailed description of the method, see Bobek & Hatfield, 2003).

It becomes apparent from the outline above that attitudes have been defined and measured in very diverse ways across the literature, potentially making the comparability of all these research results difficult. Nonetheless, if we define attitudes broadly as people's favourable or unfavourable evaluations towards an attitude object (such as the behaviour of tax evasion, the category of tax avoiders, the fiscal system, etc.), it becomes apparent that much of the survey research conducted in the tax compliance field assesses attitudes. But it is rare that researchers are interested in the attitudes they study as an end-goal – it is the behaviour that these attitudes is thought to be representative of that is of interest. For instance, it is inferred that when people respond in a survey that 'tax evasion is never justified', then they would be less likely to engage in tax evasion. It is this compliance behaviour that most attitude research is aiming to predict.

3. Do people do what they say: Attitudes and behaviour

Although most attitude surveys are ultimately interested in behaviour (i.e., to predict tax compliance or non-compliance), the relationship between attitudes and behaviour is not necessarily straightforward. The attitude-behaviour link has been subject to debate since early 20th century, finding sometimes no correlation between what people report their attitudes to be and their actual behaviour (e.g., Wicker, 1969). For example, someone may display a strongly negative attitude towards smoking, but still carry on smoking due to their addiction. A person may answer that they have positive attitudes towards bungee-jumping, but still be very unlikely to engage in the behaviour because her loved ones disapprove. Many people may feel very positive towards owning their own private aeroplane if asked, but that does not necessarily mean they would purchase one. A multitude of factors intervene to make the relationship between attitudes and behaviour complex. This means people do not always act according to their attitudes, and it may sometimes be misleading to assess attitudes and infer conclusions about behaviour (for a discussion, see Ajzen, 1991).

Given the awareness that attitudes may not always predict behaviour, a number of studies in the tax compliance literature have been concerned with assessing the strength of the attitude-behaviour link. These studies attempt to measure both attitudes (for instance, attitudes towards tax evasion) and behaviour (past compliance record) to assess to what extent the two measures are correlated. For instance, Porcano (1988) measured both attitudes towards evasion and self-reported compliance to find a positive relationship between attitudes and compliance behaviour; a similar strong relationship between attitudes and evasion intentions was found by Niemirowski and colleagues (2002). Webley and colleagues (2001) found that attitudes towards tax authorities were a significant predictor of self-reported compliance. Looking at evasion intentions across different tax-related scenarios, Bobek and Hatfield (2003) also found a significant link between attitudes towards evasion and intentions to cheat. Taken together, these results point to a positive link between attitudes and behaviour, suggesting that people's responses to tax attitude measures are actually related to their subsequent compliance decisions. However, all of these studies are based on *self-reported* measures of tax compliance, as people were asked either if they evaded in the past or whether they would evade in particular future situations. Such self-reports have been criticised as invalid; given that people are motivated to respond in a way that is socially-acceptable, particularly in the case of ethical behaviour (Randall & Fernandes, 1991), people might be particularly motivated to report being more compliant than they actually have been or would be in the future (for discussions, see Elffers, Robben, & Hessing, 1992; Elffers, Weigel, & Hessing, 1987; Lewis, 1982; Webley et al., 2001). Such measurement error may cast doubt on the extent to which behaviour that is self-reported in a questionnaire is actually indicative of how people would behave in reality, in turn casting doubt on the legitimacy of the positive link between attitudes and behaviour as reported above.

It seems that an ideal solution to investigate whether attitudes are indeed linked to behaviour is to measure actual behaviour instead of self-reported behaviour. In collaboration with the Dutch tax authorities, Hessing and colleagues (1988) were able to do just that – they looked at the relationship between attitudes as measured in a survey and taxpayers' actual documented status (compliant/noncompliant) with the that authorities. They surveyed taxpayers who had been subject to a tax audit in the previous year, as well as a random sample of non-audited taxpayers. They found a positive

but weak relationship between attitudes and self-reported behaviour, but there was no relationship between attitudes and respondents' actual documented behaviour with the tax authority. Given that there was no relationship between people's reported attitudes towards evasion and their actual compliance, the authors call into question the very utility of using attitude surveys to make any inferences about past or future compliance decisions. While this conclusion may seem valid at first glance, it is worth noting that people's documented status with the tax authority is not an error-free measure of evasion behaviour, as much evasion can go undetected and there is a degree of subjectivity in the categorisation of taxpayers by tax inspectors following an audit (Antonides & Robben, 1995; Boll, 2013; Elffers et al., 1992; Long & Swingen, 1991).

Elffers and colleagues (1987) became particularly interested in the lack of validity of self-reports (people's accounts of whether they have or would evade taxes), and had the opportunity to compare a sample's documented status with the tax authority with their self-reports of compliance. They found no correlation at all between what people reported their compliance record to be in a survey and their actual status with the tax authority. In a subsequent study (1992), they used looked again at the relationship between questionnaire self-report and documented status, but also added a third measurement: people's behaviour in a tax evasion experiment. To their surprise, not only did they replicate the finding that there was no relationship between questionnaire self-report and documented status with the authorities, but none of these measures showed any correlation with how people behaved in a tax evasion experiment. Elffers, Robben, & Hessing (1991) also analysed in greater detail the tax inspectors' assessment by having income tax returns that were previously analysed by a tax inspector analysed again by both another inspector and a commission of experts from the tax authority. They found large disagreement rate between the assessment of the first inspector, on the one hand, and the assessment of the second inspector (41% disagreement) and the assessment of the expert commission (48% disagreement), on the other hand. These studies demonstrate how challenging it is to measure tax compliance behaviour reliably, and that there are significant issues surrounding both self-report and document status measures.

It thus seems particularly difficult to make any assessment of the extent to which tax compliance attitudes influence people's compliance behaviour, given that actual behaviour is difficult to measure reliably.

Although it is important to assess to what extent tax compliance attitudes influence people's compliance decisions, further research is necessary in order to provide a convincing answer regarding the relationship of attitudes and behaviour in the case of tax compliance. However, although further empirical evidence is needed, we believe that there are theoretical arguments in support of a relationship between attitudes and behaviour (which we discuss in the following section), and we can assume that attitudes have at least some impact on behaviour. In the next section, we discuss the conditions under which attitudes are most likely to impact behaviour, and also how to assess tax compliance attitudes in order to maximise their predictive value.

4. Maximising the efficacy of attitude surveys

As discussed above, there is great diversity in the definition and measurement of tax-related attitudes, as well as debate regarding the extent to which tax attitudes do indeed influence tax compliance decisions. These issues have led some authors to question the very utility of researching tax attitudes using survey methods (e.g., Hessing et al., 1988). However, there is evidence across a range of human behaviours that attitudes do influence people's behaviour (see for example Olson & Zanna, 1993), and there is evidence to support the relevance of measuring attitudes in the tax compliance field (e.g., Bobek & Hatfield, 2003; Niemiowski et al., 2002; Webley et al., 2001). Rather than asking *whether* attitudes are predictive for tax compliance decisions, we believe it is important to acknowledge that attitudes play a part in explaining tax behaviour, and rather focus on understanding *when* it is most likely that attitudes will influence behaviour. By looking at the conditions under which attitudes are most likely to influence behaviour we can maximise the usefulness of attitude surveys.

The role of attitudes in influencing behaviour has been subject to heated debates in psychology over the last decade, from those who maintain that there is a strong attitude-behaviour link (e.g., Ajzen & Fishbein, 1977) to those who deny that such a link is significant and question the usefulness of measuring attitudes (e.g., Wicker, 1969). Current approaches to this issue generally maintain that there is a significant attitude-behaviour link, but that behaviour is determined by a range of other factors in addition to attitudes, and there are several psychological models that explain how intentions to perform certain

behaviours emerge (see Olson & Zanna, 1993). For the sake of brevity, we only refer here to the most widely researched of these models (Armitage & Conner, 2001), the Theory of Planned Behaviour (Ajzen, 1991). The theory postulates that intentions to perform certain behaviours (for example, to comply with fiscal obligations) are determined by three main factors: (1) attitudes towards that behaviour (e.g., whether a person evaluates the act of paying taxes favourably), (2) social norms held by close others (e.g., whether family and friend condone tax evasion), and (3) perceived control over the behaviour (e.g., whether there are external constraints affecting the decision to evade, such as opportunities to evade or knowledge about how to do so) (for applications of Theory of Planned Behaviour to tax compliance, see Bobek & Hatfield, 2003; Hessing et al., 1988).

Reviews of Theory of Planned Behaviour generally find that the theory has good predictive power, managing to explain the variation in people's self-reported and actual behaviour (for a discussion, see Armitage & Conner, 2001). More importantly for our current focus on attitudes, such reviews find that attitudes are the strongest factor of the three in explaining a substantial proportion of variation in intentions to perform certain behaviours (Armitage & Conner, 2001). In other words, there is evidence that across a range of behaviours attitudes are relevant in explaining why people act in certain ways.

However, attitudes will be stronger predictors of behaviour in some instances than others. One factor to consider is the **strength of attitudes** – if people hold strong attitudes towards a behaviour, then these attitudes are likely to be particularly influential. For example, if one feels very strongly that being fully compliant with the law is the right thing to do, then it is likely that their attitudes will predict behaviour more than someone who feels equally favourable towards compliance, but does not have an equally strong attitude. It may be of value, then, in addition to measuring attitudes, to also include a measure of attitude strength (Sparks, Hedderley, & Shepherd, 1992).

Certain situations may weaken the effect of attitudes, such as a case of **strong normative influence** regarding the behaviour in question. For example, when social norms are particularly strong against evasion people may be guided by these norms, especially for certain types of individuals prone to social influence (for a discussion, see Armitage & Conner, 2001) and when the people or groups who apply the

normative influence are important for the individual (Terry & Hogg, 1996) (for a discussion of social norms and tax compliance, see also Onu & Oats, 2014).

Another strong predictor of behaviour intentions, as discussed above in the context of Theory of Planned Behaviour, is the extent to which a person perceived that they have **control over the situation** to enact the behaviour. Perceived control affects the extent to which an intention to perform the behaviour arises, but also the extent to which that intention can actually be put into action (for a discussion, see Armitage & Conner, 2001). For example, if a person does not feel confident regarding their knowledge or ability to omit income in a tax declaration, they will be less likely to intend to do so. At the same time, even if they might intend to not declare income, they may be in a situation where they cannot enact that intention, such as their taxes being withheld at the source. The role of perceived control has been acknowledged in the tax literature in various forms, such as the influence of tax knowledge or opportunity on compliance decisions (for overviews, see Kirchler, 2007).

In summary, attitude measures will be most relevant for behaviour when people feel strongly about the behaviour in question (either favourably or unfavourably), when social norms are not particularly strong or the person is unlikely to be influenced by these norms, and when performing the behaviour is under the person's control. It is also important to keep in mind that the way attitudes are measured will impact on the usefulness of attitudes for understanding tax compliance. More valid results are likely to be produced by **measuring attitudes that are specific to the behaviour** the researcher is interested in (Ajzen, 1991). For example, if one is interested in predicting income tax evasion, it is most useful to assess attitudes towards tax evasion (perhaps by assessing attitudes toward specific behaviours such as not declaring income or over-claiming expenses, see Hessing et al., 1988). Or if one is interested in assessing to what extent taxpayers are likely to cooperate with authorities, it will be most useful to measure attitudes towards tax authorities.

The **scales used to measure attitudes** are also likely to be a factor that influences the validity of attitude survey measures. It is probably best to use measures of attitudes that is consistent with the theoretical construal of attitudes as favourable or unfavourable evaluations, measures such as semantic differentials (as discussed above in Section 2) (for examples, see Hessing et al., 1988; Kirchler, 1998).

Finally, it is worth noting that attitude measurements are susceptible to **self-presentation concerns**, particularly for behaviours that have a moral dimension. Beck and Ajzen (1991) noted that people may be more likely to respond in a socially-desirable way in such cases, and used Theory of Planned Behaviour to predict behaviours such as cheating on a test and shoplifting. They found that the theory reliably predicted self-reported behaviour but was less able to predict actual behaviour, given that people tended to be dishonest in self-reports about the extent to which they engaged in those immoral behaviours. The authors also introduced a moral obligation measure that was useful in explaining self-reported behaviour but less so for actual behaviour (for a similar approach in the tax literature, see Bobek & Hatfield, 2003). This led the authors to conclude that it may prove more difficult to predict actual behaviour when people are motivated to present themselves in a positive light in self-report questionnaires, as also noted in the tax compliance literature (Elffers et al., 1992; Hessing et al., 1988). However, Beck and Ajzen (1991) were able to increase the prediction of actual behaviour by including a measure that captures people's tendencies to present themselves in a socially desirable way (Social Desirability Scale, Crowne & Marlowe, 1964).

In measuring tax-related attitudes, the researcher can thus maximise the relevance of the attitude measures in predicting behaviour by measuring attitudes towards the specific behaviour they are aiming to predict, using theoretically-driven scales, and taking into account people's tendencies to present themselves in a way that is socially acceptable.

5. Conclusion

A large number of the surveys investigating tax behaviour have focused on attitudes measures. Many of these studies rest on the assumption that attitudes are indicative of behaviour. For instance, they might assume that if a large proportion of people agree with a statement such as 'tax evasion is sometimes justified', then this result is indicative of endemic noncompliance. However, the relationship between such attitude measures and actual behaviour has been under intense debate in psychology over the last century, and has more recently been questioned in relation to tax compliance behaviour in particular. Our position in the present paper is that attitudes have the potential to be a useful tool for understanding tax

behaviour, but that it is important to understand the circumstances under which attitudes can be more or less relevant in predicting behaviour, and also to improve the validity of attitude measures. Given that an increasing proportion of researchers in the tax behaviour field focus on the role of psychological factors (such as attitudes) in compliance decisions, we believe that it is particularly important to reflect on the value of attitude measures and to maximise their usefulness by understanding when they are most likely to be linked to compliance decisions.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [http://doi.org/10.1016/0749-5978\(91\)90020-T](http://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888–918. <http://doi.org/10.1037/0033-2909.84.5.888>
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall.
- Alm, J., & Torgler, B. (2006). Culture differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27(2), 224–246. <http://doi.org/10.1016/j.joep.2005.09.002>
- Antonides, G., & Robben, H. S. J. (1995). True positives and false alarms in the detection of tax evasion. *Journal of Economic Psychology*, 16(4), 617–640. [http://doi.org/10.1016/0167-4870\(95\)00027-4](http://doi.org/10.1016/0167-4870(95)00027-4)
- Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471–499. <http://doi.org/10.1348/014466601164939>
- Barham, E., & Fox, K. (2011). Compliance Perceptions Survey - Individuals 2008-10. HM Revenue and Customs Research Report 156. Retrieved from <http://www.hmrc.gov.uk/research/cps-ind-report156.pdf>
- Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of Research in Personality*, 25(3), 285–301. [http://doi.org/10.1016/0092-6566\(91\)90021-H](http://doi.org/10.1016/0092-6566(91)90021-H)
- Bobek, D. D., & Hatfield, R. C. (2003). An Investigation of the Theory of Planned Behavior and the Role of Moral Obligation in Tax Compliance. *Behavioral Research in Accounting*, 15(1), 13–38. <http://doi.org/10.2308/bria.2003.15.1.13>
- Boll, K. (2013). Mapping tax compliance: Assemblages, distributed action and practices: A new way of doing tax research. *Critical Perspectives on Accounting*. <http://doi.org/10.1016/j.cpa.2013.03.002>
- Braithwaite, V. A. (2003). *Taxing Democracy: Understanding Tax Avoidance and Evasion*. Ashgate Publishing, Ltd.

- Braithwaite, V. A. (2009). *Defiance in Taxation and Governance: Resisting and dismissing authority in a democracy*. Edward Elgar Publishing.
- Chan, C. W., Troutman, C. S., & O'Bryan, D. (2000). An expanded model of taxpayer compliance: empirical evidence from the United States and Hong Kong. *Journal of International Accounting, Auditing and Taxation*, 9(2), 83–103. [http://doi.org/10.1016/S1061-9518\(00\)00027-6](http://doi.org/10.1016/S1061-9518(00)00027-6)
- Crowne, D. P., & Marlowe, D. (1964). *The approval motive: studies in evaluative dependence*. Wiley.
- Cummings, R. G., Martinez-Vazquez, J., & McKee, M. (2001). *Cross Cultural Comparisons of Tax Compliance Behavior* (International Center for Public Policy Working Paper Series, at AYSPS, GSU No. paper0103). International Center for Public Policy, Andrew Young School of Policy Studies, Georgia State University. Retrieved from <http://ideas.repec.org/p/ay/ispwps/paper0103.html>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL, US: Harcourt Brace Jovanovich College Publishers.
- Elffers, H., Robben, H. S. J., & Hessing, D. J. (1991). Under-Reporting Income: Who is the Best Judge-- Tax-Payer or Tax Inspector? *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 154(1), 125–127. <http://doi.org/10.2307/2982705>
- Elffers, H., Robben, H. S. J., & Hessing, D. J. (1992). On measuring tax evasion. *Journal of Economic Psychology*, 13(4), 545–567. [http://doi.org/10.1016/0167-4870\(92\)90011-U](http://doi.org/10.1016/0167-4870(92)90011-U)
- Elffers, H., Weigel, R. H., & Hessing, D. J. (1987). The consequences of different strategies for measuring tax evasion behavior. *Journal of Economic Psychology*, 8(3), 311–337. [http://doi.org/10.1016/0167-4870\(87\)90026-2](http://doi.org/10.1016/0167-4870(87)90026-2)
- Eriksen, K., & Fallan, L. (1996). Tax knowledge and attitudes towards taxation; A report on a quasi-experiment. *Journal of Economic Psychology*, 17(3), 387–402. [http://doi.org/10.1016/0167-4870\(96\)00015-3](http://doi.org/10.1016/0167-4870(96)00015-3)
- Frey, B. S., & Torgler, B. (2007). Tax morale and conditional cooperation. *Journal of Comparative Economics*, 35(1), 136–159.
- Groenland, E. A. ., & van Veldhoven, G. M. (1983). Tax evasion behavior: A psychological framework. *Journal of Economic Psychology*, 3(2), 129–144. [http://doi.org/10.1016/0167-4870\(83\)90069-7](http://doi.org/10.1016/0167-4870(83)90069-7)

- Hartner, M., Rechberger, S., Kirchler, E., & Schabmann, A. (2008). Procedural fairness and tax compliance. *Economic Analysis and Policy*, 38(1), 137–152.
- Hessing, D. J., Elffers, H., & Weigel, R. H. (1988). Exploring the limits of self-reports and reasoned action: An investigation of the psychology of tax evasion behavior. *Journal of Personality and Social Psychology*, 54(3), 405–413. <http://doi.org/10.1037/0022-3514.54.3.405>
- Kirchler, E. (1998). Differential representations of taxes: Analysis of free associations and judgments of five employment groups. *Journal of Socio-Economics*, 27(1), 117–131.
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge University Press.
- Kirchler, E., Maciejovsky, B., & Schneider, F. (2003). Everyday representations of tax avoidance, tax evasion, and tax flight: Do legal differences matter? *Journal of Economic Psychology*, 24(4), 535–553. [http://doi.org/10.1016/S0167-4870\(02\)00164-2](http://doi.org/10.1016/S0167-4870(02)00164-2)
- Lewis, A. (1982). The social psychology of taxation. *British Journal of Social Psychology*, 21(2), 151–158. <http://doi.org/10.1111/j.2044-8309.1982.tb00523.x>
- Long, S. B., & Swingen, J. A. (1991). Taxpayer Compliance: Setting New Agendas for Research. *Law & Society Review*, 25(3), 637–683. <http://doi.org/10.2307/3053731>
- Murphy, K. (2004). The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders. *Law and Human Behavior*, 28(2), 187–209. <http://doi.org/10.1023/B:LAHU.0000022322.94776.ca>
- Niemirowski, P., Wearing, A. J., Baldwin, S., Leonard, B., & Mobbs, C. (2002). The influence of tax related behaviours, beliefs, attitudes and values on Australian taxpayer compliance. *Is Tax Avoidance Intentional and How Serious an Offence Is It*.
- Olson, J. M., & Zanna, M. P. (1993). Attitudes and Attitude Change. *Annual Review of Psychology*, 44(1), 117–154. <http://doi.org/10.1146/annurev.ps.44.020193.001001>
- Onu, D., & Oats, L. (2014). Social Norms and Tax Compliance. TARC Discussion Paper. Retrieved from http://tarc.exeter.ac.uk/media/universityofexeter/businessschool/documents/centres/tarc/publications/discussionpapers/Social_norms_and_tax_compliance_May_14.pdf
- Orviska, M., & Hudson, J. (2003). Tax evasion, civic duty and the law abiding citizen. *European Journal of Political Economy*, 19(1), 83–102. [http://doi.org/10.1016/S0176-2680\(02\)00131-3](http://doi.org/10.1016/S0176-2680(02)00131-3)

- Peabody, D. (1985). *National characteristics* (Vol. ix). Paris, France: Editions de la Maison des Sciences de l'Homme.
- Porcano, T. M. (1988). Correlates of tax evasion. *Journal of Economic Psychology*, 9(1), 47–67.
- Pratkanis, A., & Greenwald, A. (1989). A sociocognitive model of attitude structure and function. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 245–285).
- Randall, D. M., & Fernandes, M. F. (1991). The Social Desirability Response Bias in Ethics Research. *Journal of Business Ethics*, 10(11), 805–817.
- Schmölders, G. (1959). Fiscal Psychology: A new branch of public finance. *National Tax Journal*, 12(4), 340–345.
- Song, Y., & Yarbrough, T. E. (1978). Tax Ethics and Taxpayer Attitudes: A Survey. *Public Administration Review*, 38(5), 442–452. <http://doi.org/10.2307/975503>
- Sparks, P., Hedderley, D., & Shepherd, R. (1992). An investigation into the relationship between perceived control, attitude variability and the consumption of two common foods. *European Journal of Social Psychology*, 22(1), 55–71. <http://doi.org/10.1002/ejsp.2420220107>
- Stalans, L. J., Kinsey, K. A., & Smith, K. W. (1991). Listening to Different Voices: Formation of Sanction Beliefs and Taxpaying Norms. *Journal of Applied Social Psychology*, 21(2), 119–138. <http://doi.org/10.1111/j.1559-1816.1991.tb00492.x>
- Terry, D. J., & Hogg, M. A. (1996). Group Norms and the Attitude-Behavior Relationship: A Role for Group Identification. *Personality and Social Psychology Bulletin*, 22(8), 776–793. <http://doi.org/10.1177/0146167296228002>
- Torgler, B. (2005a). Tax morale and direct democracy. *European Journal of Political Economy*, 21(2), 525–531. <http://doi.org/10.1016/j.ejpoleco.2004.08.002>
- Torgler, B. (2005b). Tax morale in Latin America. *Public Choice*, 122(1-2), 133–157. <http://doi.org/10.1007/s11127-005-5790-4>
- Torgler, B., & Schneider, F. (2002). *Does culture influence tax morale?: evidence from different european countries*. Wirtschaftswissenschaftliches Zentrum (WWZ) der Universität Basel. Retrieved from <http://www.crema-research.ch/papers/2004-17.pdf>

- Vogel, J. (1974). Taxation and public opinion in Sweden: An interpretation of recent survey data. *National Tax Journal*, 27(4), 499–513.
- Wallschutzky, I. G. (1984). Possible causes of tax evasion. *Journal of Economic Psychology*, 5(4), 371–384.
[http://doi.org/10.1016/0167-4870\(84\)90034-5](http://doi.org/10.1016/0167-4870(84)90034-5)
- Wärneryd, K.-E., & Walerud, B. (1982). Taxes and economic behavior: Some interview data on tax evasion in Sweden. *Journal of Economic Psychology*, 2(3), 187–211. [http://doi.org/10.1016/0167-4870\(82\)90003-4](http://doi.org/10.1016/0167-4870(82)90003-4)
- Webley, P., Cole, M., & Eidjar, O.-P. (2001). The prediction of self-reported and hypothetical tax-evasion: Evidence from England, France and Norway. *Journal of Economic Psychology*, 22(2), 141–155.
[http://doi.org/10.1016/S0167-4870\(01\)00026-5](http://doi.org/10.1016/S0167-4870(01)00026-5)
- Wicker, A. W. (1969). Attitudes versus Actions: The Relationship of Verbal and Overt Behavioral Responses to Attitude Objects. *Journal of Social Issues*, 25(4), 41–78.
<http://doi.org/10.1111/j.1540-4560.1969.tb00619.x>
- Zahid, I. (2012). Compliance Perceptions Survey - Small and Medium Sized Enterprises and Individuals 2011. HM Revenue and Customs. Retrieved from
<http://www.hmrc.gov.uk/research/report195.pdf>