
What Explains the North-South Divide in Italian Tax Compliance? An experimental analysis

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Abstract

I undertake a comparative study assessing the North-South divide in Italian tax compliance, employing the largest behavioral tax compliance experiment to date. Contrary to a large body of literature, I argue that willingness to pay taxes is constructed within a specific institutional environment and reflects the country's quality of institutions. To test this hypothesis, I use controlled tax compliance experiments from four laboratories in Capua, Rome, Bologna, and Milan. By employing the experimental method, I am able to hold institutions constant allowing me to isolate cultural variation. Contrary to cultural explanations for tax compliance, when controlling the institutional environment there is no difference in tax compliance. Furthermore, using *Social Value Orientation* to compare prosociality, I also find no differences between the two regions. I therefore conclude that individuals' relationship to their states shapes these behavioral differences in tax compliance.

Keywords

tax morale, taxation, tax compliance, experimental research, comparative politics

1. Introduction

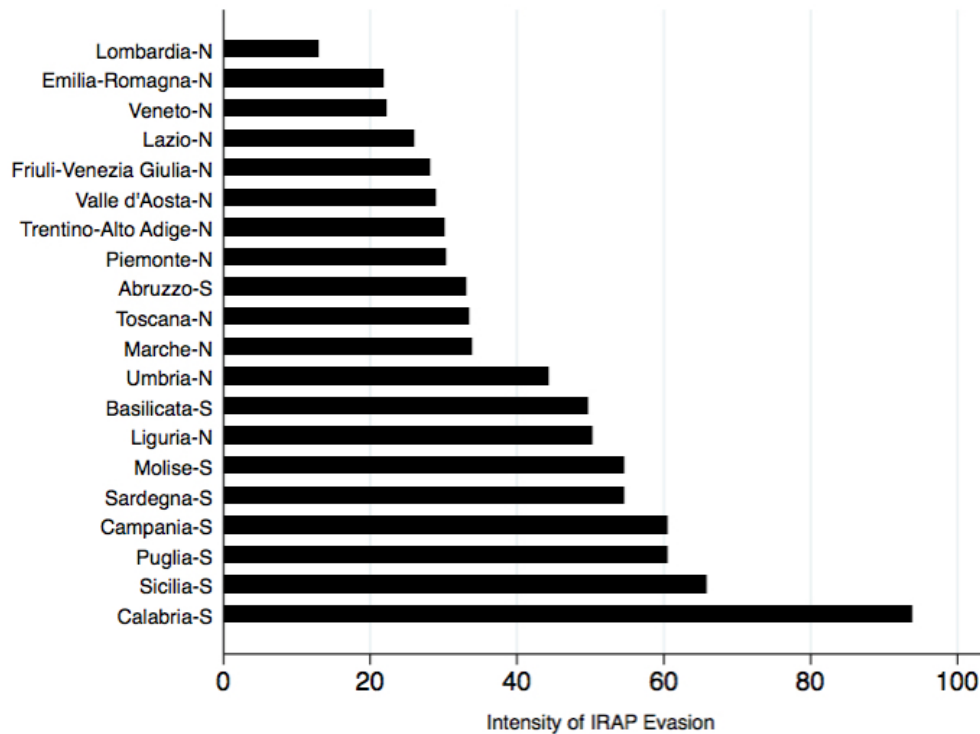
All modern societies face a common problem: How do states encourage individuals to contribute to the public good through taxation when the incentive to free ride is so great? Individuals in some countries free-ride so often that observers perceive it as a cultural phenomenon. Northern Europeans often blame their fiscal situation on the cultural defects of their Southern European neighbors. These explanations have been common in academic and policy circles for explaining lagging economic and social development. Almond & Verba (1963), for example, compared European and American's "civic culture", concluding that some cultures are less civic than others. In another seminal work, Banfield (1967) claimed that Southern Italians display "amoral familism". Simply put, Southern Italians are only concerned about those closest to them. This was later followed by Putnam et al. (1994), who also suggested that Southern Italians lacked *civicness*.

In their influential study *Making Democracy Work*, Putnam and colleagues suggest that while present Northern Italian institutions reflect a history of civic virtue and social capital, the Southern regions slow economic development and strong familial, inward facing ties mirror their autocratic history. The flaw in

this argument is that norms, values, and ultimately, culture, derive from institutions. Therefore, individuals' relationship to their state and fellow citizens produces variations in behavior.

Studying tax compliance allows us to examine why individuals follow rules and norms and how societies address the free rider problem, and because of the sizable level of evasion in the country and the large North-South cleavage, Italy presents a crucial case for studying tax compliance. Figure 1 demonstrates the large divergence in tax compliance between the North and the South. Additionally, while Italy collects approximately 350 billion euros per year in tax revenue, it loses an estimated 250 billion euros due to tax evasion and underground economy (Santoro, 2010; wor, 2014). Italy fails to collect around 26% of the income tax its citizens owe due to evasion.

Fig. 1: Intensity of Evasion of the Regional Production Tax (IRAP) by Region, 1998-2002



Source: Santoro 2010

Researchers utilize two basic tools for studying tax morale and compliance: surveys and behavioral experiments. First, cross-national social surveys often account for one's intrinsic motivation to pay taxes (Alm & Torgler, 2006), or their tax morale, across countries and cultures. These surveys are typically utilized to examine cultural variation in preferences for taxation (Barone & Mocetti, 2011; Kornhauser, 2006; Cummings et al., 2009; Feld & Frey, 2007; Torgler, 2003b; Frey & Torgler, 2007; Torgler, 2005, 2003a, 2005; Ferrer-i Carbonell & Gërkhani, 2016). Unsurprisingly, these studies have uncovered differences between countries, regions, religions, genders, incomes, and age cohorts. Somewhat problematic, however, is that the institutional and political context varies greatly between the societies being compared. Therefore, researchers have

difficulty pinpointing whether cultural differences are driving tax behavior or there is something institutional influencing these differences.

Experiments, on the other hand, can isolate certain effects and pinpoint what is driving behavior. For this study, we have designed an experiment so that individuals from Northern and Southern Italy are asked to make decisions based on the exact same institutions (incentives and disincentives). If cultural differences are driving different tax behaviors, we would expect to find differences between the regions, given that the incentives were exactly the same.² But if we do not uncover differences in tax compliance between the North and South then this would support the institutional argument. In the following sections, I examine the North-South gap in tax compliance. Next, I review the literature on tax compliance, culture, and institutions. I then discuss the experimental design, followed by a discussion of my analysis and results. Next, I put forth an alternative institutional hypothesis. Lastly, I will provide my conclusion.

To briefly summarize my results: Contrary to my prediction, I do not uncover any differences in tax compliance between Northern and Southern Italians. Furthermore, Northerners are not more prosocial than Southerners. Therefore, I argue Southerners aren't less willing to contribute to the public good than Northerners, but rather, they are less willing to pay taxes to the state.

2. Tax Compliance Literature

The first studies on tax evasion assumed that tax payers were rational actors who largely base their tax compliance decisions on a simple cost benefit analysis. Therefore, if the benefits of evasion outweigh the costs, taxpayers will likely evade (Allingham & Sandmo, 1972). However, this model overpredicts evasion in the real world, since most countries have relatively low audit probabilities and low penalties for evasion. A number of studies since Allingham and Sandmo demonstrate that audit rates and penalties are insufficient in deterring tax evasion (Frey & Feld, 2002; Andreoni et al., 1998; Graetz & Wilde, 1985; Torgler, 2002). Furthermore, taxpayers have unrealistic perception of the actual chance of being audited (Dubin & Wilde, 1988; Erard & Feinstein, 1994).

There is another strand of literature that suggests that individual taxpayer behavior is shaped by individual characteristics such as gender, education, and country of origin (Hasseldine & Hite, 2002; Chung & Trivedi, 2003; Cadsby et al., 2006; Gërkhani, 2007; Gylfason et al., 2013; D'Attoma et al., 2017; Bruner et al., 2017). The vast majority of tax compliance studies demonstrate that women are more tax compliant than men (Giese & Hoffmann, 2000; Torgler, 2002; Gërkhani, 2007; D'Attoma et al., 2017; Bruner et al., 2017). Research exploring the effects of education have had varying results. Some find a positive relationship between educational levels and tax compliance (Friedland et al., 1978). However, Milliron (1985), samples 34 randomly selected adults from a jury duty pool in Los Angeles to partake in a tax compliance experiment and finds no relationship between education and tax behavior. Ross & McGee (2011) examine the relationship in six countries, the United States, Brazil, Russia, India, China, and Germany, with varying results. China was the most averse to tax evasion, possibly due to strict enforcement by the state, followed by the United States and Germany. Opposition to tax evasion and correlations between tax morale and education also varied from country to country. Ross and McGee conclude that culture, history, politics, and economics contribute to diverging attitudes toward tax evasion.

Existent scholarship specifically exploring Italian attitudes towards taxation suggests income, age, education, and occupation type are all associated with Italian citizens' perception of the seriousness of tax

evasion. These studies show that higher tax morale correlates with increased age and education and that self-employed individuals have the lowest levels of tax morale (Barone & Mocetti, 2011; Filippin et al., 2013; Fiorio & Zanardi, 2008; Luigi Cannari, 2007). Fiorio & Zanardi (2008) find similar results, except that residents living in Southern Italy do not recognize tax evasion as a serious concern. Filippin, Fiorio, and Viviano (2013) find that not only do respondents' individual characteristics affect tax morale, but contextual variables, such as tax enforcement, also predict tax morale. Barone & Mocetti (2011) reveal that public sector inefficiencies negatively affect tax morale.

The quality of public institutions thus ultimately structure and shape politics and individual behavior (Steinmo & Longstreth, 1992). There is a litany of literature demonstrating that the quality of institutions matter, and taxpayers will be more willing to pay their taxes if they perceive their institutions to be efficient and effective (Frey & Torgler, 2007; Frey & Feld, 2002; Levi, 1989; Levi et al., 2009; Filippin et al., 2013). According to Ross (2004, 234), "Both the size of the tax burden, and the quality and quantity of government spending matter; citizens ultimately care about the "price" they pay for the government services they receive." Furthermore, effective and efficient institutions provide clear signals to taxpayers that administrations are accountable and trustworthy. Therefore, administrations within societies that have high amounts of trust (i.e. Sweden) can extract large revenues from their citizens (Braithwaite, 2003). Murphy (2004) provides evidence using survey data from a sample of 2,292 taxpayers demonstrating that citizens who had lower levels of trust in the tax administration were also more likely to resist the administration.

One argument for this is what many have called the "slippery slope" framework (Kirchler et al., 2008; Wahl et al., 2010; Kastlunger et al., 2013). According to the "slippery slope" framework, there is a fine line between power, authority, and trust. Legitimate power can increase trust, and with that, increase tax compliance, but, coercive power can stymie trust, while decreasing tax compliance. In one study carried out in Italy, Kastlunger et al. (2013) demonstrate that trust does increase compliance, while coercive power was associated with higher levels of evasion. In other words, administrations can work cooperatively with citizens or they can work in a more adversarial way (Braithwaite, 2003).

Tax compliance is thus the linchpin between citizen responsibility and government accountability. This relationship is twofold: On the one hand, the state must provide quality public service and stable political institutions as to generate a high-efficiency equilibrium. On the other hand, the taxpayer must reciprocate by providing enough revenue to fund the state.

3. Experimental Overview

Our experiments were conducted in four universities in Milan, Bologna, Roma, and Capua during the 2013-2014, 2014-2015, and 2015-2016 academic years.³ These universities use an electronic database to which the students or past students voluntarily submit their information for participation in experiments. The participants were then randomly selected and invited by email to partake in the experiment.⁴ Once the participants arrived at the laboratory they were given an anonymized identification number and assigned to a partitioned computer to limit the interaction between themselves and other participants. We linked participant pay to id number thus ensuring complete anonymity.

We began the session by reading a short script introducing the participants to the experiment. They were told that they would be asked to perform a series of simple clerical tasks and make a series of decisions for which they would receive Experimental Currency Units (ECUs) which would be converted into real money

once the experiment was completed. Participants could also choose to leave the experiment receiving a small show up payment of 5 euros. After all tax compliance rounds were completed, students then completed a Social Value Orientation (SVO) experiment, which essentially is a series of dictator games. In section five, I will discuss the experimental protocol for the SVO. Once all tax compliance and SVO tasks were finished, respondents were asked to complete a short survey.

This study is part of a larger cross-national project for which we conduct experiments in Italy, the United Kingdom, Sweden, the US, and Romania. Since we are only concerned here with Italy, we have dropped a large portion of our observations. Our Italian participants were specifically asked to state in which region they were born. For our study, there were 364 Italian subjects: Milan (116), Bologna (103), Rome (87), and Capua (58). 61% of our participants were born in the South. The participants in the North are demographically very similar to those in the South. In our pool the average age was 24, 52% were male, just under a quarter were employed, and about 49% were economics majors. The vast majority, 71%, of our subjects had participated in experiments before. Northerners, however, are significantly more likely to be employed and economics majors (see Table 1).

Table 1: Covariate Balance: North and South

| | Obs | Mean | Standard Dev. | Min | Max | North | South | Diff |
|--------------------|----------|--------|---------------|---------|--------|--------|--------|---------------------|
| Male | 2904.000 | 0.529 | 0.499 | 0.00 | 1.000 | 0.524 | 0.545 | -0.022 (-1.009) |
| Employed | 2896.000 | 0.213 | 0.409 | 0.00 | 1.000 | 0.223 | 0.182 | 0.041 (2.302)* |
| Past-participation | 2888.000 | 0.715 | 0.452 | 0.00 | 1.000 | 0.700 | 0.761 | -0.062 (-3.154)* |
| Economics major | 2904.000 | 0.419 | 0.493 | 0.00 | 1.000 | 0.480 | 0.227 | 0.253 (11.830)* |
| Age | 2904.000 | 23.499 | 3.352 | 18 | 50 | 23.469 | 23.591 | -0.122 (-0.841) |
| Risk | 2808.000 | 5.219 | 2.366 | 1.000 | 1 | 5.209 | 5.250 | -0.041 (-0.412) |
| SVO Angle | 2912.000 | 16.083 | 15.287 | -16.260 | 61.390 | 16.046 | 16.200 | -0.154 (-0.253) |

Standard errors in parentheses; Appropriate z-statistics (for dummy variables) and t-statistics (for continuous variables) are reported in parentheses. * indicates whether differences between countries are statistically significant at the 5% level.

To earn money, our subjects were asked to copy rows of fictitious names from a sheet of paper to a computer. They received 10 Currency Units for each row copied correctly, which then was converted into euros at the end of the experiment at the rate of .01. We then displayed their earnings on the screen and asked them to report their earnings for tax purposes. In the reporting round, participants were asked to declare their income under three different scenarios, mimicking actual tax regimes. Individuals were told that they could declare anywhere from 0% - 100% of their income with a 5% probability of being audited. If audited, they would have to pay a fine equal to twice the amount of taxes owed. There were a total of three clerical tasks, each followed by three reporting rounds. With each reporting round the rules and redistribution varied slightly.

In rounds 1-3 we maintained a 30% flat tax rate, but varied how the tax revenue was redistributed, reflecting behaviors under different levels of efficiency. In round one, there was no redistribution. Essentially,

in this round there was little incentive to contribute, except for the small risk of being caught. For round two, all revenue was placed into a general fund and redistributed equally regardless of how much one contributed. Round three was identical to round one except we doubled the general fund. We held redistribution constant in rounds 4-6 (double general fund), but we introduced new tax rates. In round four, the tax rate was 10%. In round five, it was 30%, and in round six, it was 50%. Lastly, in rounds 7 and 8 we varied the tax structure, so that in round seven, the top 10% of incomes paid a 50% tax rate, the bottom 10% paid a 10% tax rate, and everyone else paid a 30% tax rate. Round eight was similar to a marginal tax system in that all incomes over 100 ECUs were taxed at 50%, incomes between 50-100 were taxed at 30%, and any income under 50 was taxed at 10%. In the ninth and final round, we donated all revenue to a real world charity (see Table 2).⁵

Table 2: Summary of Tax Reporting Rounds

| Task | Description |
|-----------------------------|---|
| Clerical 1 | Earn income that is reported in Rounds 1 through 3 |
| Round 1: No Redistribution | Flat tax rate of 30% on all reported income Tax revenues are not redistributed |
| Round 2: Redistribution | Flat tax rate of 30% on all reported income Tax revenues are collected into a common fund, which is redistributed on an equal per capita basis to all participants |
| Round 3: Redistribution x 2 | Flat tax rate of 30% on all reported income Tax revenues are collected into a common fund, the amount in the fund is doubled, and then redistributed on an equal per capita basis to all participants |
| Clerical 2 | Earn income that is reported in Rounds 4 through 6 |
| Round 4: 10% Tax Rate | Flat tax rate of 10% on all reported income Tax revenues are collected into a common fund, the amount in the fund is doubled, and then redistributed on an equal per capita basis to all participants |
| Round 5: 30% Tax Rate | Flat tax rate of 30% on all reported income Tax revenues are collected into a common fund, the amount in the fund is doubled, and then redistributed on an equal per capita basis to all participants |
| Round 6: 50% Tax Rate | Flat tax rate of 50% on all reported income Tax revenues are collected into a common fund, the amount in the fund is doubled, and then redistributed on an equal per capita basis to all participants |
| Clerical 3 | Earn income that is reported in Rounds 7 through 9 |
| Round 7: Progressive 1 | Top 10% of earners in Clerical 3 pay 50% tax on reported income Bottom 10% of earners in Clerical 3 pay 10% tax on reported income Everyone else pays 30% tax on reported income Tax revenues are collected into a common fund, the amount in the fund is doubled, and then redistributed on an equal per capita basis to all participants |
| Round 8: Progressive 2 | participants pay tax of 10% on all reported income under 50 ECU participants pay tax of 30% on all reported income between 50 and 100 ECU |

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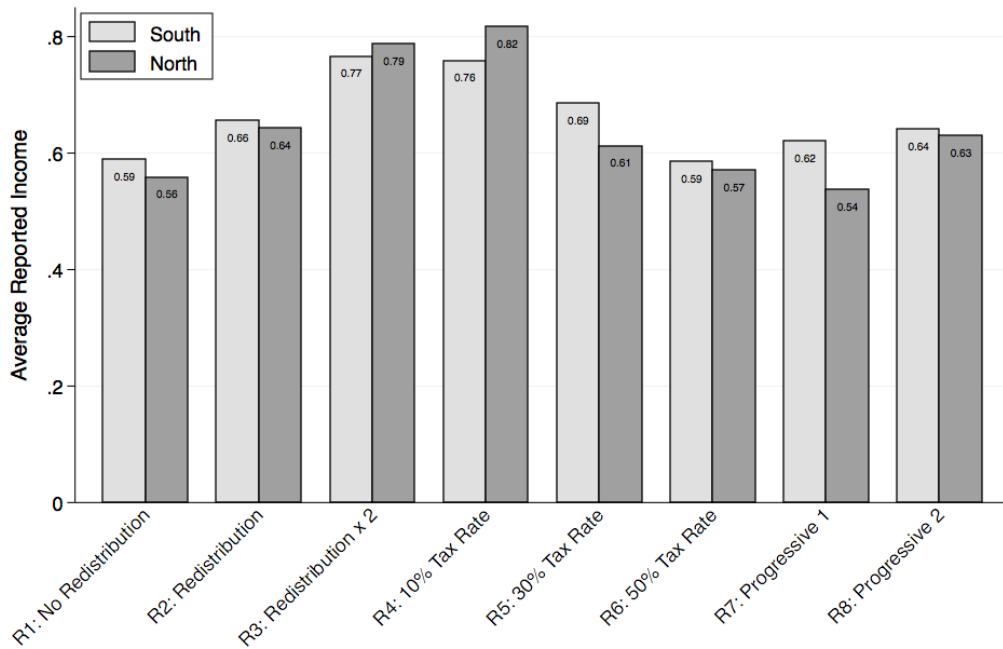
Table 2 – Continued from previous page

| Task | Description |
|------------------|---|
| | <p>participants pay tax of 50% on all reported income over 100 ECU</p> <p>Tax revenues are collected into a common fund, the amount in the fund is doubled, and then redistributed on an equal per capita basis to all participants</p> |
| Round 9: Charity | <p>Flat tax rate of 30% on all reported income</p> <p>Tax revenues are collected into a common fund, the amount in the fund is doubled, and then donated to charity</p> |

4. Analysis and Results: Tax Compliance

First, I am interested in whether tax compliance varies significantly between Northern and Southern Italy. Real-world tax evasion rates would suggest that Southern Italians should be less willing to pay their taxes than Northern Italians. Indeed, looking back to figure 1 we observe that the rates of evasion vary greatly between the North and South. This aligns well with the more cultural arguments for regional disparities in Italy. Institutions, however, vary greatly between regions, and thus, it is difficult to identify whether culture or institutions are shaping tax behavior. Holding the institutions constant in the laboratory, I uncover, instead, that Southern Italians are just as willing to pay taxes as Northern Italians. Examining figure 2, I provide *prima facie* evidence, suggesting that Northerners are not more compliant than Southerners, given the exact same incentives and disincentives.

Fig. 2: Average Compliance by Region and Round



To examine the effects of being born in the North compared to the South on the average reported income (compliance rate), I carryout two Ordinary Least Squares models represented by the following equation:

$$Y_{ij} = \alpha + \beta_1 North_i + \Theta X_i + \epsilon_i \quad (1)$$

where:

Y_{ij} = the fraction of reported income income by each individual i in each decision round j .

$North$ = a dummy variable where 1 equals participants who were born in the North.

X = a vector of individual characteristics

ϵ = an individual-specific error term clustered by individual

Table 3: OLS Regressions: Average Compliance Rate for Each Individual in Each Decision Round

| Variables | (1) | (2) |
|--------------------|-------------------------|-------------------------|
| North | -0.0390 (0.0382) | -0.0251 (0.0352) |
| SVO (std) | | 0.0589*** (0.0177) |
| Age | | 0.00721 (0.00509) |
| Male | | -0.155*** (0.0312) |
| Employed | | -0.0245 (0.0400) |
| Economics major | -0.0946*** (0.0344) | -0.0674** (0.0335) |
| Past-participation | | -0.111*** (0.0347) |
| Risk Acceptance | -0.0329*** (0.00709) | -0.0208*** (0.00675) |
| Redistribution | 0.0691*** (0.0198) | 0.0696*** (0.0200) |
| Redistribution x 2 | 0.188*** (0.0218) | 0.189*** (0.0220) |
| 10% Tax Rate | 0.197*** (0.0227) | 0.197*** (0.0229) |
| 30% Tax Rate | 0.0858*** (0.0196) | 0.0862*** (0.0198) |
| 50% Tax Rate | 0.00168 (0.0214) | 0.00170 (0.0216) |
| Progressive 1 | 0.0148 (0.0188) | 0.0146 (0.0189) |
| Progressive 2 | 0.0566*** (0.0190) | 0.0557*** (0.0191) |
| Constant | 0.801*** (0.0439) | 0.720*** (0.132) |
| Observations | 2,808 | 2,784 |
| R-squared | 0.083 | 0.158 |

Robust standard errors in parentheses

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

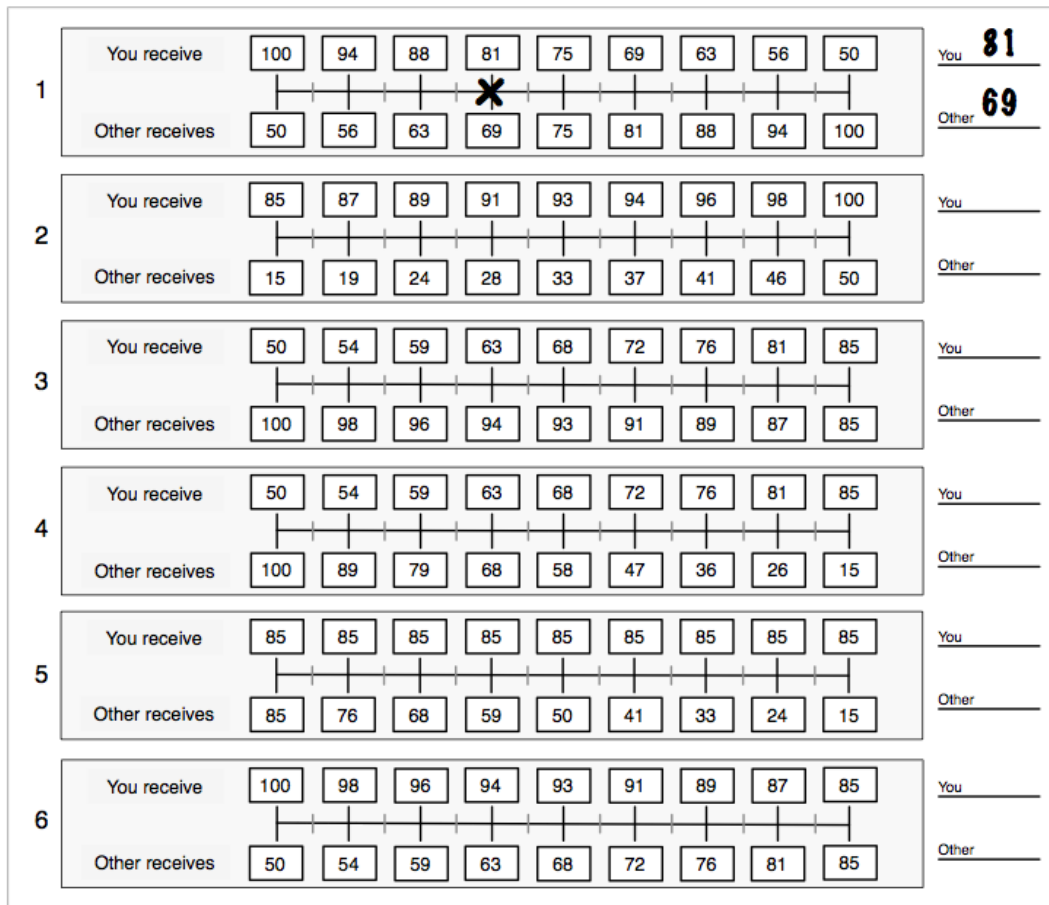
In the first column of table 3, I uncover that the average compliance rate, controlling for economics majors, risk aversion, and experimental round, does not vary between the Northern and Southern participants. This is a somewhat unexpected result due to the large real-world disparities in tax compliance. Economic majors and individuals who are more tolerant of risk are less compliant. Perhaps individuals who are more risk averse are less willing to take the chance of being audited. Economic majors have significant training in classical economics and rational choice, which could affect the decisions they make in the experiment. Moreover, each individual round is significant and in the expected direction compared to the no-pot baseline round, which provides further validation to the experimental design. In Column two, I examine several individual level characteristics which have been shown to affect tax compliance in previous studies. The coefficient on the region variable does not change in a significant way, demonstrating that controlling for individual characteristics, Southerners are just as willing to pay their taxes as Northerners when asked to make the exact same decision under identical context. Confirming the vast majority of tax compliance studies (Bruner et al., 2017; D’Attoma et al., 2017; Gërkhani, 2007), females are significantly more compliant than males, all else being equal. As expected, individuals who are more risk averse are more tax compliant, and prosocials are also more willing to pay their taxes. On the other hand, individuals who have participated in previous experiments and economics majors are less tax compliant.

Another aspect of the cultural theory proposed by Putnam et al. suggests that Southerners are more insular. In other words, they are less concerned with society writ large than Northerners and mostly concerned with their immediate family. In the following section, I examine whether Northerners are more prosocial than Southerners by using a Social Value Orientation (SVO) experiment.

5. Social Value Orietation

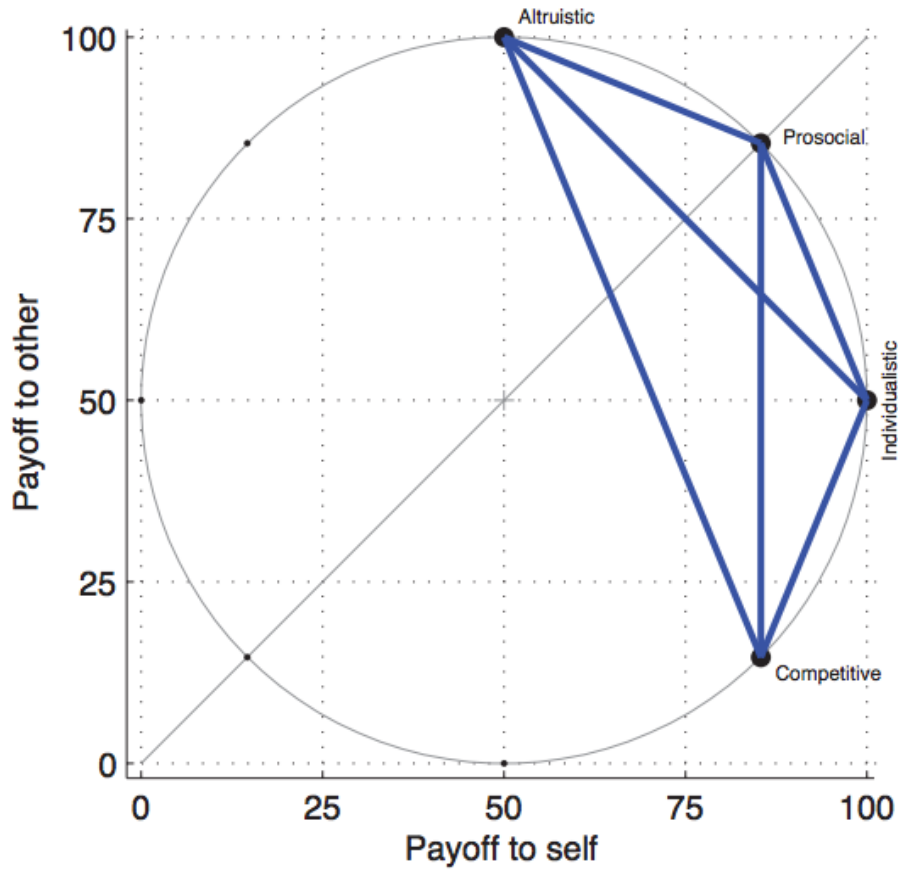
To measure SVO (For more information on the SVO see Murphy et al. (2011).), our participants performed a series of dictator games in which they allocate decisions between themselves and a randomly selected partner. Figure 3 and 4 represents how we constructed our angle. In the example, shown in figure 4, a subject was given 150 currency units and told to allocate the currency. This fictitious subject chose to keep 89 units for his/herself and allocate 61 units to a random partner, who would be kept anonymous throughout the entire experiment. The decisions are then assembled on coordinated plane with the x-axis displaying allocation to self and the y-axis revealing allocation to other. The six allocations can then be averaged into a single angle with a range from -16.26 to 61.40. If we were to arrange these numbers on a scale, -16.26 would represent a participant who is highly competitive, even willing to sacrifice their own income to lessen the welfare of their partner, whereas 61.40 would represent a complete altruist willing to sacrifice their own income to increase the well-being of their partner. Most people lie somewhere in the middle as either an individualist to the left side of the scale or prosocial to the right.

Fig. 3: SVO Mini-Dictator Games



From Murphy et al. (2011), Figure 1, p.772.

Fig. 4: Constructing the SVO Angle



From Murphy et al. (2011), Figure 2, p.773.

6. Analysis and Results: Social Value Orientation

First, examining the histogram in figure 5 , there is no evidence to suggest that values vary from the North to the South. If anything, the South is slightly more prosocial. To look at the effects of region on social value orientation, I utilize an Ordinary Least Square models represented by the following equation:

$$Y_i = \alpha + \beta_1 North_i + \Theta X_i + \epsilon_i \quad (2)$$

where:

Y_i = the social value orientation of each individual i .

$North$ = a dummy variable where 1 equals participants who were born in the North.

X = a vector of individual characteristics

ϵ = an individual-specific error term clustered by individual

Fig. 5: Histogram of SVO Angle by Region

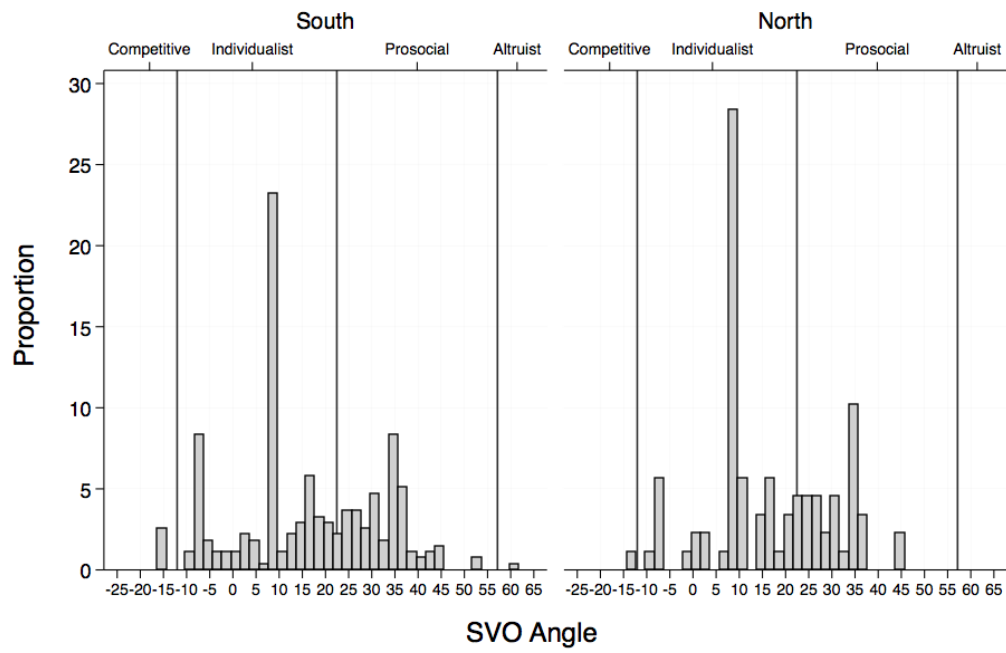


Table 4: OLS Regressions: SVO Angle

| | (1) | (2) |
|--------------------|----------------------|----------------------|
| North | -0.0715 (0.115) | -0.0595 (0.116) |
| Age | | -0.0235 (0.0184) |
| Male | | -0.0791 (0.102) |
| Employed | | -0.139 (0.123) |
| Economics major | -0.321*** (0.109) | -0.364*** (0.106) |
| Past-participation | | -0.441*** (0.119) |
| Constant | 0.152* (0.0802) | 1.108** (0.438) |
| Observations | 2,904 | 2,880 |
| R-squared | 0.024 | 0.083 |

Robust standard errors in parentheses

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

In column 1 of table 4, I examine the effect of region on SVO controlling for economic majors, since a significant higher proportion of the Northern subjects are economics majors, and economic majors usually demonstrate lower levels of prosociality. I do not uncover a significant difference between the North and South with regard to their levels of prosociality when controlling for economics majors. In column two, I control for a host of variables, but the effect of the region variable is still not significant. Economic majors and past-experience in experiments is negatively correlated with SVO, as expected. This again challenges the cultural theory and we determine that among our participants, the North is not more prosocial when given the exact same incentives as participants in the South. There are differences between economic majors, experience participants, and those who are less risk averse.

In sum, I present evidence which demonstrates that Southerners do not seem to be less tax compliant than Northerners. We also confirm other studies which demonstrate that women, and risk averse and prosocial individuals are more tax compliant. On the other hand, economics majors and people who have previously participated in experiments are less tax compliant. Therefore, when controlling the institutional environment we find no significant difference in tax compliance and prosociality between the North and South challenging the often employed cultural argument. Because we did not demonstrate evidence suggesting that Northern Italian students are more tax compliant and more prosocial than Southern students, when given the exact same incentives and disincentives, we can propose that it is not culture that is driving the real-world differences in tax behavior. Instead, I provide an alternative theory. I argue that Italy's unique economic structure and institutional environment drive real-world behavioral differences in tax compliance.

7. Alternative Hypothesis: Structure of the Economy and Institutions

First, the percent of the economy made up of self-employed individuals and small businesses in Italy, and more specifically, Southern Italy, is only surpassed by Greece in Western Europe (see table 5). In fact, anywhere we observe a high percentage of self-employed individuals and small businesses, we usually observe elevated rates of tax evasion. However, this is not to say that self-employed individuals and small businesses are more dishonest, but rather the opportunity to evade is much greater for small business. Employees of medium and large firms are subjected to third-party reporting, meaning that employers report employees' earnings directly to the government for tax purposes, eliminating the opportunity to evade taxes. A study conducted by Kleven et al. (2011) demonstrates that self-employed individuals evade significantly more than dependent employees in Denmark. Moreover, individuals who earn money on both third-party reported income and self-reported income, such as rental income, evaded more on the self-reported income. Self-employed individuals and small-business deal with smaller amounts of money, so that goods can be exchanged largely in cash, which also increases the opportunity to evade. Taken together, the absence of third-party reporting and a large cash-based economy, make tax collection an arduous process. In other words, the opportunity to evade is an important motivation in the tax compliance decision, as predicted by Allingham and Sandmo, but not the only consideration.

Table 5: Percentage of Self-Employed in Total Employment: 16 Western European Countries

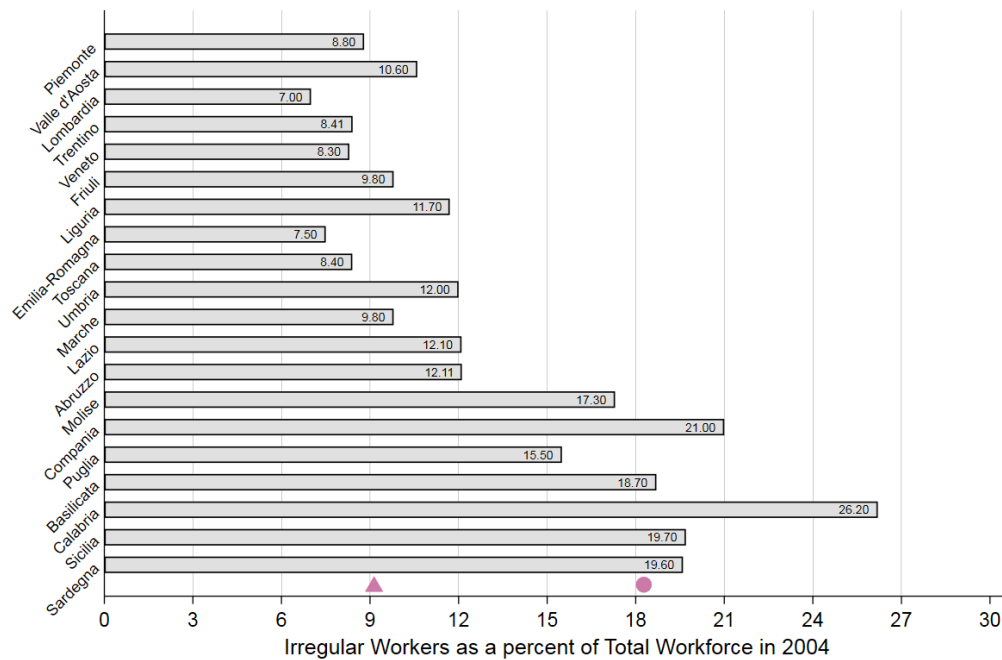
| Country | Year | | | | 3-year Average |
|----------------|-------------|-------------|-------------|-------------|-------------------|
| | 2000 | 2010 | 2011 | 2012 | |
| Norway | 7.4 | 7.7 | 7.0 | 6.9 | 7.2 |
| Denmark | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 |
| France | 9.3 | 9.3 | 9.5 | - | 9.4 |
| Sweden | 10.3 | 11.0 | 10.4 | 10.5 | 10.6 |
| Switzerland | 13.2 | 10.6 | 10.7 | 10.7 | 10.6 |
| Germany | 11.0 | 11.6 | 11.7 | 11.6 | 11.7 |
| Finland | 13.7 | 13.5 | 13.4 | 13.6 | 13.5 |
| Austria | 13.1 | 13.8 | 13.8 | 13.3 | 13.6 |
| United Kingdom | 12.8 | 13.9 | 14.0 | 14.6 | 14.1 |
| Belgium | 15.8 | 14.4 | 14.3 | 14.3 | 14.3 |
| Netherlands | 11.2 | 15.0 | 15.0 | 15.3 | 15.1 |
| Ireland | 18.8 | 17.1 | 16.6 | 16.7 | 16.8 |
| Spain | 20.2 | 16.9 | 16.6 | 17.6 | 17.0 |
| Portugal | 26.0 | 22.9 | 21.3 | 21.9 | 22.0 |
| Italy | 28.5 | 25.5 | 25.2 | 25.1 | 25.3 |
| Greece | 42.0 | 35.5 | 36.3 | 36.8 | 36.2 |

Source: OECD Factbook 2014

Furthermore, due to the relatively large small-business and self-employment sector, the *L'agenzia delle Entrate* (Italian Revenue Agency) has implemented a particular administrative feature called *Studi di Settore* (Sector Studies). While most countries collect data on individuals and companies, then place them into homogeneous populations, and based on those characteristics, set minimum expected income thresholds, Italy is rare in that it actually makes these minimum thresholds available to the taxpayer. Italy, not only provides the thresholds, but additionally, does not audit taxpayers at or above the threshold (Santoro, 2008).

It is easy to predict the outcome of a policy that informs taxpayers of their expected minimum income threshold. As Bergman (2009, 10) elegantly argued, “People maximize utilities inasmuch as they pay as little taxes as they can. But the environment in which people operate fundamentally shapes how they frame the maximization benefits.” Hence, those who make above the expected minimum will reduce their income to match the mandatory minimum, while those who earn below the minimum will either risk being audited, which is very likely, and bare those costs, or they will increase their income to avoid the legal costs of an audit. The societal effect of this is also significant. If it is known that small-business and the self-employed can easily avoid taxes, the normative effects will weigh heavily on the Italian tax system (Andrighetto et al., 2016). Another way in which small-employers and self-employed individuals can circumvent tax laws is to employ unregistered workers or work as an unregistered business. Data provided by Chiarini & Marzano (2007) and depicted in figure 6 (The triangle represents the Northern mean, while the circle represents the Southern mean.) demonstrate an approximately 9 percent gap in the number of individuals employed in the underground economy as a percentage of total employment between Northern and Southern Italy. While approximately 9 percent of the total workforce work underground in the North, that number is closer to 18 percent in the South.

Fig. 6: Workers in the Underground Economy as a Percent of Total Workforce



Source: Chiarini & Marzano 2007

There are also historic institutional differences that have profoundly affected the willingness to pay taxes between the North and South. There is not enough room in this short discussion to go into much detail about from what institutions and from where these differences derive, but it suffices to say that differences in institutional effectiveness and efficiency shaped two different perceptions of the state. Table 6 demonstrates

these vast differences in institutional quality between Northern and Southern Italy. The index is based on opinion surveys regarding perceptions of local education, health, and enforcement institutions with regard to quality, impartiality, and corruption. The first column is the overall quality index. Column 2, demonstrates the region score, and column 3 provides the European rank. In the North, certain formal (the state, political parties, the Catholic church) and informal institutions (clientelism) worked to provide efficient and effective institutions, while in the South these same institutions took on a more detrimental form that had a negative effect on the tax compliance environment. For example, D'Attoma (2017) argues that clientelism in Northern Italy was more of a club good in which mass public works projects were provided by political parties in return for *en masse* voting, whereas clientelism took a more individualized form in Southern Italy in which politicians provided private goods, such as public sector jobs and turned a blind-eye towards tax evasion, in return for votes. Another explanation for better institutional quality in Northern Italy compared to Southern Italy, and in that, higher tax compliance, relates to intense political competition in the North post-World War II compared to a powerful Christian Democratic (DC) political monopoly in the South. Evidence from Boyne et al. (2012) demonstrates that political competition is one of the most important drivers of efficient and effective public goods provisions.

Table 6: Quality of Government: Italian Regions

| Region | Quality | Region Score | Rank |
|-------------------|---------------|--------------|------------|
| Trento | 1.043 | 1.981 | 41 |
| Valle d'Acosta | 0.653 | 1.603 | 82 |
| Friuli-Venezia | 0.373 | 1.331 | 109 |
| Veneto | -0.186 | 0.788 | 146 |
| Emilia-Romagna | 0.217 | 0.757 | 149 |
| Umbria | -0.495 | 0.488 | 168 |
| Toscana | -0.495 | 0.450 | 170 |
| Marche | -0.535 | 0.448 | 172 |
| Lombardia | -0.542 | 0.442 | 174 |
| Piemonte | -0.652 | 0.335 | 182 |
| Liguria | -0.848 | 0.144 | 190 |
| Italy | -0.930 | | 193 |
| <i>Abruzzo</i> | -1.097 | -0.097 | 200 |
| <i>Sardegna</i> | -1.307 | -0.302 | 204 |
| <i>Basilicata</i> | -1.423 | -0.414 | 208 |
| Lazio | -1.512 | -0.500 | 211 |
| <i>Sicilia</i> | -1.588 | -0.575 | 213 |
| <i>Puglia</i> | -1.604 | -0.590 | 216 |
| <i>Molise</i> | -1.6609 | -0.645 | 220 |
| <i>Calabria</i> | -1.687 | -0.671 | 222 |
| <i>Campania</i> | -2.242 | -1.210 | 232 |

Data are drawn from nationally-representative public opinion surveys conducted by the Quality of Government Institute about perceptions of local education, health and law enforcement institutions. Participants were asked to rate each of the three institutions on quality, impartiality, and corruption (Teorell et al., 2011).

8. Conclusion

In this study, I have examined two often competing theories for why tax compliance varies greatly between Northern and Southern Italy. This study makes both an empirical and a theoretical contribution to the literature. On the one hand, I examine institutional theories against more cultural arguments for tax compliance by exploring whether Southern Italians are less tax compliant and prosocial than Northern Italians when given the exact same incentives and disincentives. Methodologically, I test these theories by providing a large controlled laboratory experiment, conducted in four Italian regions, providing no support for the cultural argument. Because I did not uncover any differences between Northern and Southern Italy, I proposed an alternative hypothesis which suggests that the unique structure of the Southern Italian economy and the historical evolution of the formal and informal institutions shaped two divergent relationships between citizen and state in the North and South.

These findings have important implications. First, these findings demonstrate that cultural arguments are often unfounded, and that culture is actually the product of a specific institutional environment. Anyone who has lived in more than one country for a significant amount of time knows that we naturally adapt to the specific societal norms of the particular country in which we live. Unfortunately, these cultural arguments are often used to stereotype and project blame on to regions and countries without examining the broader institutional and structural problems. For example, during the global financial crisis, Portugal, Italy, Greece,

and Spain were labeled PIGS, a term which carried with it deep cultural stereotypes. Moreover, it allowed politicians and citizens to pass much of the blame on to Southern Europe, while ignoring larger political and structural issues within the EU itself. Alan Greenspan (2011) in the Financial Times went as far as saying, “The eurozone is confronted with a crisis of not just labour costs and prices – but culture. The burden is primarily on southern Europe... There are thus two distinctly defined eurozone areas: in the north and in the south.” I reiterate: cultural stereotyping minimizes real structural, institutional, and political issues.

Secondly, this study provides scholars with a more holistic theory of tax compliance that not only considers more rational choice motivations for compliance, but also begins to unravel the more nuanced tax compliance decision, such as how does prosociality affects compliance. Moreover, if Southern Italians are not more willing to cheat in general, why might they be more willing to cheat their own government? Could it be that Southern Italians receive lower quality public services, and are thus less willing to support poor quality public services? Maybe the opportunity to evade is just greater in Southern Italy, and they therefore believe that they are less likely to get caught. I believe these are some important issues for explaining the observed variation in tax compliance between Northern and Southern Italy, and between low compliance countries and high compliance countries, more generally.

Finally, this article has demonstrated that Southern Italians aren’t less generous than their Northern counterparts, but rather that southern generosity does not extend to the state.

Notes

¹University of Exeter Business School, Tax Administration Research Centre (TARC)

²The experiments were carried out by a group of researchers at the European University Institute. When describing the experiments I will use the plural we or our, but when describing the results I will use the first person singular.

³The experimental sites included Bologna Laboratory for Experiments in Social Sciences, Centro d’Economia Sperimentale A Roma Est, Experimental Economics Lab of the University of Milano Bicocca in Italy, and the Experimental Laboratory at Seconda Università degli Studi di Napoli in Capua. All data can be downloaded from www.willingtopay.eu

⁴For more details on the online recruitment system (ORSEE), see Greiner (2004).

⁵Because round nine is a donation round, we have left it out of the analysis.

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