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Abstract

Measuring taxpayer emotions can lead to a better understanding of their emotional experiences during the process of taxpaying. This can in turn add explanatory power and extend theories and models about tax behavior. Nonetheless there is no single, universally used method for the measurement of emotions in the field of tax behavior. Moreover, different methods of emotion measurement lead to different results and are therefore not comparable. The lack of unity could be resolved by the development of a universally useable scale for the measurement of emotions in the field of tax behavior. The purpose of the present paper is to lay the basis by identifying the emotions that are experienced in the process of paying taxes. Also, this study explores the situations which spark different emotions and investigates their connections. The results of the study suggest that especially the emotions anger, frustration, insecurity, joy, nervousness, relief, stress, and surprise are relevant in the tax context. While the process of taxpaying itself is perceived as stressful, delegating work is a relief. Wage-earners are angry and frustrated about paying taxes. Self-employed are nervous about not filing their taxes correctly and being audited. Both groups experience joy if they receive a tax return from their tax authority and see that their taxes are used in a just way. These explorative results should be further validated and can be used for the design of a measurement for emotions in the tax context.

Keywords: taxes, emotions, correspondence analysis

Taxes and Emotions? An Explorative Approach.

If governments want to deliver the services that constituents rely upon they need to raise revenue. This inevitably requires levying taxes. A distinguishing feature of a tax is that it is a mandatory contribution which does not rely upon consent, or even perceptions of fairness. The unavoidable nature of taxation led the famous economist and politician Benjamin Franklin (as cited in Manser, 2007, p. 206) to conclude, “But in this world nothing can be said to be certain, except death and taxes.” Despite strict legislation and regulation, there will always be people who try to avoid paying their taxes. Yet, not only to those who break the law, taxation is a controversial and emotive topic. This paper identifies the emotions that are relevant in the process of taxpaying and explores how such emotions can be integrated into, and added to, current theories about tax behavior.

Tax Behavior Theories and the Influence of Emotions

The first theories of tax behavior tried to apply the economics of crime model to understand compliance behavior (Becker, 1968). According to this model, individuals are rational agents and approach tax compliance as decisions made under uncertainty (Allingham & Sandmo, 1972). The taxpayer’s decision therefore is whether to declare their full income and pay their whole tax duty, or whether to evade and risk sanction. Furthermore, the expected-utility theory (Bernoulli, 1738, 1954) describes that the utility of money is not linearly related to its present value so that the greater an individual’s wealth the less utility is attributed to further acquisition of wealth. In this way, risky decisions become easier with increasing wealth. What these models ignore however, is the impact of emotion in the decision-making process.

Leonard Savage (1954) sought to account for individual traits in the decision-making process. In his subjective expected utility theory, the probability of a certain outcome differs accordingly to the individual. In a decision made under risk, such as a decision about tax compliance, the payoff depends upon the expected utility versus the assigned level of risk. Since individuals assign different utilities and risk, payoffs vary for each individual. Yet despite incorporating individual preferences for risk and utility, other intrapersonal influences are ignored. However, empirical evidence demonstrates that such influences are important in the decision-making process; Neuroimaging studies, using positron emission tomography (PET) and functional magnetic resonance imaging (FMRI), show that not only rational considerations are present in the calculation of expected utilities but so are emotions (Knutson & Peterson, 2005). While the impact of emotions in the decision-making process is well established, it remains unclear which emotions are significant and how exactly they affect the decision-making process.

The criticisms of stochastic mathematical models of decision making are broad (Wendt, 1975) and in the field of tax behavior, the question arises: Why should people pay taxes? If individuals only maximize expected utility, they should evade taxes as soon as financial gain can be expected. The low audit probabilities (between p = .01 to p = .03) and the penalty amounts (between .5 to 2 times the evaded amount) lead in many countries to an expected return on tax evasion of more than 90% per currency unit. This positive return should therefore not deter rational calculators from tax evasion (Dhami & Al-Nowaihi, 2007). A possible explanation for the difference between observed tax evasion and the expected-utility theory was proposed by Kahneman and Tversky (1979) with the prospect theory. The prospect theory builds on the expected-utility theories but incorporates an assumption of loss aversion, whereby a loss weighs more heavily on the mind of an individual than a gain. The theory also assumes a subjective reference point for the value of an object which is determined heuristically. Objects are then utilized according to the reference point. The prospect theory is not perfect in explaining taxpayer behavior (Hens & Vlcek, 2011) but some of its assumptions, especially the assumption of reference points, help to further our understanding of taxpayer behavior (Dhami & Al-Nowaihi, 2007, 2010; Piolatto & Rablen, 2017). Emotions can expand the prospect theory. For example, the disposition effect describes the phenomenon that winning stocks are sold too soon and losing stocks are sold too late. Recent research has found that the prospect theory alone is insufficient to explain this effect (Barberis & Xiong, 2009; Hens & Vlcek, 2011). However, studies that included emotions found they were present in an individual's decision-making process and could help explain the effect (Muerman & Volkman, 2007; Summers & Duxbury, 2012). Despite the additional explanatory power from incorporating emotions into new and established theories alike, such as the prospect theory, little is known about the influence specific emotions have on the outcomes of economic decision making. Further research is needed in this regard (Elster, 1998; Summers & Duxbury, 2012).

Not only do economic theories try to explain economic decision-making but so do psychological and social theories. A classical, but highly influential theory, is Dawes´ (1980) theory of social dilemmas. A social dilemma occurs when an individual's rational decision would thwart an optimal outcome for the group. In the context of taxation, a social dilemma arises because tax evasion may be rational for an individual but it comes at the cost of leaving everyone worse off when the government cannot provide the necessary public goods. In this respect, the incentive for the individual is to “free ride” which, in aggregate, causes a suboptimal provision of public goods and a negative impact that is felt by everyone (Allison & Kerr, 1994; Alm & Bourdeaux, 2013; Dawes & Messick, 2000). In social environments - as in a social dilemma - emotions characterize our interactions and behavior. As a result, there is a direct relationship between an individual’s emotional state and their social preferences to cooperate and sanction others. For example, the average contributions to welfare from angry subjects in experiments are lower than the average contributions from their happy counterparts. Similarly, angry subjects apply harsher punishments than their happy counterparts (Drouvelis & Grosskopf, 2016). For their part, Hopfensitz and Reuben (2009) identified that opportunistic and selfish behaviors also trigger anger and greater punishment. While this could lead to anger in the punished individual and retaliatory behavior, it was suggested that pro-social emotions, such as guilt and shame, could be used as a control mechanism. In this respect, guilt is an effective tool in subduing retaliatory behavior while shame can act as a future deterrence.

Tax behavior also is a form of ethical decision making (Alm & Torgler, 2011; Thiel, Shane, & Griffith, 2011). Ethical dilemmas require cognitive processes of a higher order. Emotions can relate to cognitive appraisals to reach an adequate judgement. For example, the emotion of anger in particular has been shown to hamper the cognitive processes related to ethical decision-making (Thiel, Shane, & Griffith, 2011). Given the significance of emotions in decision-making, theories of economic behavior can gain from such insights. As far as understanding tax behavior however, further research with regard to the effects of specific emotions on decision-making is needed.

A rather prominent and contemporary framework to understand tax behavior is the Slippery Slope Framework (SSF; Kirchler, Hoelzl, & Wahl, 2008). The SSF presumes that tax compliance can be achieved in two ways. One way is through authority and enforcement by a highly powerful government with high audit rates, large fines and coercive laws; the other is through forging trust between the taxpayer and the tax office to encourage voluntarily compliance. This can be attained by a cooperative environment and the legitimacy on the part of the authorities. Tax compliance is said to reach a maximum if both conditions are met; if they are not, dishonesty and evasion increase. The SSF has been tested in many countries and its efficiency in explaining taxpayer behavior is high (Kogler et al., 2013). While trust itself is seen as an emotion by some researchers (Voci, 2006), it is otherwise linked to discrete emotions, such as confidence, assurance, safety, and hope (Mcknight & Chervany, 2001).

Equally coercion can trigger emotions as well, depending upon being in power or being subject to the execution of power (Kemper, 1978, 1987).

Some studies have already identified certain emotions that are relevant to understanding tax behavior. For example, the intention of making false declarations in a tax return generates emotions of anxiety, guilt and shame (Alm & Torgler, 2011; Dulleck et al., 2016; Erard & Feinstein, 1994). Guilt and shame especially help to curtail certain unfavorable tax behaviors: Guilt helps restore erroneous tax-behavior by encouraging self-correction (Dunn, Farrar, & Hausserman, 2016) while shame can help lower re-offending if it is used in a reintegrative rather than stigmatizing way (Braithwaite, 1989; Coricelli, Rusconi, & Villeval, 2014; Murphy, 2008). If the emotions guilt and shame can influence tax behavior, other emotions may as well. To understand the influence of such affects, the relevant emotions have to be identified and measured first.

Notwithstanding, little is known about the mechanisms of emotions in tax behavior. Indeed, there are no studies that identify the emotions that are involved in the tax process in its entirety. However, studies have found that the process of paying tax can lead to certain emotional experiences which can shape behavior. Murphy and Tyler (2008) for example found a relationship between procedural justice and tax compliance. Procedural justice can be described as a combination of the treatment received by a taxpayer during an encounter with the authorities and the favorability of the outcome (Murphy & Tyler, 2008). Taxpayers who reported being treated unfairly reported more anger. This anger mediated the association between perceived procedural justice and eventual tax evasion (Murphy & Tyler, 2008). The measurement of the emotions that are involved in the tax process can help understand the mechanisms of taxpayer behavior. That knowledge can lead to practical implications for policy makers and tax authorities when addressing taxpayer compliance.

Emotions and their Measurement

As follows taxation is an emotional matter that challenges in its complexity the taxpayers, tax legislators and researchers none the less. However, half a century ago decision research widely omitted the question of the influence of affective processes (Lerner, Li, Valdesolo, & Kassam, 2015). Yet, in recent years, the literature addressing emotions, affects and moods in decision making has grown immensely. Not only is this the case for behavioral studies, but also for neuroscientific studies (Lerner, Li, Valdesolo, & Kassam, 2015; Volz & Hertwig, 2016). Weber and Johnson (2009, p.64) use the term “emotions revolution”. Tax researchers cannot ignore this development. The effect of emotional experiences in decision processes should imply an inclusion of emotions in models of decision-making (Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003). Hence, it is even more important to provide a consistent method of measuring emotions specifically tailored for taxation questions.

The development of a method to measure emotions requires an understanding of the concept of emotions. Researchers do not agree on a common definition of emotions (Kleinginna & Kleinginna, 1981; Reisenzein, 2007). However, emotions can be distinguished from other affective states (e.g. attitudes, moods, feelings) by comparing their features. Scherer (2005) proposed to compare eight different design features to better understand what emotions are (i.e. event focus, intrinsic appraisal, transactional appraisal, synchronization, rapidity of change, behavioral impact, intensity, and duration). Emotions are very highly event focused and have a very high influence on behaviors. They can change very rapidly, are short in duration and have a high intensity. The appraisal of the eliciting event is more extrinsic than intrinsic. That means that an individual's current goals and needs influence the emotional reaction (Scherer, 2005).

Numerous scientists have tried to identify a set of emotions that can be understood as the basis of all emotional responses (Ortony & Turner, 1990). The four most eminent researchers in the field of basic emotions are Caroll Izard, Paul Ekman, Robert Lewenson and Jaak Panksepp (Tracy & Randles, 2011). The sets of basic emotions that they propose largely overlap (Ekman & Cordaro, 2011; Izard, 2011; Levenson, 2011; Panksepp & Watt, 2011). Basic emotions have discrete neural signatures that are inter-individually consistent (Saarimäki et al., 2015). However, there is no unity about the origins and effects of emotions. Besides the basic emotion model, there are models that see emotions as a psychological construct, as a social construct, or as a constituent of a cognitive appraisal (Gross & Barrett, 2011). The debate about the theory of emotions even challenges the view that emotions are discrete. There are also researchers and models that see emotions as dimensional (Rubin & Talarico, 2009). Even neuroimaging studies do not result in clear cut results that support either side of the argument (Hamann, 2012). This lack of unity in theoretical models is reflected in the methods of measurement. Some methods of measurement tend to be for specific emotions, like the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). Others assess the valence of the experienced affect; the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) is an example. These theoretical differences make a comparison of the respective results complicated.

Scientists concerned with emotion research not only draw on different theories about emotions but also on different methods of measurement of emotions. Measures of emotions include self-reports, responses of the autonomous nervous system, startle responses, brain states and the measurement of different bodily behaviors. Each of these measures can again be obtained with different methods (Mauss & Robinson, 2009). Some methods are better suited to particular research questions than others. Dunn et al. (2016) provide an example of this problem in their study about guilt and voluntary tax disclosures. They used a different theory about what emotion guilt is and how it works. Consequently, they used a different method and found that emotional guilt had an effect on voluntary tax disclosures whereas previous studies found no such effect. While some measurement methods apply better to certain questions, others don´t work at all. Personal experience shows that methods such as the picture system Self-Assessment Mannequin (Bradley & Lang, 1994) can even cause reactance by the participants in tax behavior research if the method does not fit to the question being asked. The lack of theoretical unity, and problems with applicability, has led some researchers to develop their own methods of measurement (Richins, 1997). In the field of tax behavior, researchers usually rely upon self-reports. Even then, there can still be differences. For example, some use a free-response format while others use a fixed-response format; each has its own advantages and disadvantages (Scherer, 2005). Sometimes, physiological measurements, such as skin conductance responses (Coricelli, Joffily, Montmarquette, & Villeval, 2007, 2010) or heart rate variability (Dulleck et al., 2016), are used. In the field of tax behavior, researchers also use scales and methods they developed themselves based upon their own considerations rather than any theory or empiricism. This results in the measurement of subjectively understood definitions of emotions and their effects rather than universally applicable results.

The Present Study

Understanding emotions can help to explain certain behaviors. Even in tax behavior, emotions play a role in decision-making. Understanding their influence can add explanatory power to existing theories about economic and taxpayer behavior. Notwithstanding, their influence in decisions and behaviors is still not sufficiently understood. Consequently, the measurement of emotions is a necessity to further understanding the experiences and behaviors of taxpayers. However, results of emotion measurement can depend on the properties of the method (Kassam & Mendes, 2013). Therefore, the lack of unity in how emotions are measured in the field of tax behavior impairs the generalizability of scientific findings about their influence on the taxpayer (Weidman, Steckler, & Tracy, 2017). The presence of discordant emotion theories, and ambiguous scientific findings about the influences of different emotions in the decision-making process, leads to a fragile theoretical basis for the development of methods of measurement. The aim of this paper is to set an empirical basis for the development of a universally useable scale for emotion measurement in the field of tax behavior. This in turn could serve as the basis for further research into their influence on tax behavior. Before investigating the influence of emotions on the taxpayer, researchers must know when emotions occur and which emotions are relevant in the process of tax paying. This leads to the following research questions for the present study: *In the process of tax-paying, which situations cause emotional experiences, and which emotions arise during certain tax situations?*

Methods

I conducted an online survey to explore the research questions of this paper. The survey was designed to present participants with various tax-vignettes. A tax vignette is a short (one to three sentences) description of a typical taxation situation. Such situations include the filing of tax declarations, the payment of taxes, encounters with the tax office, the use of taxpayer money and the avoidance or evasion of taxes. Participants were asked to detail their emotional experience in these situations in an open-format question and choose the most relevant emotions from a list. Both the construction of the list of emotions and the vignettes required preliminary testing.

Focus-Group Interviews and Construction of the Emotion List

The construction of the emotion list for the main survey involved two steps. First, I used the results of focus group-interviews that were conducted prior to my research. Their goal was to identify relevant emotions that people experience in real life taxpaying situations. Second, I studied emotion theories to supplement the results of the focus-group interviews.

The focus-group interviews were conducted at the University of Vienna. Seven groups of between three and four people were interviewed. They consisted of a heterogeneous sample of either self-employed people, employed people, or tax auditors. During the two-hour interviews, questions about the process of tax paying and tax auditing were asked and recorded, including positive and negative experiences. After recording, categorizing, and analyzing the data, certain emotions were identified as significant in the tax paying context.

In addition to the results from the interviews, the literature regarding the influence of specific emotions on tax behavior was reviewed. Barrett (1998) suggested that neither the dimensional nor the discrete approach towards emotion theories describe the emotional experiences of different individuals accurately. However, the list of emotions that was gained through the focus-group interviews fit the proposed emotions of the most prominent basic emotion theories (Tracy & Randles, 2011). I therefore included the emotions detailed in prominent emotion theories as categories for the findings of the focus-group interviews. I excluded expressions that did not fit into a category from the final list of emotions. These expressions were *reluctance*, *wait-and-see*, *thankfulness*, and *incomprehension*. The final list included not only the emotions that were left from the focus-group interviews after the exclusion of the above expressions but also further emotions that were drawn from the theoretically proposed lists of basic emotions. Consequently, the final list of emotions covered emotions that were both empirically and theoretically founded. The combination of the qualitative and quantitative data resulted in 22 emotions to use in the main survey (see Table A1 in Appendix A for the list of emotions and their origin).

Pre-Test and Tax Vignette Selection

I used the preexisting results of the focus-group interviews and correspondence with colleagues, researchers, and experts in the field at the University of Vienna, to collect different situations that can be experienced before, during, or after the process of tax-paying. The goal was to describe every aspect of this process with at least one vignette and to gather information about the different experiences of emotions in different areas of taxpaying. I conducted a pretest in order to select vignettes that are relevant and realistic in the process of taxpaying. Forty-two tax vignettes were selected for investigation (see Table A2 in Appendix A for the catalogue of vignettes). I distributed the survey online via Facebook and Xing between September and October 2016 and collected a convenience sample of 73 participants.

In Austria, where the data was acquired, wage-earners and self-employed individuals declare their taxes differently. While the taxes of wage-earners are deducted from their gross income and transferred to the tax office without any possible influence of the income-receivers themselves, self-employed people must file their own taxes and therefore have the possibility of misconduct (Spicer & Lundstedt, 1976, as cited in Kirchler, Muehlbacher, Kastlunger, & Wahl, 2007). Studies suggest that tax compliance is high because of the impossibility of tax evasion of income that is subject to third-party reporting (Kleven, Knudsen, Kreiner, Pedersen, & Saez, 2011). Thus, I excluded 10 participants because they were not subject to tax and split the data set of 63 participants into two groups for the data analysis; the group of wage-earners (n = 39) and self-employed (n = 24). The wage-earners consisted of 20 women and 19 men with a mean age of 34.46 (SD = 11.16, age range: 23-60), the self-employed of 13 women and 10 men (one individual did not answer this question) with a mean age of 40.13 (SD = 12.10, age range: 26-68).

The participants of the pre-test were asked if each respective vignette is realistic and if they have experienced such a situation. The answer format was two five-point Likert scales (1 = *no agreement* and 5 = *strong agreement*). I computed the means and standard deviations of each vignette for each group (see Table A3 in Appendix A) and set a cut-off at a mean of 3.5 for each question. I chose 3.5 as a cut-off value because if a vignette surpassed this value it means that the majority of participants found it realistic respectively applicable. For the final survey, I included vignettes that were realistic and applicable for at least one of the two groups. This resulted in three groups of vignettes: Vignettes that fulfilled the criteria only for wage-earners (nine), only for self-employed (seven), and for both groups the same (ten). To further reduce this number, vignettes were dismissed or combined if multiple vignettes described the same situation. This resulted in a final number of a total 24 vignettes (see Table A4 in Appendix A for the final catalogue of vignettes and information about dismissal or combination of vignettes).

Main Survey

The survey was only available in digital form. I used the survey-platform *SoSci Survey* for data collection. The survey material can be found in Appendix C.

Participants. I obtained a sample consisting of 345 participants. However, 19 participants had to be excluded: Fifteen participants because they were not subject to tax and four because of reactant behavior (two participants always selected almost every emotion from the list and two participants always selected only one emotion and stated they did not understand the questions from the survey). This resulted in a total sample of 326 individuals with 201 self-employed participants and 125 wage-earners. Due to the method of collection, almost all participants (92%) were subject to tax in Austria. The sample was mostly female (74%) and had a mean age of 47.03 (SD = 14.09, age range: 20-78 years). Seventy-nine percent of the participants held an academic degree which indicates a highly educated sample (see Table A5 in Appendix A for descriptive statistics).

Materials. The survey consisted of tax vignettes, open-format questions, the emotion list and sociodemographic questions (age, gender, country of subject to tax, education, profession). All materials and their positioning in the survey can be found in Appendix C.

***Tax vignettes and open-format question*.** I used the 24 tax vignettes that I identified as realistic and applicable in the pre-test. However, only nine vignettes were realistic and applicable for wage-earners and self-employed alike. Eight vignettes were realistic and applicable only for wage-earners and seven vignettes only for self-employed. I therefore used two separate sets of vignettes for these two groups. Wage-earners received a set of 17 vignettes containing nine vignettes that were realistic and applicable for both wage-earners and self-employed and eight vignettes that were realistic and applicable only for wage-earners. Self-employed received a set of 16 vignettes containing nine vignettes that were realistic and applicable for both wage-earners and self-employed and seven vignettes that were realistic and applicable only for self-employed (see Table A4 in Appendix A for the sets of vignettes). In the survey, every vignette was followed by the question “What emotions do you experience in that situation?” with a box to enter an open-format answer.

Emotion list. I used the emotion list that I designed based on the information from the focus-group interviews and the basic emotion theories. The list of emotions can be found in Table A1 in Appendix A. It consisted of eight positive emotions and 14 negative emotions. The list of emotions was presented either with positive emotions at the beginning and negative emotions at the end or vice versa. This way participants should easily and quickly find the emotion they are thinking of, since they would become accustomed to the format after a few rounds. Additionally, this format made it possible to control for order effects. If the positive emotions appeared before the negative emotions, the order of emotions in the order was from top to bottom: relief, security, joy, wonder, pride, interest, surprise, contentment, resignation, despair, shock, nervousness, stress, frustration, anger, insecurity, fear, guilt, shame, contempt, sadness, and disgust. If the list of emotions began with negative emotions the order was from top to bottom: resignation, despair, shock, nervousness, stress, frustration, anger, insecurity, fear, guilt, shame, contempt, sadness, disgust, relief, security, joy, wonder, pride, interest, surprise and contentment. The emotions were depicted as short sentences to distinguish emotions that could otherwise be seen as similar by the participants, for example anger and contempt (Weidman, Steckler, & Tracy, 2017). Each sentence consisted of the common beginning “In this situation…” and the emotion as possible ending to this sentence. The emotion anger for example appeared in the questionnaire as “…I feel angry.” The complete list in its original version can be found in Appendix C.

Procedure. I used a two by two between-subjects factorial design in the survey. The factors were membership to a certain income group, to which participants were assigned by a filter-question, and order of the emotions in the emotion list, to which participants were randomly assigned.

Each questionnaire started with a filter question to assign the participants to their according income group. The group of wage-earners consisted of individuals who have, so far, only worked as wage-earners. The group of self-employed consisted of individuals who have already been self-employed at least once, even though they might not be at the moment. Individuals who have never been subject to tax were excluded from the study at the beginning through a filter-question. The filter question and survey structure can be found in Appendix C.

The participants always received one random vignette from their specific set of tax vignettes according to their income group and were asked to think of the respective situation and to empathize with it. If they had not experienced the situation themselves, they were asked to imagine being in that situation. The participants were then asked to answer the question what emotions they experienced during this situation in a free format. After each scenario, on a new page in the survey, they were given a list of emotions from which they should choose the most fitting to the given situation. Multiple selections were possible. This process was repeated until every vignette of the respective set was assessed. The survey was closed after a page with the sociodemographic questions.

Results

Data collection took place during February and March 2017. A convenience sample was collected[1].

I conducted multiple correspondence analyses to explore the data. This statistical technique is especially suitable for research concerning exploration of associations between variables (Doey & Kurta, 2011). The correspondence analysis (CA) graphically displays the associations of rows and columns of two-way or multi-way tables. This graphical map is called a biplot (Storti, 2010, as cited in Doey & Curta, 2011). This statistical technique does not require an a-priori specific hypothesis about the data. However, the CA is used as an exploratory method because it does provide information about significance of the data (StatSoft, Inc., 2010, as cited in Doey & Curta, 2011). The associations of interest were those between the different vignettes and emotions. I used an iterative process comprising the exclusion of variables to answer the given research questions. Figure 1 depicts this process and outlines the structure of the paragraphs following the categorization procedure. The excluded variables hampered the identification of the discrete emotions that are elicited in specific situations. Therefore, each further CA is a refined, more detailed description of the found associations, based on the findings of the previous analyses.

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[1] The convenience sample consists of two main sources of recruitment:

- Online recruitment on social media.
- Two e-mail lists that were conveniently obtainable for the author:
    - An e-mail list of a local church in western Austria.
    - A list of psychotherapists published by the Austrian Health Ministry (http://psychotherapie.ehealth.gv.at/).

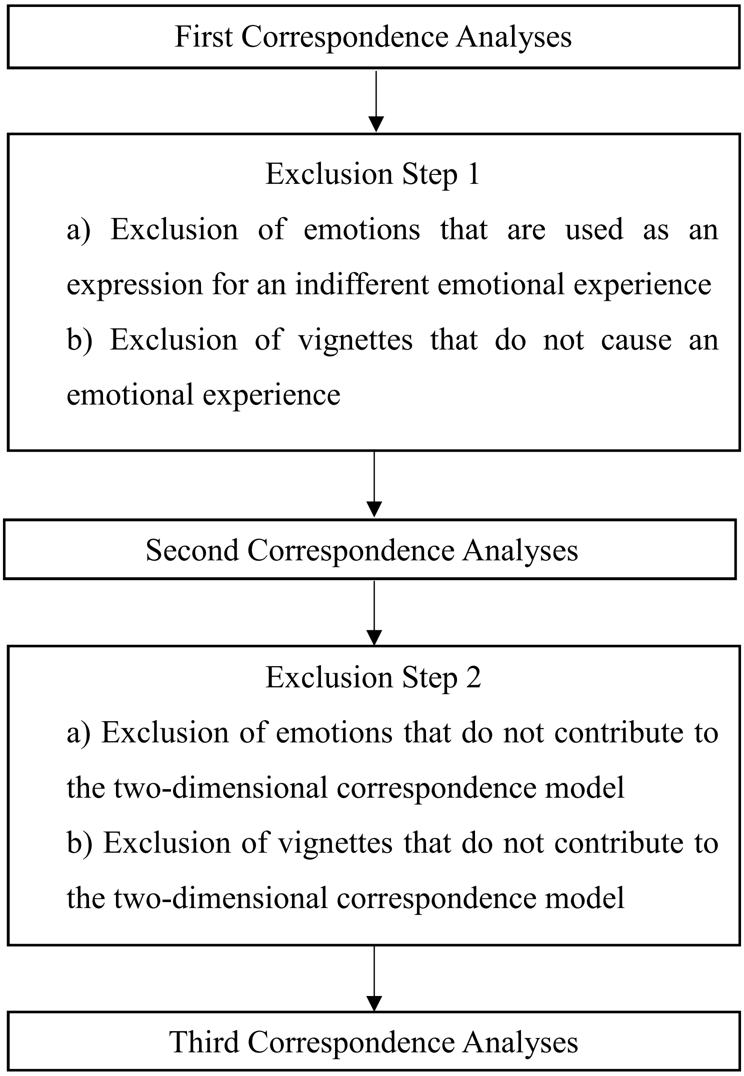

Figure 1. Flow chart of the process of data analysis.

Categorization Procedure

The open-format responses of the main survey´s data collection were numerous and diverse. They also differed in their length. Some participants only answered with short keywords, others with complete sentences. I implemented a categorization process to enhance the comparability and interpretability of the data: First, the participants' responses were sorted and simplified (i.e. grammar and spelling errors were corrected and keywords were extracted from sentences, if feasible and sensible). In the next step, words that were already present in the preconstructed emotion list were categorized according to these emotions. Uninterpretable words, sentences and symbols were omitted from the analysis. Two independent raters received a final catalogue of 851 words and sentences to categorize. In a first step, they received the emotion list of the 22 emotions from the main survey as categories, with the option to add categories if needed. Afterwards, the raters met for the first time, to discuss how many and which categories should be included in the final list, to sufficiently categorize all items. The raters then went through the catalogue again and assorted the keywords and sentences to the defined set of categories. The inter-rater reliability after this step was moderate (κ=.43). In the final meeting, the raters clarified differences in their attributions. They assigned 98.1% of the keywords and sentences to 26 categories (see Table A6 in Appendix A for the final list of categories). One hundred and two words and sentences had to be excluded because of no fit.

First Correspondence Analyses

I compared the two groups with a different order of the emotions in the fixed-format emotion list to control for order effects. The group that was presented with the emotion list where positive emotions were ranked before negative emotions chose positive emotions as an answer in 56% of the cases. The group that received the list of emotions with negative emotions at the beginning chose positive emotions as an answer in 59% of the cases. Table A7 in Appendix A depicts the frequencies of selections of each emotion in each group. These results indicate that the order of positive and negative emotions did not affect the emotional response to the vignettes. I therefor applied the CA separately for wage-earners and self-employed because they did not receive the same set of vignettes but not separately for the two groups with a different order of emotions in the fixed-format emotion list.

I entered the emotions available in the fixed-format emotion list (see Table A1 in Appendix A for the list of emotions) and the relevant vignettes of each group (see Table A4 in Appendix A for the catalogue of vignettes) into a contingency table. Tables A8 and A9 in Appendix A depict the contingency tables for self-employed and wage-earners. These contingency tables were entered into a CA. The biplots of the first analysis can be found in Figure B1 and Figure B2 in Appendix B. I used all emotions and vignettes for this first approach because the standardized residuals of the frequency tables indicated that the frequency of denominations of each emotion was higher than the expected frequency in at least one cell (see Tables A10 and A11 in Appendix A). However, the vignettes and emotions in the biplots scattered across the two dimensions without clear associations that would lead to identify certain clusters of vignettes and emotions. Therefore, the statistical data associated with this first analyses did neither draw a clear picture about dimensionalities, nor about relationships. Both dimensions together only accounted for 62% of the variance in the self-employed sample and 56% in the wage-earner sample. The next step of analysis was to identify the emotions that participants chose as a supplement for the missing "neutral" option and the vignettes that do not cause an emotional experience.

Exclusion Step 1a) - "Unemotional" Emotions

The term unemotional emotions refers to the emotions that were used to express a feeling of indifference or emotional neutrality towards certain situations. The fixed-format emotion list did not feature a neutral option. I used a list without a neutral option to identify the emotion that was closest related to a certain situation, even if there might have been no explicit feeling of emotionality. Additionally, it was intended to make the participants think about the situation thoroughly and prevent rushing through the survey by always checking the neutral option. If there was no emotion relevant for a certain situation, participants always had the choice to state so in the open format question.

After the categorization of the open-format answers, the category *neutral* (including every statement about not feeling any emotion) was the one with the most denominations. After describing such an indifferent emotional experience towards a vignette in the open-format question the emotions *contentment*, *interest* and *security* were chosen more frequently than the other options from the emotion list (Table A12 in Appendix A shows the frequencies of the emotions from the list that were chosen after a neutral statement in the open format). Participants regarded these emotions as the most neutral options and therefore used them to express their indifference towards a certain situation. Together, the three emotions contentment, interest and security were chosen in more than 50% of the cases where participants stated to not experience any emotion. Hence the conclusion that the options contentment, interest and security from the fixed-format emotion list were compensatory options for the missing neutral option. These three emotions are referred to as unemotional emotions and excluded from further analyses.

Exclusion Step 1b) - Neutral Vignettes

Most vignettes elicited distinct emotional reactions. To identify the situations that did not cause such an emotional experience, I compared the open-format answers to the fixed-format list answers. I analyzed the frequencies of neutral statements from the open-format answers (see Table A13 in Appendix A for the number of neutral answers for each vignette) and the contingency tables for each vignette (Tables A8 and A9 in Appendix A). In the wage-earner sample, the vignettes A6, A11 and A14 showed deviations in the frequency patterns. Each vignette accounted for more than 10% of all neutral statements in the open-format answers. Additionally, at least one of the unemotional emotions accounted for at least 10% of all emotion denominations in each vignette whereas any other emotion accounted for fewer than 10% of all denominations. Nonetheless, wonder and surprise also accounted for more than 10% of denominations in the vignettes A11 and A14. However, surprise and wonder are emotions that were also checked frequently as a supplement for a neutral option. Additionally, those vignettes accounted for the fewest total emotion denominations. That means that the three vignettes A6, A11 and A14 caused weak and undifferentiated emotional reactions of the vignettes for wage-earners and I therefore named them neutral vignettes.

The results of the group of self-employed were similar. Vignette S5 was named neutral for having the highest number of unemotional emotion denominations although other vignettes had a higher frequency of neutral statements in the open-format answers. S10 and S13 each had at least one unemotional emotion that accounted for more than 10% of the total emotion denominations but also more than 10% of denominations in wonder and surprise. Yet, the vignettes each had the highest amount of neutral statements and a low total score of emotion denominations, which led to naming them neutral. An additional argument for the neutrality of these vignettes is, that wage-earners and self-employed agreed on which situations did not elicit specific emotions. A6 and S5 did not differ substantially, but consist of sample-specific wording. A11 and S10 as well as A14 and S13 are the same vignettes (see Table A4 in Appendix A for the description of the vignettes).

Second Correspondence Analyses

For the second approach, to analyze the relationships between the emotions and the tax vignettes, I excluded the unemotional emotions and the neutral vignettes from the data sets. Figure B3 and Figure B4 in Appendix B depict the mapped results of the second CA. Now a clearer interpretation of the structures was already possible. Still, some steps of analysis were used to receive a better picture of the associations between emotions and vignettes. Therefore, I excluded variables of the emotion list and of the list of vignettes from the contingency table.

Exclusion Step 2a) - Exclusion of Emotions

The exclusion of emotions involved two steps. Step one was to analyze the total numbers of the frequencies of emotion-denominations across all vignettes. The totals can be found in Tables A8 and A9 in Appendix A. Step two was the comparison of these sums to the contribution of each emotion to the CA. I identified the contribution of an emotion to the model by the inertia values of the CA, but since there are no rules for cut-off values of inertia (Doey & Kurta, 2011), I compared them to the frequency tables. The emotions *contempt*, *despair*, *disgust*, *pride*, *resignation*, *sadness*, *shock*, and *wonder* each did not reach 10% of the emotion denominations in any vignette in the self-employed sample. They also contributed low to the CA, each with an inertia of below .40. These emotions therefore were excluded from further analyses. In comparison, the emotions that were not excluded each contributed with an inertia of at least .50. In the wage-earner sample the emotions contempt, despair, disgust, *fear*, *guilt*, resignation, sadness, *shame*, and wonder each did not reach 10% of the emotion denominations in any vignette. The inertia values of below .50 also indicated a low contribution to the CA. Consequently, these emotions were excluded from respective data set.

Exclusion Step 2b) - Exclusion of Vignettes

I used the inertia of the vignettes and the positioning on the biplot to find situations that contributed little to the CA. I excluded the vignettes S2 and S3 from the self-employed data set and the vignettes A3, A4 and A5 from the wage-earner data set. They each had an inertia of below .40 and furthermore could not be attributed to specific clusters of emotions and vignettes (see Figure B3 and B4 in Appendix B).

Third Correspondence Analyses

After excluding the mentioned variables, I conducted another CA. Figure 2 and Figure 3 depict the results as a biplot for each group. These results indicate that the emotions that were relevant in the process of tax paying in this study were *anger*, fear, *frustration*, guilt, *insecurity*, *joy*, *nervousness*, pride, *relief*, shame, shock, *stress*, and *surprise*. The situations that caused such emotions are A1, A2, A7, A8, A9, A10, A12, A13, A15, A16, and A17 for the wage-earners and S1, S4, S6, S7, S8, S9, S11, S12, S14, S15, and S16 for the self-employed. Not every situation elicited every emotion. Some vignettes clustered together with some specific emotions. The biplot clearly shows four clusters for the self-employed and three clusters in the sample of wage earners (a detailed description of the clusters and their components can be found in Table A14 in Appendix A). The sample of self-employed *Cluster 1* contained the emotions joy and relief and the vignettes S7, S8, S9, and S16. *Cluster 2* consisted of the emotions frustration, anger, and stress and the vignettes S1, S4, S6, S15, and S14. *Cluster 3* included the emotions nervousness, insecurity, and fear and the vignettes S11, S14, and S12. Vignette S12 and the emotions guilt and shame were found in *Cluster 4*. In the sample of wage-earners Cluster 1 contained the emotions joy, relief, and pride and the vignettes A7, A8, A10, A16, and A9. Cluster 2 included the emotions anger, frustration, and shock and the vignettes A1, A2, A3, and A17. Cluster 3 contained the emotions insecurity, nervousness, and stress and the vignettes A9, A12, A13, and A15. Surprise was not attributed to any cluster in neither group, because it could not be strictly assigned. It was positioned between emotions with a positive valence and emotions with negative valence, because it could be understood in both ways.

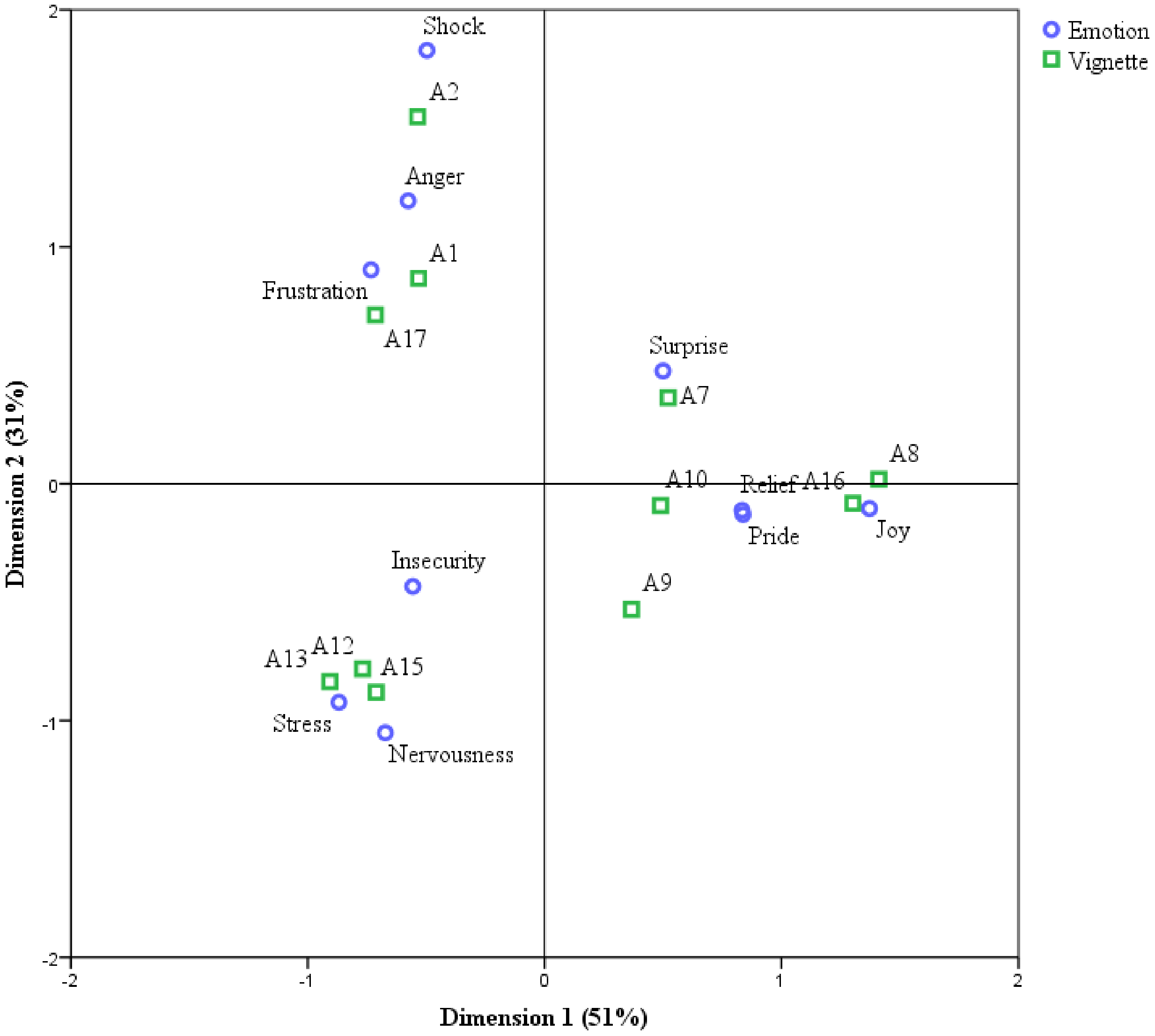

Figure 2. Two-dimensional biplot showing associations between emotions and vignettes of the reduced variable set of the self-employed sample. Labels for the vignettes as used in Table A4 in Appendix A. Parenthesized percentages indicate the amount of explained variance of each dimension.

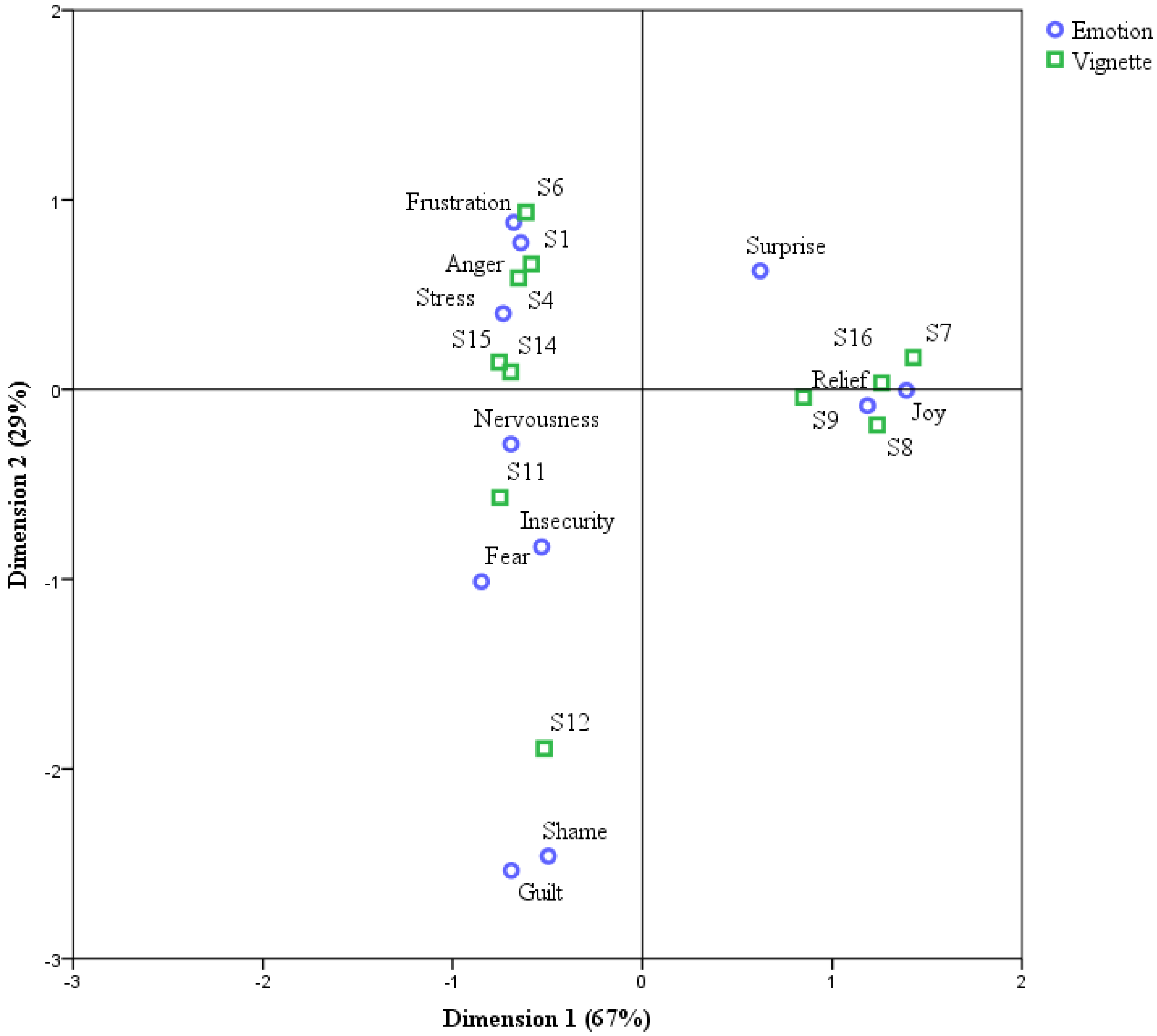

Figure 3. Two-dimensional biplot showing associations between emotions and vignettes of the reduced variable set of the wage-earner sample. Labels for the vignettes as used in Table A4 in Appendix A. Parenthesized percentages indicate the amount of explained variance of each dimension.

Discussion

The goal of this paper was to answer which emotions really play a role in the process of taxpaying and which situations elicit specific emotions. According to the open-format answers of this study, people are often indifferent to these questions. However, certain emotions do play a measurable role, though they are situation dependent. There is no single emotion that is relevant in every situation in the context of taxpaying. The comparison of data from the different groups of taxpayers clearly shows this situational dependence. However, there are certain relationships between specific emotions and situations. These relationships are depicted as clusters in the biplots. The different emotional clusters and the according vignettes are summarized in Table A14 in Appendix A.

The steps of reduction of variables led to a set of emotions and vignettes that fit into a two-dimensional system. Dimension 1 distinguishes the valence of the emotions. The further to the right a vignette is on the map, the more positive the associated emotions are and vice versa. Dimension 2 distinguishes the emotions in relation to time. For example, Cluster 1 is different from the other clusters solely based on Dimension 1, since it – opposed to the other clusters – mainly includes positive emotions. Cluster 2 and Cluster 3 can be distinguished solely on Dimension 2. They both include emotions with a negative valence but differ in the time of their onset and prevalence. Cluster 2 describes the spontaneous experience of emotions in operations, such as actively filing taxes. Cluster 3 on the other hand, expresses emotions foreseeing possible outcomes of the decisions the taxpayer makes during the process of paying taxes. Loewenstein and Lerner (2003) describe these effects in their framework on emotional influences on decision making. The solicited emotions in the present paper are immediate emotions, i. e. emotions that are present in the current decision situation, as opposed to emotions that are expected as an outcome of future decisions. These immediate emotions can be influenced by dispositional and situational effects as an incidental influence and by emotions as a reaction to future outcomes as an anticipatory influence. According to the authors, negative or positive affects are elicited by thinking of different outcomes of future events, depending on their favorability. Cluster 2 in the present paper represents situations that elicit emotions experienced at the moment when a situation sets in. Vignettes from Cluster 3 on the other hand elicit emotions that are experienced by anticipating future outcomes of the current decision. For example, vignette S6 of Cluster 2 elicits the emotions in the situation of a notification for a payment of tax arrears. The immediate emotions experienced in this situation come from the situation itself. Vignette A12 of Cluster 3 on the other hand, generates the emotional experience from expected consequences of the situation. Individuals think about what would happen if a hypothetical tax audit were to take place in the future. This generates an anticipated influence on the immediate emotional experience.

Regarding the contents of the clusters, the self-employed and wage-earners come to similar conclusions. Cluster 1 contains the emotions joy and relief. Wage-earners additionally locate pride in this cluster. These emotions are especially prevalent in situations where the taxpayers can delegate their work or where the taxation is not associated with personal effort. They also experience these emotions when they receive money back from the tax authorities and when the distribution of taxpayer money becomes visible. Tax accountants and the automatic deduction of money from the paycheck cause relief. A payback from the tax office and a just distribution of money cause joy. A reason for the experience of relief is that paying taxes is considered a stressful task. Taxpayers feel relieved once this task and the associated responsibilities are delegated. The relationships depicted in Cluster 2 describe the taxation system as stressful. Both taxpayer groups express the emotions frustration and anger in this cluster. The self-employed additionally experience feelings of stress. Self-employed individuals are more involved in the process of taxpaying, since wage-earners often do not have any influence on the largely automatic system. This is mirrored in the vignettes associated with this cluster. Wage-earners react with anger and frustration in situations where they have to pay taxes. Shock is another prevalent emotion in these situations. But as soon as the taxpayers must make an effort, such as keeping books, they also experience stress. A highly complex tax system increases this stress. If the tax authorities still demand payments of tax arrears after thorough and long work of filing taxes, anger and frustration are the consequence on behalf of the taxpayers.

Wage-earners experience more stress in situations that are associated with Cluster 3 than with Cluster 2. Both groups describe feelings of insecurity and nervousness in Cluster 3. The taxpayers encounter the coercive capabilities of tax authorities in situations that are associated with this cluster. Self-employed as well as wage-earners experience insecurity and nervousness, when not filing their taxes correctly or not in time. However, the awareness of potentially harsh punishments in case of an audit has the biggest effect on the emotional experience. Self-employed participants also experience fear in this situation. There is a substantial relationship between Cluster 2 and Cluster 3. For example, some situations like vignette S14 can be associated with both clusters. Also, the experience of stress is included in both clusters. Yet, the two clusters are not identical. The identified clusters can be discriminated because of the arrangement of the biplots.

The vignettes in Clusters 2 and 3 describe the stressful aspects of the process of taxpaying. Taxpayers experience this stress as a burden. Laypersons therefore might suggest reducing the overall stress of the process. However, policy makers are well-advised not to remove stressors in the process entirely. Studies showed that psychic stress is positively associated to tax compliance (Dulleck et al., 2016; Grasmick & Bursik, 1990). These findings and the findings of the present study can be integrated into the theoretical implications of the SSF. A maximum of tax compliance can be obtained by a combination of trust and power: The tax authority should be perceived as highly powerful by producing stress through coercion and also as highly trustworthy by providing the possibility to relief the taxpayer of his stress with support and cooperation. However, stress and relief are not the only emotions that can help to perpetuate tax compliance.

Wage-earners experience different emotions in different situations when compared to their self-employed counterparts. Yet, wage-earners and self-employed agree on the specific emotions that are important in their experiences. Anger, frustration, insecurity, joy, nervousness, relief, stress, and surprise are particularly relevant in different tax situations. Whereas other emotions given in the survey (contempt, despair, disgust, pride, resignation, sadness, shock, and wonder) are not. Despite their relatively low denominations, some emotions such as guilt, fear, and shame are present in some specific situations. These results from the fixed-format emotion questions are in line with participants' open-format answers about their emotional experiences. Yet, the open answers are much more nuanced and they differ in their expression. As depicted in Table A6 in Appendix A, most open-format answers were categorized to already suggested emotions. However, an emotion can be felt in different intensities. Also, the raters had to expand the list of categories by three more emotions that play a role in tax situations: *disinterest*, *hope*, and *reluctance*. These can deliver further information about the emotional experiences in the tax context.

The fixed-format emotion list of the present paper contains many emotions that originate from findings of focus-group interviews (see Table A1 in Appendix A for the emotions of the fixed-format list and their origins). According to the results of the present study, most of these emotions, namely anger, fear, frustration, uncertainty, guilt, joy, nervousness, and shock are also relevant in the tax process. Yet, participants find other emotions from the focus-group interviews less relevant, such as despair, pride, and resignation. These are emotions that were especially relevant from the perspective of the tax auditors in the focus groups. Tax auditors have a different approach towards taxes and the taxation process than self-employed and wage-earners. One emotion that was found to be important in the focus groups but has not been included in the final list of emotions of this study was used as an additional category after the rating process of the open-format answers, namely reluctance. The emotions that were included in the fixed-format list and were based solely on the theoretical considerations of the basic emotion theories proved to be irrelevant in the emotional experiences of the participants of this study. These emotions are disgust, interest and sadness. As opposed to disgust and sadness, interest received many denominations. However, participants used interest as a supplement for a missing neutral answer. Therefore, this emotion did not contribute to the results. These findings imply that the theory of basic emotions does not contribute fundamentally to isolating the emotions that are relevant in the process of taxpaying. The empirical approach of interviews identified more emotions that describe the individuals' emotional experiences. On the other hand, some emotions that were mentioned frequently in the focus groups and proved relevant in different taxation situations, such as insecurity, do not fall into the emotion definition by Scherer (2005). They would rather be categorized as a mood or an affective state. However, Scherer's definition is not impeccable. Furthermore, no single theory describes every emotional experience entirely and appropriately (Karnaze, 2013). Scherer (2005, p.697) also clearly states that "emotions are what people say they are". Yet, a more nuanced measurement of emotions in the tax context can address the differences between emotions and other feelings, such as moods.

Just like not every emotion is relevant in the tax context, not every tax situation elicits emotions. Mundane taxation situations such as paying the value-added tax leave the taxpayer indifferent. Also, wage-earners and self-employed proved to be indifferent about having an influence on their taxes or not. Self-employed feel neutral towards influencing their income by strategic investment and wage-earners feel indifferent about the automatic deduction of taxes from their salary without their influence. However, even having the basic choice to pay or not to pay taxes does not elicit any emotions in taxpayers. Quite on the contrary, some might not even see taxpaying as an actual choice. They might calculate the possible gains and losses and compare the subjective utility of the outcome to the subjective experience of risk and come to the rational conclusion not paying their taxes is not an option for them (Kahneman & Tversky, 1979). Others might simply not care about having a choice, since they pay out of free will, not because they have to. They agree with paying taxes and see it as beneficial for society. The reasons for tax compliance are various. They might feel that the redistribution of the taxes is just and that the authorities are trustworthy. Or they are aware of the social dilemma of taxpaying. Why people pay taxes is therefore a question for which many theories have been developed.

The participants of this study also describe to feel indifferent towards the use of black labor. Possible explanations for this can be found in the vignette itself. The respective vignettes, A14 and S13, describe a situation where an acquaintance uses black labor to build a house. The fact that it is a matter of an acquaintance might result in different emotional experiences than if it were a person or a company not acquainted to the participants. Another possibility for this indifference is how commonplace the use of black labor in the building sector is. Building a house is an expensive investment and studies already showed that this sector is one of the most common sectors for black labor in Austria (Schneider, 2015). People might therefore see it as a common habit to use black labor in these cases and they might also feel that they can save a lot of money that way. In any case, Austrians do not feel remorse when using black labor (Kirchler, 2011; Schneider 2015). This sentiment is reflected in the open format answers, when the participants often stated that they “understand” the decision to use black labor.

Guilt and shame lie on the lower end of Dimension 2 on the biplot of the self-employed sample. This supports the assumption that the experience of guilt and shame is different from other negative emotional experiences (Hopfensitz & Reuben, 2009). These two emotions are associated with vignette S12 in Cluster 4. Despite the low scores in the total denominations of these two emotions, they are particularly relevant in tax evasion situations, such as in vignette S12. This finding undermines the theoretical basis of theories that try to ensure tax compliance by relating to guilt and shame (Braithwaite, 1989; Coricelli, Rusconi, & Villeval, 2014; Dunn, Jonathan Farrar, & Hausserman, 2016; Murphy, 2008). However, vignette S12 does not depict a situation of actual tax evasion. It merely implicates the possibility of doing so. This is in line with the theory that the mere intention of tax dishonesty already generates guilt and shame (Alm & Torgler, 2011; Dulleck et al., 2016; Erard & Feinstein, 1994).

The emotion surprise was considered in the analysis because of its relevance for the two-dimensional system and despite the low numbers in denominations. Wonder was used in a similar manner. Their denomination frequencies are high in the same vignettes and their use in the open-format was also similarly low. This indicates that these two emotions are used as synonyms. However, their classification is not clearly distinguishable. They lie between Cluster 1 and Cluster 2. Surprise and wonder are in that way understood to be both of positive and negative valence, depending on the situation. An individual can be positively surprised for example if he or she receives an unexpected payment from the tax authorities. The same individual can negatively experience surprise when he or she receives a notification of a payment of tax arrears. Thus, the emotions surprise and wonder can be neither assigned to the group of positive emotions nor to the group of negative ones. Replacing the word surprise with other variables can help to identify the respective valence: the term shock can be seen as a negative expression of surprise, relief can be seen as its positive form (Shaver, Schwartz, Kirson, & O'Connor, 2001). The need for clearer nuancing of the emotions used was also expressed in the open comment section at the end of the survey. These comments help to understand some of the limitations of the present study.

Limitations

The sociodemographic characteristics of the present convenience sample provide a limitation to the generalizability of the results. Despite having some variance in profession within the sample of wage-earners, the self-employed participants were almost entirely recruited from the health sector. Also, the respondents of the survey were predominantly female and highly educated. The method of recruitment furthermore presupposes access to the internet and the ability to use it. The findings therefore are not generalizable and need to be interpreted with caution.

Not every aspect of the process of taxpaying could be covered. The pre-test already eliminated some situations that might draw a realistic picture of a specific taxpayer's situation, though not for most of participants. Other vignettes could yield different emotions.

As described above, many participants did not wish for a longer list of emotions but rather for a more nuanced choice. For example, one participant stated in the comment section that he missed the word "irritated" in the list of emotions because angry was too strong an expression for his liking. A more differentiated answer format could account for such shortcomings.

Another aspect of concern in the pre-designed list of emotions is the lack of a neutral answer. Since there was no choice to express indifference towards a vignette or situation, some participants showed reactance. Others mentioned their dissatisfaction with the survey in the open comment section at the end. Many participants tackled this problem by selecting the emotion from the list that comes closest to a neutral emotional experience. Therefore, the gathered results and interpretations must be looked at with caution, especially with regard to declaring some vignettes or emotions as neutral.

Another limitation is the use of self-reported data for analysis. Individuals differ in their ability to emphasize with a certain situation. If they have already been in such a situation, the selective memory of relevant emotions can hamper their ability to recall the correct emotional experience. This can lead to exaggeration of the emotional experience or omission of certain emotions. These self-reports cannot be verified and should therefore be interpreted with caution.

Practical Implications

The present paper provides useful information for fiscal policy makers. Results showed that declaring income and filing taxes causes stress and frustration. On the other hand, individuals feel indifferent in situations where taxation is automatized. Furthermore, delegating work causes relief. These findings imply that taxpayers should prefer taxation systems that function based on automatization. Moreover, the more processes are automatized by the government, the less possibilities of tax evasion should emerge.

Tax offices provide an intersection between the taxpayer and the government. A negative treatment by the tax office leads to anger and in turn to a decrease of compliance behavior (Murphy & Tyler, 2008). Employees of the tax offices should be trained to create a cooperative and open environment. Taxpayers should receive helpful answers to their questions and should not feel left alone in a complex tax system. As mentioned earlier, according to the SSF tax compliance should increase if the government provides a relief to the stress that the tax system causes. Another possibility of reducing negative emotional experiences is by reducing payments of tax arrears. The findings of this study suggest that taxpayers rather pay too many taxes over a longer period and receive a payback by the government at the end of the year than paying too little and hand in supplementary payments to the tax offices later. This should even produce positive emotional experiences that could lead to a positive attitude towards the tax system. In a similar manner, positive emotions are elicited if taxpayers experience that taxpayer money is used in a just and reasonable manner. However, the media often features cases where the opposite is the case. The government could buy advertisements to display the use of taxpayer money and educate citizens about the benefits that they experience because of taxation. This must take place in a rational and critical manner or the government might be confronted with propaganda accusations.

Guilt and shame are effective deterrents (Braithwaite, 1989; Coricelli, Rusconi, & Villeval, 2014; Dunn, Farrar, & Hausserman, 2016; Murphy, 2008). The present study showed that these emotions are activated in situations of tax evasion. Policy makers therefore can use these emotions to encourage tax compliance. One way is to trigger guilt in individuals and thereby encourage self-correction of erroneous tax behavior (Dunn, Farrar, & Hausserman, 2016). Another way is to use shame as a mean to reintegration of delinquents (Braithwaite, 1989; Coricelli, Rusconi, & Villeval, 2014; Murphy, 2008). However, these techniques might not be universally applicable since guilt and shame were only found to be relevant for self-employed individuals.

Further Research and Theoretical Implications

Generalizability of the results is important to generate a theoretical basis for further research. Therefore, the research question of this paper should be applied to studies testing representative taxpayer samples.

Since the theory on basic emotions does not contribute to finding relevant emotions in the tax context, other theories with a broad theoretical basis, such as dimensional emotion theories (Fontaine, Scherer, Roesch, & Ellsworth, 2007; Mauss & Robinson, 2009), can be used to explore the role of emotions in tax behavior.

Future studies can validate the results of the present paper. The knowledge about the effects of certain emotions in specific situations can be used to design customized experiments. They can test the assumptions about the associations between emotions and tax situations and furthermore delve into the extent of the influence of emotions. They can also explore the different qualities of specific emotions and the intensity of the emotional experience. These customized experiments can also validate the influence of emotions in specific fields of taxation, such as tax evasion. For example, studies can look at the act of evading taxes or at either facing or avoiding a tax audit after evasion or honest declaration of taxes. Another possible tax situation would be the unjust use of taxpayer money by the authorities. It can be assumed that not every situation in which taxpayers see the use of taxes causes joy or contentment as in the present study. In this paper, there was only one such situation presented and it depicted a just and publicly beneficial use of taxes.

Validation of the results can also take place in laboratories using different methodology. For example, facial- and body behavior, neuroimaging, autonomic nervous system reactions and skin conductance measure, to name just a few, could be used to validate or invalidate the findings of this study (Mauss & Robinson, 2009). Even if only a differentiation in valence can be measured, as with some of those methods, the interpretational gain would be significant and could shed more light on the experience and role of emotions in tax behavior. Yet, to explain economic behavioral outcomes, research on specific emotions is needed. These behaviors and decisions are not fully understandable with information about broad valence only (Zeelenberg & Pieters, 2006). However, before gaining information about the influence of specific emotions, they need to be measured first. The discoveries of this paper can and shall therefore be ultimately used as a theoretical basis for the development of a measurement method of specific emotions in the field of tax behavior. What research the present findings will enable is ultimately at the hands of the future champions of the emotions revolution.

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Appendix A

Tables

Table A1

List of Emotions of the Main Survey in their Original German Version and their English Translation with their Theoretical and/or Empirical Origin

German emotion	English emotion	Source
Wut	Anger	FGI, I, L, E, (P – rage)
Verachtung	Contempt	I, E, (FGI – hate)
Zufriedenheit	Contentment	(FGI – satisfaction)
Verzweiflung	Despair	FGI
Ekel	Disgust	I, L, E
Angst	Fear	FGI, I, P, L, E
Frust	Frustration	(FGI – annoyance)
Schuld	Guilt	FGI, D
Unsicherheit	Insecurity	(FGI – uncertainty)
Interesse	Interest	I, L, (P – seeking)
Freude	Joy	FGI, I, E
Nervosität	Nervousness	FGI
Stolz	Pride	FGI
Erleichterung	Relief	L, (FGI – thankfulness)
Resignation	Resignation	FGI
Traurigkeit	Sadness	I, L, E
Sicherheit	Security	(FGI – opposite of insecurity)
Scham	Shame	D
Schock	Shock	FGI
Stress	Stress	FGI
Überraschung	Surprise	FGI
Erstaunen	Wonder	(FGI – astonishment)

Note. FGI = focus-group interviews; E = Ekman & Cordaro, 2011; D = Dulleck et al., 2016; I = Izard, 2011; L = Levenson, 2011; P = Panksepp & Watt, 2011; labels and words in parenthesis show the source and the synonym to describe the emotion that was used in the final list of this paper.

Table A2

Original German Versions and the English Translations of the Pre-Test Vignettes

Label	German vignette	English vignette
V1	Sobald Sie bei einer Arbeit über der Geringfügigkeitsgrenze verdienen, sind Steuern fällig.	As soon as your income exceeds the marginal wages threshold, taxes are due.
V2	Auf Ihrem Gehaltszettel sehen Sie, wie viel Sie verdienen. Es ist angegeben, wie viel Sie brutto erhalten, wie viele Steuern und Abgaben wegfallen und wie viel schlussendlich netto übrig bleibt.	You can see how much you earn on your pay-slip. Your gross income, the amount of taxes and duties, and your net income are indicated.
V3	Für Ihre Steuererklärung sammeln Sie über das Jahr hinweg Belege Ihrer Ausgaben. Diese Rechnungen und Dokumente müssen geordnet und langfristig aufbewahrt werden.	During the course of a year, you collect the vouchers of your expenses for your tax declaration. These bills and documents must be organized and stored for the long term.
V4	Manchmal kontaktieren Sie Personen, von denen Sie wissen, dass Sie sich sehr gut mit Steuern auskennen (Freunde, Bekannte, Kollegen, etc.). Von ihnen bekommen Sie Informationen, wie Sie gewisse Steuern sparen und vermeiden können.	You know some people (friends, acquaintances, colleagues, etc.) who know a lot about taxes. You sometimes contact them and receive information about how to save and avoid certain taxes.
V5	Sie sind über die für Sie relevanten Steuerfragen im Allgemeinen gut informiert. Wenn Sie etwas nicht wissen, dann wissen Sie jedenfalls wo Sie die relevanten Informationen erhalten können.	You are rather well informed about relevant tax issues. If you do not know something, you know at least where to get the relevant information from.
V6	Ob Sie eine Arbeitnehmerveranlagung machen oder nicht, ist Ihre eigene Entscheidung.	Filing your taxes or not is your personal decision.
V7	Welche Ausgaben Sie von der Steuer absetzen, können Sie selber entscheiden.	You can decide yourself which expenses to declare for tax purposes.
V8	Einmal im Jahr treffen Sie sich mit Ihrem Steuerberater um	Once a year you meet your tax accountant to prepare your tax

	Ihre Steuererklärung vorzubereiten. Hierzu bringen Sie alle relevanten Unterlagen mit und händigen Sie Ihrem Steuerberater aus, der die Formulare bearbeitet. Wenn er seine Arbeit abgeschlossen hat, bestätigen Sie die Richtigkeit der Angaben und schicken die Steuererklärung ab.	declaration. You give him all relevant documents. If he is done with his work, you check if it is all correct. Then you send it to your tax office.
V9	Einmal im Jahr erledigen Sie Ihre Steuererklärung. Sie füllen die relevanten Formulare aus und benutzen dafür die angesammelten Unterlagen. Wenn Fehler in der Bearbeitung auftreten, korrigieren Sie diese, bis alles richtig ist und schicken daraufhin die Steuererklärung ans Finanzamt.	You file your taxes once a year. You fill out the relevant forms and use your collected documents. If a mistake in occurs during the process, you correct it. If everything is right, you send it to your tax office.
V10	Da Sie mehrere Einkommensquellen haben, müssen Sie am Ende des Jahres eine Steuererklärung abgeben und Ihre Einkommen gemeinsam versteuern.	You have more than one source of income. You have to file your taxes at the end of the year and declare all of your incomes together.
V11	Als selbstständig tätige Person können Sie Ihr zu versteuerndes Einkommen selber beeinflussen, indem Sie z.B. Investitionen strategisch planen.	As a self-employed person you can influence your income yourself. For example, you can strategically plan investments.
V12	Ihre Steuern werden von Ihrem Arbeitgeber direkt an das Finanzamt abgeführt, darauf haben Sie keinen Einfluss.	Your taxes are payed over to the tax office by your employer. You have no influence.
V13	Ihre Steuern werden automatisch von Ihrem Gehalt abgezogen und an das Finanzamt weitergeleitet. Damit haben Sie keinerlei Arbeitsaufwand.	Your taxes are deducted automatically from your wage and payed to the tax office. You do not have to make any effort.
V14	Sie wurden vom Finanzamt darauf hingewiesen, dass Sie Steuern nachzahlen müssen.	You were notified by the tax authorities that you have to pay back taxes.
V15	Sie wurden vom Finanzamt darauf hingewiesen, dass sich auf Ihrem Steuerkonto ein Guthaben angesammelt hat, das Ihnen nun rückerstattet wird.	You were notified by the tax authorities that you have a positive credit balance on your tax account. You will receive a refund.
V16	Einige Wochen nach der Erledigung der	Some weeks after filing your taxes you receive a notification

	ArbeitnehmerInnenveranlagung erhalten Sie den Bescheid, dass Sie eine größere Summe vom Staat rückerstattet bekommen.	about a tax refund from your tax office.
V17	Die Frist für Ihre Steuererklärung für das vergangene Jahr läuft bald ab und Ihre Erklärung ist noch unerledigt.	The deadline for last year's tax declaration is close. You did not file your taxes yet.
V18	Am Anfang des Jahres loggen Sie sich bei Finanz-Online mit Ihren Zugangsdaten ein, um ihre ArbeitnehmerInnenveranlagung für das vergangene Jahr zu machen. Sie füllen alle zutreffenden Felder aus und geben den Antrag zur Überprüfung frei.	At the beginning of the year you log in "Finanz-Online" (Austrian online tax filing program) to file your taxes for the past year. You type in all relevant data and release the application for checking.
V19	Am Anfang des Jahres loggen Sie sich bei Finanz-Online mit Ihren Zugangsdaten ein, um Ihre Steuererklärung für das vergangene Jahr zu machen. Sie füllen alle zutreffenden Felder aus und geben den Antrag zur Überprüfung frei.	At the beginning of the year you log in "Finanz-Online" (Austrian online tax filing program) to file your taxes for the past year. You type in all relevant data and release the application for checking.
V20	Sie haben keinen persönlichen Kontakt mit dem Finanzamt.	You don´t keep personal contact with the tax office.
V21	Wenn Sie Fragen zu Steuern oder zum Zahlen von Steuern haben, kontaktieren Sie das Finanzamt, um die Frage im persönlichen Gespräch mit einem/einer Mitarbeiter/in zu klären.	You contact the tax office if you have questions about taxes or their payment. You resolve your questions in a one-to-one conversation with a tax office employee.
V22	Die Mitarbeiter/innen des Finanzamtes begegnen Ihnen freundlich und hilfsbereit.	The employees at the tax office act friendly and helpful towards you.
V23	Sie wenden sich mit einer wichtigen Frage an das Finanzamt und bekommen keine Informationen.	You ask for help with a very important question at your tax office but do not receive any information.
V24	Sie senden alle relevanten Unterlagen an Ihren Steuerberater. Ihr Steuerberater kontaktiert Sie bei Fragen oder Ratschlägen. Er kümmert sich um dieses Thema und leitet Ihre Unterlagen an das Finanzamt weiter. Sie können sich auf andere Dinge	You send all the relevant documents to your tax accountant. If he has any questions or suggestions, he contacts you. He takes care of your taxes and forwards your documents to the tax office. You can focus on other things.

	konzentrieren.	
V25	Gerade bei Fragen wie Sie Steuern sparen oder vermeiden könne, kontaktieren Sie Ihren Steuerberater, denn er kennt vielleicht hilfreiche Schlupflöcher im System, die Sie selbst nicht kennen.	You consult your accountant especially when it comes to questions about saving or avoiding taxes. He knows helpful loopholes in the system that you do not know.
V26	Sie machen einen größeren Einkauf im Supermarkt und sehen auf der Rechnung, wie viel die 20% bzw. 10% Umsatzsteuer ausmacht.	You can see how much the 20% or 10% value added tax accounts for on your check of a big purchase from a supermarket.
V27	Sie wissen, dass bei falschen Angaben in der Steuererklärung oder bei anderen Formen der Steuerhinterziehung, im Falle einer Steuerprüfung durch das Finanzamt, empfindliche Strafen drohen.	You know that harsh punishments are imposed by the tax authorities if they detect false statements or other forms of tax evasion at a tax inspection.
V28	Ein Steuerprüfer des Finanzamts kündigt sich bei Ihnen telefonisch an, um mit Ihnen Ihre Steuererklärung durchzugehen.	A tax auditor announces himself by telephone. He wants to go through your tax declaration with you.
V29	Sie bekommen einen Brief vom Finanzamt und reagieren vorerst nicht.	You receive a letter from the tax office but you do not react for now.
V30	Sie wissen, dass Sie sich bald um Ihre Steuererklärung kümmern müssen, legen Sie aber vorerst zur Seite.	You know that you have to file your taxes soon, but you set them aside for now.
V31	Sie deklarieren keine privaten Ausgaben als Geschäftsausgaben in Ihrer Steuererklärung.	You do not declare private expenses as business expenses in your tax declaration.
V32	Sie setzen sich selbst genau mit dem Steuergesetz auseinander, um nach Einsparungsmöglichkeiten zu suchen.	You educate yourself about the tax laws to find cost-saving opportunities.
V33	Sie überlegen Ihr Auto als Geschäftswagen zu deklarieren, obwohl Sie es nur zu 30% für geschäftliche Zwecke nutzen und die Nutzung eines Geschäftswagens mind. 50% sein muss.	You think about declaring your car as a business expense despite using it only in 30% of the time for business. A business car has to be used at least 50% of the time.

V34	Sie überlegen, ob Sie Rechnungen von Abendessen mit Ihren FreundInnen absichtlich als Geschäftsessen deklarieren.	You think about purposely declaring dinners with your friends as business lunches.
V35	Sie führen kleinere Hilfsarbeiten aus, ohne diese beim Finanzamt zu deklarieren.	You are not declaring smaller unskilled labor at your tax office.
V36	Sie kriegen mit, dass ein Bekannter ein Haus von Schwarzarbeitern bauen lässt.	You notice that an acquaintance uses black labor to build his house.
V37	Beim Ausfüllen der Formulare geben Sie sich viel Mühe, keine Fehler zu machen.	You put a lot of effort into avoiding mistakes while filling out your tax forms.
V38	Für Ihre Steuererklärung fallen sehr viele verschiedene Formulare an, die Sie alle selber ausfüllen müssen.	Your tax declaration consists of many forms. You have to fill the out all by yourself.
V39	Zur vollständigen und korrekten Entrichtung aller Steuern müssen Sie Ihre Einnahmen und Ausgaben genau dokumentieren und die komplexen Gesetze und Regeln gut kennen.	You have to document your income and your expenses very thoroughly and you have to know the complex laws and rules very well to completely and correctly file all taxes.
V40	Von den Steuern, die der Staat Österreich einnimmt, werden gemeinnützige Einrichtungen wie zum Beispiel Schulen, Straßen und Krankenhäuser gebaut, instandgehalten und betrieben.	Public buildings, such as schools, streets and hospitals are build, maintained and run with the tax money that the state of Austria collects.
V41	Von den Steuern, die der Staat Österreich einnimmt, werden unter anderem auch Gehälter von Personen im öffentlichen Dienst und beamteten Personen, wie zum Beispiel Lehrer, Polizisten und Politiker bezahlt.	Wages of people working in public service, such as teachers, policemen and politicians are payed with the tax money that the state of Austria collects.
V42	Warum das Finanzamt manche Posten in Ihrer Steuererklärung akzeptiert und andere streicht, ist für Sie nicht verständlich.	You do not understand why the tax authorities accept some of the assets in your tax return and others not.

Note. The vignettes V18 and V19 differ in their German version because of differences in the tax declaration for self-employed and wage-earners. This difference could not be displayed in their English translation, therefore they are the same in English.

Table A3

Means and Standard Deviations of the Realism and Experience of Vignettes from the Pre-Test for each Income Group

	Self-employed				Wage-earners			
	Realism		Experience		Realism		Experience	
Vignette	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
V1	3.45	1.51	3.45	1.75	4.50	1.01	3.64	1.81
V2	4.09	1.30	2.82	2.09	4.68	.78	4.68	.95
V3	3.83	1.12	4.83	.58	4.22	1.06	4.06	1.21
V4	3.27	1.10	2.73	1.35	3.50	1.14	2.95	1.65
V5	2.92	1.17	4.42	.79	3.29	.92	3.53	1.42
V6	3.58	1.44	3.50	1.78	3.53	1.01	3.71	1.65
V7	2.09	.94	2.36	1.36	2.73	1.55	2.18	1.50
V8	3.50	1.09	3.25	1.91	3.39	1.20	2.39	1.72
V9	4.00	1.04	3.92	1.38	4.33	.77	4.50	.79
V10	3.45	1.21	3.45	1.86	3.29	1.10	2.71	1.90
V11	3.83	1.12	3.92	1.44	3.00	1.00	1.65	1.00
V12	2.91	1.58	2.18	1.60	4.38	.67	4.57	.87
V13	3.42	1.24	2.00	1.54	4.44	.92	4.44	.92
V14	4.00	1.00	3.55	1.70	3.67	1.24	2.33	1.80
V15	4.25	.87	3.58	1.56	3.12	1.27	2.53	1.77
V16	3.18	1.47	1.82	1.40	3.43	1.21	3.43	1.43
V17	3.42	1.08	2.42	1.62	3.67	1.24	2.44	1.69

V18	3.25	1.14	2.83	1.99	3.94	1.16	3.78	1.73
V19	3.17	1.34	2.83	1.85	4.29	.99	4.35	1.17
V20	3.64	1.12	3.18	1.94	3.45	1.06	3.91	1.48
V21	2.64	1.36	2.27	1.49	3.52	1.21	2.62	1.43
V22	2.75	.87	3.25	1.36	2.89	1.02	2.72	1.41
V23	2.36	1.03	1.55	.69	3.29	1.23	2.14	1.39
V24	3.42	.79	3.50	1.88	3.33	1.33	2.39	1.82
V25	3.27	1.19	3.45	1.44	3.55	1.22	2.86	1.81
V26	3.50	1.68	3.50	1.62	4.11	1.18	4.11	1.49
V27	4.17	.94	3.92	1.56	4.22	1.00	3.94	1.55
V28	2.82	1.54	1.27	.91	2.90	1.30	1.10	.44
V29	2.18	.87	1.64	.92	3.43	1.17	1.90	1.45
V30	3.27	1.19	3.18	1.66	3.91	1.07	3.27	1.61
V31	3.25	.97	3.92	1.17	3.18	.88	3.76	1.52
V32	3.00	1.48	3.25	1.66	3.00	.87	2.29	1.21
V33	3.08	1.17	1.92	1.31	3.24	1.09	1.59	1.06
V34	3.64	1.36	3.55	1.44	2.90	1.26	1.62	1.20
V35	3.09	1.14	2.27	1.49	3.55	1.22	2.05	1.62
V36	4.08	1.08	3.08	1.78	4.00	1.23	4.06	1.39
V37	4.36	.67	4.18	.98	4.05	.92	4.62	.81
V38	3.25	.97	3.08	1.78	3.44	.92	3.44	1.38
V39	4.00	1.00	4.09	1.04	3.59	1.40	3.14	1.61

V40	4.09	1.04			4.14	.83		
V41	4.58	.67			4.47	.72		
V42	3.00	1.18	2.27	1.10	3.67	1.24	3.62	1.47

Note. Labels for the vignettes were taken from Table A2 in Appendix A. The vignettes V40 and V41 did not provide information about the experience of the participants with the situation. This is due to the wording of the vignette and the subsequent question.

Table A4

Vignettes of the Main Survey in their Original German Version and their English Translation

Wage-earners			Self-employed		
Label	German	English	Label	German	English
A1	Sobald Sie bei einer Arbeit über der Geringfügigkeitsgrenze verdienen, sind Steuern fällig.	As soon as your income exceeds the marginal wages threshold, taxes are due.	S1	Für Ihre Steuererklärung sammeln Sie über das Jahr hinweg Belege Ihrer Ausgaben. Diese Rechnungen und Dokumente müssen geordnet und langfristig aufbewahrt werden.	During the course of a year, you collect the vouchers of your expenses for your tax declaration. These bills and documents must be organized and stored for the long term.
A2	Auf Ihrem Gehaltszettel sehen Sie, wie viel Sie verdienen. Es ist angegeben, wie viel Sie brutto erhalten, wie viele Steuern und Abgaben wegfallen und wie viel schlussendlich netto übrig bleibt.	You can see how much you earn on your pay-slip. Your gross income, the amount of taxes and duties, and your net income are indicated.	S2	Sie überlegen Ihre Arbeitnehmerveranlagung (Ihre Steuererklärung) zu machen oder nicht, es ist Ihre eigene Entscheidung.	You think about whether to file your taxes or not. It is your personal decision.
A3	Für Ihre Steuererklärung sammeln Sie über das Jahr hinweg Belege Ihrer Ausgaben. Diese Rechnungen und Dokumente müssen geordnet und langfristig aufbewahrt werden.	During the course of a year, you collect the vouchers of your expenses for your tax declaration. These bills and documents must be organized and stored for the long term.	S3	Einmal im Jahr erledigen Sie Ihre Steuererklärung. Sie füllen die relevanten Formulare aus und benutzen dafür die angesammelten Unterlagen. Wenn Fehler in der Bearbeitung auftreten, korrigieren Sie diese, bis alles richtig ist und schicken	You file your taxes once a year. You fill out the relevant forms and use your collected documents. If a mistake in occurs during the process, you correct it. If everything is right, you send it to your tax office.

				daraufhin die Steuererklärung ans Finanzamt.	
A4	Sie überlegen Ihre Arbeitnehmerveranlagung (Ihre Steuererklärung) zu machen oder nicht, es ist Ihre eigene Entscheidung.	You think about whether to file your taxes or not. It is your personal decision.	S4	Da Sie mehrere Einkommensquellen haben, müssen Sie am Ende des Jahres eine Steuererklärung abgeben und Ihre Einkommen gemeinsam versteuern.	You have more than one source of income. You have to file your taxes at the end of the year and declare all of your incomes together.
A5	Einmal im Jahr erledigen Sie Ihre Steuererklärung. Sie füllen die relevanten Formulare aus und benutzen dafür die angesammelten Unterlagen. Wenn Fehler in der Bearbeitung auftreten, korrigieren Sie diese, bis alles richtig ist und schicken daraufhin die Steuererklärung ans Finanzamt.	You file your taxes once a year. You fill out the relevant forms and use your collected documents. If a mistake in occurs during the process, you correct it. If everything is right, you send it to your tax office.	S5	Als selbstständig tätige Person können Sie Ihr zu versteuerndes Einkommen selber beeinflussen, indem Sie z.B. Investitionen strategisch planen.	As a self-employed you can influence your income yourself. For example, you can strategically plan investments.
A6	Ihre Steuern werden von Ihrem Arbeitgeber direkt an das Finanzamt abgeführt, darauf haben Sie keinen Einfluss.	Your taxes are payed over to the tax office by your employer. You have no influence.	S6	Sie wurden vom Finanzamt darauf hingewiesen, dass Sie Steuern nachzahlen müssen.	You were notified by the tax authorities that you must pay back taxes.
A7	Ihre Steuern werden automatisch von Ihrem Gehalt abgezogen und an das Finanzamt weitergeleitet. Damit haben Sie keinerlei	Your taxes are deducted automatically from your wage and payed to the tax office. You do not have to make any effort.	S7	Sie wurden vom Finanzamt darauf hingewiesen, dass sich auf Ihrem Steuerkonto ein Guthaben angesammelt hat, das Ihnen nun rückerstattet	You were notified by the tax authorities that you have a positive credit balance on your tax account. You will receive a refund.

	Arbeitsaufwand.			wird.	
A8	Einige Wochen nach der Erledigung der ArbeitnehmerInnen-veranlagung (der Steuererklärung) erhalten Sie den Bescheid, dass Sie eine größere Summe vom Staat rückerstattet bekommen.	Some weeks after filing your taxes you receive a notification about a tax refund from your tax office.	S8	Sie senden alle relevanten Unterlagen an Ihren Steuerberater. Ihr Steuerberater kontaktiert Sie bei Fragen oder Ratschlägen. Er kümmert sich um dieses Thema und leitet Ihre Unterlagen an das Finanzamt weiter. Sie können sich auf andere Dinge konzentrieren.	You send all the relevant documents to your tax accountant. If he has any questions or suggestions, he contacts you. He takes care of your taxes and forwards your documents to the tax office. You can focus on other things.
A9	Am Anfang des Jahres loggen Sie sich bei Finanz-Online mit Ihren Zugangsdaten ein, um ihre ArbeitnehmerInnen-veranlagung für das vergangene Jahr zu machen. Sie füllen alle zutreffenden Felder aus und geben den Antrag zur Überprüfung frei.	At the beginning of the year you log in "Finanz-Online" (Austrian online tax filing program) to file your taxes for the past year. You type in all relevant data and release the application for checking.	S9	Gerade bei Fragen wie Sie Steuern sparen oder vermeiden können, kontaktieren Sie Ihren Steuerberater, denn er kennt vielleicht hilfreiche Schlupflöcher im System, die Sie selbst nicht kennen.	You consult your accountant especially when it comes to questions about saving or avoiding taxes. He knows helpful loopholes in the system that you do not know.

A10	Gerade bei Fragen wie Sie Steuern sparen oder vermeiden können, kontaktieren Sie Ihren Steuerberater, denn er kennt vielleicht hilfreiche Schlupflöcher im System, die Sie selbst nicht kennen.	You consult your accountant especially when it comes to questions about saving or avoiding taxes. He knows helpful loopholes in the system that you do not know.	S10	Sie machen einen größeren Einkauf im Supermarkt und sehen auf der Rechnung, wie viel die 20% bzw. 10% Umsatzsteuer ausmacht.	You can see how much the 20% or 10% value added tax accounts for on your check of a big purchase from a supermarket.
A11	Sie machen einen größeren Einkauf im Supermarkt und sehen auf der Rechnung, wie viel die 20% bzw. 10% Umsatzsteuer ausmacht.	You can see how much the 20% or 10% value added tax accounts for on your check of a big purchase from a supermarket.	S11	Sie wissen, dass bei falschen Angaben in der Steuererklärung oder bei anderen Formen der Steuerhinterziehung, im Falle einer Steuerprüfung durch das Finanzamt, empfindliche Strafen drohen.	You know that harsh punishments are imposed by the tax authorities if they detect false statements or other forms of tax evasion at a tax inspection.
A12	Sie wissen, dass bei falschen Angaben in der Steuererklärung oder bei anderen Formen der Steuerhinterziehung, im Falle einer Steuerprüfung durch das Finanzamt, empfindliche Strafen drohen.	You know that harsh punishments are imposed by the tax authorities if they detect false statements or other forms of tax evasion at a tax inspection.	S12	Sie überlegen, ob Sie Rechungen von Abendessen mit Ihren FreundInnen absichtlich als Geschäftsessen deklarieren.	You think about purposely declaring dinners with your friends as business lunches.
A13	Sie wissen, dass Sie sich bald um Ihre Steuererklärung kümmern müssen, legen Sie aber vorerst zur Seite.	You know that you have to file your taxes soon, but you set them aside for now.	S13	Sie kriegen mit, dass ein Bekannter ein Haus von Schwarzarbeitern bauen lässt.	You notice that an acquaintance uses black labor to build his house.

A14	Sie kriegen mit, dass ein Bekannter ein Haus von Schwarzarbeitern bauen lässt.	You notice that an acquaintance uses black labor to build his house.	S14	Beim Ausfüllen der Formulare geben Sie sich viel Mühe, keine Fehler zu machen.	You put a lot of effort into avoiding mistakes while filling out your tax forms.
A15	Beim Ausfüllen der Formulare geben Sie sich viel Mühe, keine Fehler zu machen.	You put a lot of effort into avoiding mistakes while filling out your tax forms.	S15	Zur vollständigen und korrekten Entrichtung aller Steuern müssen Sie Ihre Einnahmen und Ausgaben genau dokumentieren und die komplexen Gesetze und Regeln gut kennen.	You have to document your income and your expenses very thoroughly and you have to know the complex laws and rules very well to completely and correctly file all taxes.
A16	In den Nachrichten lesen Sie, dass von den Steuern, die der Staat Österreich einnimmt, gemeinnützige Einrichtungen wie zum Beispiel Schulen, Straßen und Krankenhäuser gebaut, instandgehalten und betrieben werden.	You can read in the newspaper that the state of Austria builds and operates publicly beneficial facilities, such as schools, streets, and hospitals from fiscal revenue.	S16	In den Nachrichten lesen Sie, dass von den Steuern, die der Staat Österreich einnimmt, gemeinnützige Einrichtungen wie zum Beispiel Schulen, Straßen und Krankenhäuser gebaut, instandgehalten und betrieben werden.	You can read in the newspaper that the state of Austria builds and operates publicly beneficial facilities, such as schools, streets, and hospitals from fiscal revenue.
A17	Warum das Finanzamt manche Posten in Ihrer Steuererklärung akzeptiert und andere streicht, ist für Sie nicht verständlich.	You do not understand why the tax authorities accept some of the assets in your tax return and others not.			

Note. Vignettes V40 and V41 were combined into one vignette (W16 and S16). Vignette V19 was not transferred into the final catalogue of vignettes because vignette V18 described the same situation with a slightly different but more applicable wording.

Table A5

Age, Gender and Education Distribution in each Income Group and in Total

	Age		Gender		Education						Total
Group	*M*	*SD*	M	F	MS	A	MC	HS	B/M/D	D	*N*
Self-employed	53.17	10.36	61	140	0	3	2	9	128	71	201
Wage-earners	36.73	13.52	25	100	1	21	0	35	57	13	125
Total	47.03	14.09	86	240	1	24	2	44	185	48	326

Note. M = Male; F = Female; MS = Mandatory School; A = Apprenticeship; MC = Master Craftsman; HS = High School; B/M/D = Bachelor/Master/Diploma; D = Doctor. All columns except for the *M* and *SD* columns depict frequencies.

Table A6

Original German Format and English Translation of the Classification Categories for the Open-Format Answers and Frequency of Usage for Classification

German category	English category	Frequencies
Wut	Anger	453
Verachtung	Contempt	42
Zufriedenheit	Contentment	674
Verzweiflung	Despair	8
Ekel	Disgust	21
Desinteresse	Disinterest	68
Angst	Fear	134
Frust	Frustration	462
Schuld	Guilt	29
Hoffnung	Hope	42
Unsicherheit	Insecurity	366
Interesse	Interest	164
Freude	Joy	476
Nervosität	Nervousness	205
Stolz	Pride	120
Erleichterung	Relief	368
Ablehnung	Reluctance	54
Resignation	Resignation	55
Traurigkeit	Sadness	25
Sicherheit	Security	250
Scham	Shame	21
Schock	Shock	24
Stress	Stress	460
Überraschung	Surprise	46
Erstaunen	Wonder	75
Nicht Kategorisierbar	Not categorizable	102

Table A7

Frequencies and Percentages of Emotion Selections in the Two Used Lists of Emotions with Different Positioning of the Options

Emotion	Positive emotions ranked first	Percentages	Negative emotions ranked first	Percentages
Anger	254	4,63%	218	4,67%
Contempt	91	1,66%	43	0,92%
Contentment	591	10,77%	640	13,70%
Despair	67	1,22%	24	0,51%
Disgust	57	1,04%	23	0,49%
Fear	87	1,58%	94	2,01%
Frustration	394	7,18%	301	6,44%
Guilt	51	0,93%	46	0,98%
Insecurity	379	6,90%	391	8,37%
Interest	444	8,09%	438	9,38%
Joy	419	7,63%	360	7,71%
Nervousness	232	4,23%	186	3,98%
Pride	153	2,79%	141	3,02%
Relief	502	9,14%	317	6,79%
Resignation	81	1,48%	99	2,12%
Sadness	52	0,95%	14	0,30%
Security	563	10,26%	473	10,13%
Shame	27	0,49%	34	0,73%
Shock	74	1,35%	51	1,09%
Stress	550	10,02%	388	8,31%
Surprise	211	3,84%	174	3,73%
Wonder	211	3,84%	216	4,62%
Total	5490		4671	

Table A8

Frequency of Emotion Denominations at each Vignette of the Self-Employed Sample

Emotion	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	Total
Anger	15	5	10	28	6	70	0	1	4	21	25	3	35	9	17	8	257
Contempt	3	1	4	4	2	9	0	0	3	3	6	8	24	2	2	3	74
Contentment	50	38	66	26	74	4	81	99	53	18	17	24	14	30	27	133	754
Despair	4	2	3	3	0	12	0	0	2	0	4	0	0	6	6	0	42
Disgust	3	5	2	7	1	8	0	1	6	2	4	7	7	3	3	2	61
Fear	0	3	8	3	6	3	0	0	0	0	42	14	3	8	10	0	100
Frustration	33	10	13	49	7	101	0	2	9	33	19	4	20	21	38	5	364
Guilt	0	0	1	0	0	5	0	0	0	0	8	34	0	0	0	0	48
Insecurity	10	40	30	24	40	12	3	11	16	3	55	79	13	40	53	9	438
Interest	22	38	11	26	80	6	15	16	86	48	11	18	39	32	33	65	546
Joy	4	11	25	4	54	0	172	34	46	1	0	16	13	4	1	92	477
Nervousness	10	13	30	14	7	19	1	4	6	0	38	24	4	35	29	0	234
Pride	11	4	24	8	29	2	5	7	7	0	1	5	0	10	6	50	169
Relief	11	16	85	8	32	0	65	147	81	2	7	4	2	8	4	35	507
Resignation	11	13	12	19	2	6	0	1	5	2	7	0	8	15	23	0	124
Sadness	0	0	0	7	0	12	0	1	0	0	1	1	3	1	1	0	27
Security	70	37	54	45	48	12	8	115	79	26	56	25	10	36	48	41	710
Shame	1	1	0	1	0	2	0	1	3	0	4	29	2	0	0	0	44
Shock	1	0	0	2	1	27	0	0	0	11	5	3	5	1	2	1	59
Stress	69	52	52	66	29	50	0	4	15	5	44	16	2	92	83	0	579

Surprise	3	6	1	4	4	40	58	1	13	36	2	3	45	1	2	5	224
Wonder	3	8	2	7	4	29	46	1	16	46	3	7	55	3	3	6	239
Total	334	303	433	355	426	429	454	446	450	257	359	324	304	357	391	455	6077

Note. Lables for the vignettes were taken from Table A4 in Appendix A.

Table A9

Frequency of Emotion Denominations at each Vignette of the Wage-Earner Sample

Emotion	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	Total
Anger	20	37	9	4	7	13	10	1	3	5	16	8	2	16	6	5	45	207
Contempt	2	10	3	0	1	2	3	0	1	1	3	1	1	7	2	0	5	42
Contentment	27	18	19	26	25	36	49	65	37	26	15	19	9	14	11	74	1	471
Despair	4	3	5	1	2	0	0	0	1	3	1	5	3	0	8	0	6	42
Disgust	2	4	2	0	0	0	1	0	0	1	0	0	2	1	1	0	1	15
Fear	2	1	1	5	4	0	1	0	5	0	0	24	9	6	9	0	2	69
Frustration	30	52	24	6	19	20	12	0	4	8	22	5	27	4	17	2	61	313
Guilt	2	0	2	2	0	1	0	0	1	5	0	7	12	2	1	0	4	39
Insecurity	10	4	17	28	31	8	6	1	28	16	2	39	20	17	40	6	43	316
Interest	10	17	9	28	16	11	9	9	19	53	26	9	6	30	24	41	14	331
Joy	4	5	5	18	21	6	6	103	27	24	1	1	3	10	6	57	1	298
Nervousness	3	1	6	8	17	1	0	1	24	7	1	28	23	3	38	0	8	169
Pride	7	6	7	4	9	0	1	14	16	4	0	2	1	0	10	35	0	116
Relief	3	4	2	6	36	30	57	44	53	38	1	3	6	1	5	16	0	305
Resignation	1	1	5	7	5	0	0	0	4	3	0	4	14	2	7	0	1	54
Sadness	8	12	0	0	0	4	3	0	0	0	4	1	1	0	0	0	4	37
Security	22	10	25	19	19	33	27	10	13	40	13	28	5	3	17	33	4	321

Shame	0	0	1	0	0	0	0	0	0	4	0	2	2	1	0	0	0	10
Shock	5	22	2	0	0	0	4	1	1	1	15	2	0	5	0	0	3	61
Stress	8	5	50	33	43	2	1	1	16	10	2	28	68	2	57	0	19	345
Surprise	3	12	0	1	0	1	1	40	4	19	17	5	0	19	2	3	25	152
Wonder	3	23	4	5	2	6	1	32	4	22	24	3	0	29	0	4	13	175
Total	176	247	198	201	257	174	192	322	261	290	163	224	214	172	261	276	260	3888

Note. Lables for the vignettes were taken from Table A4 in Appendix A.

Table A10

Standardized Residuals of the Emotions at each Vignette of the Wage-Earner Sample

Emotion	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17
Anger	3.5	6.6	-.5	-2.0	-1.8	1.2	-.1	-3.9	-2.9	-2.7	2.5	-1.1	-2.8	2.3	-2.1	-2.5	8.4
Contempt	.1	4.5	.6	-1.5	-1.1	.1	.6	-1.9	-1.1	-1.2	.9	-.9	-.9	3.8	-.5	-1.7	1.3
Contentment	1.2	-2.2	-1.0	.3	-1.1	3.3	5.3	4.2	1.0	-1.5	-1.1	-1.6	-3.3	-1.5	-3.7	7.0	-5.4
Despair	1.5	.2	2.0	-.8	-.5	-1.4	-1.4	-1.9	-1.1	-.1	-.6	1.7	.5	-1.4	3.1	-1.7	1.9
Disgust	1.6	3.1	1.4	-.9	-1.0	-.8	.3	-1.1	-1.0	-.1	-.8	-.9	1.3	.4	.0	-1.0	.0
Fear	-.6	-1.6	-1.3	.8	-.3	-1.8	-1.3	-2.4	.2	-2.3	-1.7	10.0	2.7	1.7	2.0	-2.2	-1.2
Frustration	4.2	7.2	2.0	-2.5	-.4	1.6	-.9	-5.1	-3.7	-3.2	2.5	-3.1	2.4	-2.6	-.9	-4.3	8.8
Guilt	.2	-1.6	.0	.0	-1.6	-.6	-1.4	-1.8	-1.0	1.2	-1.3	3.2	6.7	.2	-1.0	-1.7	.9
Insecurity	-1.1	-3.6	.2	2.9	2.2	-1.6	-2.4	-4.9	1.5	-1.6	-3.1	4.9	.6	.8	4.1	-3.5	4.8
Interest	-1.3	-.9	-1.9	2.6	-1.3	-1.0	-1.8	-3.5	-.7	5.7	3.3	-2.3	-2.9	4.0	.4	3.6	-1.7
Joy	-2.6	-3.2	-2.6	.7	.3	-2.0	-2.3	15.8	1.6	.4	-3.3	-3.9	-3.3	-.9	-3.1	7.8	-4.2
Nervousness	-1.7	-3.0	-.9	-.2	1.7	-2.4	-2.9	-3.5	3.8	-1.6	-2.3	5.9	4.5	-1.6	7.9	-3.5	-1.0
Pride	.8	-.5	.4	-.8	.5	-2.3	-2.0	1.4	2.9	-1.6	-2.2	-1.8	-2.1	-2.3	.8	9.3	-2.8
Relief	-2.9	-3.5	-3.4	-2.5	3.5	4.4	10.8	3.7	7.2	3.2	-3.3	-3.5	-2.6	-3.4	-3.4	-1.2	-4.5
Resignation	-.9	-1.3	1.4	2.5	.8	-1.6	-1.6	-2.1	.2	-.5	-1.5	.5	6.4	-.3	1.8	-2.0	-1.4
Sadness	4.9	6.3	-1.4	-1.4	-1.6	1.8	.9	-1.8	-1.6	-1.7	2.0	-.8	-.7	-1.3	-1.6	-1.6	1.0
Security	2.0	-2.3	2.1	.6	-.5	4.9	2.8	-3.2	-1.8	3.3	-.1	2.2	-3.0	-3.0	-1.0	2.1	-3.8
Shame	-.7	-.8	.7	-.7	-.8	-.7	-.7	-.9	-.8	3.8	-.6	1.9	2.0	.8	-.8	-.8	-.8

Shock	1.3	9.2	-.6	-1.8	-2.0	-1.7	.6	-1.8	-1.5	-1.7	7.8	-.8	-1.8	1.4	-2.0	-2.1	-.5
Stress	-1.9	-3.6	7.7	3.6	4.2	-3.4	-3.9	-5.2	-1.5	-3.1	-3.3	1.8	11.2	-3.4	7.0	-4.9	-.8
Surprise	-1.5	.8	-2.8	-2.4	-3.2	-2.2	-2.4	7.7	-1.9	2.3	4.2	-1.3	-2.9	4.7	-2.6	-2.4	4.7
Wonder	-1.7	3.6	-1.6	-1.3	-2.8	-.7	-2.6	4.6	-2.3	2.5	6.2	-2.2	-3.1	7.6	-3.4	-2.4	.4

Note. Lables for the vignettes were taken from Table A4 in Appendix A.

Table A11

Standardized Residuals of the Emotions at each Vignette of the Self-Employed Sample

Emotion	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16
Anger	.2	-2.2	-1.9	3.4	-2.8	12.2	-4.4	-4.1	-3.4	3.1	2.5	-2.9	6.2	-1.6	.1	-2.6
Contempt	-.5	-1.4	-.6	-.2	-1.4	1.7	-2.4	-2.3	-1.1	-.1	.8	2.0	10.5	-1.1	-1.3	-1.1
Contentment	1.3	.1	1.7	-2.7	2.9	-6.7	3.3	5.9	-.4	-2.5	-4.1	-2.6	-3.9	-2.1	-3.1	10.2
Despair	1.1	-.1	.0	.3	-1.7	5.2	-1.8	-1.8	-.6	-1.3	1.0	-1.5	-1.4	2.2	2.0	-1.8
Disgust	-.2	1.1	-1.1	1.8	-1.6	1.8	-2.1	-1.6	.7	-.4	.2	2.1	2.3	-.3	-.5	-1.2
Fear	-2.3	-.9	.3	-1.2	-.4	-1.5	-2.7	-2.7	-2.7	-2.1	14.8	3.8	-.9	.9	1.4	-2.7
Frustration	2.9	-1.9	-2.5	6.0	-3.7	14.9	-5.2	-4.8	-3.5	4.5	-.5	-3.5	.4	-.1	3.0	-4.3
Guilt	-1.6	-1.5	-1.3	-1.7	-1.8	.9	-1.9	-1.9	-1.9	-1.4	3.1	19.7	-1.5	-1.7	-1.8	-1.9
Insecurity	-2.9	3.9	-.2	-.3	1.7	-3.4	-5.2	-3.7	-2.9	-3.6	5.7	11.5	-1.9	2.8	4.7	-4.2
Interest	-1.5	2.1	-4.5	-1.0	6.7	-5.2	-4.0	-3.8	7.2	5.2	-3.7	-2.1	2.2	.0	-.4	3.8
Joy	-4.3	-2.6	-1.5	-4.5	3.6	-5.8	22.8	-.2	1.8	-4.3	-5.3	-1.9	-2.2	-4.5	-5.4	9.4
Nervousness	-.8	.4	3.3	.1	-2.3	.6	-3.9	-3.2	-2.7	-3.1	6.5	3.3	-2.3	5.7	3.6	-4.2
Pride	.6	-1.5	3.4	-.6	5.0	-2.9	-2.1	-1.5	-1.6	-2.7	-2.8	-1.3	-2.9	.0	-1.5	10.5
Relief	-3.2	-1.8	8.1	-4.0	-.6	-6.0	4.4	18.0	7.1	-4.2	-4.2	-4.4	-4.6	-4.0	-5.0	-.5
Resignation	1.6	2.7	1.1	4.4	-2.3	-.9	-3.0	-2.7	-1.4	-1.4	-.1	-2.6	.7	2.9	5.3	-3.0
Sadness	-1.2	-1.2	-1.4	4.3	-1.4	7.3	-1.4	-.7	-1.4	-1.1	-.5	-.4	1.4	-.5	-.6	-1.4
Security	5.0	.3	.5	.5	-.3	-5.4	-6.2	8.7	3.6	-.7	2.2	-2.1	-4.3	-.9	.3	-1.7
Shame	-.9	-.8	-1.8	-1.0	-1.8	-.6	-1.8	-1.2	-.1	-1.4	.9	17.4	-.1	-1.6	-1.7	-1.8

Shock	-1.2	-1.7	-2.1	-.8	-1.5	11.2	-2.1	-2.1	-2.1	5.4	.8	-.1	1.2	-1.3	-.9	-1.6
Stress	6.6	4.3	1.7	5.5	-1.8	1.4	-6.6	-5.9	-4.3	-3.9	1.7	-2.7	-5.0	9.9	7.5	-6.6
Surprise	-2.7	-1.5	-3.7	-2.5	-3.0	6.1	10.1	-3.8	-.9	8.6	-3.1	-2.6	10.1	-3.4	-3.3	-2.9
Wonder	-2.8	-1.1	-3.6	-1.9	-3.1	3.0	6.7	-3.9	-.4	11.3	-3.0	-1.6	12.4	-2.9	-3.2	-2.8

Note. Lables for the vignettes were taken from Table A4 in Appendix A.

Table A12

Frequencies of Selected Emotions after Neutral Open-Format Answers

Emotion	Frequencies
Anger	13
Contempt	10
Contentment	141
Despair	1
Disgust	4
Fear	5
Frustration	23
Guilt	2
Insecurity	43
Interest	144
Joy	30
Nervousness	18
Pride	12
Relief	42
Resignation	16
Sadness	2
Security	203
Shame	0
Shock	0
Stress	41
Surprise	49
Wonder	48

Table A13

Frequencies of Neutral Statements for each Vignette

Self-employed		Wage-earner	
Vignette	Frequency	Vignette	Frequency
S1	24	A1	26
S2	32	A2	11
S3	16	A3	12
S4	35	A4	9
S5	23	A5	10
S6	11	A6	34
S7	4	A7	21
S8	8	A8	1
S9	9	A9	8
S10	84	A10	10
S11	30	A11	35
S12	21	A12	27
S13	68	A13	10
S14	23	A14	39
S15	15	A15	24
S16	17	A16	8
		A17	6

Table A14

Biplot (Figure 2 and Figure 3) Emotion and Vignette Clusters

	Self-employed		Wage-earners	
Cluster	Emotions	Vignettes	Emotions	Vignettes
Cluster 1	Joy, Relief	S7, S8, S9, S16	Joy, Relief, (Pride)	A7, A8, A10, A16, (A9)
Cluster 2	Frustration, Anger, Stress	S1, S4, S6, S15, (S14)	Frustration, Anger, (Shock)	A1, A2, A17, (A3)
Cluster 3	Nervousness, Insecurity, Fear	S11, (S14), (S12)	Stress, Nervousness, Insecurity	A12, A13, A15, (A9)
Cluster 4	Guilt, Shame	(S12)		

Note. Parenthesized vignettes belong to more than one cluster. Parenthesized emotions were included because of their value in the frequency table and not because of their inertia values.

Appendix B

Figures

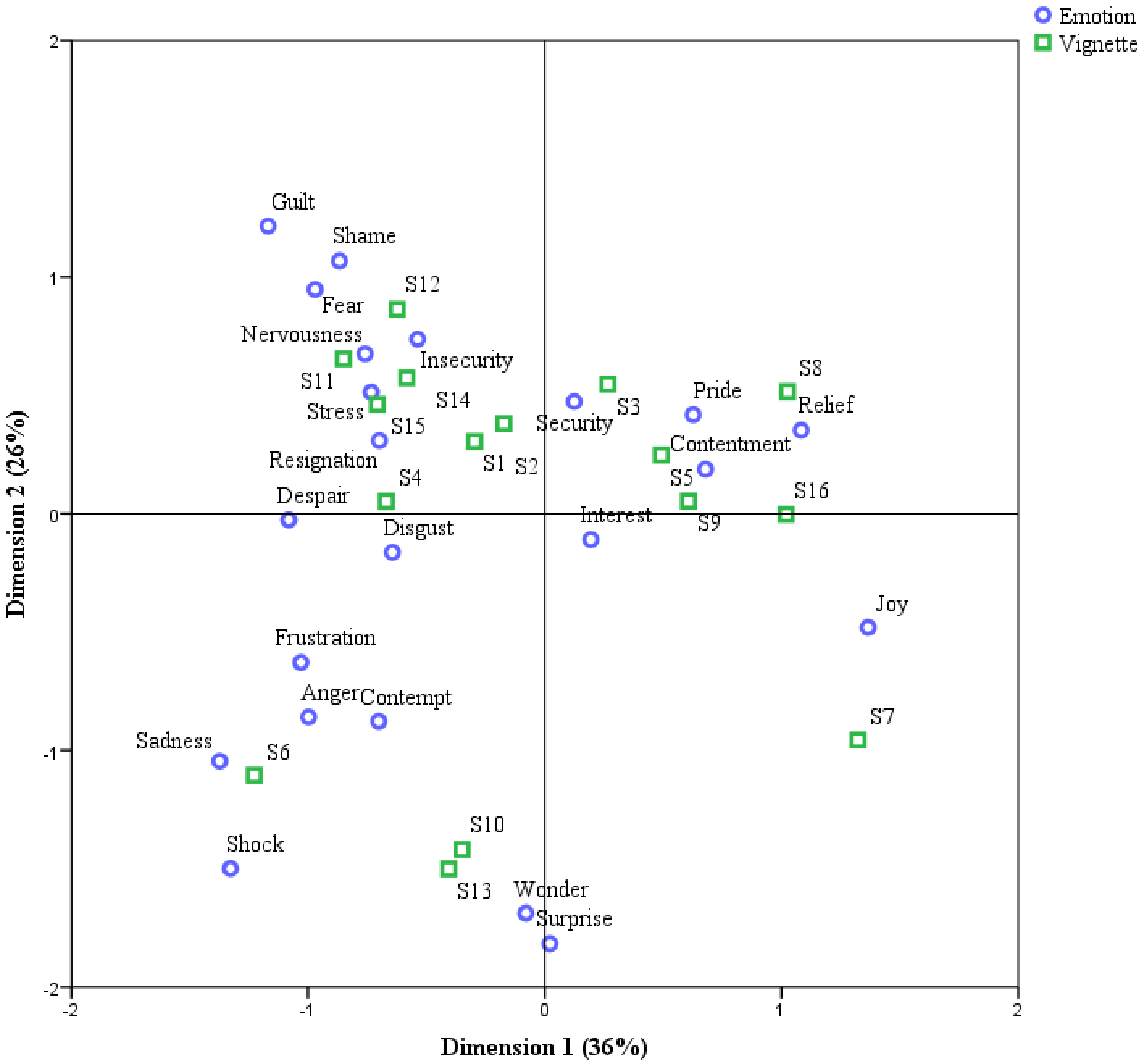

Figure B1. Two-dimensional biplot showing associations between emotions and vignettes of the self-employed sample without any variable exclusion. Labels for the vignettes as used in Table A4 in Appendix A. Parenthesized percentages indicate the amount of explained variance of each dimension.

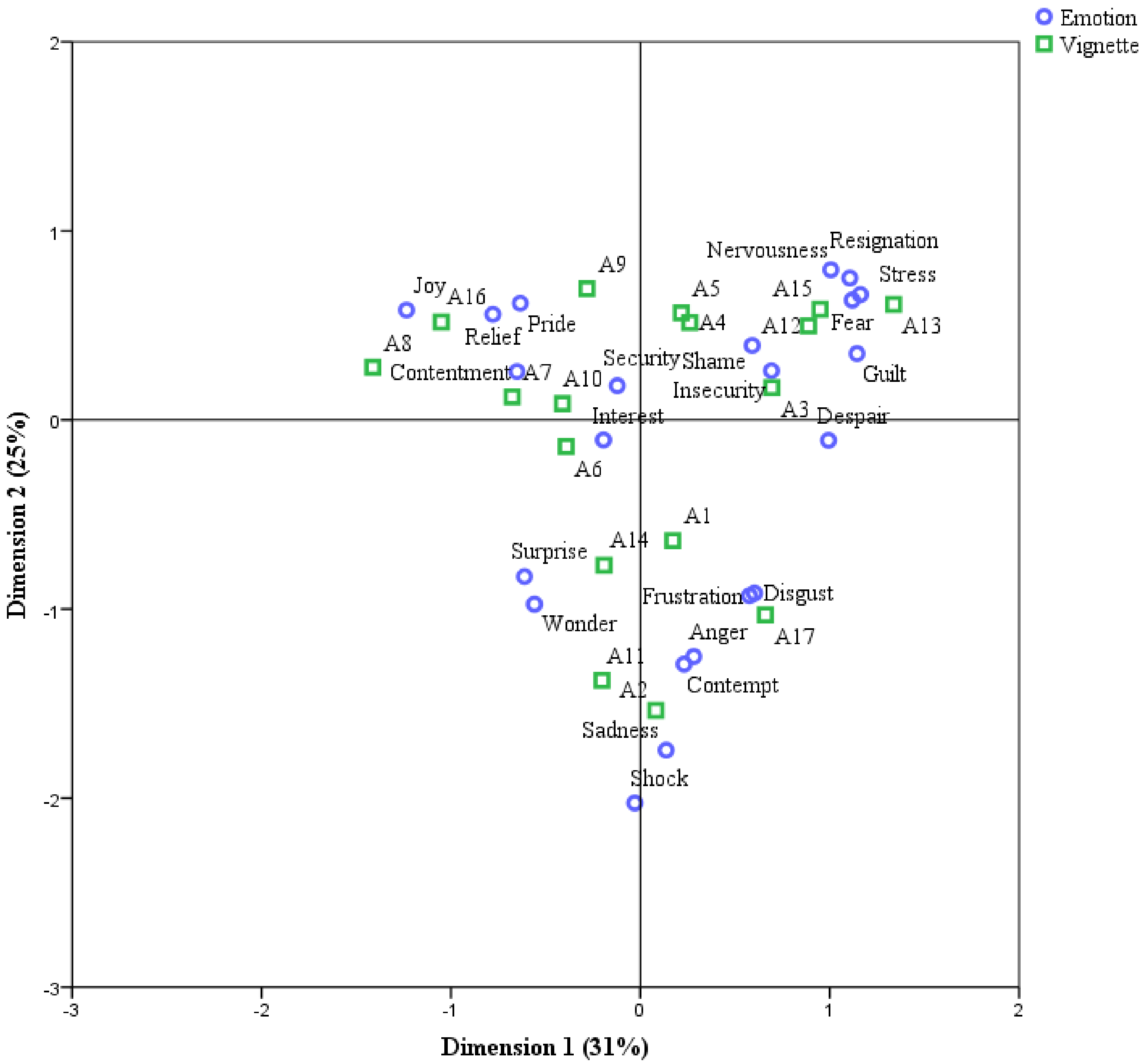

Figure B2. Two-dimensional biplot showing associations between emotions and vignettes of the wage-earner sample without any variable exclusion. Labels for the vignettes as used in Table A4 in Appendix A. Parenthesized percentages indicate the amount of explained variance of each dimension.

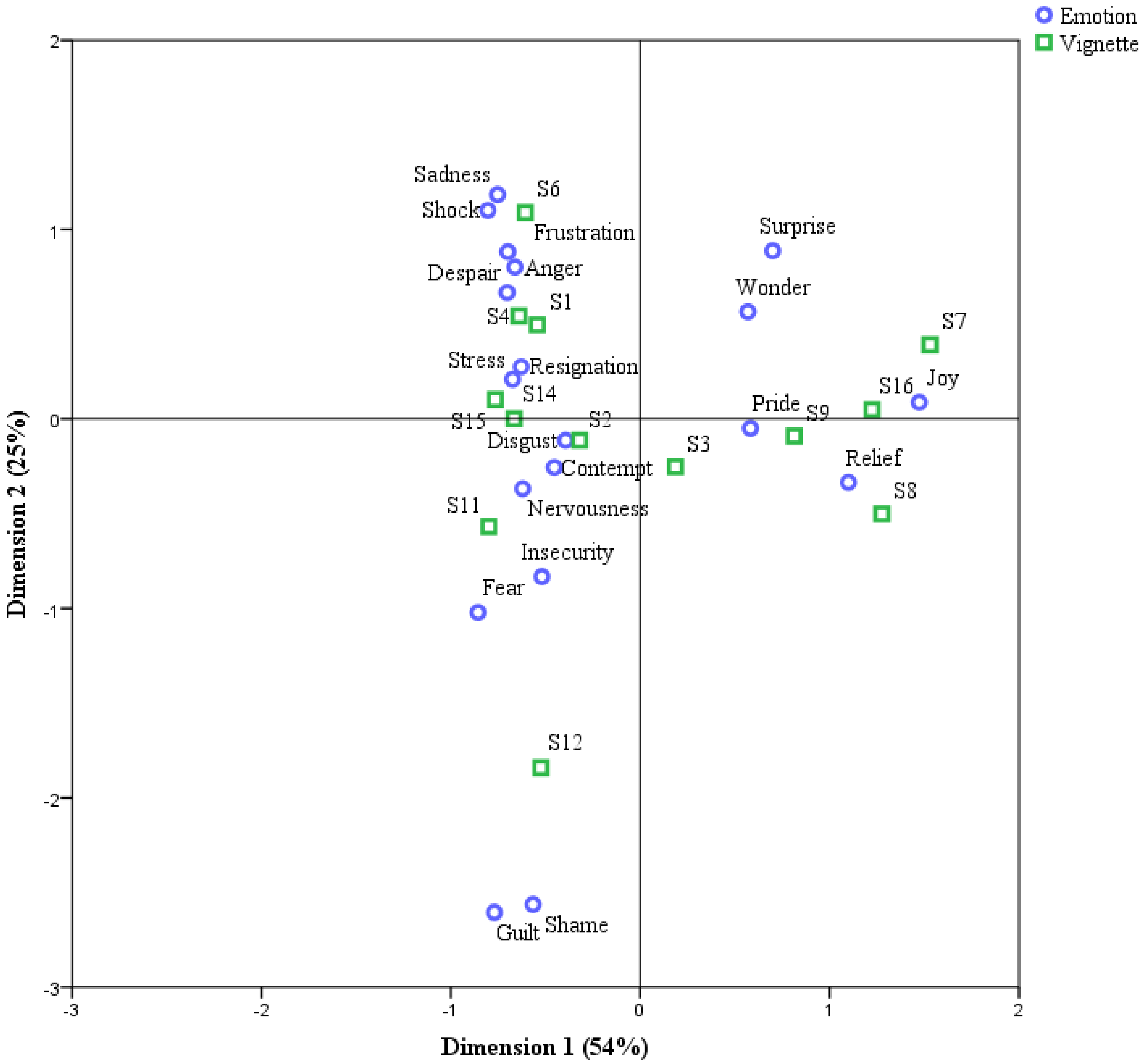

Figure B3. Two-dimensional biplot showing associations between emotions and vignettes of the self-employed sample. Unemotional emotions and neutral vignettes were excluded from the analysis. Labels for the vignettes as used in Table A4 in Appendix A. Parenthesized percentages indicate the amount of explained variance of each dimension.

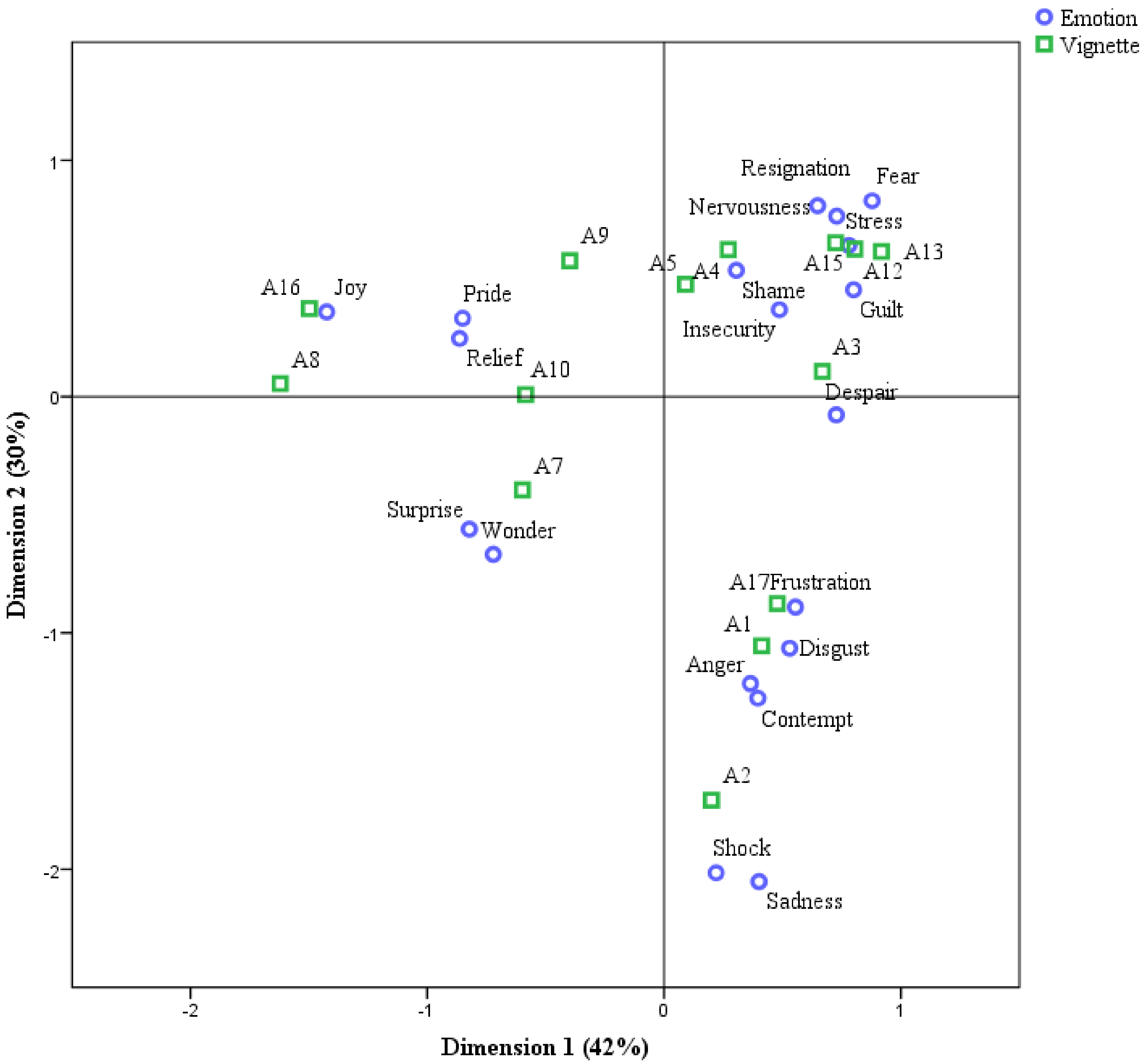

Figure B4. Two-dimensional biplot showing associations between emotions and vignettes of the wage-earner sample. Unemotional emotions and neutral vignettes were excluded from the analysis. Labels for the vignettes as used in Table A4 in Appendix A. Parenthesized percentages indicate the amount of explained variance of each dimension.

Appendix C

Survey Material (German questionnaire)

Page 1

Sehr geehrter Teilnehmer, sehr geehrte Teilnehmerin,

wir bedanken uns sehr herzlich, dass Sie sich die Zeit nehmen, um an dieser Studie teilzunehmen.

Bitte lesen Sie sich die Instruktionen des Fragebogens genau durch und beantworten Sie alle Fragen, selbst wenn manche ähnlich klingen. Die Bearbeitung des Fragebogens wird etwa 10 bis 15 Minuten dauern.

Die Daten werden anonym gespeichert, nicht an Dritte weitergegeben und erlauben keine Rückschlüsse auf Einzelpersonen.

Bei Fragen oder Anmerkungen wenden Sie sich bitte an

Name und E-Mail Adresse aus Anonymisierungsgründen für die Plagiatsprüfung entfernt

---

Page 2

In welchem der folgenden Arbeitsverhältnisse haben Sie sich schon befunden (auch aktuell)?

- Arbeiter/in; Angestellte/r
- Selbstständig
- Beide der Genannten
- Keines der Genannten

Page 3

Im folgenden Teil werden Ihnen verschiedene Situationen zum Thema "Steuern zahlen" präsentiert.

Bitte lesen Sie sich diese kurzen Beschreibungen gut durch und versuchen Sie sich so gut wie möglich in die Situation hineinzuversetzen. Wenn Sie eine der beschriebenen Situationen nicht selbst erlebt haben, versuchen Sie sich bitte trotzdem vorzustellen, wie es sein könnte in so einer Situation zu sein.

Zu jeder Situation werden Sie gebeten anzugeben was für Emotionen diese Situation in Ihnen hervorruft. Bitte antworten Sie hier kurz und stichwortartig, aber so vollständig wie möglich. Anschließend klicken Sie in einer Liste bitte nochmals diejenigen Emotionen an, die auf die Situation zutreffen (Mehrfachauswahl möglich).

Page 4

Sie wissen, dass Sie sich bald um Ihre Steuererklärung kümmern müssen, legen Sie aber vorerst zur Seite.

Welche Emotion(en) empfinden Sie in dieser Situation?	

Page 5

Sie wissen, dass Sie sich bald um Ihre Steuererklärung kümmern müssen, legen Sie aber vorerst zur Seite.

Bitte wählen Sie aus, welche Aussagen hier zutreffen.

In dieser Situation...

- ○ …bin ich erleichtert.
- ○ …fühle ich mich sicher.
- ○ …freue ich mich.
- ○ …bin ich erstaunt.
- ○ …bin ich stolz.

- …bin ich interessiert.
- …bin ich überrascht.
- …bin ich zufrieden.
- …würde ich mich am liebsten zurückziehen.
- …bin ich verzweifelt.
- …bin ich geschockt.
- …bin ich nervös.
- …bin ich gestresst.
- …bin ich frustriert.
- …bin ich wütend.
- …bin ich unsicher.
- …bin ich ängstlich.
- …schäme ich mich.
- …empfinde ich Verachtung.
- …fühle ich mich schuldig.
- …bin ich traurig.
- …bin ich angeekelt.

Page 6 – Page 55 / Page 57

The process depicted in Page 4 and Page 5 was repeated with every vignette. First, participants had to give an open-format answer, second they chose one or more emotions from the list of emotions. Self-employed received 16 vignettes and wage-earners received 17 vignettes. See Table A4 in Appendix A for the catalogue of vignettes for each group. Every participant had to answer every vignette of his respective group. The vignettes were presented in randomized order.

Page 58

Welches Geschlecht haben Sie?

- Weiblich
- Männlich

Wie alt sind Sie?

Ich bin _____ Jahre alt.

In welchem Land sind Sie steuerpflichtig?

- Österreich
- Deutschland
- Anderes ___________________
- In keinem

Was ist ihr höchster abgeschlossener Bildungsgrad?

- Pflichtschule
- Lehrabschluss
- Meisterprüfung
- Matura/Abitur
- Bachelor/Master; Diplom
- PhD; Doktorat

In welchem Bereich arbeiten Sie momentan?

Haben Sie die beschriebenen Situationen gut verstanden?

- Ja.
- Nein, ich habe sie sprachlich nicht verstanden.
- Nein, ich habe sie inhaltlich nicht verstanden.

Möchten Sie zu dieser Befragung oder zum besseren Verständnis Ihrer Antworten noch etwas anmerken?

Ist Ihnen während der Teilnahme an dieser Befragung etwas negativ aufgefallen? Waren die Fragen an einer Stelle nicht klar oder war Ihnen die Beantwortung unangenehm? Bitte schreiben Sie kurz ein paar Stichworte dazu.

Page 59

Gerne würden wir Sie auch in Zukunft für kurze Befragungen zu Finanzthemen einladen. Sofern Sie zustimmen, erfassen wir auf der nächsten Seite einige Informationen zu Ihrer Person, die verschlüsselt gespeichert werden und unter keinen Umständen an Dritte weitergegeben werden.

Anfragen für eine Studienteilnahme sind unregelmäßig und selten im Jahr. Eine Teilnahme ist selbstverständlich stets freiwillig und Sie können die Speicherung Ihrer Daten jederzeit rückgängig machen.

Haben Sie Interesse in Zukunft von uns für kurze wissenschaftliche Studien kontaktiert zu werden?

- Ja, gerne.
- Nein, lieber nicht.

Page 60

Vielen Dank für Ihre Teilnahme!

Wir möchten uns ganz herzlich für Ihre Mithilfe bedanken.

Bei Fragen oder Anmerkungen wenden Sie sich bitte an

Name und E-Mail Adresse aus Anonymisierungsgründen für die Plagiatsprüfung entfernt

Ihre Antworten wurden gespeichert, Sie können das Browser-Fenster nun schließen.

Appendix D

Zusammenfassung

Das Messen von Emotionen des Steuerzahlers kann dabei helfen das emotionale Erlebnis beim Steuerzahlen zu verstehen. Dieses Verständnis wiederum kann Theorien und Modelle über das Steuerverhalten erweitern und ihre Erklärungskraft vergrößern. Nichtsdestotrotz gibt es keine universell angewandte Methode um Emotionen im Steuerkontext zu messen. Verschiedene Messmethoden führen sogar zu unterschiedlichen Ergebnissen und sind deshalb nicht vergleichbar. Dieses Problem der fehlenden Einigkeit könnte mit der Entwicklung einer universell anwendbaren Methode zur Emotionsmessung im Steuerkontext gelöst werden. Das Ziel dieser Arbeit ist es die Basis für dieses Vorhaben zu bilden. Es sollen diejenigen Emotionen identifiziert werden, welche im Prozess des Steuerzahlens wichtig sind. Außerdem sollen jene Situationen exploriert werden, welche zum Erlebnis unterschiedlicher Emotionen führen und ihre Zusammenhänge erkunden. Die Resultate deuten darauf hin, dass im Speziellen die Emotionen Erleichterung, Freude, Frustration, Nervosität, Stress, Überraschung, Unsicherheit und Wut im Steuerkontext relevant sind. Der Prozess des Steuerzahlens wird als stressig empfunden, aber das Delegieren von Arbeit führt zu Erleichterung. Steuern zahlen zu müssen verärgert und frustriert sowohl ArbeiterInnen als auch Angestellte. Selbstständige werden nervös, wenn sie ihre Steuern nicht korrekt entrichten oder wenn eine Steuerprüfung droht. Beide Gruppen empfinden Freude, wenn sie Steuergeld vom Staat zurückbekommen und wenn sie erfahren, dass ihre Steuergelder in gerechter Weise verwendet werden. Diese explorativen Resultate sollten weiter validiert werden und können dafür genutzt werden eine Emotionsmessmethode für den Steuerkontext zu entwickeln.

Schlagworte: Emotionen, Steuern, Korrespondenzanalyse

Eidesstaatliche Erklärung

EIDESSTATTLICHE ERKLÄRUNG
Ich versichere, dass ich die Masterarbeit ohne fremde Hilfe und ohne Benutzung anderer als der angegebenen Quellen angefertigt habe, und dass die Arbeit in gleicher oder ähnlicher Form noch keiner anderen Prüfungsbehörde vorgelegen hat. Alle Ausführungen der Arbeit, die wörtlich oder sinngemäß übernommen wurden, sind als solche gekennzeichnet.

Wien, am 25.08.2017

Unterschrift:

Unterschrift aus Anonymisierungsgründen für die Plagiatsprüfung entfernt