



Emotions in Tax Related Situations Shape Compliance Intentions: A Comparison between Austria and Italy

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ABSTRACT

Taxpayers experience different emotions in tax related situations such as collecting documents for filing, contacting the tax authorities to get advice, or experiencing an audit. We replicated a study conducted in Austria with a representative sample of self-employed taxpayers from Italy and discuss similarities and differences in the impact of emotions on tax compliance intentions between the two countries. Using scenarios, we described different situations occurring in the process of paying taxes in a between-subjects design. Results show that the scenarios elicit specific emotion patterns. Relevant emotions can be clustered into four groups: positive emotions, anger, fear, and self-blame. Future compliance intentions are higher if experiences with the tax authorities are positive rather than negative. This effect is partly mediated by specific emotions. Especially emotions related to anger and self-blame shape compliance intentions. While anger seems to play a more important role in Austria than in Italy, we see that positive emotions and emotions related to feelings of self-blame have a similar impact in both countries. We conclude that emotional experiences play an important role in tax compliance decisions. Thus, tax authorities need to take into consideration specific emotions elicited by different tax related activities and in interactions with the authorities.

1. Introduction

Half a century ago, Allingham & Sandmo (1972) recognized in their seminal article that nonpecuniary factors – which they excluded in their analyses – might play a crucial role in taxpayers' decisions and behavior. Nevertheless, research has only recently addressed emotions in tax compliance decisions. Studies on emotions and taxes either concentrated on one component of the emotional experience, such as arousal level (Coricelli et al., 2010; Dulleck et al., 2016), the valence of emotions, i.e., positive versus negative affect (Fochmann et al., 2019; Olsen et al., 2018), or the influence of specific moral emotions, such as regret, shame, and guilt (Casal & Mittone, 2016; Coricelli et al., 2014; Erard & Feinstein, 1994; Murphy & Harris, 2007). However, focussing on arousal or valence does not capture the complex phenomenon of emotions and omits the relevance of the specific type of emotion, such as anger, fear,

and sadness or surprise, joy, and pride.

To the best of our knowledge, studies on emotions in the field of taxation have focused on compliance decisions but omitted experiences with taxes in general, such as collecting documents for filing and especially personal contact and interactions with tax authorities when asking for advice or experiencing an audit. Enachescu et al. (2019) conducted a comprehensive study on current emotions in crucial situations that taxpayers encounter. Combining qualitative and quantitative methods, the study revealed seven different tax related situations and a variety of related positive and negative emotions, which were clustered into four groups of specific emotions: positive feelings, anger, fear, and self-blame. Depending on the tax related situations, different types of emotions are likely to emerge and impact subsequent compliance intentions.

Enachescu et al.'s (2019) study was conducted in Austria, a country

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that is characterized by relatively low shadow economy indices and high tax morale and compliance levels (Medina & Schneider, 2018). In the present paper we seek to replicate the original study in Italy, a country characterized by relatively extended shadow economy and lower tax morale (Medina & Schneider, 2018). Moreover, Italy reports high heterogeneity in compliance levels between Northern and Southern regions (Brosio et al., 2002; Carfora et al., 2018; D'Attoma, 2017).

We investigate a representative sample of self-employed taxpayers, as they “pay-out-of-pocket”, need to file their taxes themselves or with the support of a tax practitioner, may be more in need to get advice from the authorities, and have more opportunities to evade taxes than employed income earners who are taxed at source and are less likely to interact directly with the authorities. We compare the results with the Austrian self-employed sample and discuss similarities and differences in the impact of emotions on tax compliance intentions between the two countries.

1.1. Emotions and decision making

About two decades ago, research on decision-making started to take the role of emotions into account (Elster, 1998). Meanwhile, the motivational function of emotions in decision making has been recognized as well as their impact on behavior (Pfister & Böhm, 2008; Zeelenberg & Pieters, 2006). A bulk of research demonstrated considerable influence of emotions on decisions in contexts such as consumer behavior (Bougie et al., 2003), investment decisions on the stock market (Hirshleifer & Shumway, 2003), or in game theoretical experiments involving decisions to cooperate and reciprocate favors or to take egoistic advantage (Kirchsteiger et al., 2006).

Several studies – conducted in different contexts, such as the workplace, policing and taxation - suggest a mediating role of emotions on fairness perceptions and compliance decisions (Barkworth & Murphy, 2015; Murphy & Tyler, 2008). In the tax context, it has been shown that perceived unfairness elicits anger, which in turn is negatively related to future compliance (Barkworth & Murphy, 2015; Murphy & Tyler, 2008). This finding is in line with evidence in consumer psychology, which showed that experiences of anger due to bad services are related to customers' revenge considerations (Bougie et al., 2003). A study with self-employed taxpayers conducted in Turkey showed that power wielded by the tax authorities evokes negative emotions which are related to intentions to evade taxes (Olsen et al., 2018). While these studies focused on integral emotions (i.e., emotions evoked by the decision situation), Fochmann et al. (2019) investigated possible impacts of incidental emotions, i.e., emotions not evoked by the decision situation but by surrounding circumstances. In a laboratory study, the researchers induced positive and negative affect by presenting affectively laden pictures to participants who subsequently filed their taxes. They conclude that positive affect leads to higher levels of tax evasion than negative affect.

Two studies investigated the impact of emotional arousal on tax compliance behavior. Coricelli et al. (2010) assessed emotional arousal by measuring skin conductance response and found that higher arousal is associated with higher levels of tax evasion, probably due to anticipated shame in case of evasion. Dulleck et al. (2016) investigated “psychic stress” as a proxy for emotional arousal by measuring heart rate variability and found that higher arousal is associated with higher levels of compliance. The authors argue that participants with higher arousal levels experience stronger moral emotions, such as guilt, and are therefore more compliant. However, these results remain inconclusive as valence of emotions and the specific type of emotions were not considered but might play a crucial role. For instance, both anger and joy might evoke similar levels of arousal, but the reactions are likely to be very different.

Only few studies have investigated the impact of specific emotions on tax compliance, and the mixed results presented above encourage us to dig deeper. To understand behavioral responses, the Feeling-Is-For-

Doing approach stresses the importance of considering specific emotions rather than focusing on only one dimension of emotions, such as valence or arousal (Zeelenberg & Pieters, 2006). Emotions of the same valence can lead to opposite behavioral responses, such as, e.g., anger and fear, which lead to either “fight” or “flight”. Similarly, the Appraisal Tendency Framework (Lerner & Keltner, 2000) claims that each emotion elicits specific appraisal patterns that determine how new information is interpreted and that subsequent behavior depends on these subjective interpretations.

1.2. Emotions in tax related situations

The study by Enachescu et al. (2019) is, to the best of our knowledge, the first study that systematically investigated which specific emotions emerge in various tax related situations and how they affect compliance intentions. The authors conducted focus groups with self-employed and employed taxpayers and tax auditors to detect tax-related activities and specific situations as well as related emotions. The focus group study revealed the different procedures that taxpayers have to go through to meet their tax obligations and that are susceptible to elicit emotions. The results of the focus groups yielded seven scenarios: (1) preparatory accounting tasks, (2) filing taxes, (3) contacting the tax authorities with a question, (4) receiving feedback from the tax authorities about a balance, (5) receiving an audit announcement, (6) experiencing an audit, and (7) actually evading taxes by claiming false deductions. Regarding emotions involved in this process, participants in the focus groups mentioned specific emotions, such as stress, anger, fear, uncertainty, feeling blamed, and feeling nervous. Relief, feeling secure, and happiness were mentioned as positive feelings. Overall, 19 specific emotions were derived which were clustered into four groups of emotions: positive emotions and emotions related to anger, fear, and to feelings of self-blame.

Enachescu et al. (2019) presented the seven scenarios - either framed as positive experience or as negative experience - to a representative sample of Austrian self-employed and employed taxpayers. Participants were asked how they would feel in the respective situation. Moreover, future compliance intentions were assessed. The results show clearly scenario-specific emotional reactions. It was found that self-blame is pronounced in case of evasion, independent of whether it was detected or not. Anger was highly elevated in all scenarios if the experiences were framed negatively. Fear-related emotions were expressed at high levels in audit-related scenarios. Positive feelings emerged if scenarios were framed positively and especially if the positive outcome was attributed to one's own achievements. Future compliance intentions were comparably high if tax authorities provided useful service, when audit experiences were positive and when receiving favorable feedback from the authorities after an audit. Overall, the results highlight the importance of considering emotional experiences of taxpayers both in situations where they are doing preparatory tasks for filing and when interacting with the authorities. Emotions are likely to function as drivers for compliance and non-compliance.

1.3. Tax morale in Italy and Austria

Reviewing “Italy's tax Administration – A Review of Institutional and Governance Aspects”¹, the OECD summarizes “Italy is a high-tax country with a relatively high and stable tax-to-GDP ratio. At the same time, levels of compliance with tax laws are low.” The Italian value-added tax gap is estimated at above 30% for 2013, compared to the EU-26 average of 15.2%. Alm and Torgler (2004) used data from the World Value Survey to compare the tax morale of various European countries with the tax morale of the United States. In Nordic countries (e.g., Austria),

¹ Retrieved 2020-03-22 from <https://www.oecd.org/tax/administration/italy-tax-administration-a-review-of-institutional-and-governance-aspects.pdf>

Table 1
Sample description

	Italy		Negative condition		Austria		Negative condition	
	Positive condition		Positive condition		Positive condition		Positive condition	
	N	Age M (SD)	N	Age M (SD)	N	Age M (SD)	N	Age M (SD)
Male	89	46 (12)	93	46 (12)	73	47 (13)	71	47 (12)
Female	35	42 (10)	41	41 (11)	50	47 (9)	54	46 (10)
Total	124		134		123		125	

agreement with the statement that tax evasion is never justified was 1.8 points higher on a 10-point Likert scale than in Romanic countries (e.g., Italy). While Austria and Switzerland had a similarly high tax morale to the U.S., Italy had a significantly lower tax morale. In a more recent survey with samples from Australia, Austria, England, France, Italy, New Zealand, Spain, and Switzerland, the Italian participants expressed the lowest tax morale (Muehlbacher et al., 2008).

Tax morale correlates negatively with the size of the shadow economy (Muehlbacher et al., 2008). A possible explanation for the low level of tax morale in Italy is provided by the Slippery Slope Framework (Kirchler et al., 2008). The framework describes the relationship between tax authorities and taxpayers by the authorities' power and the taxpayers' trust in the authority. Kogler et al. (2015) provide empirical evidence that perceptions of procedural and distributive fairness lead to higher levels of voluntary compliance, and taxpayers' trust in the authority mediates this effect. Italian taxpayers express low levels of trust towards their fiscal system, mainly because fiscal expenditures are perceived as inefficient and "abuse" of power by the tax authorities ("authorities exert their power abusing taxpayers' fear in an illegitimate way"; Lozza et al., 2013, p. 61). Empirical evidence underlining the relevance of the relationship between Italian tax authorities and their taxpayers on tax compliance yielded an experimental study conducted in Italy and the US. Taxpayers in both countries showed the same levels of compliance behavior in a neutral laboratory setting when they were asked to imagine paying taxes in a "neutral" country. However, their compliance differed significantly when they were asked to imagine their country specific institutional context (D'Attoma, 2018). Moreover, Zhang et al. (2016) found in their study with Italian and UK university students the Italian participants being significantly more likely to comply than Britons, when they were faced with identical descriptions of tax institutions in the experimental setting.

By contrast, the Austrian Ministry of Finance has been making constant efforts over the past years to improve the relationship with taxpayers (Enachescu, Zieser et al., 2019). A recent survey by Gangl et al. (2020) provides evidence that tax authorities' investments in fairness, participation and trust positively impact the relationship climate and thereby lead to higher motivation and intended compliance. Tax authorities are endeavoring to strengthen their service approach and to publicize their service orientation. Regarding a reform of financial administration that went into effect at the beginning of 2021, the Austrian Minister of Finance said: "With this reform, we are increasing the service character and optimizing the processes in financial administration. For citizens, this reform will improve tax related processes and accelerate procedures (...)."²

Italians are generally in favor of fighting tax evasion: a survey carried out in 2015 by the Italian business association Confindustria³ concludes that 60% of Italians are in favor of fighting tax crime. About half of the respondents (48%) judged fighting tax evasion as being a priority for the

government, compared to one quarter (23%) who indicated reducing the tax burden or cutting public expenditures (15%) as a priority. While Italians believe that paying taxes is a moral duty and fighting against tax evasion should be a priority of the government, they seem to have little trust in their institutions, which is likely to fuel non-compliance. Moreover, Italy is characterized by high heterogeneity between regions (Brosio et al., 2002; Carfora et al., 2018); tax morale varies considerably between the North and the South. Political competition in Northern Italy became a driver of a functioning state and led to citizens' growing willingness to invest in it. Conversely, the South received little attention from the political class, which led to a dismissive attitude and increasing clientelism (D'Attoma, 2017). In the Italian sample, we therefore distinguish between three regions: North, Central and South.

1.4. Present study

In the present study we seek to replicate the Austrian study and compare the Italian results with the Austrian findings. We are convinced that investigating Italian taxpayers' experiences with tax related activities and experiences as well as comparing findings with those obtained in Austria, a country with high tax morale, is highly relevant to detect general and situation specific impact of emotions on compliance.

We re-analyze the data from the Austrian self-employed sample alongside the data collected from Italian self-employed taxpayers. We apply a 7×2 experimental design with two between-subject conditions: seven scenarios with varying content and positively or negatively framed outcome. We use a survey in which the seven positive or negative scenarios are presented and participants are asked to imagine as vividly as possible the described situation and to indicate how they would feel in the respective situation. Three of the seven scenarios were followed by items assessing future compliance intentions. The decision to restrict future compliance items to three scenarios was due to the length of the survey and time constraints. Items to capture characteristics specific for the Italian socio-political situation were added in the Italian study part.

2. Method

2.1. Pretest

We ran a pretest to check the suitability of the Austrian study materials for the Italian population. Participants received the survey with the scenarios and questions assessing emotions and compliance intentions, and were invited to comment on the appropriateness of the scenarios and face validity of questions. The survey was administered online to a convenience sample. Respondents ($N = 20$) were randomly assigned to the condition with positive scenarios ($n = 9$) or to the negative scenarios ($n = 11$). Overall, the results confirm that the Austrian material is suitable for the Italian population.

2.2. Sample

We determined the required size for the Italian sample by conducting a power analysis, using G*power (Faul et al., 2007), based on the effect of valence manipulation on compliance intentions in the Austrian

² Retrieved 2021-02-11 from https://www.ots.at/presseaussendung/OTS_20210103_OTS0005/bluemel-2021-bringt-groesste-reform-der-finanzverwaltung-g-mehr-service-fuer-buergerinnen-und-unternehmen

³ Retrieved 2020-03-22 from <https://www.confindustria.it/home/centro-studi/temi-di-ricerca/congiuntura-e-previsioni/archivio/dettaglio/Public/3fca11b6-8ca8-4767-a9f1-9c0b0a1aab7f/3fca11b6-8ca8-4767-a9f1-9c0b0a1aab7f>

sample ($b = .72$ for scenario 3). The power analysis yielded a target sample size of $N = 234$ for an Alpha-error of 5% and 95% power. Our final sample comprised 258 participants, representative for the Italian self-employed taxpayers with regard to gender, age, and geographical area of residency⁴. For a detailed description of the sample see Table 1.

2.3. Materials and procedure

As in the original study, the survey consisted of a scenario-based experimental design with two between-subject conditions. Participants were randomly assigned to the condition with positive or negative scenarios. The content of the scenarios dealt with the following situations:

- Scenario 1: preparatory accounting tasks
- Scenario 2: filing taxes
- Scenario 3: contacting the tax authorities with a question
- Scenario 4: receiving feedback from the tax authorities about a balance
- Scenario 5: receiving an audit announcement
- Scenario 6: experiencing an audit
- Scenario 7: evading taxes by claiming a false deduction

The scenarios and questions were translated and back-translated from English to Italian. See the Appendix (Table A1) for the English, German and Italian version of the seven scenarios. All survey materials of this study are available via the Open Science Framework (<https://osf.io/ev3an/>).

After reading each scenario, participants were asked to indicate on a 19-item Likert-type emotions scale how they would feel in the respective situation. As in the original study by Enachescu et al. (2019), three of the seven scenarios (scenario 3, 6, and 7) were followed by a three-item questionnaire assessing future compliance intentions.

Manipulation check. In order to check whether the positive and negative framing of the seven scenarios was perceived as intended, participants indicated on a seven-point Likert scale (1 = bad to 7 = good) how good or bad they would feel in the described situation.

Emotions questionnaire. Specific emotions elicited by the scenarios were assessed by a 19-item Likert-type emotion scale, including fear, blame, relief, happiness, annoyance, stress, helplessness, hope, nervousness, guilt, security, sadness, surprise, insecurity, dissatisfaction, upset, satisfaction, regret, and shame. Participants rated how intensively they would feel each respective emotion on 7-point Likert scale (1 = not at all to 7 = strongly).

Tax compliance intentions. Compliance intentions were assessed by means of two items adapted from the tax compliance inventory (TAX-I; Kirchler & Wahl, 2010) and one item on procrastination. The items captured different aspects of tax compliance: honest intentions (*I will hand in my next tax declaration completely honestly*), intentions to evade (*I will conceal additional income that I've had this year in my tax declaration*), and intentions to procrastinate (*I will put my tax declaration aside for now and deal with it some other time*). These items were administered following scenario three, six, and seven and were rated on a 7-point Likert scale (*Please indicate how likely it is that you make the following decisions. 1 = very unlikely [0%] to 7 = very likely [100%]*).

Responses to the three items were averaged as reliability was acceptably high (Scenario 3: Cronbach's $\alpha = .56$, Scenario 6: $\alpha = .54$, Scenario 7: $\alpha = .52$).

Italy specific variables. On the last page of the survey, participants answered to the Italy specific questions together with demographic information (highest educational qualification, work sector, job title, and

⁴ The distribution reflects ISTAT (Italian National Institute of Statistics) data from 2011. This was the most recent ISTAT investigation containing crossed information for our three variables of distribution (gender, age, geographical area) at the start of data collection.

Table 2

Mixed-effects regression with manipulation check score as dependent variable

Fixed effects	Manipulation check					
	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Intercept	2.32***	0.16	2.39***	0.16	2.39***	0.20
Valence	3.38***	0.09	3.25***	0.12	3.25***	0.40
Country	0.11	0.09	-0.02	0.12	-0.02	0.12
Valence * Country			0.27	0.17	0.27	0.17
Random effects					σ^2	
Intercept (Individual)	0.66		0.65		0.70	
Intercept (Scenario)	0.14		0.14		0.24	
Valence					1.03***	
Residual	1.87		1.87		1.57	
Model fit AIC	12854.3		12853.9		12361.1	

Note. $N = 506$, with 7 repeated measures (3,522). Country was coded with 0 = Italy and 1 = Austria. Valence was coded with 0 = negative and 1 = positive. *** $p < 0.001$.

monthly income). Participants indicated the region of residency and their political orientation (left, moderate, or right). Moreover, participants indicated on a 7-point Likert scale (1 = *I do not agree at all*, to 7 = *I completely agree*.) their trust the Italian government (*Italian government is trustworthy; Italian government employees act in my best interest; Italian government does not try to fool taxpayers; Italian government acts on behalf of Italian citizens*). The aggregation of these four items led to a good reliability of the scale (Cronbach's $\alpha = .85$).

Data collection was outsourced to DEMETRA (<https://www.opinion.i.net/>)⁵. The completion of the experimental online survey took approximately 15 minutes and participants received € 2.50 as compensation.

2.4. Data availability

Data and a codebook are publicly available on the Open Science Framework (<https://osf.io/ev3an/>).

3. Results

In the following, we present the results of the Italian self-employed sample alongside the results of the Austrian self-employed sample. First, we check whether the manipulation of positive versus negative valence of scenarios was successful and whether the effect of the manipulation differs between the two samples. Second, we investigate the pattern of specific emotions that were elicited by the scenarios for the Italian sample and compare the results with the Austrian sample. Third, we investigate the association between valence of scenarios and tax compliance intentions and whether this relationship is mediated by specific emotions.

3.1. Manipulation check of scenarios

We conduct mixed-effects linear regression models with the manipulation check score as dependent variable (see Table 2). Random intercept variables for individuals and scenarios are included to account for the nested data structure. In model 1, we include valence and country as fixed effects to estimate the main effects of these two factors. Country was coded with 0 = Italy and 1 = Austria, valence was coded with 0 = negative and 1 = positive. As expected, we find a significant main effect for valence ($B = 3.38, p < .001$), indicating that scenarios in the positive condition were perceived significantly more positive compared to those in the negative condition. We find no effect of country ($B = 0.11, p =$

⁵ This study was funded by the Verein zur Förderung der Wirtschaftspsychologie, Vienna-Austria.

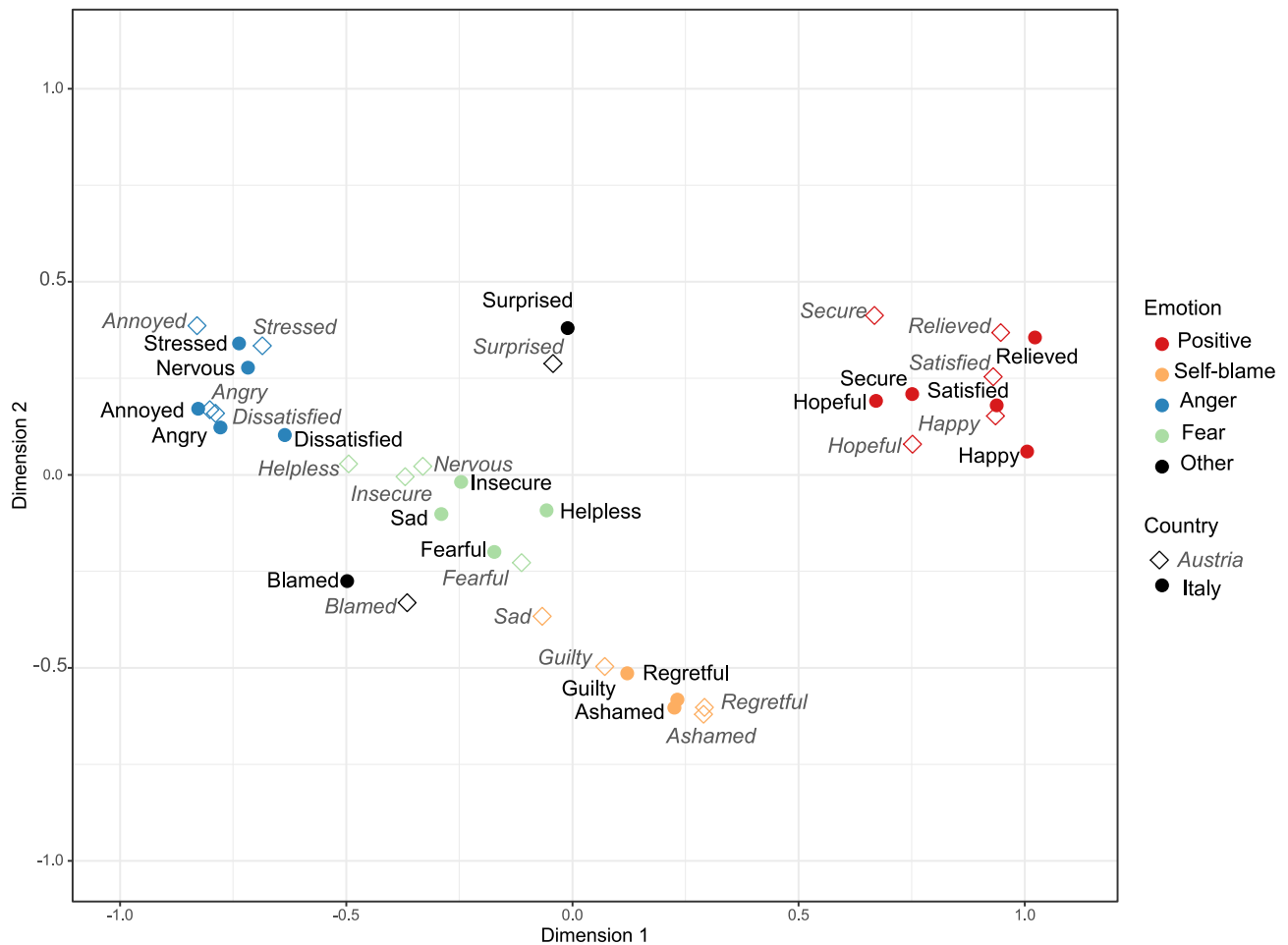


Fig. 1. Multidimensional scaling analysis of emotions for the Austrian and Italian sample.

.19). To test whether the effects of valence differ between the two samples, we include an interaction term between valence and country in model 2. The result indicates that the effect of the valence manipulation does not differ between the two countries ($B = 0.27, p = .12$). In model 3, we include a random slope parameter for valence to check whether the effect of the manipulation is constant across the seven scenarios. We find that there is variation in the size of the effect between the scenarios ($\alpha^2 = 1.03, \chi^2(2) = 497, p < .001$). However, in Fig. A1 in the appendix we see that the effects are positive in all seven scenarios and differ only in size.

3.2. Clusters of emotions

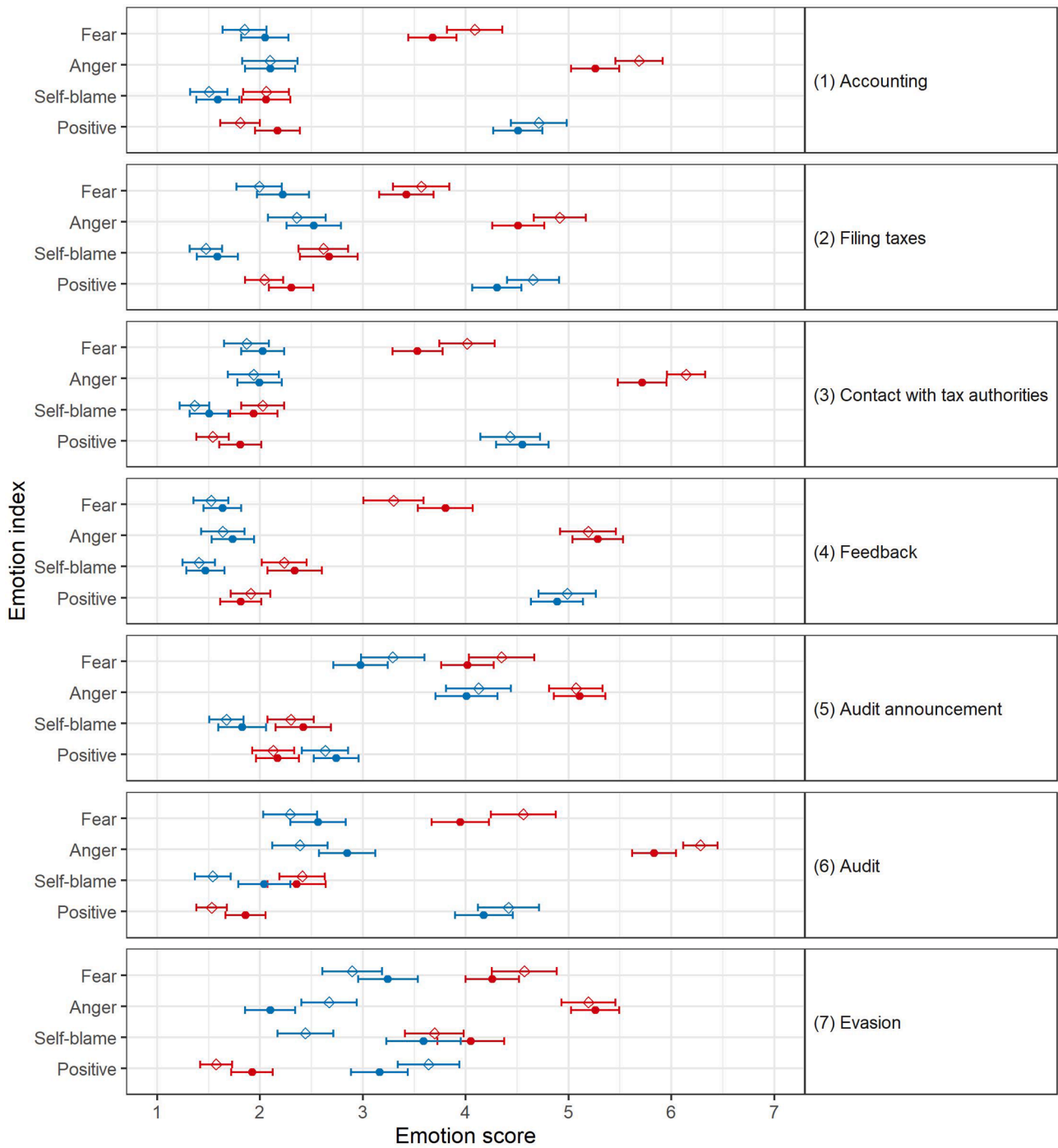
As in the Austrian study, we cluster the 19 specific emotions by conducting a multidimensional scaling analysis (MDS). The MDS solution is displayed in Fig. 1, together with the solution for the Austrian sample of self-employed taxpayers (in grey). The MDS applied to the Italian data yields similar results as the analysis of the Austrian data. We observe a clear distinction between positive feelings (relieved, secure, hopeful, satisfied, and happy) and negative emotions, with the emotion surprise in between the two groups. Negative emotions can be aggregated to clusters of anger-related emotions (stressed, annoyed, nervous,

angry, and dissatisfied), fear-related emotions (insecure, sad, helpless, and fearful), and self-blame emotions (guilty, regretful, and ashamed). Surprise is positioned between the negative and positive clusters, which is consistent with the literature in which surprise can be interpreted as both positive and negative (Noordewier & Breugelmans, 2013). Although the emotion blame is supposedly close to the fear cluster, it could not be clearly assigned to any cluster without changing its homogeneity in content. Thus, we exclude blame and surprise from further analyses, as was done in the original study, for homogenous meaning of clusters.

The single emotions are aggregated into emotion indices by grouping them into the same clusters for the Italian sample as for the Austrian sample with two exceptions: the emotions nervousness and sadness fall in different clusters for the Italian sample, with nervousness being related to anger-cluster and sadness falling into the fear-cluster (see Fig. 1).

3.3. Scenario specific emotion patterns

In a next step, we analyze patterns of emotions elicited by the scenarios. As Fig. 2 shows, the emotion patterns are similar in both samples. Both in Austria and Italy, positive emotions are elicited when receiving



Valence of scenario: ● Negative ● Positive Country: ● IT ◇ AT

Fig. 2. Emotion patterns elicited by the seven scenarios for the Austrian and Italian sample.

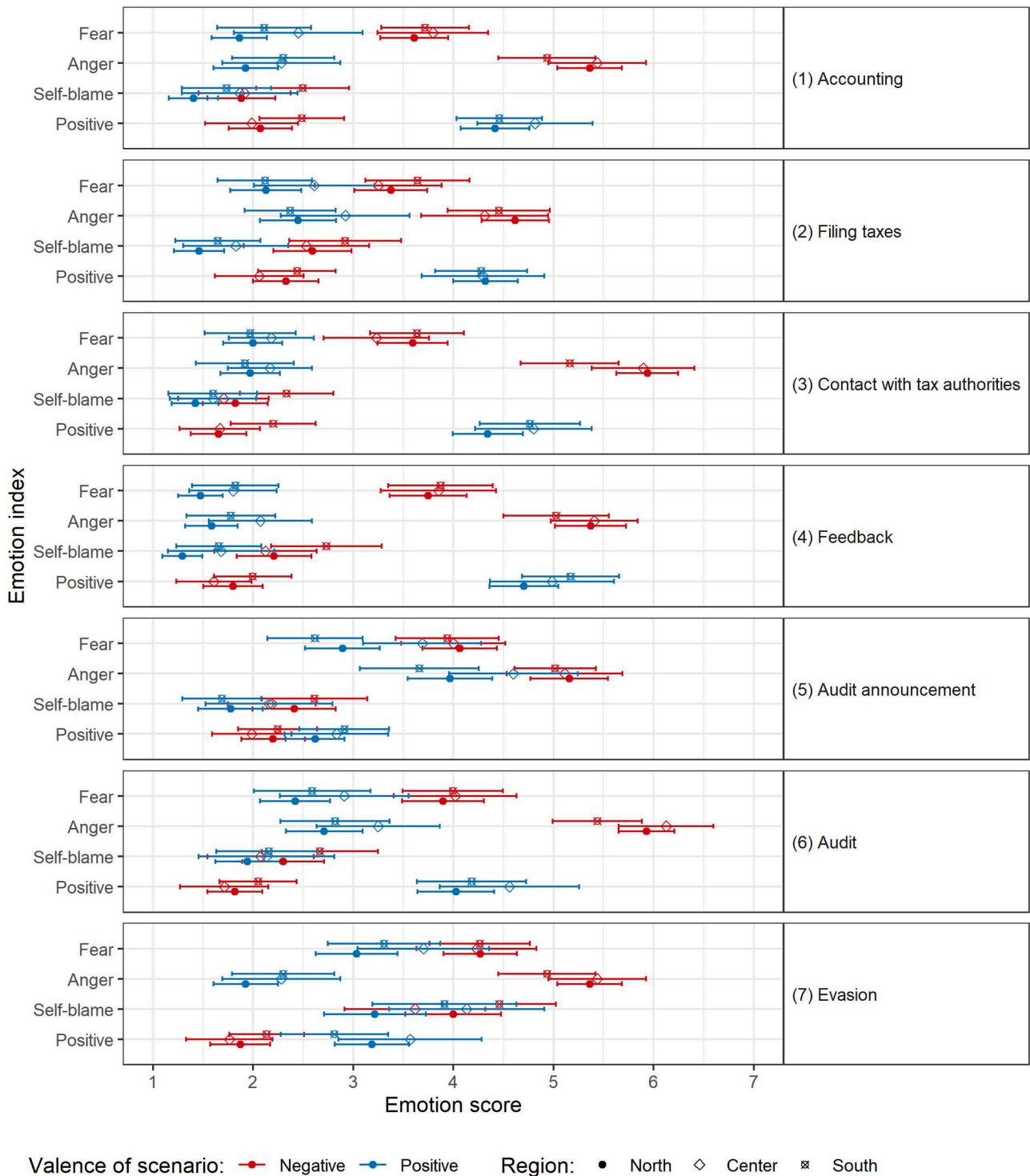


Fig. 3. Emotion patterns elicited by the seven scenarios for subsamples from the Italian North, Center, and South.

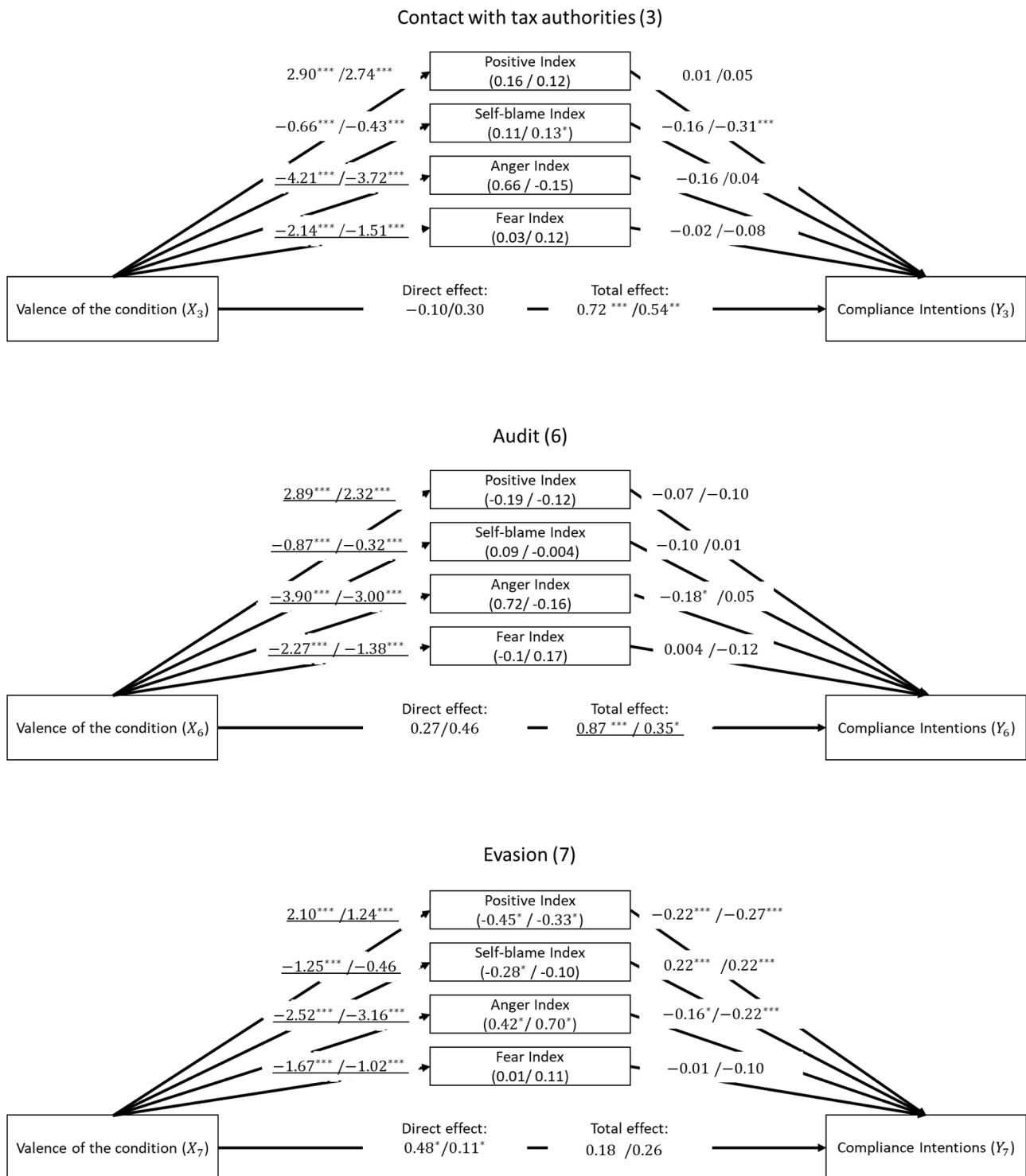


Fig. 4. Mediation models by scenarios 3, 6, and 7

Note: Numbers are beta coefficients, first for the Austrian and second for the Italian samples. Numbers in parentheses below emotion indices are beta coefficients of the indirect effects of the mediation variables. Indirect effects are marked with an asterisk when the 95% bootstrapped confidence interval does not include zero. Underlined effects differ in magnitude between the two countries (= significant interaction term between valence and country when entered in one regression model).

information from the tax authorities that a tax credit has been accumulated and the credit balance will be automatically transferred to one's own bank account (Scenario 4). Positive feelings are also most likely when preparatory accounting tasks and filing taxes were successful (Scenarios 1, 2) and when authorities provide useful information (Scenario 3) or when an audit experience is positive (Scenario 6). Negative emotions, especially anger, are highest when experiencing a tax audit (Scenario 6), when contacts with authorities and services are dissatisfying (Scenarios 3, 4) and when accounting tasks and filing (Scenarios 1, 2) are dissatisfying. Especially the Austrian taxpayers report high anger if contacts with the authorities are dissatisfying due to insufficient information or when an auditor behaves unfriendly (Scenarios 3, 6). Interestingly, in the Italian sample self-blame is reported in the evasion Scenario (7), independent of whether cheating on taxes was detected in an audit or not. In the Austrian sample self-blame is high in case of detected evasion only. In the negative condition, Austrian participants indicate to experience fear-related emotions slightly more than Italian participants, with exception of the feedback-from-the-authorities' scenario (Scenario 4). The opposite pattern can be observed in the positive condition, with Austrian participants experiencing lower levels of fear, except for the audit announcement (Scenario 5).

For the Italian sample, we investigate whether the emotions patterns differ with regard to the geographical area of residency (North, Centre, South). We divide the Italian sample into three subsamples (North, Centre, South). Results are shown in Fig. 3. Emotions patterns appear to be very similar across the three subsamples for all the seven scenarios, underlining the robustness of the results.

Additionally, we run linear mixed-effect regression models to analyze which emotion patterns were elicited as a function of the valence factor and whether the effects differ between the two countries. Detailed results of all four regression analyses are depicted in Table A2 in the appendix. We find that positive emotions are significantly higher in the positive condition than in the negative condition, and self-blame, anger-related and fear-related emotions were experienced less intensively in the positive condition. Only for positive emotions we find a significant interaction between country and valence. The effect of the valence manipulation on positive emotions is larger for the Austrian than for the Italian sample. We include random slope parameters for valence in the four regression analyses to test whether emotion patterns differ between the seven scenarios. The random slope parameters are significant in all four models, indicating that effects differ across the seven scenarios for all four indices.

3.4. Compliance intentions

Three of the seven scenarios (Scenario 3, 6 & 7) were followed by three items on compliance intentions. We run three separate mediation models (Hayes, 2013) that are depicted in Fig. 4. Direction and size of effects are similar between the two countries. For the contact with the authorities' scenario (3) and the audit scenario (6) we find significant total effects of valence on compliance intentions for both countries, indicating that compliance intentions are higher in the positive as compared to the negative condition. These effects become insignificant when emotion indices are added as mediators into the models. For the evasion scenario (7), no significant total effect of valence on compliance intentions is found, which is due to the content of the scenario.

Indirect effects show that emotions related to self-blame significantly mediate the effect between valence and compliance intentions in the scenario describing having contact with the tax authorities (3) in the Italian sample. With regard to the evasion scenario (7), there is a significant indirect effect of positive emotions and anger-related emotions

in both countries and a significant indirect effect of self-blame emotions for the Austrian sample. We do not observe a significant indirect effect in the audit scenario (6). Table A3 in the Appendix depicts all indirect effects for both countries.

Furthermore, we check for the robustness of the results in Italy by analyzing the subsamples from the three different regions in Italy (North, Center, South) separately. The mediation models conducted with the three subsamples yield very similar results to those obtained with the Austrian and total Italian sample except for a few differences. For participants who live in the South of Italy we find that the fear-related emotions mediate the effect between the valence of the condition and the tax compliance intentions in contact-with-the-authorities' scenario (3). Notably, this is the only case in which the fear index has a significant mediation effect. For participants who live in the Centre of Italy, no indirect effects can be observed. All indirect effects for the three subsamples are depicted in Table A3 in the Appendix.

4. Discussion

We investigated the role of emotions in various tax related situations for an Italian sample of self-employed taxpayers and compare the results with the results of a comparable Austrian sample. We focused on representative samples of self-employed taxpayers, because they have more experiences with taxes, are more likely to interact with the tax authorities, and have more opportunities to evade taxes than income earners whose taxes are deducted at source. Thus, they experience paying taxes more likely as a loss compared to employees, and they bear also higher compliance costs (i.e., time to collect documents and filing). We chose to study self-employed taxpayers in two countries which differ significantly with regard to shadow economy indices, tax morale and tax compliance. With this study we investigate how the role of emotions for tax compliance behavior is shaped by cultural and institutional circumstances and test the robustness and generalizability of the results obtained in the Austrian study.

The study by Enachescu et al. (2019) and the present study are the first studies in the field of tax compliance research which focus on the various activities and experiences that taxpayers encounter and emerging specific emotions. So far, the focus in research on emotions and compliance decisions, has been set mostly to either one facet of emotions, such as intensity or valence, or single moral emotions such as guilt or shame. In this study, we assessed the relevance of specific emotions in situations varying from accounting and filing tasks, being in contact with authorities when asking for information, to experiencing audit announcements, audits and audit outcomes. The scenarios were described as either favorable or unfavorable experiences. Participants reported how intensively they would experience 19 specific emotions when confronted with the respective situations. In both samples the specific emotions can be clustered into four indices: positive emotions, emotions related to anger, related to fear and feelings of self-blame.

Participants reading the positively framed scenarios indicated generally high levels of positive emotions, especially if they received useful advice from the authorities, if interactions with the authorities were satisfying and when they experienced success attributed to their own achievements. The pattern of positive emotions by scenarios is very similar in both samples.

Unsurprisingly, negatively framed scenarios elicit negative emotions in both samples, particularly anger. Anger is highest when experiencing an audit and when interacting with an unfriendly auditor who demands additional documents, insists on interrogating the taxpayers on specific expenditures, which were deducted from the taxes, accuses the taxpayer of cheating and insists on removing some of the invoices even if the

taxpayer declared conscientiously. Anger is also high if a taxpayer has a question regarding taxes, contacts the tax office and does not get useful information, or when being contacted by the tax authorities and informed that tax prepayments are classified as too low, when explanations are insufficient and additional amounts have to be paid. Although, also accounting and filing tasks, which have been postponed or are felt as tedious lead to high anger; anger emerges predominantly in situations in which the interaction with the authorities leads to dissatisfying results. While levels of anger in these negatively framed scenarios are elevated in both samples, the administrative tasks such as accounting, filing taxes, and having contact with the tax authorities evoke even higher levels of anger in the Austrian than in the Italian sample. The scenarios describing going through an audit also evokes more intense feelings of anger as well as fear in the Austrian than in the Italian sample. One possible reason for the elevated anger-levels in Austria could be that the Austrian Ministry of Finance has communicated large efforts in improving customer services in past years (Enac-hescu, Zieser, et al., 2019), yielding elevated expectations of being treated as a customer. Therefore, situations that do not meet these expectations, as described in the negatively framed scenarios might create more reactance and therefore elicit anger for the Austrian sample than for the Italian sample. By contrast, Italian taxpayers expose low levels of trust in their tax authorities. Thus, taxpayers' expectations may already be low and taxpayers do not experience as much anger if they are not met (D'Attoma, 2017, 2018).

From the perspective of the tax authorities, the most relevant question concerns the relationship between emotions and future compliance intentions. We consistently find positive effects of positively framed scenarios on compliance intentions, both in the Austrian and Italian sample. Future compliance intentions improve when taxpayers having a question regarding their tax declaration are treated friendly by the tax authorities and receive useful information, and when a tax auditor treats taxpayers with respect during an audit, explains errors and gives proper recommendations. These results clearly indicate that trust-building measures are essential to improve compliance. Procedural fairness in general and benevolent instruction and service orientation are strengthening willingness to cooperate (Murphy & Tyler, 2008). This supports the approach of the Austrian tax authorities to focus on a respectful relationship and appropriate services offered to their taxpayers.

However, the results of the mediation analyses indicate an impact of anger on future compliance intentions in the Austrian sample. As described above, anger is most likely if interactions with the authorities are dissatisfying. This could indicate that a more service-oriented tax administration can lead to backfiring effects (i.e., less compliance) if taxpayer expectations are high but not met. Tax authority employees who are in direct contact with taxpayers (e.g., in the call center) should therefore be trained to be friendly and goal-oriented.

Interestingly, in Scenario 3, which describes contacting the authorities for advice, self-blame is negatively related to future compliance intentions for Italy. At first glance this result seems unexpected. However, considering that self-blame may result from learning about one's own insufficient knowledge about specific tax matters, misunderstandings and friendly or unfriendly explanations by tax auditors, it is likely that people react with self-blame but attribute the failures to the complexity and ambiguities in the tax law. Thus, self-blame goes hand in hand with anger, due to rationalization processes and has similar consequences for future compliance intentions. To reduce feelings of self-blame, employees of the tax authorities should therefore meet overwhelmed taxpayers with empathy for their difficult situation.

Scenario 7, which described committing evasion which is either detected during an audit or not, deserves particular attention. In both samples, the valence framing of the scenario is related to future compliance intentions, but mediation analyses show that this effect is fully mediated by emotions. However, if people feel angry, they intend to comply less in the future. Anger is probably attributed to the

procedures and unfair treatment, and thus, fueling intentions to take revenge. On the other hand, in case of evasion – be it detected or not – people feel self-blame emotions and are likely inclined to be honest in the future. The present study shows that it is important to consider integral emotions which occur during various tax related activities and experiences to understand taxpayers and their compliance behavior. It also shows that emotions play a similar role in countries with different tax morale, Austria and Italy. The assumption receives additional support from the absence of differences found between the different regions of Italy (North, Center, South). This result is of particular interest because fostering positive emotions among taxpayers (e.g., through improved service) can reach all parts of the country equally and positively affect tax compliance. As shown in Fig. 3, the Austrian participants report higher self-blame emotions if cheating is not discovered by auditors; however, when Austrian and Italian respondents blame themselves for incorrect filing, in both countries they intend to cheat less in the future.

Although, we only ask participants to imagine being in the described situation, we believe in the generalizability of the obtained results due to the strong sample characteristics. Contrary to many studies that investigate tax compliance behavior with student samples, we administered the surveys to samples of real self-employed taxpayers who have real-world experiences with paying taxes and can therefore relate to the described scenarios. The fact that results are very similar between the two samples obtained in two countries that differ significantly with regard to tax morale and trust in institutions, underlines the relevance of this research topic. While compliance determinants such as trust in institutions and tax morale differ significantly between systems and countries, the role of emotions seems to be fairly similar. We believe that the impact of specific emotions on tax compliance and determinants for circumstance in taxation that foster positive experiences are promising research topics whose results will help creating an environment of trust, community, and voluntary compliance. In order to derive concrete recommendations for the tax authorities, the aspects that are relevant for triggering taxpayers' positive and negative emotions should be identified in laboratory experiments.

Appendix

Fig. A1; Tables A1, A2 and A3.

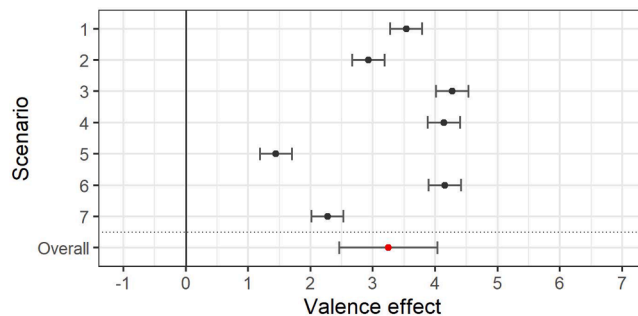


Fig. A1. Effects of valence for each of the seven scenarios

Table A1
Seven scenarios (positive and negative framing) in English, German, and Italian

	English	German	Italian
		Accounting (1)	
Positive condition	<p>A professional tax advisor takes care of all your tax related tasks. You send her all relevant documents on a regular basis, and she takes care of the administrative tasks.</p> <p>Your tax advisor is up to date with the current tax law. She has valuable recommendations for you on how to reduce your taxable income. Furthermore, she explains how you can declare larger investments for your profit.</p> <p>After all open questions are resolved, and you have talked to your advisor about which expenditures you can declare, your tax advisor sends the information to the tax office. You do not have to deal with these issues any longer.</p> <p>Your tax advisor is also responsible for any further contact to the tax authorities. In case of any missing information or further questions the tax authorities will contact your tax advisor.</p>	<p>Um Ihre Steuerangelegenheiten kümmert sich eine professionelle Steuerberaterin. Sie schicken ihr regelmäßig alle relevanten Unterlagen, die von ihr aufbereitet und verwaltet werden.</p> <p>Ihre Steuerberaterin kennt sich gut mit den aktuellen Steuergesetzen aus. Sie gibt Ihnen wertvolle Ratschläge, wie Sie Ausgaben deklarieren müssen, um Ihr zu versteuerndes Einkommen zu reduzieren. Außerdem erklärt Sie Ihnen, wie Sie größere Investitionen gezielt zu Ihrem Vorteil nutzen können.</p> <p>Nachdem alle offenen Fragen geklärt sind und Sie mit Ihrer Steuerberaterin gemeinsam besprochen haben, welche Ausgaben Sie geltend machen wollen, übermittelt Sie alle relevanten Kennzahlen und Unterlagen an das Finanzamt. Sie haben damit nichts mehr zu tun.</p> <p>Auch der weitere Kontakt zum Finanzamt läuft über Ihre Steuerberaterin. Bei Nachfragen oder im Falle einer Steuerprüfung wendet sich das Finanzamt direkt an Ihre Steuerberaterin.</p>	<p>Una commercialista si occupa di tutti i compiti relativi al tuo pagamento delle tasse. Tu le mandi regolarmente tutti i documenti che servono e lei si occupa delle faccende burocratiche.</p> <p>La tua commercialista è aggiornata sull'attuale legge fiscale e ha dei preziosi consigli da darti per ridurre il tuo reddito imponibile. Inoltre, ti spiega come puoi dichiarare maggiori investimenti per aumentare il tuo profitto.</p> <p>Dopo aver chiarito tutti i dubbi, e dopo aver parlato con la tua commercialista riguardo alle spese che puoi dichiarare, la tua commercialista invia le informazioni all'Agenzia delle Entrate. Ora non devi più occuparti di questa faccenda.</p> <p>La tua commercialista si occuperà di qualsiasi altro contatto con l'Autorità fiscale. Nel caso di informazioni mancanti o ulteriori domande, l'Autorità fiscale contatterà la tua commercialista.</p>
Negative condition	<p>In order to prepare your tax declaration, you have to collect and organize all of the bills from any declarable expenditures. You have to preserve and administer all relevant documents.</p> <p>You would like to declare some of your expenditures in order to reduce your taxable income. However, in order to do so, you first have to get the information to what extend you are allowed to declare certain expenditures. Furthermore, you want to inform yourself in how far you can declare larger investments for your profit. The tax law is very complicated. You have already gotten contradictory information from friends.</p> <p>After you have decided which expenditures to declare, you have to send the corresponding numbers to the tax office. In order to do so, you have to enter the information into the corresponding forms in the online system of the tax office (Finanzonline). For some of the figures you are unsure if you have entered the correct numbers. You have now filled out all relevant forms and want to send off your tax declaration. However, the system responds with an error message and you cannot finish the procedure.</p>	<p>Um Ihre Steuererklärung vorzubereiten, müssen Sie sämtliche Belege über Ausgaben sammeln und geordnet ablegen. Alle relevanten Unterlagen müssen von Ihnen aufbewahrt und verwaltet werden.</p> <p>Sie würden gerne einige Ihrer Ausgaben steuerlich geltend machen, um Ihr zu versteuerndes Einkommen zu reduzieren. Dafür müssen Sie jedoch erst Informationen einholen, in welcher Höhe Sie bestimmte Ausgaben deklarieren können. Außerdem möchten Sie sich informieren, inwiefern Sie größere Investitionen zu Ihrem Steuervorteil nutzen können. Das Steuergesetz ist sehr unübersichtlich und kompliziert. Von Bekannten haben Sie widersprüchliche Informationen bekommen.</p> <p>Nachdem Sie entschieden haben, welche Ausgaben Sie geltend machen wollen, müssen Sie die entsprechenden Beträge an das Finanzamt übermitteln. Hierzu müssen Sie die einzelnen Posten in Finanzonline den entsprechenden Kennzahlen zuordnen. Bei einigen Feldern sind Sie unsicher, welche Informationen Sie eintragen sollen. Wenn Sie die Formulare absenden wollen, gibt Ihnen das System eine Fehlermeldung zurück und Sie können den Vorgang nicht abschließen.</p>	<p>Per preparare la tua dichiarazione dei redditi, devi raccogliere e organizzare tutte le fatture delle spese dichiarabili. Devi conservare e gestire tutti i documenti rilevanti. Ti piacerebbe dichiarare alcune tue spese in modo da ridurre il tuo reddito imponibile. Però, per fare questo, devi prima ottenere informazioni per sapere fino a che punto ti è concesso dichiarare certe spese. Inoltre, ti vuoi informare su come puoi dichiarare maggiori investimenti per aumentare il tuo profitto. La legge fiscale è molto complicata. Hai già ricevuto informazioni contraddittorie da parte di tuoi amici.</p> <p>Dopo aver deciso quali spese dichiarare, devi inviare i numeri corrispondenti all'ufficio dell'Agenzia delle Entrate. A tal scopo, devi inserire le informazioni nel sistema online dell'Agenzia delle Entrate. Per alcune spese non sei sicuro di aver inserito i numeri corretti. Adesso hai compilato tutto e vuoi inviare la tua dichiarazione dei redditi. Tuttavia, il sistema online risponde con un messaggio di errore e non puoi concludere la procedura.</p>
		Filing taxes (2)	
Positive condition	<p>You have to do your tax declaration. You have been postponing this task for weeks already. This week you have finally started to take care of this task. All relevant tax forms are completed. You were able to enter all relevant information and you have sent the forms to the tax office. The work is done, and you do not have worry about this issue until next year.</p>	<p>Seit Wochen schieben Sie die Erledigung dieser Steuererklärung vor sich her. Diese Woche haben Sie diese Aufgabe endlich in Angriff genommen. Heute sind Sie damit fertig geworden. Alle relevanten Formulare sind ausgefüllt. Sie konnten alle Informationen eintragen und haben das Online Formular nun zur Prüfung freigegeben. Die Arbeit ist vorerst erledigt, Sie müssen sich erst im nächsten Jahr wieder darum kümmern.</p>	<p>Devi fare la dichiarazione dei redditi. Posticipi questo lavoro da settimane. Questa settimana hai finalmente iniziato ad occupartene. Completati tutti i documenti richiesti. Sei stato in grado di inserire tutte le informazioni necessarie e hai mandato i documenti all'Agenzia delle Entrate. Il lavoro è fatto e non te ne dovrai più occupare fino al prossimo anno.</p>
Negative condition	<p>The tax authorities have already reminded you that your tax declaration is due. You have been postponing this task for weeks already. You do not have much time left, before the end of the deadline. You can try to get an extension of the deadline, but you know that you have to get this task done in the end.</p>	<p>Sie wurden vom Finanzamt bereits daran erinnert, dass Sie diese Steuererklärung einreichen müssen. Sie schieben diese Aufgabe schon seit Wochen vor sich her. Es bleibt Ihnen nicht mehr viel Zeit, bevor die Einreichfrist abläuft. Sie können zwar versuchen, beim Finanzamt eine Fristverlängerung zu beantragen, wissen aber, dass Sie die Steuererklärung letztendlich machen müssen.</p>	<p>Le autorità fiscali ti hanno già ricordato che devi fare la dichiarazione dei redditi. Posticipi questo lavoro ormai da settimane. Non ti rimane molto tempo, prima della scadenza. Puoi provare a chiedere una proroga della scadenza, ma sai che alla fine dovrai fare questo lavoro.</p>
		Contact with the tax authorities (3)	
Positive condition	<p>You had a question regarding your tax declaration and you contacted the tax office. You have called the information center of the responsible tax office and were advised by a helpful employee. He could answer your question and explained which points you have to consider when filling out your next tax declaration.</p>	<p>Sie haben sich mit einer Frage zu Ihrer Steuererklärung direkt an das Finanzamt gewandt. Sie haben bei dem Infocenter Ihres Wohnsitzfinanzamtes angerufen und wurden von einem hilfsbereiten Mitarbeiter beraten. Er konnte Ihre Frage beantworten und hat Ihnen erklärt, was Sie bei der Angabe Ihrer Daten in der nächsten Steuererklärung beachten müssen.</p>	<p>Avevi una domanda riguardo alla tua dichiarazione dei redditi e così hai contattato l'Agenzia delle Entrate. Hai telefonato al centro informazioni dell'ufficio competente e hai ricevuto assistenza da parte di un dipendente che ti ha saputo aiutare. Il dipendente è stato in grado di rispondere alla tua domanda e ti ha spiegato quali punti dovrai tenere in considerazione quando compilerai la tua prossima dichiarazione dei redditi.</p>

(continued on next page)

Table A1 (continued)

	English	German	Italian
Negative condition	You had a question regarding your tax declaration and you contacted the tax office. You have called the information center of the responsible tax office. You got the impression that the employee does not have time for you. He repeatedly told you that he cannot give you a binding answer to your question and that you should look for information on the homepage. However, you have already tried to find the relevant information on the homepage without success.	Sie haben sich mit einer Frage zur Ihrer Steuererklärung direkt an das Finanzamt gewandt. Sie haben bei dem Infocenter Ihres Wohnsitzfinanzamtes angerufen. Sie hatten den Eindruck, dass der Mitarbeiter des Finanzamts keine Zeit für das Gespräch mit Ihnen hatte. Er Sie wiederholt darauf hingewiesen, dass er Ihnen keine verbindliche Antwort auf Ihre Frage geben kann und hat Sie auf die Homepage des Finanzamtes verwiesen, auf der Sie angeblich die Antwort auf Ihre Frage finden würden. Sie haben jedoch zuvor schon erfolglos auf der Homepage nach einer nützlichen Information gesucht.	Avevi una domanda riguardo alla tua dichiarazione dei redditi e così hai contattato l'Agenzia delle Entrate. Hai telefonato al centro informazioni dell'ufficio competente. Hai avuto l'impressione che il dipendente non avesse del tempo da dedicarti. Ti ha ripetutamente detto che non ti avrebbe potuto fornire una risposta e che avresti dovuto cercare informazioni sul sito internet. Tuttavia, tu avevi già provato a cercare l'informazione richiesta sul sito internet senza alcun successo.
Positive condition	You have made your tax declaration for the last year already a while ago and get now the feedback from the tax authorities. The tax assessment informs you that your quarterly tax prepayments were classified too high and that you have accumulated a tax credit on your account. The corresponding amount will be automatically transferred to your bank account.	Sie haben Ihre Einkommenssteuererklärung für das vergangene Jahr bereits vor einiger Zeit abgegeben und erhalten nun den Steuerbescheid. In dem Bescheid werden Sie darüber informiert, dass Ihre vierteljährlichen Steuervorauszahlungen zu hoch eingestuft waren und sich somit Guthaben auf Ihrem Steuerkonto angesammelt hat. Der entsprechende Betrag wird automatisch auf Ihr Konto überwiesen.	Hai da poco tempo effettuato la dichiarazione dei redditi per lo scorso anno e hai ricevuto un riscontro da parte dell'autorità fiscale. In base all'accertamento fiscale, vieni informato del fatto che hai accumulato un credito di imposta sul tuo conto. Tale importo verrà trasferito automaticamente sul tuo conto corrente.
Negative condition	You have made your tax declaration for the last year already a while ago and get now the feedback from the tax authorities. The tax assessment informs you that your quarterly tax prepayments were classified too low. Therefore, you have to pay additional taxes and you are asked to transfer the corresponding amount within 14 days.	Sie haben Ihre Einkommenssteuererklärung für das vergangene Jahr bereits vor einiger Zeit abgegeben und erhalten nun den Steuerbescheid. In dem Bescheid werden Sie darüber informiert, dass Ihre vierteljährlichen Steuervorauszahlungen zu niedrig eingestuft waren. Sie müssen folglich Steuern nachzahlen und werden aufgefordert die entsprechende Summe innerhalb von 14 Tagen an das Finanzamt zu überweisen.	Hai da poco tempo effettuato la dichiarazione dei redditi per lo scorso anno e hai ricevuto un riscontro da parte dell'autorità fiscale. In base all'accertamento fiscale, vieni informato del fatto che devi pagare delle ulteriori tasse e ti viene chiesto di trasmettere la somma corrispettiva entro 14 giorni.
		Audit announcement (5)	
Positive condition	You get a call from the tax authorities announcing a tax audit. The employee asks you to make a suggestion for an appointment within the next week. During this appointment you will have to reveal all relevant documents. You are asked to prepare all documents and make them electronically available. Furthermore, the employee of the tax authorities announces that he will also take a closer look at your office. You agree on an appointment with the auditor for the upcoming week. You do not need much preparation time, because you are already well prepared for the audit. You have all relevant documents already digitally organized. You have made your last tax declaration conscientiously and you have only declared expenditures that were related to your profession.	Das Finanzamt ruft bei Ihnen an, um eine Steuerprüfung anzukündigen. Der Mitarbeiter bittet Sie um einen Terminvorschlag innerhalb der nächsten Woche, bei dem Sie alle steuerlich relevanten Unterlagen offen zu legen haben. Sie werden gebeten, alle Unterlagen vorzubereiten und elektronisch bereitzustellen. Außerdem kündigt der Mitarbeiter des Finanzamts an, sich auch Ihr Büro genau ansehen zu wollen. Sie vereinbaren einen Termin mit dem Steuerprüfer für die kommende Woche. Sie brauchen wenig Vorlaufzeit, da Sie bereits gut vorbereitet sind. Alle relevanten Unterlagen haben Sie bereits geordnet digital abgelegt. Sie haben Ihre letzte Steuererklärung gewissenhaft gemacht und nur Ausgaben steuerlich geltend gemacht, die ausschließlich beruflich bedingt waren.	Ricevi una telefonata da parte dell'Agenzia delle Entrate, attraverso la quale vieni informato di un accertamento fiscale. L'impiegato ti chiede di proporre una data per un incontro nella prossima settimana. Durante questo incontro dovrai mostrare tutti i documenti rilevanti. Ti viene chiesto di preparare tutti i documenti e renderli disponibili in formato digitale. Inoltre, l'impiegato dell'Agenzia delle Entrate ti annuncia che esaminerà attentamente il tuo ufficio. Dai la tua disponibilità per un incontro con un funzionario del Fisco nella prossima settimana. Non ti serve tanto tempo per prepararti all'accertamento perché hai già tutto pronto. I tuoi documenti sono già digitalizzati. Hai fatto la tua ultima dichiarazione dei redditi coscientiosamente e hai dichiarato solo spese legate alla tua professione.
Negative condition	You get a call from the tax authorities announcing a tax audit. The employee asks you to make a suggestion for an appointment within the next week. During this appointment you will have to reveal all relevant documents. You are asked to prepare all documents and make them electronically available. Furthermore, the employee of the tax authorities announces that he will also take a closer look at your office. You agree on an appointment with the auditor for the upcoming week. Before this appointment you have to collect all relevant documents and sort them. You made your last tax declaration in a haste. For some of the expenditures you were not sure, if were allowed to deduct them to the full amount from your taxes. You have already heard from negative experiences with tax auditors from friends and you do not know what exactly awaits you.	Das Finanzamt ruft bei Ihnen an, um eine Steuerprüfung anzukündigen. Der Mitarbeiter bittet Sie um einen Terminvorschlag innerhalb der nächsten Woche, bei dem Sie alle steuerlich relevanten Unterlagen offen zu legen haben. Sie werden gebeten, alle Unterlagen vorzubereiten und elektronisch bereitzustellen. Außerdem kündigt der Mitarbeiter des Finanzamts an, sich auch Ihr Büro genau ansehen zu wollen. Sie vereinbaren einen Termin mit dem Steuerprüfer für die kommende Woche. Bis zu diesem Termin müssen Sie sämtliche Unterlagen zusammensammeln und ordnen. Ihre letzte Steuererklärung haben Sie in Eile erledigt. Bei einigen Ausgaben waren Sie sich nicht sicher, ob Sie diese wirklich in voller Höhe steuerlich geltend machen dürfen. Sie haben bereits von negativen Erfahrungen mit einer Steuerprüfung von Bekannten gehört und wissen nicht, was jetzt auf Sie zukommen wird.	Ricevi una telefonata da parte dell'Agenzia delle Entrate, attraverso la quale vieni informato di un controllo fiscale. L'impiegato ti chiede di proporre una data per un incontro nella prossima settimana. Durante questo incontro dovrai mostrare tutti i documenti rilevanti. Ti viene chiesto di preparare tutti i documenti e renderli disponibili in formato digitale. Inoltre, l'impiegato dell'Agenzia delle Entrate ti annuncia che esaminerà attentamente il tuo ufficio. Dai la tua disponibilità per un incontro con un funzionario del Fisco nella prossima settimana. Prima di questo incontro devi raccogliere tutti i documenti rilevanti e ordinarli. Hai fatto la tua ultima dichiarazione di fretta. Riguardo ad alcune spese, non sei sicuro se ti era concesso detrarre. Da parte di tuoi amici hai già sentito parlare di esperienze negative con i funzionari del Fisco e non sai esattamente cosa ti aspetta.
		Audit (6)	
Positive condition	It is time for a tax audit. The responsible tax auditor, with whom you have already talked on the phone in the previous week, arrives punctual in your office. He apologizes for the inconveniences, caused by the tax audit. He explains in detail, which documents he needs for the review. After the auditor has checked all details, he goes through	Eine Steuerprüfung steht an. Der zuständige Beamte, mit dem Sie vorige Woche bereits telefoniert hatten kommt pünktlich zu dem vereinbarten Termin in Ihr Büro. Er entschuldigt sich für die Unannehmlichkeiten, die sich für Sie durch die Prüfung ergeben. Er erklärt Ihnen genau, welche Unterlagen er zur Durchsicht benötigt. Nachdem der Steuerprüfer alle Angaben geprüft	È giunto il momento di un'ispezione fiscale. L'agente della Finanza responsabile, col quale hai già parlato al telefono la scorsa settimana, arriva con puntualità nel tuo ufficio. Si scusa per il disturbo causato da questa ispezione fiscale. Ti spiega nel dettaglio di quali documenti ha bisogno per la revisione. Dopo aver esaminato tutti i dettagli,

(continued on next page)

Table A1 (continued)

	English	German	Italian
	all the points in the concluding report. He explains which mistakes you have made in your last tax declaration. However, he assures you that these were only formal errors and that you do not have to fear an extra tax payment. He also gives you recommendations what you should declare differently in your next tax declaration and why. In the end he thanks you for your cooperation.	hat, geht er mit Ihnen alle Punkte im Abschlussbericht durch. Er erklärt Ihnen welche Fehler Sie in Ihrer Steuererklärung gemacht haben. Er versichert Ihnen aber, dass es sich dabei nur um Formfehler handelt und Sie keine Steuernachzahlung zu befürchten brauchen. Er gibt Ihnen Tipps, welche Ausgaben Sie bei Ihrer nächsten Steuererklärung anders deklarieren sollten und warum. Am Ende bedankt sich der Steuerprüfer bei Ihnen für die gute Zusammenarbeit.	lispettore passa in rassegna tutti i punti nel verbale finale. Ti spiega quali errori hai fatto nella tua ultima dichiarazione dei redditi. Ad ogni modo, ti assicura che si tratta semplicemente di errori formali e che non devi temere un ulteriore pagamento di tasse. Ti fornisce anche raccomandazioni su cosa dovresti dichiarare in modo diverso nella tua prossima dichiarazione dei redditi e per quale motivo. Alla fine, ti ringrazia per la cooperazione.
Negative condition	It is time for a tax audit. The responsible tax auditor, with whom you have already talked on the phone in the previous week, arrives to inspect your office. The auditor is unfriendly and demands your documents digitally. The auditor goes through all of your documents and data inputs in detail and asks you many questions regarding the specific expenditures that you deducted from your taxes. You made your tax declaration conscientiously and declared only expenditures that were related to your profession. Nevertheless, the auditor wants to remove some of the expenditures from your tax declaration and accuses you to have made wrong statements. In final discussion the auditor informs you that you have to pay a larger amount of additional taxes.	Eine Steuerprüfung steht an. Der zuständige Beamte, mit dem Sie vorige Woche bereits telefoniert hatten kommt zum vereinbarten Termin, um Ihre Unterlagen zu überprüfen und sich Ihren Arbeitsplatz anzuschauen. Der Steuerprüfer ist unfreundlich und verlangt Ihre Unterlagen in digitaler Form. Der Steuerprüfer geht alle Ihre Unterlagen und Angaben im Detail durch und stellt Ihnen viele Fragen zu den einzelnen Ausgaben, die Sie steuerlich geltend gemacht haben. Sie haben Ihre Steuererklärung gewissenhaft gemacht und haben nur Ausgaben deklariert, die beruflich bedingt waren. Trotzdem möchte Ihnen der Prüfer einige Posten aus Ihrer Steuererklärung streichen und wirft Ihnen vor unrechtmäßige Angaben gemacht zu haben. Am Ende der Prüfung erfahren Sie in der Schlussbesprechung, dass Sie eine größere Summe Steuern nachzahlen sollen.	È giunto il momento di un accertamento fiscale. Lagente dell'Agenzia delle entrate responsabile, col quale hai già parlato al telefono la scorsa settimana, arriva per ispezionare il tuo ufficio. Lispettore è scortese. Ti chiede i documenti in formato digitale. Lispettore esamina dettagliatamente tutti i tuoi documenti e dati e ti pone molte domande relative alle spese specifiche che hai detratto dalle tue tasse. Tu hai fatto la tua dichiarazione dei redditi coscientemente e hai dichiarato solo spese legate alla tua professione. Ciononostante, lispettore vuole eliminare alcune spese dalla tua dichiarazione dei redditi e ti accusa di aver fatto delle dichiarazioni sbagliate. Nella discussione finale, lispettore ti informa che devi pagare una somma maggiore ti tasse aggiuntive.
Positive condition	You have deducted private travels as business travels in a past tax declaration in order to reduce your taxable income. Recently you had to undergo a tax audit, during which these private travels did not come up.	Sie haben in der Vergangenheit private Reisen schon als Geschäftsreisen in Ihrer Steuererklärung deklariert und so Ihr zu versteuerndes Einkommen reduziert. Sie hatten kürzlich eine Steuerprüfung, in der diese Reisen nicht zur Sprache gekommen sind.	Nell'ultima dichiarazione dei redditi, hai dichiarato viaggi privati come se fossero viaggi di lavoro, in modo da ridurre il tuo reddito imponibile. Di recente hai ricevuto un'ispezione fiscale nella quale questi viaggi privati non sono stati scoperti.
Negative condition	You are subject to a tax audit. The tax auditor checks your documents and asks you some uncomfortable questions. She finds out that you declared private travels as business travels and tried to deduct them from your taxes.	Sie werden einer Steuerprüfung unterzogen. Die Steuerprüferin vom Finanzamt geht Ihre Unterlagen durch und stellt Ihnen einige für Sie unangenehme Fragen. Dabei kommt heraus, dass Sie eine Privatreise als Geschäftsreise deklariert haben und versucht haben, diese von der Steuer abzusetzen.	Vieni sottoposto a un accertamento fiscale. Lispettrice controlla i tuoi documenti e ti pone alcune domande scomode. Scopre che hai dichiarato viaggi privati come se fossero vaggi di lavoro e hai provato a detrarli dalle tue tasse.

Table A2
Mixed-effects regression with emotion indices as dependent variable

	Positive emotions		Self-blame		Anger		Fear	
	B	SE	B	SE	B	SE	B	SE
Intercept	2.01***	.11	2.55***	.24	5.28***	.19	3.81***	.16
Valence	2.04***	.33	-0.60***	.14	-2.81***	.37	-1.42***	.19
Country	-0.22	.12	-0.07	.12	0.22	.13	0.26	.14
Valence * Country	0.38*	.18	-0.25	.18	-0.23	.19	-0.40	.20
Random effects	σ^2		σ^2		σ^2		σ^2	
Intercept (Individual)	0.85		0.83		0.95		1.17	
Intercept (Scenario)	0.04		0.35		0.19		0.10	
Valence	0.65***		0.04***		0.85***		0.11***	
Residual	0.85		0.97		1.05		1.05	
Model fit AIC	10600		11002		11310.5		11388	

Note. N = 506, with 7 repeated measures (3522). Country was coded with 0 = Italy and 1 = Austria. Valence was coded with 0 = negative and 1 = positive. ***p < 0.001.

Table A3
Indirect effects of emotion indices by country (AT= Austria, IT= Italy) and by Italian subsamples

	Country						Geographical area of residency (IT)									
	AT (N=248)			IT (N=258)			North (IT) N= 135			Centre (IT) N=52			South (IT) N=70			
	B	95% CI		B	95% CI		B	95% CI		B	95% CI		B	95% CI		
		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL	
Scenario 3																
Positive index (M1)	0.02	-0.38	0.44	0.12	-0.28	0.76	0.46	-0.06	1.11	-0.10	-1.15	0.82	-0.39	-1.17	0.26	
Self-blame index (M2)	0.11	-0.02	0.26	0.13*	0.04	0.26	0.17*	0.00	0.40	0.02	-0.19	0.23	0.10	-0.10	0.32	
Anger index (M3)	0.66	-0.18	1.42	-0.15	-0.73	0.49	0.10	-0.88	1.30	-0.52	-1.62	1.07	-0.40	-1.39	0.57	
Fear index (M4)	0.03	-0.35	0.39	0.12	-0.15	0.37	-0.21	-0.71	0.19	0.26	-0.09	0.65	0.66*	0.12	1.22	
Scenario 6																
Positive index (M1)	-0.19	-0.62	0.24	-0.12	-0.49	0.23	0.09	-0.44	0.57	-0.29	-1.17	0.83	-0.29	-0.50	0.18	
Self-blame index (M2)	0.09	-0.09	0.27	-0.00	-0.06	0.05	-0.02	-0.13	0.08	-0.00	-0.18	0.12	-0.01	-0.17	0.12	
Anger index (M3)	0.72	-0.03	1.43	-0.16	-0.68	0.38	-0.42	-1.21	0.39	-0.06	-1.37	1.10	0.18	-0.51	0.88	
Fear index (M4)	-0.01	-0.40	0.36	0.17	-0.07	0.40	0.19	-0.13	0.51	-0.12	-0.62	0.29	0.27	-0.14	0.72	
Scenario 7																
Positive index (M1)	-0.45*	-0.71	-0.20	-0.33*	-0.51	-0.17	-0.37*	-0.68	-0.10	-0.37	-0.87	0.06	-0.15*	-0.34	-0.01	
Self-blame index (M2)	-0.28*	-0.49	-0.10	-0.11	-0.25	0.00	-0.17*	-0.40	-0.01	0.19	-0.17	0.68	-0.08	-0.29	0.05	
Anger index (M3)	0.42*	0.10	0.73	0.70*	0.37	1.03	0.99*	0.45	1.57	0.20	-0.66	0.90	0.51*	0.07	0.92	
Fear index (M4)	0.01	-0.23	0.25	0.10	-0.02	0.24	0.12	-0.11	0.38	0.13	-0.11	0.49	0.07	-0.10	0.31	

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