Values, Conformity and Tax Morale

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Abstract

This paper analyzes how differences in cultural values within a society affect the tax morale of individuals. We use self-reported measures of tax morale from the European Value Study covering roughly 50,000 respondents in 45 European countries and territories. We provide evidence that individuals having values similar to values prevailing in the region where they reside exhibit stronger tax morale. This effect is visible for a variety of different values and different ways of measuring the extent to which individuals are similar. Moreover, our findings are robust to using alternative regression specifications and econometric techniques.

Keywords: Tax Evasion, Tax Morale, Values, Diversity, Conformity.

JEL Classification: H26, R50, Z10.

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1   Introduction

What motivates people to duly pay their taxes? It is unlikely that the risk of getting caught for tax evasion can explain this, as this risk is generally rather low. Even if people would severely overestimate the probability of being caught, tax evasion should be much higher than it actually is (Alm, McClelland, & Schulze, 1992). Likewise, the fines for tax evasion can neither explain why people duly pay their taxes, as these fines are generally not very high (Alm et al. 1992; Dell'Anno 2009; Pyle 1991). This suggests that people have intrinsic motives to pay their taxes which go beyond pecuniary considerations.

Such motives are typically referred to in the literature as tax morale (Luttmer & Singhal, 2014). Tax morale has been shown to vary across individuals and societies and has been linked to a variety of cultural values. In particular, prior work has associated tax morale with perceptions of fairness (Cummings, Martinez-Vazquez, McKee, & Torgler, 2005; Fortin, Lacroix, & Villeval, 2007), attitudes towards the government (Cummings et al., 2005; Feld & Frey, 2002; Scholz & Lubell, 1998), civic virtues (Orviska & Hudson, 2003), social capital (Alm & Gomez, 2008), and religiosity (Alm & Torgler, 2011). This line of research, thus, suggests that differences in such values across individuals are associated with differences in their level of tax morale. Likewise, differences in the prevalence of such values across societies are reflected in cross-country differences in tax morale (Alm, Sanchez, & Juan, 1995; Alm & Torgler, 2006).

Yet, when considering the relationship between cultural values and tax morale, it is important to acknowledge that such values are typically not universally shared among all individuals in a given society (Schwartz & Sagie, 2000). Moreover, the extent to which individuals share the same values can, in turn, affect individual economic behavior as well as aggregate outcomes. For example, Beugelsdijk and Klasing (2016) have found that greater diversity in values is associated with lower levels of social trust, while Beugelsdijk, Klasing, and Milionis (2017) have shown that this kind of diversity can also be harmful to economic development. These findings resonate with a larger body of research examining the adverse effects of societal diversity (Alesina, Michalopoulos, & Papaioannou, 2016; Easterly & Levine, 1997; LaPorta, Lopez-de Silanes, Shleifer, & Vishny, 1999).

Furthermore, an extensive literature in social psychology has demonstrated that individuals exhibit in-group favoritism and are more likely to share resources with others whom they perceive as being similar to themselves (Tajfel, Billig, Bundy, & Flament, 1971; Turner & Oakes, 1986). According to social identity theory (Tajfel & Turner, 1986), in-group favoritism is rooted in the fact that there is an essential part of individuals' self-concept, namely their social identity, which is derived from membership of social groups.

Following this line of work, one would expect the tax morale of individuals to be influenced not only by the prevalence of particular values, but also by the extent to which these values are shared with others. This is because paying taxes corresponds to sharing one's resources with

others. The more certain values are shared in a given society, the stronger is the perception of taxes as contributions to the in-group and, therefore, the higher will be the overall level of tax morale. Moreover, this effect is expected to be stronger for individuals having values that conform more to those of the rest of society.

In this paper we investigate these hypotheses by comparing self-reported indicators of tax morale for a sample of 51,274 individual respondents of the European Values Study (EVS). These indicators reflect the probability of a given individual thinking that cheating on taxes can or can not be justified. We test (1) whether tax morale is higher when values are shared to a greater extent in general, and (2) whether tax morale is higher for individuals who share those values with others living in the same region. Using a wide range of proxies for values, we provide evidence supporting both hypotheses.

Specifically, we show that the more values within a region are shared between individuals, the stronger is the tax morale. Likewise, the more values an individual shares with others within a given sub-national region, the higher is the tax morale. Comparing the magnitude of both effects on tax morale, we find that the latter effect has higher explanatory power for individual tax morale than the former. This is in line with research on in-group favoritism which relates the behavior of individuals to their social identity. Our results hold true for different ways of measuring the extent to which individuals are similar. Moreover, our findings are robust to using alternative regression specifications and econometric techniques.

The remainder of this paper is structured as follows. Section 2 reviews the literature on tax morale and values. Section 3 describes the details of our data and empirical strategy. Section 4 presents our main regression results, while Section 5 discusses additional robustness checks. Finally, Section 6 offers some concluding remarks on our findings and their broader implications.

2 Literature Review

2.1 The Tax Compliance Gap

The study of tax compliance dates back to the seminal work of Allingham and Sandmo (1972). In their model, agents optimally decide how much of their income to truthfully report to the tax authority given (1) the tax rate, (2) the probability of being caught for under-reporting income, and (3) the fine applied upon detection, which is proportional to the amount of taxes evaded. The model features a trade-off between a certain income gain resulting from a lower tax bill and an uncertain cost in the form of a fine that may be imposed. Thus, the degree of tax compliance is modelled as a purely economic decision.

As Allingham and Sandmo stress, though, this model is unlikely to capture all dimensions of the tax evasion decision. In practice, non-economic factors seem to play a large role as well. To

assess the predictive power of the model, Alm et al. (1992) and Dell'Anno (2009) calibrate the Allingham-Sandmo model using real world data. They show that the model predicts a lot more tax evasion than seen in reality. As the probability of getting caught and the relevant fines are quite low, the expected cost of tax evasion are rather low as well (Pyle, 1991). An experiment conducted by Alm et al. (1992), containing all elements of the Allingham and Sandmo (1972) model, suggests that about 50% of the participants chose not to evade taxes despite the model suggesting they should. Additionally, in more extreme scenarios where the probability of being caught was zero, the compliance rate was still 20%.

To explain this tax compliance gap, the literature has focused on two possible explanations (Feld & Frey, 2007). A first explanation is that individuals generally tend to overestimate the likelihood of events that occur with a low probability (Kahneman & Tversky, 1979). Thus, they may think that getting caught is much more likely than it actually is. Yet, as the work of Alm et al. (1992) suggests, the compliance gap cannot be explained solely by the overestimation of low probabilities, even if this overestimation is large. This suggests, as a second explanation, the presence of additional non-pecuniary motives to pay taxes. This is typically referred to in the literature as tax morale.

2.2 The Importance of Tax Morale

The notion of tax morale can be traced back to the work of Schmölders (1951), who argued that a population satisfied with the policies of their government would be more willing to pay taxes. Since then, various researchers have further explored the question of what motivates individuals to pay their taxes. A substantial body of research has demonstrated that tax morale can explain the high degree of tax compliance observed in most countries (Alm et al., 1992; Dell'Anno, 2009; Lewis, 1982; Pommerehne, Hart, & Frey, 1994). This literature is discussed in more detail in the surveys by Torgler (2007), Dell'Anno (2009), and Luttmer and Singhal (2014).

There is substantial variation in tax morale both between countries and individuals. According to the most recent wave of the European Values Study, approximately 60% of the respondents believe that tax evasion can never be justified. This percentage varies, however, from around 28% in Belgium to 91% in Norway. As the literature has already shown, some of this variation in tax morale across individuals can be explained by differences in their personal characteristics and their socio-economic status (Schwartz & Orleans, 1967). Another part of the variation appears to be driven by differences in the perceived effectiveness of government in general and the fairness of the tax system more specifically (Litina & Palivos, 2016). Evidence suggests that individuals are less willing to pay taxes if the tax system is viewed as being unfair (Fortin et al., 2007) or if other policies enacted by the government are regarded as unfair (Ahmed & Braithwaite, 2005). Spicer and Lundstedt (1976) note that a higher quality of government services is related to a higher tax morale. Scholz and Lubell (1998) show that this also applies to the individuals' level

of trust in the government. Feld and Frey (2002) argue that the effect of trust works both ways, as tax morale is lower among tax payers who are treated as potential delinquents. Elffers, Weigel, and Hessing (1987) report that tax morale is higher if taxpayers are satisfied with the operation of the tax system, while Dell'Anno (2009) shows that the same is true if individuals feel that they have a say in how the system is operated.

2.3   Tax Morale and Conformity in Values

Beyond highlighting the role of personal characteristics and institutional features, previous studies have also demonstrated the importance of norms and values for tax morale. For example, Torgler (2003) and Alm and Gomez (2008) show how various measures of social capital can explain some of the variation in tax morale, with higher values of social capital being associated with higher tax morale.[1] Hug and Spörri (2011) highlight how trust between individuals is important for tax morale, while Orviska and Hudson (2003) place more emphasis on the individuals' sense of civic duty and a desire to abide by the law. These findings overall echo similar results regarding the role of trust and morality obtained in the broader literature on cultural economics (Algan & Cahuc, 2009; Fisman & Miguel, 2007; Guiso, Sapienza, & Zingales, 2015).

Beyond considering the prevalence of certain values, it is important to consider also their distribution within a society. Individuals have their own perception of the degree of value diversity in society and this can influence their behavior. According to social identity theory (Tajfel, 1978; Tajfel & Turner, 1986; Turner & Oakes, 1986), individual behavior is influenced by both individual characteristics and the individuals' social identity. This identity relates to the social groups and categories to which the individual belongs. More specifically, a large body of work in social psychology, going back to Tajfel et al. (1971), has demonstrated that individuals display in-group favoritism and out-group bias when it comes to, for example, the allocation of resources or the evaluation of others. That is, individuals give preferential treatment to others who are perceived to be in the same group and are biased against those perceived to belong to a different group, even at the expense of their own self-interest (R. H. Turner, 1978). This pattern has been shown for even the most meaningless group conditions, such as whether an individual prefers a certain painting by Klee or Kandinsky (Tajfel et al., 1971) or the color of people's shirts (Frank & Gilovich, 1988). The development of in-group favoritism, in turn, has been linked to the formation of cultural groups (Efferson, Lalive, & Fehr, 2008).

Following this line of work and given that values form an integral part of culture, we hypothesize that tax morale would also be affected by the extent to which values are shared in society. When values are commonly shared, people are expected to be more willing to distribute

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[1]Alm and Gomez (2008) define social capital as a set of institutions, norms and networks that enable collective action, and rely mostly on measures of perceived government efficiency and fairness. Torgler (2003) instead focuses on trust, both between individuals and in the state, and people's willingness to follow rules more generally.

own resources to others, as these others belong to the in-group. As paying taxes implies sharing one's own resources with others, we would therefore expect higher tax morale in societies where values are more broadly shared. Furthermore, we expect that, within a given society, individuals whose values are more similar to those of others would have higher tax morale since they are more likely to identify with them and have a common social identity.

As such, it may be crucial to examine not only the values of each individual, but also how these values relate to those of other people in society. Prior work has already suggested that diversity in values may influence economic behavior and outcomes (Beugelsdijk et al., 2017; Beugelsdijk & Klasing, 2016). Moreover, a growing literature in economics has explored the importance of diversity along genetic, ethnic, linguistic and religious lines, and has demonstrated that they influence a variety of economic outcomes as well as the relationships between them.[2] In the context of the tax morale literature, this link has not yet been explored. The present paper aims to fill this gap by examining whether individuals having values that are in line with those of society have a higher tax morale.

3   Data and Empirical Strategy

The purpose of our analysis is to examine the relationship between values and tax morale. This places a number of constraints on the data. Firstly, the data must allow for the measurement of individual tax morale. Secondly, it must contain information regarding a wide range of individual values. Furthermore, the measurement of value conformity requires each individual's values to be compared with those of other individuals in society. In order to do so, we need to consider the relevant in-group and we also need appropriate information for that group.

Given these requirements we have chosen to conduct our analysis based on the most recent and most extensive wave of the European Values Study, which took place in 2008. This survey provides information on the values and attitudes of a sample of 51,274 individuals living in 45 different countries and territories.[3] In particular, it includes information on the tax morale of individual respondents, which allows us to conduct our analysis at the individual level. It also includes information on the sub-national region where individuals reside, which permits the comparison of each individual with others living in the same region while controlling for unobserved differences between the regions. Given the regional coverage of EVS, we can perform

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[2]See, for example, the recent work Desmet, Ortuño-Ortín, and Wacziarg (2012), Ashraf and Galor (2013), Sturm and Haan (2015), Alesina et al. (2016), Arbatli, Ashraf, Galor, and Klemp (2018) and the references therein.

[3]The countries and territories where the EVS has been conducted are Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Montenegro, Netherlands, Northern Cyprus, Northern Ireland, Poland, Portugal, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and Ukraine.

this comparison across individuals for 322 sub-national regions, which typically correspond to first-level administrative regions in most countries.

3.1 Measuring Tax Morale

To measure tax morale we use the standard approach in the literature (Luttmer & Singhal, 2014; Torgler, 2007), which is to use self-reported measures based on the question:

Please tell me for each of the following statements whether you think it can always be justified, it can never be justified, or it falls somewhere in between: . . .
Cheating on tax payments if you get the chance.

In the EVS survey this question has an answer scale which runs from 1 to 10, with 1 being "never justified" and 10 "always justified". In the literature, this question is typically re-coded to a binary variable, indicating those people who think that tax evasion can never be justified (1) and those people who think that it sometimes can be justified (0). This approach is used by, for example, Torgler (2003), Orviska and Hudson (2003), Feld and Frey (2007), and Alm and Gomez (2008) with the aim to separate individuals who find tax evasion justifiable from those who do not, ignoring the different degrees of justifiability. This separation is important, as the majority of the respondents in the EVS sample (approximately 60%) consider tax evasion never being justified. Hence, for our baseline analysis we also use this binary indicator of tax morale. For robustness purposes, though, we also use a measure of tax morale that uses the full answer scale.

3.2 Measuring Value Conformity

Our aim is to investigate whether individuals whose values conform less to those of the rest of the society exhibit a lower tax morale. To measure conformity in terms of values, we start by following the economic literature on diversity, which uses measures of diversity by looking at the classification of individuals into different groups (Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003; Esteban & Ray, 1994; Greenberg, 1956). Such measures of societal diversity, however, only reflect differences between groups in a society. From the perspective of each individual, what is more relevant is the extent to which individuals differ from distinct groups in society rather than the differences that exist between groups. To understand why this distinction is important, consider the following example. A society that consists of one large majority group and a number of small minority groups would typically score low on measures of societal diversity. From the perspective of an individual belonging to the majority group, this may be an accurate assessment, since most people he encounters will be quite similar to him. However, this is not

true for a member of one of the minority groups: most encounters will be with individuals from the majority group who are quite different from him.

As such, a key issue addressed in this paper is how to measure differences between an individual and a group. For this purpose, we distinguish between the measurement of overall diversity in society and that of individual conformity to social values. Our conformity measures should capture the extent to which an individual has values which are in line with those of others in society. In the sub-sections below, we discuss how we construct our measures of conformity and how they relate to existing measures of value diversity.

3.2.1 Unweighted Conformity Measures

One common way of measuring societal diversity is using a fractionalization score, which following Alesina et al. (2003) is based on a Herfindahl index. The fractionalization score captures the probability that two randomly selected individuals from a given society will fall into different groups based on a given characteristic, which, for the purpose of our analysis, would be their answers to a question on values. More formally, if a specific EVS question has K different answers, each with a population share of $p_1, \ldots, p_K$, then the level of value fractionalization is

$$F = \sum_{i=1}^{K} \sum_{j=1, j \neq i}^{K} p_i p_j = 1 - \sum_{i=1}^{K} p_i^2. \tag{1}$$

Given our focus, however, which is to measure the degree of sharedness of values across individuals, we consider the following variant of the above measure, which we refer to as regional value conformity:

$$\Phi = 1 - F = \sum_{i=1}^{K} p_i^2. \tag{2}$$

This corresponds to the probability that two randomly drawn individuals will fall into the same group, having given the same answer to a particular question on values. The measure can be easily extended to the case of multiple questions by taking the average across them (Beugelsdijk et al., 2017). In all cases, this measure will reflect the overall level of conformity in terms of values in a given region, with higher scores indicating higher levels of conformity and, thus, lower levels of diversity.

Beyond measuring regional value conformity, we are also interested in the extent to which a given individual i conforms to the values of the rest of society (his in-group), which we take to be the people residing in the same region as that individual. In order to capture this, we need to consider an equivalent measure from the point of the view of an individual. In essence, this corresponds to the probability that a second individual randomly drawn from the rest of the society would fall in the same group as i:

$$\varphi_i = 1 - \sum_{j=1,j\neq i}^{K} p_j = p_i. \tag{3}$$

This measure can also be extended to the case of multiple questions by taking the average across the respective probabilities. Computed for each individual respondent, this will reflect the level of value conformity for that individual relative to other respondents, with higher values implying a higher degree of conformity.

3.2.2 Weighted Conformity Measures

Apart from measuring to what extent an individual's values deviate from those of society, we need to consider also the extent to which these values differ. The measures of value conformity described above do not capture that. For example, consider a question with an ordinal 10 point answer scale of increasing agreement with a given statement. In this case, an individual who selects answer 1 disagrees more with an individual who selected answer 10 than with an individual who gave answer 2.[4] If we measure conformity based on the indexes in equations (2) and (3), however, which only consider group shares, the resulting values are the same.

To capture the extent of disagreement between different groups, studies typically use a weighted index such as that first proposed by Greenberg (1956), which is similar to the Herfindahl index, but also weights the probabilities of two individuals falling into different groups with the corresponding distances between groups. More formally, the Greenberg index can be defined as

$$G = \sum_{i=1}^{K}\sum_{j=1}^{K} p_i p_j |k_i - k_j|, \tag{4}$$

where k represents the specific answers, so that k ranges from 1 to K and $|k_i - k_j|$ is the distance between the answers given by members of group i and group j This is effectively a distance-weighted version of the more common fractionalization score, F, capturing the expected distance between two randomly drawn individuals. As our interest is in capturing increasing similarity in values across individuals, we measure weighted regional value conformity, Φ^w, as

$$\Phi^w = 1 - G = 1 - \sum_{i=1}^{K}\sum_{j=1}^{K} p_i p_j |k_i - k_j|. \tag{5}$$

Intuitively this can be interpreted as the average proximity of individuals in terms of values within a given region. This weighting approach can also be applied to the measure for conformity for any given individual. In this case, we need to factor in how different a randomly drawn second

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[4]Similarly, all of the EVS questions that we consider for our analysis follow an increasing ordinal scale.

individual j would be from individual i. Specifically, we would have

$$\varphi_i^w = 1 - \sum_{j=1}^{K} p_j |k_i - k_j|. \tag{6}$$

This corresponds to one minus the expected distance between individual i and other individuals living in the same region, or in other words, their expected proximity. As such, an individual that has values that are closer to those of his fellow citizens has a higher conformity score as well. Measures (5) and (6) can also be averaged across different EVS questions. A summary of the different conformity measures discussed is provided in Table 1.

[Insert Table 1 around here]

3.2.3 Numerical Examples

To see how these different measures capture the degree of conformity in society consider Table 2. The left part of the table shows an example based on a question with an answer scale that includes options: 1, 2, and 3. We consider three scenarios of how a set of respondents may be distributed across these three possible answers. In the first scenario, the individual respondents have chosen answers 1, 2, and 3 with the same frequency. In the second scenario, half of the respondent give answer 1, and the remainder are evenly distributed between the other two answers. The third scenario corresponds to an extreme distribution with half the respondents choosing answer 1 and the other half answer 3. For each of these scenarios we can compute the overall level of conformity in society based on the unweighted index Φ and the weighted index Φ^w. Moreover, we can compute the level of conformity that characterizes an individual who choses answer 1 versus an individual who choses answer 3 based on the unweighted individual index φ_i and the weighted individual index φ_i^w.

[Insert Table 2 around here]

For the overall unweighted index Φ the most extreme case is that of a uniform distribution across the different answers, as this minimizes the probability that two randomly drawn individuals will ascribe to the same values. The overall weighted index Φ^w on the other hand reaches a minimum when half the population gives an answer on the one end of the spectrum, and the other half on the other end. The key difference between the two measures is, thus, how the distance between possible answers is taken into account. The unweighted index assumes that the distance between any two answer options is the same. The weighted index on the other hand can account for the fact that an individual who gave answer 1 disagrees more with an individual who gave answer 3 than with a individual who gave answer 2. An obvious downside of such an index is that it requires us to specify what the distance between answers is. Our example here

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assumes that the distance between answer 1 and 3 is simply 2. While it seems natural to assume that the distance between answers 1 and 3 is greater than the difference between answers 1 and 2, it is not obvious that the distance should be twice as large. Nevertheless, in our analysis we employ both the unweighted and the weighted measures of value conformity, as there is evidence in the literature that distance between groups generally matters when measuring societal diversity (Beugelsdijk & Klasing, 2017; Desmet, Ortuño-Ortín, & Weber, 2009; Gershman & Rivera, 2018).

Looking at the individual level equivalents of these indices, it is clear that they behave in a similar fashion. Here, however, it is crucial to note that these measures are computed from the perspective of a given individual. When the distribution of individuals across answers is not symmetric, the level of value conformity of an individual choosing answer 1 will be different from that of an individual choosing answer 3. Consider the second scenario with the uneven distribution. From the perspective of an individual who answered 1, half the respondents agree with him. Alternatively, from the perspective of an individual who gave answer 3, only 25% of the respondents agrees with him. Such an individual should, therefore, feel that his values are shared to a lesser extent by the rest of the society. Taking into account the extent to which people disagree, we arrive at the figures in the last two columns of Table 2. Here we see a similar pattern, but with more extreme values. For an individual who gave answer 3 not only do 75% of the respondents disagree with him, but the majority of them -those who chose answer 1 with a share of 50%- disagree a lot. Thus, this individual may feel even more alienated from the society than the unweighted measure suggests.

3.2.4 Normalization

One issue with all of the indices discussed above is that they are decreasing with K, i.e. the number of answers to a specific question.[5] A conformity measure based on a question with a ten-point answer scale would thus be expected to show lower scores than a conformity measure calculated on a question with a two-point answer scale. For the weighted measures, Φ^w and φ^w, this issue can be mostly avoided by normalizing the distance between answers, $|k_i - k_j|$, to have a maximum value of 1, which is the approach we take in our analysis. For the measures that assume equal distance between all answers, Φ and φ, the solution is less obvious. Hence, we conduct a robustness check where we omit questions with either the maximum (10) or minimum (2) number of answers.

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[5]Specifically, it is easy to see that $\Phi_{min} = 1/K$ and $\Phi^w_{min} = 0.5(1 - K)$.

3.2.5 Aggregation

In principle, the above-described indexes can be computed for any set of questions. The EVS contains 172 questions related to values.Thus, for our baseline analysis we construct our measures of conformity based on all these questions. We do so by computing each measure separately for every question and then taking a simple average across the values obtained for all questions. This avoids the issue of question selection. In other words, in the baseline case we look at an individual's value conformity in terms of a wide range of values. For unweighted conformity this should be interpreted as the probability that a given individual would agree with a randomly selected other individual on a randomly selected question. For the weighted measure this should be interpreted as the expected similarity of a given individual with a randomly selected other individual. This should give us a good indication of the extent to which people in a given region tend to agree or disagree with each other on values.

As the EVS collects information on a wide range of values, however, it is possible that not all of these values are relevant for the analysis at hand. Moreover, it is a priori unclear whether tax morale would be affected by disagreement on some specific values or values in general. As such, we also perform our analysis based on subsets of the 172 questions. A simple way to see whether some set of questions have something in common is to employ a principal component analysis. Conducting this analysis we find the first principal component to explain 20% of the variation, which is substantially larger than the other principal components of which the largest explains only 8%. Based on this, we selected 59 questions that have a factor loading above |0.5| on the first principal component. The questions identified by this approach cover a wide variety of topics.

The second subset of questions that we consider follows from the work of Alm and Torgler (2011), who suggests that morality in general may be an important determinant of tax morale. As such, we include in this subset all questions that are broadly related to morality. There are 19 of these questions, which all take the form "in general, do you think ... can be justified?" and include topics like lying, drugs, euthanasia, terrorism, and divorce. An additional advantage of examining this particular subset is that all of these questions are measured on the same ten-point answer scale, which avoids some of the potential measurement issues discussed above.

Naturally, the measurement of value conformity can also be based on the responses of individuals to specific questions. Thus, our final of approach is to measure value conformity based on the responses to the question on interpersonal trust. This analysis is relevant given that trust has been linked to tax morale by several authors (Chan, Supriyadi, & Torgler, 2017; Hug & Spörri, 2011; Torgler, 2003). The particular question asks whether people believe that others can in general be trusted, or whether one cannot be too careful in dealing with strangers. The answer is measured on a two point scale, so that the unweighted and weighted conformity measures are identical (as the distance between the two answers is 1 in both cases).

Our measures for value conformity are calculated based on information on how the values expressed by an individual relate to those of the overal regional population. Since these values may also be directly related to tax morale, we need to control for the values of the individual respondents. We therefore construct the average of the value scores of each individual across the relevant set of questions and include this variable in the regression analysis. We also construct the corresponding measure of regional mean values - to compare this with regional value conformity - by calculating for each question the regional average of the individual scores and then average across the relevant set of questions. In order for such an aggregation of answer scores across different kind of questions to be meaningful, the questions need to be measured on comparable answer scales. A higher score on any question should have a similar interpretation regardless of the question used. As such, we follow the approach of Beugelsdijk et al. (2017) and re-code every question so that higher values correspond to more "pro-development" attitudes, in the sense that higher values correlate with higher regional GDP per capita. These questions are subsequently normalized to an interval between 0 and 1, after which they are aggregated.

3.3   Regression Specification

Using the data described above we estimate the following probit regression:

$$Pr(TaxMor_{ir} = 1) = F(\alpha_r + \beta_1 \cdot Values_{ir} + \beta_2 \cdot Conformity_{ir} + \gamma \mathbf{X}_{ir} + \varepsilon_{ir}), \qquad (7)$$

where $TaxMor_{ir}$ denotes the binary tax morale variable, $Values_{ir}$ is the mean value score and $Conformity_{ir}$ is the value conformity score. The subscript i indicates each individual respondent, whereas r denotes the region where he resides. The specification also includes a vector of respondent-specific control variables, X_{ir}, as well as region fixed effects, α_r.

We should note here that while the analysis of tax morale determinants is conducted at the individual level, it effectively controls for variation in tax morale at the level of sub-national regions. This is because our measure of value conformity is defined relative to that of the reference group of all other respondents living in the same region. Moreover, by including region fixed effects in our specification, we effectively control for unobserved factors that may differ not only between countries but also between regions within the same country. These factors, for example, include differences in economic development, economic structure, formal and informal institutions, public goods provision, as well as taxes, which vary at the regional level and can influence tax morale.

3.4   Control Variables

The literature has identified a number of individual characteristics that are linked to tax morale, such as age, gender, marital status, employment status, education and income (Alm & Gomez,

2008; Frey & Torgler, 2007; Rodriguez-Justicia & Theilen, 2018). We include these controls throughout our analysis.

Most of the controls used are dummy variables. The exceptions are age, which is simply measured in years, and household income, which in the EVS is measured in twelve brackets. These range from less than €1,800 (1), to over €120,000 (12) and reflect purchasing power parity adjusted levels of monthly household income. The various dummy variables are defined as follows. A gender dummy equals 1 if the respondent is male and 0 if female. For marital status a dummy equals 1 if the individual is at present married and 0 if not. Employment status is captured by three different dummy variables. First, a dependent-employment dummy that equals 1 if the individual is currently part-time or full-time employed and 0 otherwise. Second, a self-employment dummy that equals 1 if the individual is self-employed. Thus, the omitted category in this case would be adults who are unemployed or not in the labor force. Third, we use a dummy that equals 1 if the respondent is retired. Similarly, we capture an individual's education with two dummies. The low education dummy equals 1 for individuals with at most lower secondary education. The high education dummy equals 1 if the respondent has at least some tertiary education.

3.5 Summary Statistics

Table 3 provides some summary statistics for the variables used. In all cases, the dependent variable is tax morale, a binary variable that equals 1 if an individual thinks tax evasion can never be justified and 0 otherwise. Furthermore, we include in every regression the full set of individual control variables described above. Descriptives for these variables are listed in the upper part of Table 3. In addition, we show the correlation with the dependent variable, tax morale. We include in our sample all individuals for which we have complete information on all of the baseline variables. In this case, information on the income variable is the limiting factor, as individuals appear uncomfortable reporting their income or may simply not know it.[6]

[Insert Table 3 around here]

Our main variables of interest are the value conformity scores aggregated across various sets of questions and described in some detail above. These variables are measured on an interval between 0 and 1, with higher values indicating that an individual conforms more to the values prevailing in society. All variables are measured at the level of the individual, with the exception of the regional value conformity scores, which are measured at the level of the sub-national region. Interestingly, all value conformity variables are positively correlated with tax morale.

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[6]An argument could be made that those who are unwilling or unable to report their income may have other (possibly unobserved) characteristics in common as well. Even so, all of the results reported below are virtually unchanged if the income variable is dropped from the analysis and all previously omitted individuals are included.

This suggests that an individual having values similar to those prevalent in the region where he resides tends to have a higher tax morale.

Lastly, as indicated in equation (7) our regression specification also includes each individual's mean value score. Thus, if we use the conformity score based on a given set of value questions included from the EVS, we also control for the mean value score of that individual across these questions. As noted above, all questions have been re-coded so that higher scores correspond to more pro-development attitudes as defined by Beugelsdijk et al. (2017), and subsequently normalized to lie on an interval between 0 and 1 to facilitate aggregation. Except for the set of morality questions, the correlation of these value means with tax morale appears to be weak.

Some scholars have also identified additional regional or country level factors that can be linked to tax morale (Alm & Torgler, 2006; Cummings et al., 2005; Luttmer & Singhal, 2014). As the focus of our analysis is particularly on the individual level, however, we do not control for these variables but we account for them by including region fixed effects.

4   Main Estimation Results

Following the description of our data and the different measures of value conformity we can now proceed to discuss our main estimation results. As explained above, our dependent variable is individual tax morale, which is a binary variable that equals 1 if a person feels that cheating on taxes can never be justified and 0 otherwise. By means of a probit regression we examine the factors that can account for differences in this measure of tax morale across individuals. We first consider a number of individual characteristics that have been linked to tax morale in the literature and after that we examine the effect of value conformity. The final part of this section compares the role of individual value conformity with that of overall conformity in values present in the region. This is because the tax morale of individuals may be affected differently when the values that they espouse place them in the minority rather than the majority.

4.1   Individual Characteristics and Tax Morale

Our baseline estimation results are reported in Table 4. In the first column, we start with a simple set of individual characteristics that have been linked to tax morale, which are age, gender, marital status, and employment status. Here we see that older respondents typically have a higher tax morale, i.e. they are more likely to report that cheating on their taxes can never be justified. It is also clear that men are more likely to have lower tax morale. Being married also leads to a higher tax morale. These effects are all significant at the 1% level. For employment status, however, we find a somewhat surprising negative effect, which is marginally significant at the 10% level. An explanation for this finding will become evident as we look at the other columns of this table.

[Insert Table 4 around here]

In the second column of Table 4 we add another dummy variable that equals 1 if an individual is self-employed. Given that being self-employed allows for more possibilities to cheat on one's taxes, it seems likely that self-employed individuals may view tax evasion as more acceptable. This indeed seems to be what the data suggest, as the coefficient is significantly negative.

In the third column we add another dummy variable for retired individuals and see that such individuals tend to have a higher tax morale. Since retirement is obviously correlated with age, it is quite sensible that part of the effect of the age variable may now be captured by our retirement dummy. Similarly, the employment dummy is no longer significant suggesting that it primarily captures the difference between employed individuals and retirees.

The fourth column of Table 4 adds income to the specification. The estimates here clearly indicate that high-income individuals are more likely to feel that tax evasion can sometimes be justified. Conditional on income it furthermore seems that employment status has a positive effect on tax morale, although it is not significant.

In the last column, we include an individual's educational attainment by adding dummies for high and low education, so that the intermediate case of a medium level of education is the basis for comparison. Neither of the education dummies are found to be significant.

4.2   The Effect of Value Conformity

In Table 5 we study the effect of individual level measures of value conformity. As explained in more detail above, these measures capture the extent to which the values of an individual respondent are similar to those of other respondents in the same region. We use both the unweighted and the weighted version of this measure, where the weights reflect the distance between an individual's answers and those of the other respondents in the same region. These measures are calculated on the basis of individual questions and then aggregated across sets of questions. The set of values over which this aggregation takes place is noted at the top of each column in Table 5.

[Insert Table 5 around here]

In the first column, we retain all variables from our baseline set up and add the individual's mean score across all EVS questions and the unweighted conformity score based on the same set of questions. The results clearly indicate that individuals with more "pro-development" attitudes tend to have a higher tax morale, as indicated by the highly significantly positive coefficient on the individual value mean. Moreover, the coefficient on conformity is also highly significant and positive. Individuals who ascribe to values that are very similar to those of others in their region are found to have a significantly higher tax morale. Hence, espousing different values from the

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rest of society appears to make an individual more likely to evade taxes. As shown by the marked increase in the pseudo R-squared compared to that in Table 4, the variables added seem to have reasonably good explanatory power.

The second column of Table 5 replaces our unweighted conformity measure with the weighted one. The coefficient on this variable is also significantly negative at the 1% level, but its coefficient estimate is much smaller than what we observed in the previous column.[7] Even so, we do again see that adhering to similar values as the rest of society is associated with a higher tax morale, even when accounting for the size of the difference in values.

In the remaining columns of this table we estimate the effect of value conformity using the subsets of EVS value questions described earlier. In columns three and four we use each individuals' average value and conformity score for the 59 questions that load high on the first principal component. Most of the estimates for the control variables are similar in size and significance compared to results reported in the other columns. Interestingly, the individual value mean for this set of questions actually appears to be negatively related to tax morale. The coefficients on weighted and unweighted conformity are statistically significant, although that of the weighted measure only at the 10% level.

In columns five and six we repeat this exercise with questions related to morality.[8] These questions all take the format: "in general do you think . . . can be justified?" and cover a wide range of moral issues like abortion, the use of drugs, and joyriding. For the control variables we again see in both columns qualitatively very similar results as found before, although significance levels sometimes change. The impact of the individual value mean on tax morale is again positive for this selection of questions and highly significant in both columns. Both measures of conformity exert a positive influence and are highly significant. Moreover, the model in column five appears to have the best fit of all models considered. As such, it seems that conformity is important for explaining tax morale and this effect may be driven in particular by attitudes towards moral issues. Agreeing with others regarding what is and what is not moral may thus be particularly important for tax morale.

Finally, in the last column we include a measure of value conformity based on just one single EVS question, namely the one typically used to measure interpersonal trust. The question asks whether people can generally be trusted, or if you cannot be too careful. It is a measure frequently used in the literature on a wide variety of topics (Algan & Cahuc, 2013) and it has been linked to tax morale as well (Alm & Gomez, 2008; Feld & Frey, 2002; Hug & Spörri, 2011; Torgler, 2003). In our analysis we see that it is not trust that affects tax morale, but rather conformity

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[7]It should be noted that the two variables are not entirely on the same scale, although they do fall in a range between 0 and 1.

[8]One respondent did not answer any of the questions related to morality and thus had to be dropped from the sample for this analysis.

in trust.[9] In other words, high tax morale is not necessarily associated with high interpersonal trust, but with having a similar attitude towards trust as your fellow citizens. This implies that a trusting individual residing in a high-trust society may be quite willing to pay his taxes, but so would a non-trusting individual in a low-trust society.

On the whole, the evidence presented in Table 5 lends credence to the idea that individuals having values which are shared by the rest of society have a higher tax morale. The effect is substantial: a one standard deviation increase in conformity is estimated to increase the probability that someone finds tax evasion never to be justifiable by approximately 21 percentage points.[10] The effect of conformity is substantially larger than that of the control variables. For example, a move from the first to the third quartile of the income distribution only reduces this probability by around 4 percentage points. We furthermore find that the exact way to measure conformity does not matter much, since similar results are obtained in every column of Table 5. In the remainder of the paper we shall take a conservative approach and focus on conformity calculated based on the full set of questions.

4.3 Individual versus Regional Value Conformity

Having established a positive relationship between individual value conformity and tax morale, an important question to consider next is whether this relationship is driven by the extent to which an individual is similar in terms of values to others in a given region or by the overall extent to which values are shared across individuals in that region. This consideration has already been raised in the literature in the case cultural values such as interpersonal trust. In this context, it appears that the benefits of trust are not caused so much by being a trusting individual, but rather by residing in a society that is generally trusting (Fukuyama, 1995) or having good institutions (Yu, Beugelsdijk, & de Haan, 2015). In a similar way, it could be that the positive effect of value conformity on tax morale lies more in residing in a society in which the differences between people are small in general, rather than in the difference between an individual's values and those of society being small.

With that in mind, we compare the explanatory power of our unweighted and weighted individual conformity measures with corresponding measures at the regional level. Specifically, in Table 6 we investigate the extent to which individual value conformity has a greater explanatory power for tax morale than the overall level of conformity in values in each region. To allow for the inclusion of variables measured at the regional level, we have to change the set up of our analysis slightly and replace the regional fixed effects with country fixed effects. Moreover, in order to aid presentation and limit the size of the table we do not show the estimates for all

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[9]It should be noted that since the trust question is binary in nature, our weighted and un-weighted conformity measures are identical. Moreover, we lose some observations as not every respondent answered this question.

[10]This calculation is based on the figures in column 1 of Table 5, keeping all variables at their mean.

individual characteristics, although they are included in the regression specification.

[Insert Table 6 around here]

In the first column of Table 6 we examine the effect of the regional value mean and the regional value conformity score on tax morale. The latter variable is the regional level equivalent of our main conformity variable. As noted above, we now focus on measures based on the full set of EVS value questions. As such, the regional value mean is the average value score across all questions for all respondents in a given region. Similar to the results at the individual level, a person living in a region where people have on average more "pro-development" attitudes seems to have a higher tax morale. For regional value conformity the estimate coefficient is highly significantly positive, similar to the results observed at the individual level. An individual living in a region where people in general agree with each other on values exhibits a higher tax morale. These estimates support the conclusion that agreement on values is important, but does not make clear whether the effect operates mostly at the individual or at the societal level.

To investigate this further we need to compare the effect of regional and individual value conformity. For this purpose, column two re-estimates the first column of Table 5, but now with country instead of region fixed effects to allow for direct comparison. With country fixed effects, the results are nearly identical to those obtained before. Looking at the goodness of fit it would seem that individual conformity has a stronger effect than the overall level of conformity in the region.

The direct comparison is conducted in the third column, where we include both regional and individual level measures in the same regression. What we see here is that the individual level estimates are nearly identical to those obtained before, yet the coefficient on the regional value conformity score has flipped signs and is now highly significantly negative. Given the individual's value conformity score, residing in a more similar society appears to be harmful for tax morale. As such, it may that the effect of individual conformity directly depends on the degree of conformity in society. We shall investigate the possibility of such a conditionality in more detail in Table 7, where we consider interaction effects.

In the last three columns of Table 6 we repeat this exercise with the weighted versions of the individual and regional value conformity variables. In column four we include the weighted regional value conformity score along with the regional value mean. The estimated effect of value conformity is positive, but not significantly so. This is similar to what we saw in Table 5, where weighted conformity appeared less significant than the unweighted version. This could indicate that when it comes to value-related questions disagreeing in general is harmful for tax morale, but the extent of this disagreement does not provide much additional information. For many of the EVS questions this intuitively makes sense. For example, all of the morality questions discussed above are (before we normalized them) coded on a 10 point scale, where 1 means that

something can never be justified and 10 that it can always be justified. An individual who feels that something can never be justified may effectively disagree just as much with someone who feels it can be justified in rare cases as with someone who feels it can almost always be justified.

The fifth column of this table examines weighted individual conformity similar to column two in Table 5, but now with country fixed effects. As before, we find a highly significantly positive relationship between weighted conformity and tax morale. The goodness of fit, however, does not appear to improve a lot compared to the previous column. The final column offers a comparison between the weighted versions of the individual and regional value conformity measures. In this specification, only individual conformity is significant. Again these results suggest that what is important is the extent to which an individual is similar to others in society, and not so much the extent to which people in general are similar.

Overall, the results in this section indicate that the explanatory power of our individual value conformity measures is greater than that of regional value conformity. In other words, what is more important in explaining differences in tax morale across individuals is how each individuals' values relate to those of others in the region and not the extent to which values are generally shared within the society. Furthermore, the results suggest that it matters more if people agree or disagree with each other on values, rather than the extent to which they disagree. This means that the unweighted individual conformity measure should be preferred. Therefore, the remaining results presented below are all based on the unweighted measure.

4.4   Heterogeneity in the Effect of Conformity

Having established that value conformity is negatively associated with tax morale, we now investigate whether there is potential heterogeneity in this effect across individuals. For this purpose, we introduce a series of interaction effects with our control variables. We also investigate whether the effect of conformity hinges on how similar people in a society are in general. The results are presented in Table 7. It should be noted that we, once again, employ region fixed effects in all cases apart from column nine where we use country fixed effects to allow for the inclusion of regional level variables.

[Insert Table 7 around here]

In the first column, we consider whether age has a conditioning effect on the impact of conformity on tax morale. Conformity retains its strong positive effect and the interaction is found to be negative and highly significant. However, the size of the interaction term is fairly small. Someone would have to be well in excess of 400 years before the aggregate effect is zero.

In the second column, we consider whether men's tax morale is affected more from value conformity than that of women. This does not seem to be the case as the interaction term is

insignificant. Likewise, the conditioning effect of marital status is also insignificant as shown in the third column.

In the fourth column we add an interaction with the dependent employment dummy. The coefficient on the interaction term is significantly positive at the 5% level. However, its size is small compared to the coefficient on conformity. The same is true (albeit at the 10% significance level) for the interaction with self-employment as shown in column five. In column six, we add the interaction with retirement, which enters with a significantly negative coefficient. Like in the case of the interaction with age, though, the size of the interaction term is very small.

In the seventh column we consider an interaction with income, which is found to be significant at the 10% level. As such, the aggregate marginal effect of conformity is positive in all cases, but slightly less so for higher-income individuals. The final variable considered is educational attainment. As shown in column eight, the interaction with the high education dummy is insignificant.[11] As such it seems that the effect of conformity on tax morale does not vary with educational attainment to any meaningful degree.

So far, these results indicate that some individual characteristics do play a conditioning role in the relationship between conformity and tax morale. In all cases, however, the interaction effects are small compared to the coefficient on conformity, taking into account the range of the conditioning variable so that the overall effect of conformity on tax morale remains positive.

The final column investigates an interaction of a different nature, namely with the regional value diversity score. In Table 6 we observed that the coefficient on regional value conformity flips signs if both this variable and individual conformity were included in the same regression. One possible explanation for this finding is that the relationship between tax morale and value conformity varies depending on whether overall value diversity in the society is high or low. With that in mind, we introduce an interaction between our individual conformity measure and its regional level equivalent and find that this interaction is highly significant. While the regional level variables are statistically insignificant, the interaction term is negative and significant. Moreover, the coefficient of the individual conformity variable remains highly significant as well.

Figure 1 shows the marginal effect of individual value conformity on tax morale for different levels of regional value conformity, where the thin dotted lines indicate the 95% confidence interval. [12] The marginal effect plot illustrates two important points. First, the effect of individual conformity on tax morale is always positive. Second, the effect may be smaller in regions with very low or very high regional conformity scores. Intuitively, this makes sense. Consider two extreme cases. On the one hand, suppose that a society is perfectly diverse, such

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[11]The low education dummy interaction is omitted for the sake of sparsity and because it is similarly insignificant.

[12]It should be noted that there are some extreme values in the diversity scores, as only a very small number of regions have a regional conformity score above 0.5. Omitting these regions, however, yields a virtually identical set of results and graphical representation.

that every individual subscribes to his own unique set of values. In this case, there is not really an average set of values to conform to, and as such a positive effect on conformity on tax morale in not expected. On the other extreme, consider a perfectly homogeneous society, where everybody subscribes to the exact same set of values. If everybody conforms, an individual's conformity score no longer can tell us anything about his tax morale. In practice, of course, these extremes are not observed in the regions surveyed, but it may explain the observed pattern in Figure 1 for those regions tending towards these extremes.

5 Robustness Checks

The results presented in the previous section establish a clear relationship between tax morale and individual value conformity, i.e. the extent to which a given individual adheres to values that are similar to those adhered to by others in the same region. In this section, we conduct a number of robustness checks to verify that this finding does not depend on some of the underlying choices made in our empirical approach. We examine first in Table 8 whether the choice for a particular econometric estimation method influences our results. Similarly, we drop questions with either very few or many possible answers, as these may influence the measurement of value conformity. In Table 9 we look at the impact of dropping certain regions or specific groups of respondents from the sample. In all cases, we find that value conformity has a highly significant positive effect on individual tax morale.

The results shown thus far have all been estimated by means of a probit regression. Similar results, however, are obtained if instead a logit regression is used as shown in the first column of Table 8. Comparing this column with the first column in Table 5 confirms that all coefficients have a similar size and significance. Moreover, the implied magnitude of the effect is almost identical to that obtained using probit.[13]

[Insert Table 8 around here]

Similarly, our dependent variable has until now been a binary variable that equals 1 if the respondent answered that cheating on taxes could never be justified and 0 otherwise. We have followed this approach in order be consistent with existing literature. The group of people for which the tax morale variable is coded as 0, however, contains people with different views on tax evasion, ranging from it being sometimes justifiable, to always being so. To retain this nuance, we can also employ an ordered probit or ordered logit approach and use the full range of the answer scale, ranging from 1 to 10, with higher values indicating a higher tax morale.[14] Column

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[13]A one standard deviation increase of the conformity variable increases the probability by 25 percentage points, compared to 24 percentage points using probit.

[14]To be consistent with our binary variable this answer scale has been inverted from how it is employed in the EVS.

two of Table 8 shows the estimation results for an ordered probit regression. Looking at the signs and significance of the coefficients it is clear that the same pattern emerges as before. Higher value conformity once again makes it more likely that an individual gives an answer towards the higher end of the answer scale, meaning higher tax morale. The same is true when we employ ordered logit, as shown in column three. Both ordered methods indicate a similar size effect that is also consistent with those obtained for the regular probit and logit approaches.[15]

Our value conformity measures, outlined in Table 5, are based on classifying individuals into different groups in terms of particular values. However, as pointed out before, this classification depends on the number of possible answers to a particular question. Based on the normalization that we employ, the theoretical maximum value for these measures is always 1, when every single individual gives the same answer. The theoretical minimum value, though, is decreasing in the number of answers, where the lowest possible value of 0 is obtained when the number of groups is infinite and respondents are uniformly distributed across them. Given that, a valuable robustness check would be to see what happens if we omit questions with very many or few possible answers. As noted earlier, the maximum number of answers a question in the EVS can have is ten, whereas the minimum is two.

In column four of Table 8, we leave out every question that is measured on a two points scale. The impact on the results is minimal: individual conformity still has a highly significantly positive effect of a similar size as in the other regressions. The goodness of fit, however, increases a bit, which suggests that conformity scores based on questions with only two possible answers have less predictive power for tax morale. In the final column of this table, we repeat this exercise by dropping the questions measured on a ten points scale. Now the coefficient on conformity drops substantially, yet retains its significance at the 1% level. Similarly, the goodness of fit also drops significantly, suggesting that the ten points questions are measuring something that is valuable for predicting tax morale. It should be noted that the questions related to morality, which seemed to work quite well in Table 5, are all measured on a ten points scale and are thus omitted here. It is thus not entirely clear that when we drop the ten points questions the results change because of a measurement issue, or because we omit a valuable predictor. Regardless of its measurement, however, it is clear that conformity is positively related to tax morale in all cases.

In Table 9 we continue with a number of sample selection robustness checks. The EVS is conducted in such a manner as to have roughly the same number of respondents in every country, but the same is not true at the sub-national level. As a result, the number of respondents across sub-national regions can vary to some extent. This could be problematic for our conformity measure, as it relies on comparing an individual's views with those of other people in the same

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[15]Specifically, the probability that an individual gave answer 10 (tax evasion can never be justified) is 21 and 22 percentage points higher when conformity is increased by one standard deviation for the ordered probit and logit methods, respectively.

region. If the number of respondents in a region is very low, it may be impossible to get an accurate picture of how similar or different values are. To check to what extent this has affected our findings, we omit in the first column all regions in which the number of respondents is 30 or less, leaving us with 281 regions. Clearly this does not seem to influence the results, as all coefficient estimates are virtually identical to those in the first column of Table 5. The same is true if we omit all regions with fewer than 100 respondents. This drastically reduces the regions covered to 148 but leaves all estimates virtually untouched. Thus, differences in how accurately the distribution of values in a region can be estimated, given the number of respondents, do not seem to influence the finding that individual value conformity is strongly related to tax morale.

[Insert Table 9 around here]

A similar concern is that most individuals have not answered every single question from the EVS, for various reasons.[16] Clearly in order to accurately classify each individual's values relative to those of others in the region we need to have a good idea of what their values are. As such, we may want to posit a minimum number of value-related questions that a given individual needs to have answered in order to be included in our sample. In the third column of Table 9 we drop every respondent for which the number of unanswered questions exceeds 20. This reduces the total sample by roughly 10%. All estimates, however, are virtually identical to those in the first column of Table 5. This is still true if we decrease the cut-off for the number of unanswered questions to 5, even though it nearly halves our initial sample. In both columns three and four we can now more accurately estimate the coefficient on the low education dummy, which previously was found to be positive but insignificant. It is now significantly positive at respectively the 5% and 1% level. Crucially, in both cases the coefficient on conformity is unaffected. This suggests that our approach of taking the average conformity score of all questions an individual has answered does not skew the results for individuals who have answered relatively few questions.

In any research concerning value differences between countries or regions there is a concern that the results may be influenced by the presence of immigrants in the sample. It is well established in the literature that immigrants' values are strongly influenced by their country or even region of origin (Alesina & Giuliano, 2015; Algan & Cahuc, 2013). Moreover, immigrants may self-select into certain countries and regions. In our case, this may be particularly relevant if this selection takes into consideration perceived differences in tax systems and tax morale. A simple check for this effect is whether our results change when we exclude all migrants from the sample, which we do by dropping everyone born in a different region than where he currently resides. As shown in column five of Table 9, the results are virtually identical to those obtained before. Alternatively, we do the same check at the national level by excluding foreign-born residents. The results as reported in the sixth column are nearly identical to those obtained

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[16]Ranging from not wanting to answer, being unable to, or simply not having been asked a certain question.

before. Our results, thus, do not seem to be influenced by individuals who have migrated to a different region or country.

In general, the regressions reported in this section show that our results seem to be very robust to a number of different sensitivity analyses. Changes in the estimation method or in the exact manner in which individual value conformity is measured do not seem to influence our main result. Similarly, dropping potentially problematic regions or respondents from the sample does not affect our main findings. In all cases, the estimates suggest that there is a strong positive relationship between value conformity and tax morale.

6   Conclusion

Why do most people not evade taxes? Differences in tax morale can explain a large share of differences in tax evasion (Luttmer & Singhal, 2014). But what explains tax morale? An extensive literature has studied this question and identified a wide variety of individual, cultural and economic factors that may explain it. This paper has contributed to this literature by looking not only at the role played by specific values, but by focusing on how similar an individual's values are to those of others in society. The results of our analysis suggest that individuals having values similar to those in society tend to have a higher tax morale.

Our analysis primarily relies on data from the European Values Study. Tax morale is measured as the extent to which an individual thinks that cheating on taxes can be justified. We introduce a measure of individual value conformity to capture the extent to which values of an individual are similar to those of others in the same region. The logic of our measure is in line with previous attempts in the literature to measure diversity in values and it is related to commonly used fractionalization and polarization indexes. The main difference in our approach, however, is that we distinguish between individuals and social groups. In particular, a higher value of our conformity score means that the values of an individual are more similar to those of others in the same region. Our results suggest that there is a strong and positive relationship between individual conformity and tax morale. Quantitatively, an increase by a single standard deviation of the conformity score is estimated to increase the probability that an individual finds tax evasion unjustifiable by 24 percentage points.

Having considered a variety of different measures and estimation approaches, we conclude that all of them suggest that conformity is strongly associated with higher tax morale. In addition, we postulate the existence of a conditional relationship between conformity measured at the individual and the regional level, which captures the extent to which people residing in the same region in general have similar values. A higher conformity score is always associated with higher tax morale. However, this effect appears to operate more strongly if an individual resides in a region that is neither very homogeneous nor very diverse.

The results of our analysis have important implications for the literature on tax morale. While several values have been convincingly linked to tax morale, there is also an important role played by the extent to which values are shared in society. As our results suggest, what matters is not merely the values people ascribe to, but rather how these values deviate from those of others in the same region. A set of values that otherwise may have been expected to be conducive to tax morale may not have this effect if these values differ strongly from those held by other people. More broadly, this finding indicates that the way in which individuals perceive their civic responsibilities may depend on the extent to which cultural values in society are shared.

References

Ahmed, E. and Braithwaite, V. (2005). Understanding small business taxpayers. *International Small Business Journal*, 23(5):539–568.

Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S., and Wacziarg, R. (2003). Fractionalization. *Journal of Economic Growth*, 8(2):155–194.

Alesina, A. and Giuliano, P. (2015). Culture and institutions. *Journal of Economic Literature*, 53(4):898–944.

Alesina, A., Michalopoulos, S., and Papaioannou, E. (2016). Ethnic inequality. *Journal of Political Economy*, 124(2):428–488.

Algan, Y. and Cahuc, P. (2009). Civic virtue and labor market institutions. *American Economic Journal: Macroeconomics*, 1(1):111–145.

Algan, Y. and Cahuc, P. (2013). Trust and growth. *Annual Review of Economics*, 5(1):521–549.

Allingham, M. G. and Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(1):323–338.

Alm, J. and Gomez, J. L. (2008). Social capital and tax morale in spain. *Economic Analysis and Policy*, 38(1):73–87.

Alm, J., McClelland, G. H., and Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economics*, 48(1):21–38.

Alm, J., Sanchez, I., and Juan, A. D. (1995). Economic and noneconomic factors in tax compliance. *Kyklos*, 48(1):1–18.

Alm, J. and Torgler, B. (2006). Culture differences and tax morale in the united states and in europe. *Journal of Economic Psychology*, 27(2):224–246.

Alm, J. and Torgler, B. (2011). Do ethics matter? tax compliance and morality. *Journal of Business Ethics*, 101(4):635–651.

Arbatli, C. E., Ashraf, Q. H., Galor, O., and Klemp, M. P. B. (2018). Diversity and conflict. CESifo Working Paper Series 6989.

Ashraf, Q. and Galor, O. (2013). Genetic diversity and the origins of cultural fragmentation. *American Economic Review*, 103(3):528–533.

Beugelsdijk, S., Klasing, M., and Milionis, P. (2017). Value diversity and regional economic development. *Scandinavian Journal of Economics*, forthcoming.

Beugelsdijk, S. and Klasing, M. J. (2016). Diversity and trust: The role of shared values. *Journal of Comparative Economics*, 44(3):522–540.

Beugelsdijk, S. and Klasing, M. J. (2017). Measuring value diversity within countries. In Costa-Font, J. and Macis, M., editors, *Social Economics: Current and Emerging Avenues*, pages 129–172. MIT University Press.

Chan, H. F., Supriyadi, M. W., and Torgler, B. (2017). *Trust and Tax Morale*. Oxford University Press.

Cummings, R. C., Martinez-Vazquez, J., McKee, M., and Torgler, B. (2005). Effects of culture on tax compliance: A cross check of experimental and survey evidence. *SSRN Electronic Journal*.

Dell'Anno, R. (2009). Tax evasion, tax morale and policy maker's effectiveness. *The Journal of Socio-Economics*, 38(6):988–997.

Desmet, K., Ortuño-Ortín, I., and Wacziarg, R. (2012). The political economy of linguistic cleavages. *Journal of Development Economics*, 97(2):322–338.

Desmet, K., Ortuño-Ortín, I., and Weber, S. (2009). Linguistic diversity and redistribution. *Journal of the European Economic Association*, 7(6):1291–1318.

Easterly, W. and Levine, R. (1997). Africa's growth tragedy: Policies and ethnic divisions. *Quarterly Journal of Economics*, 112(4):1203–1250.

Efferson, C., Lalive, R., and Fehr, E. (2008). The coevolution of cultural groups and ingroup favoritism. *Science*, 321(5897):1844–1849.

Elffers, H., Weigel, R. H., and Hessing, D. J. (1987). The consequences of different strategies for measuring tax evasion behavior. *Journal of Economic Psychology*, 8(3):311–337.

Esteban, J.-M. and Ray, D. (1994). On the measurement of polarization. *Econometrica*, 62(4):819.

Feld, L. P. and Frey, B. S. (2002). Trust breeds trust: How taxpayers are treated. *Economics of Governance*, 3(2):87–99.

Feld, L. P. and Frey, B. S. (2007). Tax compliance as the result of a psychological tax contract: The role of incentives and responsive regulation. *Law & Policy*, 29(1):102–120.

Fisman, R. and Miguel, E. (2007). Corruption, norms, and legal enforcement: Evidence from diplomatic parking tickets. *Journal of Political Economy*, 115(6):1020–1048.

Fortin, B., Lacroix, G., and Villeval, M.-C. (2007). Tax evasion and social interactions. *Journal*

of Public Economics, 91(11-12):2089–2112.

Frank, M. G. and Gilovich, T. (1988). The dark side of self- and social perception: Black uniforms and aggression in professional sports. *Journal of Personality and Social Psychology*, 54(1):74–85.

Frey, B. S. and Torgler, B. (2007). Tax morale and conditional cooperation. *Journal of Comparative Economics*, 35(1):136–159.

Fukuyama, F. (1995). *Trust: The Social Virtues and the Creation of Prosperity*. Free Press, New York, NY.

Gershman, B. and Rivera, D. (2018). Subnational diversity in sub-saharan africa: Insights from a new dataset. *Journal of Development Economics*, 133:231–263.

Greenberg, J. H. (1956). The measurement of linguistic diversity. *Language*, 32(1):109.

Guiso, L., Sapienza, P., and Zingales, L. (2015). The value of corporate culture. *Journal of Financial Economics*, 117(1):60–76.

Hug, S. and Spörri, F. (2011). Referendums, trust, and tax evasion. *European Journal of Political Economy*, 27(1):120–131.

Kahneman, D. and Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2):263.

LaPorta, R., Lopez-de Silanes, F., Shleifer, A., and Vishny, R. W. (1999). The quality of government. *Journal of Law, Economics and Organization*, 15(1):222–279.

Lewis, A. (1982). The social psychology of taxation. *British Journal of Social Psychology*, 21(2):151–158.

Litina, A. and Palivos, T. (2016). Corruption, tax evasion and social values. *Journal of Economic Behavior & Organization*, 124:164–177.

Luttmer, E. F. P. and Singhal, M. (2014). Tax morale. *Journal of Economic Perspectives*, 28(4):149–168.

Orviska, M. and Hudson, J. (2003). Tax evasion, civic duty and the law abiding citizen. *European Journal of Political Economy*, 19(1):83–102.

Pommerehne, W. W., Hart, A., and Frey, B. S. (1994). Tax morale, tax evasion and the choice of policy instruments in different political systems. *Public Finance*, 49(Supplement):52–69.

Pyle, D. J. (1991). The economics of taxpayer compliance. *Journal of Economic Surveys*, 5(2):163–198.

Rodriguez-Justicia, D. and Theilen, B. (2018). Education and tax morale. *Journal of Economic Psychology*, 64:18–48.

Schmölders, G. (1951). Finanzpsychologie. *FinanzArchiv*, 13:1–36.

Scholz, J. T. and Lubell, M. (1998). Trust and taxpaying: Testing the heuristic approach to collective action. *American Journal of Political Science*, 42(2):398.

Schwartz, R. D. and Orleans, S. (1967). On legal sanctions. *University of Chicago Law Review*,

34(2):274.

Schwartz, S. H. and Sagie, G. (2000). Value consensus and importance. *Journal of Cross-Cultural Psychology*, 31(4):465–497.

Spicer, M. W. and Lundstedt, S. B. (1976). Understanding tax evasion. *Public Finance*, pages 295–305.

Sturm, J.-E. and Haan, J. D. (2015). Income inequality, capitalism, and ethno-linguistic fractionalization. *American Economic Review*, 105(5):593–597.

Tajfel, H. (1978). Interindividual and intergroup behaviour. *Differentiation between Groups: Studies in the Social Psychology of Intergroup Relations*, pages 27–60.

Tajfel, H., Billig, M. G., Bundy, R. P., and Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, 1(2):149–178.

Tajfel, H. and Turner, J. C. (1986). *The Social Identity Theory of Intergroup Behaviour*, pages 7–24. Chicago, IL: Nelson-Hall.

Torgler, B. (2003). Tax morale, rule-governed behaviour and trust. *Constitutional Political Economy*, 14(2):119–140.

Torgler, B. (2007). *Tax Compliance and Tax Morale: A Theoretical and Empirical Analysis*. Edward Elgar Pub.

Turner, J. C. and Oakes, P. J. (1986). The significance of the social identity concept for social psychology with reference to individualism, interactionism and social influence. *British Journal of Social Psychology*, 25(3):237–252.

Turner, R. H. (1978). The role and the person. *American Journal of Sociology*, 84(1):1–23.

Yu, S., Beugelsdijk, S., and de Haan, J. (2015). Trade, trust and the rule of law. *European Journal of Political Economy*, 37:102–115.

Appendix: Tables

Table 1: Different Conformity Measures

Level	Weights	Symbol	Interpretation
Regional	Unweighted	Φ	Probability that two randomly drawn individuals from the same region share a given set of values.
Individual	Unweighted	φ_i	Probability that a given individual and a randomly drawn other individual from the same region share a given set of values.
Regional	Distance weighted	Φ^w	Expected proximity of two randomly drawn individuals from the same region.
Individual	Distance weighted	φ_i^w	Expected proximity of a given individual and a randomly drawn other individual from the same region.

Table 2: Numerical Example Different Conformity Measures

Answer:	1	2	3	Φ	Φ^w	$\varphi(1)$	$\varphi(3)$	$\varphi^w(1)$	$\varphi^w(3)$
	0.33	0.33	0.33	0.33	0.11	0.33	0.33	0	0
Shares:	0.50	0.25	0.25	0.38	0.12	0.5	0.25	0.25	-0.25
	0.50	0	0.50	0.50	0	0.50	0.50	0	0

Table 3: Descriptive Statistics

	Obs	Mean	Std. Dev.	Min	Max	Correlation Tax Morale
Baseline Variables						
Tax Morale	51,274	0.60	0.49	0	1	1.00
Age	51,274	47.09	17.58	15	108	0.12
Male	51,274	0.45	0.50	0	1	-0.05
Married	51,274	0.56	0.50	0	1	0.05
Dependently Employed	51,274	0.46	0.50	0	1	-0.09
Self-Employed	51,274	0.06	0.23	0	1	-0.02
Retired	51,274	0.23	0.42	0	1	0.10
Income	51,274	4.51	2.65	1	12	-0.07
Low Education	51,274	0.26	0.44	0	1	0.06
High Education	51,274	0.24	0.43	0	1	-0.03
Values Conformity						
All Questions	51,274	0.44	0.04	0.27	0.66	0.38
All Questions, Weighted	51,274	0.68	0.03	0.47	0.87	0.09
First Factor	51,274	0.45	0.06	0.18	0.69	0.24
First Factor, Weighted	51,274	0.67	0.05	0.40	0.84	0.07
Morality	51,273	0.39	0.18	0.01	0.91	0.51
Morality, Weighted	51,274	0.75	0.08	0.19	0.94	0.30
Trust	49,446	0.64	0.22	0.04	1.00	0.07
All Questions, Regional	51,274	0.44	0.03	0.37	0.64	0.19
All Q., Regional Weighted	51,274	0.69	0.02	0.64	0.14	0.08
Value Means						
All Questions	51,274	0.55	0.06	0.26	0.81	0.09
First Factor	51,274	0.48	0.11	0.13	0.87	-0.10
Morality	51,273	0.68	0.08	0	1	0.40
Trust	49,446	0.31	0.46	0	1	-0.04
All Questions, Regional	51,274	0.55	0.03	0.45	0.62	0.04

Table 4: Baseline Estimation Results

	(1)	(2)	(3)	(4)	(5)
Estimation Method			Probit		
Dependent Variable			Tax Morale		
Age	0.0104***	0.0102***	0.00875***	0.00830***	0.00827***
	(0.000660)	(0.000647)	(0.000653)	(0.000660)	(0.000708)
Male	-0.163***	-0.158***	-0.163***	-0.161***	-0.161***
	(0.0215)	(0.0207)	(0.0211)	(0.0211)	(0.0210)
Married	0.0811***	0.0857***	0.0925***	0.114***	0.115***
	(0.0153)	(0.0153)	(0.0151)	(0.0162)	(0.0160)
Dep. Employed	-0.0339**	-0.0487***	-0.0130	0.0112	0.0100
	(0.0168)	(0.0171)	(0.0193)	(0.0175)	(0.0169)
Self-Employed		-0.110***	-0.0714**	-0.0471	-0.0477
		(0.0362)	(0.0355)	(0.0346)	(0.0351)
Retired			0.109***	0.114***	0.114***
			(0.0249)	(0.0249)	(0.0248)
Income				-0.0276***	-0.0281***
				(0.00668)	(0.00659)
Low Education					0.00669
					(0.0230)
High Education					0.0143
					(0.0184)
Pseudo R^2	0.092	0.092	0.092	0.093	0.093
Observations	51,274	51,274	51,274	51,274	51,274
Regions	322	322	322	322	322
Countries	45	45	45	45	45

Robust standard errors in parentheses. All estimations include region fixed effects.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5: Individual Value Nonconformity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Estimation Method				Probit			
Dependent Variable				Tax Morale			
Questions included	All	All	First Factor	First Factor	Morality	Morality	Trust
Age	0.00692***	0.00909***	0.00693***	0.00769***	0.00179**	0.00597***	0.00831***
	(0.000774)	(0.000722)	(0.000704)	(0.000705)	(0.000774)	(0.000708)	(0.000713)
Male	-0.0633***	-0.160***	-0.123***	-0.152***	-0.0101	-0.0325*	-0.160***
	(0.0188)	(0.0208)	(0.0210)	(0.0213)	(0.0159)	(0.0182)	(0.0208)
Married	0.0465***	0.123***	0.0714***	0.100***	-0.0110	0.0802***	0.113***
	(0.0174)	(0.0175)	(0.0167)	(0.0166)	(0.0165)	(0.0172)	(0.0158)
Dep. Employed	-0.0447**	-0.0155	0.00159	0.0168	-0.0185	-0.0285*	0.00643
	(0.0174)	(0.0166)	(0.0163)	(0.0170)	(0.0174)	(0.0169)	(0.0167)
Self-Employed	-0.0768**	-0.0677*	-0.0618*	-0.0445	-0.112***	-0.0788**	-0.0541
	(0.0340)	(0.0361)	(0.0334)	(0.0352)	(0.0348)	(0.0365)	(0.0357)
Retired	0.0789***	0.113***	0.0976***	0.109***	0.0939***	0.110***	0.108***
	(0.0283)	(0.0248)	(0.0262)	(0.0250)	(0.0278)	(0.0240)	(0.0257)
Income	-0.0350***	-0.0426***	-0.0239***	-0.0247***	-0.00519	-0.0344***	-0.0261***
	(0.00735)	(0.00689)	(0.00677)	(0.00667)	(0.00762)	(0.00655)	(0.00658)
Low Education	0.0262	0.0710***	-0.0219	-0.00941	-0.0465**	0.0592***	0.0132
	(0.0222)	(0.0216)	(0.0225)	(0.0228)	(0.0216)	(0.0198)	(0.0234)
High Education	0.0456**	-0.0282	0.0509***	0.0265	0.0715***	-0.0105	0.0183
	(0.0184)	(0.0180)	(0.0186)	(0.0186)	(0.0188)	(0.0185)	(0.0185)
Individual Value Mean	1.788***	2.947***	-0.474***	-0.802***	3.844***	7.083***	-0.0156
	(0.258)	(0.205)	(0.152)	(0.115)	(0.288)	(0.297)	(0.0239)
Conformity	17.14***		6.443***		6.122***		0.111**
	(0.619)		(0.434)		(0.272)		(0.0532)
Weighted Conformity		2.353***		0.820*		2.832***	
		(0.752)		(0.474)		(0.318)	
Pseudo R^2	0.196	0.106	0.122	0.095	0.322	0.212	0.093
Observations	51,274	51,274	51,274	51,274	51,273	51,273	49,446
Regions	322	322	322	322	322	322	322
Countries	45	45	45	45	45	45	45

Robust standard errors in parentheses. All estimations include region fixed effects.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 6: Individual and Regional Values Compared

	(1)	(2)	(3)	(4)	(5)	(6)
Estimation Method				Probit		
Dependent Variable				Tax Morale		
Questions included	All	All	All	All	All	All
Regional Value Mean	4.400***		3.163**	4.498***		2.059
	(1.221)		(1.374)	(1.402)		(1.395)
Regional Conformity	5.489***		-10.64***			
	(0.797)		(1.002)			
Regional Weighted Conformity				1.258		-1.086
				(1.185)		(1.295)
Individual Value Mean		1.983***	1.735***		2.997***	2.903***
		(0.231)	(0.242)		(0.201)	(0.199)
Conformity		14.50***	16.81***			
		(0.696)	(0.616)			
Weighted Conformity					2.113***	2.330***
					(0.687)	(0.743)
Pseudo R^2	0.077	0.170	0.178	0.074	0.087	0.087
Observations	51,274	51,274	51,274	51,274	51,274	51,274
Regions	322	322	322	322	322	322
Countries	45	45	45	45	45	45

Robust standard errors in parentheses. All estimations include country fixed effects and a set of individual characteristics. *** p<0.01, ** p<0.05, * p<0.1

Table 7: Conformity Interaction Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Interaction with	Age	Male	Married	Dep. Empl.	Self-Empl.	Retired	Income	High Edu.	Reg. Conf.
Age	0.0259***	0.00693***	0.00693***	0.00692***	0.00693***	0.00686***	0.00694***	0.00694***	0.00723***
	(0.00556)	(0.000772)	(0.000777)	(0.000774)	(0.000775)	(0.000774)	(0.000775)	(0.000770)	(0.000635)
Male	-0.0632***	-0.332*	-0.0635***	-0.0637***	-0.0636***	-0.0632***	-0.0640***	-0.0633***	-0.0652***
	(0.0187)	(0.164)	(0.0188)	(0.0188)	(0.0188)	(0.0188)	(0.0187)	(0.0188)	(0.0229)
Married	0.0445**	0.0463***	-0.143	0.0468***	0.0462***	0.0451***	0.0468***	0.0468***	0.0471***
	(0.0174)	(0.0173)	(0.217)	(0.0173)	(0.0174)	(0.0174)	(0.0174)	(0.0174)	(0.0181)
Dep. Employed	-0.0446**	-0.0457***	-0.0443**	-0.443**	-0.0455***	-0.0424**	-0.0436**	-0.0449***	-0.0547***
	(0.0178)	(0.0174)	(0.0175)	(0.172)	(0.0173)	(0.0177)	(0.0175)	(0.0174)	(0.0183)
Self-Employed	-0.0780**	-0.0783**	-0.0768**	-0.0769**	-0.691*	-0.0765**	-0.0775**	-0.0764**	-0.0915***
	(0.0342)	(0.0340)	(0.0339)	(0.0337)	(0.357)	(0.0342)	(0.0340)	(0.0339)	(0.0339)
Retired	0.0786***	0.0779***	0.0796***	0.0782***	0.0785***	0.844***	0.0782***	0.0787***	0.0637**
	(0.0280)	(0.0283)	(0.0281)	(0.0280)	(0.0283)	(0.225)	(0.0284)	(0.0283)	(0.0271)
Income	-0.0347***	-0.0350***	-0.0348***	-0.0349***	-0.0348***	-0.0347***	0.0921	-0.0349***	-0.0324***
	(0.00733)	(0.00734)	(0.00739)	(0.00736)	(0.00737)	(0.00735)	(0.0737)	(0.00734)	(0.00740)
Low Education	0.0278	0.0267	0.0262	0.0271	0.0259	0.0278	0.0251	0.0261	0.0225
	(0.0221)	(0.0222)	(0.0222)	(0.0222)	(0.0222)	(0.0221)	(0.0222)	(0.0222)	(0.0259)
High Education	0.0446**	0.0459**	0.0458**	0.0457**	0.0459**	0.0452**	0.0448**	-0.210	0.0423**
	(0.0184)	(0.0185)	(0.0184)	(0.0185)	(0.0185)	(0.0184)	(0.0185)	(0.216)	(0.0175)
Individual Value Mean	1.816***	1.786***	1.784***	1.796***	1.790***	1.806***	1.792***	1.795***	1.728***
	(0.260)	(0.258)	(0.258)	(0.258)	(0.257)	(0.259)	(0.256)	(0.258)	(0.318)
Conformity	19.16***	16.85***	16.90***	16.74***	17.06***	17.53***	18.36***	17.00***	29.19***
	(0.812)	(0.665)	(0.630)	(0.653)	(0.620)	(0.629)	(0.940)	(0.662)	(4.159)
Conformity Interaction	-0.0438***	0.621	0.437	0.920**	1.410*	-1.756***	-0.296*	0.591	-27.84***
	(0.0127)	(0.381)	(0.497)	(0.395)	(0.810)	(0.513)	(0.173)	(0.495)	(9.554)
Regional Value Mean									2.913
									(2.137)
Regional Conformity									2.747
									(4.937)
Pseudo R^2	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.179
Observations	51,274	51,274	51,274	51,274	51,274	51,274	51,274	51,274	51,274
Regions	322	322	322	322	322	322	322	322	322
Countries	45	45	45	45	45	45	45	45	45

Robust standard errors in parentheses. All estimations include region fixed effects and a set of individual characteristics. The estimates in column 9 use country fixed effects. All values measures are based on the full set of questions. *** p<0.01, ** p<0.05, * p<0.1
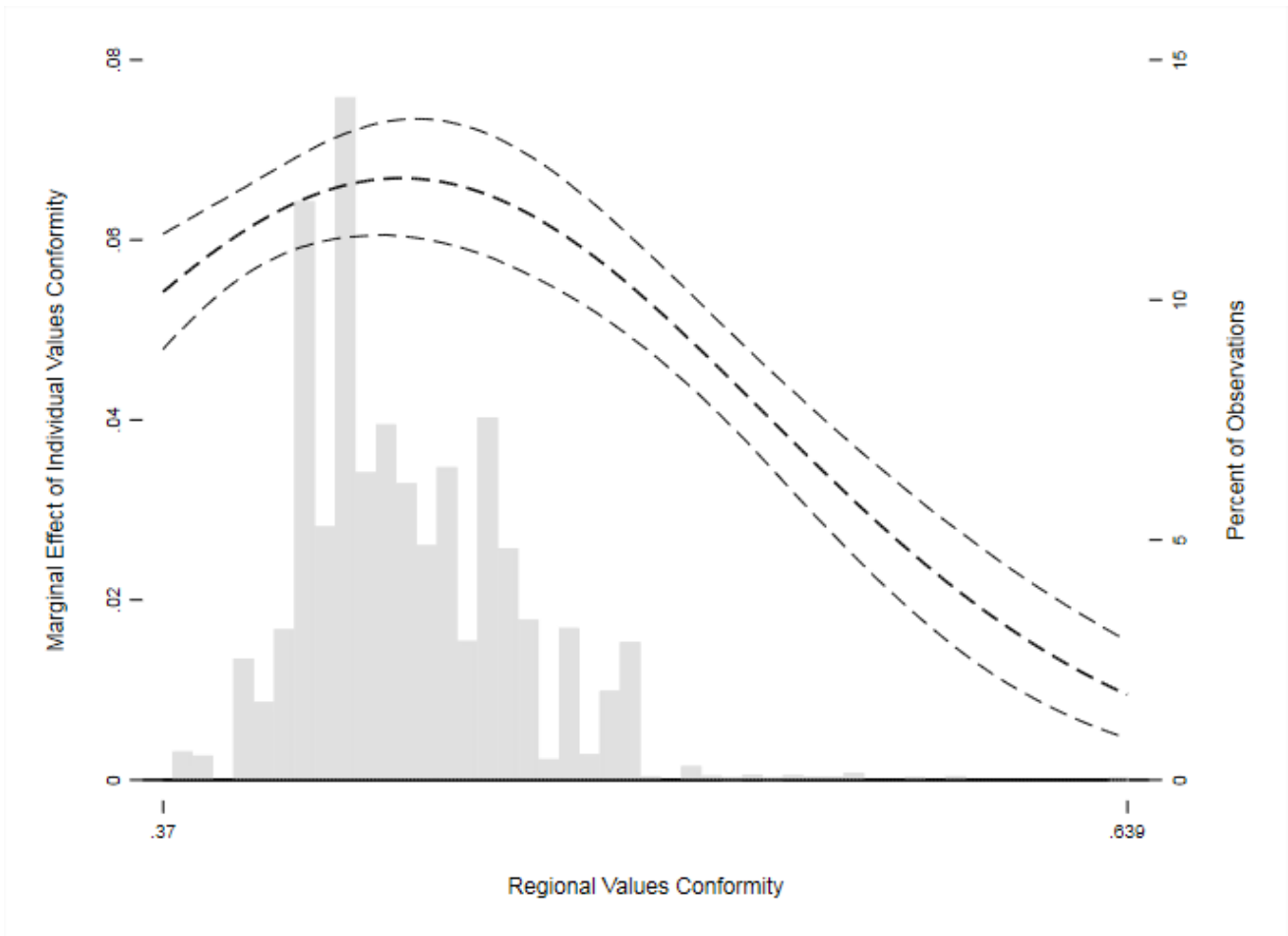
Figure 1: Interaction Effect Individal and Regional Values Conformity

Table 8: Robustness Checks: Part 1

Robustness Check	(1) Logit	(2) Ordered Probit	(3) Ordered Logit	(4) Twos Omitted[a]	(5) Tens Omitted[a]
Age	0.0115***	0.00706***	0.0121***	0.00648***	0.00849***
	(0.00128)	(0.000636)	(0.00110)	(0.000863)	(0.000711)
Male	-0.107***	-0.0862***	-0.142***	-0.0285	-0.145***
	(0.0320)	(0.0153)	(0.0270)	(0.0177)	(0.0206)
Married	0.0750***	0.0386**	0.0674**	0.0319*	0.108***
	(0.0291)	(0.0152)	(0.0263)	(0.0173)	(0.0169)
Dep. Employed	-0.0762***	-0.0511***	-0.0947***	-0.0762***	-0.00622
	(0.0295)	(0.0158)	(0.0272)	(0.0175)	(0.0170)
Self-Employed	-0.128**	-0.111***	-0.194***	-0.126***	-0.0528
	(0.0570)	(0.0313)	(0.0555)	(0.0345)	(0.0351)
Retired	0.136***	0.0710***	0.111***	0.0570**	0.108***
	(0.0480)	(0.0233)	(0.0425)	(0.0286)	(0.0254)
Income	-0.0584***	-0.0243***	-0.0446***	-0.0396***	-0.0329***
	(0.0122)	(0.00632)	(0.0106)	(0.00763)	(0.00692)
Low Education	0.0511	0.0116	0.0383	0.0492**	0.0256
	(0.0371)	(0.0201)	(0.0338)	(0.0228)	(0.0229)
High Education	0.0795**	0.0467***	0.0805***	0.0228	0.0126
	(0.0310)	(0.0161)	(0.0278)	(0.0201)	(0.0183)
Individual Value Mean	2.966***	2.048***	3.400***	3.943***	0.687***
	(0.440)	(0.207)	(0.374)	(0.264)	(0.197)
Conformity	28.93***	14.08***	24.94***	18.30***	3.492***
	(1.102)	(0.456)	(0.810)	(0.637)	(0.541)
Pseudo R^2	0.196	0.091	0.095	0.244	0.099
Observations	51,274	51,274	51,274	51,274	51,274
Regions	322	322	322	322	322
Countries	45	45	45	45	45

Robust standard errors in parentheses. All estimations include region fixed effects. All values measures are based on the full set of questions unless otherwise indicated. [a] Questions with two or ten answer options omitted. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 9: Robustness Checks: Part 2

Robustness Check	(1) N>30	(2) N>100	(3) uQ<20	(4) uQ<5	(5) No Migrants	(6) No Foreigners
Age	0.00687***	0.00653***	0.00661***	0.00654***	0.00723***	0.00715***
	(0.000778)	(0.000864)	(0.000839)	(0.000952)	(0.000729)	(0.000746)
Male	-0.0658***	-0.0579***	-0.0724***	-0.0826***	-0.0620***	-0.0628***
	(0.0191)	(0.0208)	(0.0204)	(0.0244)	(0.0191)	(0.0191)
Married	0.0460***	0.0383**	0.0467***	0.0489**	0.0270	0.0334*
	(0.0175)	(0.0190)	(0.0175)	(0.0206)	(0.0174)	(0.0176)
Dep. Employed	-0.0407**	-0.0237	-0.0419**	-0.0430	-0.0328*	-0.0429**
	(0.0173)	(0.0179)	(0.0186)	(0.0279)	(0.0185)	(0.0181)
Self-Employed	-0.0748**	-0.0678*	-0.0654*	-0.0710	-0.0735**	-0.0734**
	(0.0342)	(0.0369)	(0.0392)	(0.0577)	(0.0360)	(0.0352)
Retired	0.0809***	0.0886***	0.0886***	0.0922**	0.0915***	0.0896***
	(0.0285)	(0.0311)	(0.0314)	(0.0403)	(0.0277)	(0.0283)
Income	-0.0370***	-0.0371***	-0.0356***	-0.0319***	-0.0278***	-0.0298***
	(0.00741)	(0.00849)	(0.00754)	(0.00917)	(0.00708)	(0.00725)
Low Education	0.0257	0.0334	0.0482**	0.0855***	0.0256	0.0267
	(0.0223)	(0.0240)	(0.0204)	(0.0279)	(0.0239)	(0.0232)
High Education	0.0454**	0.0372*	0.0486***	0.0647***	0.0454**	0.0470**
	(0.0186)	(0.0200)	(0.0186)	(0.0230)	(0.0204)	(0.0193)
Individual Value Mean	1.787***	1.623***	1.811***	1.671***	1.886***	1.843***
	(0.260)	(0.294)	(0.291)	(0.329)	(0.247)	(0.244)
Conformity	17.13***	17.90***	17.84***	17.87***	17.40***	17.17***
	(0.625)	(0.669)	(0.654)	(0.789)	(0.648)	(0.629)
Pseudo R^2	0.196	0.201	0.197	0.199	0.202	0.198
Observations	50,628	44,547	45,463	25,916	47,158	48,712
Regions	281	148	320	305	322	322
Countries	45	45	45	45	45	45

Robust standard errors in parentheses. All estimations include region fixed effects. All values measures are based on the full set of questions. N: Respondents per region. uQ: Unanswered questions per respondent. *** $p<0.01$, ** $p<0.05$, * $p<0.1$