



Unobscuring the Concept of Tax Morale: A Systematic Review of the Literature

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Abstract

Enhancing tax morale is considered crucial for increasing tax compliance, reducing tax evasion, and decreasing the shadow economy. Despite its clear importance within tax research and policy development, there is surprisingly little consensus about what tax morale is. To address this problem, a systematic literature review of 323 articles was conducted. The review summarizes the many different definitions and operationalizations of tax morale, revealing substantial heterogeneity in both. Definitions range from relatively narrow (e.g., intrinsic motivation) to extremely broad (e.g., umbrella term for nonpecuniary motivations). The review identified 91 different operationalizations, 72 of which were used only once. Importantly, the prevailing definitions and operationalizations of tax morale exhibit a lack of alignment, often within the same article. The most common definition is the intrinsic motivation to pay taxes. In contrast, the most common operationalization is a single question about the justifiability of cheating on taxes. The review emphasizes the need to establish a broad-based consensus on the definition of tax morale. It outlines initial steps for developing an operationalization that aligns with this potential definition. It is recommended that, as a first-step solution, researchers be more specific and provide more detail when they use the term tax morale. In the interim, this will promote cumulative knowledge generation and, in time, a more precise definition of tax morale to underpin relevant policy implications.

Keywords Tax morale · Taxation · Systematic literature review · Conceptualization · Operationalization · Measurement

Introduction

Taxation, imposing taxes upon people by authorities, is the primary way in which governments can finance their expenditures. In addition, taxation is used to redistribute income and lessen inequalities. Despite the necessity of taxation, attitudes towards taxes and taxation are often negative (Kirchler, 1998), and many people try to avoid or evade paying them. Hence, collecting taxes is often difficult, expensive, and labor intensive (Alm, 1996). For societies, it would

be desirable that people have a positive stance towards taxation and are willing to contribute. Put differently, it would be advantageous when people have a high tax morale.

Thus, it is not surprising that the concept of tax morale has attracted significant attention among researchers in psychology, law, and economics over the last twenty years. A search on Web of Science reveals that the number of articles published on “tax morale” soared since the year 2000 (see Fig. 1). Despite the rising popularity of the tax morale construct, it remains unclear what tax morale actually means. From a linguistic perspective, the word morale primarily refers to “the mental or emotional state (with regard to confidence, hope, enthusiasm, etc.) of a person or group engaged in some activity” (Oxford English Dictionary, 2023). Therefore, tax morale should reflect some sort of enthusiasm regarding paying taxes. Yet, tax morale literature is replete with many different, sometimes conflicting, conceptualizations of tax morale, ranging from attitudes towards paying taxes (e.g., Schmolders, 1960), to the intrinsic motivation to pay taxes (e.g., Frey, 1997b), to just any psychological factor potentially affecting tax compliance (e.g., Luttmer &

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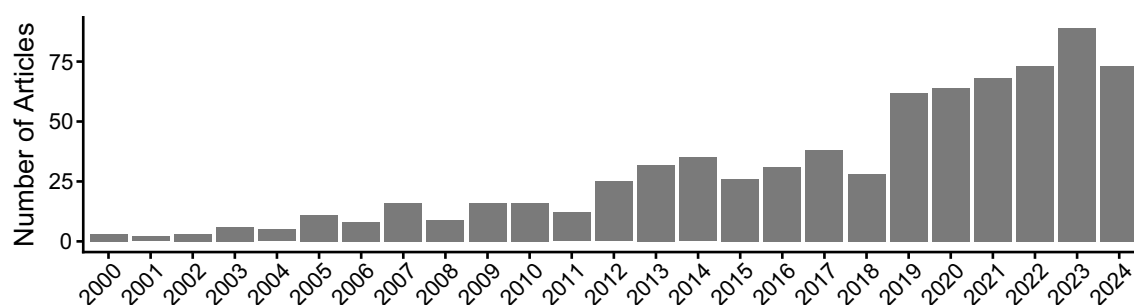


Fig. 1 Number of published articles on tax morale since the year 2000 (Web of Science)

Singhal, 2014). This lack of consensus has been emphasized from early on (Kirchler, 2007), by acknowledging that tax morale is often being treated as a “black box” of taxpayers’ meta-preferences, used to capture all possible unknown factors potentially affecting tax evasion (Feld & Frey, 2002). The current article takes stock of the various definitions and operationalizations of tax morale in order to unobscure it, laying out initial steps for developing an operationalization that aligns with its definition.

Let us first explain why tax morale is such an important construct. Tax morale of both individuals and businesses has been repeatedly emphasized as one of the key drivers of tax compliance—particularly in developing countries where compliance rates are low (Daude et al., 2012; OECD, 2019, 2022). By fostering people’s tax morale, expenditures towards costly enforcement strategies like increased auditing could be reduced. Empirical research supports the idea that a strong sense of tax morale is linked to increased tax compliance (Cummings et al., 2009), a decreased shadow economy (Halla, 2012; Torgler & Schneider, 2009; Torgler et al., 2007a, b), and lower rates of tax evasion (e.g., Brink & Porcano, 2016). Taking a psychological science perspective, research has even shown that people with higher tax morale are generally happier (Lubian & Zarri, 2011; Torgler, 2004). Consequently, research on what fosters tax morale has burgeoned in the past two decades. Trust in authorities (e.g., Andriani, 2016), fairness (e.g., Puklavec et al., 2025), governmental expenditure (e.g., Doerrenberg & Peichl, 2013), cultural differences (e.g., Alm & Torgler, 2006), and many more factors have been identified to affect tax morale (for an overview, see Horodnic, 2018).

Despite its clear importance in tax research, there seems to be surprisingly little consensus about what tax morale actually is. Definitions of the construct range from very narrow, to extremely broad views on what tax morale encompasses. Similarly, there is large heterogeneity in how tax morale is operationalized. The current study presents a systematic literature review, as a required first step towards reaching consensus about the content of the concept of tax morale. We summarize the existing definitions

and operationalizations of tax morale to better understand what tax morale actually is, and to achieve a better alignment between its definition and measurement.

Defining Tax Morale

The first mentions of tax morale can be traced back Veit (1927), who saw tax morale as the “conscientious fulfillment”¹ (p. 323) of one’s tax duties. Tax morale was seen as a behavioral expression of the willingness to pay taxes, which in turn was seen as the psychological, intrinsic predisposition of tax morale. Despite its historical significance, this original definition of tax morale has not gained acceptance in the empirical tax literature. A more prominent origin of tax morale, featuring a stronger connection to psychological factors, was attributed to Schmolders (1960). He claimed that tax morale should become most visible in the taxpayers’ moral evaluation of tax evasion (p. 101). However, Schmolders did not view morality in the sense of a “higher obligation”, but rather as an “inner approval of the prevailing order of mores and laws” (p. 97). In this sense, he defined tax morale as:

the attitude of a group or the whole population of taxpayers regarding the question of accomplishment or neglect of their tax duties; it is anchored in citizens’ tax mentality and in their consciousness to be citizens, which is the base of their inner acceptance of tax duties and acknowledgment of the sovereignty of the state. (pp. 97–98)

The initial definition thus emphasizes the attitudes towards paying taxes. Research on the concept of tax morale continued over the next decades, while often being referred to as moral attitudes, or tax ethics (Schwartz & Orleans, 1967; Song & Yarbrough, 1978; Strümpel, 1966; Vogel, 1974). During that time, tax research began to acknowledge

¹ All quotes from Veit (1927) and Schmolders (1960) are the authors’ translations from the original German texts.

that previous economic models of tax compliance, which originated from Becker's theory of crime and punishment (1968), and were adopted to the taxation context by Allingham and Sandmo (1972), were unable to explain the observed (high) compliance rates using just the pecuniary motivations of taxpayers. At that time the fields of economic psychology and behavioral economics started to form, incorporating findings from both economics and psychology, and emphasizing interdisciplinary research. Frey (1997b), using previous findings from Titmuss (1970) and Deci (1971, 1972, 1975; Deci & Ryan, 1987) on intrinsic motivation, introduced the Motivation Crowding Theory (later formalized in Frey & Jegen, 2001) to the field of taxation. Frey saw tax morale as the intrinsic motivation to pay taxes, that is, a motivation to pay taxes even in the absence of external threats. This definition originated from the notion that people's behavior is not only driven by the goal to maximize their own income, but also by a sense of responsibility (or obligation) towards the society (i.e., civic duty; Feld & Frey, 2002; Frey, 1997a; Orviska & Hudson, 2003).

Most of the research followed suit and adopted the definition and theoretical foundations of tax morale as an intrinsic motivation to pay taxes. Yet, several (slight but meaningful) adjustments to this definition were introduced shortly after. The word "motivation" was sometimes replaced by "will- ingness" (e.g., Alm & Torgler, 2006) or "obligation" (e.g., Braithwaite & Ahmed, 2005), diluting Frey's definition that implied "intrinsic motivation" and introducing further heterogeneity in the definition. Other research streams coined the terms "intrinsic attitudes towards paying taxes" (e.g., Nordblom & Žamac, 2012) or "attitudes towards tax evasion" (e.g., Dar & Sahu, 2022), when referring to tax morale. Some others equated "morale" with "morality", emphasizing the role of moral principles and values that individuals hold (e.g., Richardson, 2006), or to what extent they consider it their moral duty to pay taxes (e.g., Kirchgässner, 2011) as part of the definition of tax morale (see also, Puklavec et al., 2025). Tax morale has also been referred to as the social norm towards tax compliance (e.g., Bethencourt & Kunze, 2020; Traxler, 2010). In reading this literature, we found that some articles use multiple definitions of tax morale within the same article, while many more do not define the concept at all.

Taken together, there is little consensus within the empirical tax literature regarding how tax morale should be defined. This notion seems to be reflected in how tax morale is being treated in some of the previous attempts to standardize the concept, specifically through literature reviews. For example, Luttmer and Singhal (2014) define tax morale "... broadly as an umbrella term capturing nonpecuniary motivations for tax compliance as well as factors that fall outside the standard, expected utility framework" (p. 150). Here, the intrinsic motivation is seen as only one of five mechanisms

of how tax morale could operate, next to reciprocity, peer effects and social influences, cultural factors, and information imperfections and deviations from utility maximization (see Luttmer & Singhal, 2014). Similarly, Horodnic (2018) describes tax morale as the result of the interaction between formal institutions (e.g., trust in authorities, and perceptions of laws and regulations) and informal institutions (e.g., socially shared, unwritten norms), as well as socio-demographic characteristics of taxpayers. Tax morale, while initially seen as a relatively narrow concept on taxpayers' intrinsic motivation, evolved into a very broad construct, nearly being synonymous with all "psychological" factors that might affect paying taxes.

Measuring Tax Morale

Not only the definitions of tax morale have been changing and broadening over the past decades, but also its operationalizations. While it is not completely clear how tax morale was measured in the early work of Schmolders (1960), the operationalization seemingly included asking participants what they associate tax evaders with (e.g., clever, traitor; p. 104) and what kind of penalty tax evaders would deserve (e.g., monetary fine, prison; p. 106). Frey (1997a) – who saw tax morale as an intrinsic motivation – proxied tax morale from the degree of direct political control (direct vs. representative democracy) between Swiss cantons, to explain differences in concealed income between cantons.² Some research used questionnaires asking about attitudes (e.g., Ferrer & Gerxhani, 2011), or perceived social norms towards paying taxes (e.g., Meriküll et al., 2013) to assess people's tax morale. Others measured tax morale as a moral evaluation of cheating on taxes (e.g., Alm & Torgler, 2006). Importantly, the existing literature reviews do not yet provide a systematic classification of different operationalizations. But, our reading of the literature indicates that there might be a large heterogeneity of operationalizations and measures of tax morale, just as there is a large variety in the definitions.

The Need for a Synthesis

The taxation literature presents a large heterogeneity of tax morale definitions, while at the same time many articles do not define the construct at all, as if it was a well-established

² Cantons were grouped based on whether they have referenda and initiatives on budgetary affairs (i.e., direct democracies) or all decisions are made by elected officials (i.e., representative democracies). The basic idea is related to the motivational spill-over across domains. According to their argument, direct democracy is leading to more civic duty (virtue) and tax morale, consequently increasing tax compliance.

construct that does not require a definition. Operationalizations and measurements of the tax morale construct seem to be plagued with similar heterogeneity. This makes a thorough review of existing definitions and operationalizations a necessary first step in order to enable a generalization across articles to evaluate the actual role of tax morale in tax related behavior. While a lack of clarity around the concept of tax morale has been noted before (see Feld & Frey, 2002; Kirchler, 2007), we are not aware of any systematic attempt to resolve this. Hence, we present a systematic literature review of the definitions and operationalizations of tax morale.

Our further goal is to assess the degree of (mis)alignment between definitions and measurements. For instance, tax morale can be operationalized as the residual variance of tax compliance that cannot be captured by mere deterrence factors. It can be viewed as a feature of whole nations or communities or as a feature of individual taxpayers, measured with the help questionnaires. These questionnaires sometimes cover multiple aspects of tax paying, while at other times they only include a single question, focusing on a single aspect of tax morale. Detecting and quantifying the degree of misalignment between definitions and operationalizations is important as misalignment necessarily impedes the field's progress towards understanding the role of different factors in tax compliance. Tax morale is a concept that is repeatedly emphasized as an important driver of tax paying behavior, and a multitude of policy applications depend on the research results obtained in this field (e.g., Daude et al., 2012; OECD, 2019, 2022). To provide the best possible policy advice, there has to be an alignment between different approaches, so that knowledge can be effectively summarized, accumulated and, ultimately, made use of in the applied context.

This systematic literature review pursues several specific objectives. First, we document the prevalence of all definitions and operationalizations of tax morale in the academic literature. To provide a complete overview of relevant articles on tax morale, we gathered all available articles from the main online databases of peer-reviewed literature that mentioned “tax morale” within their title, abstract, or keywords. Second, we document the degree of (mis)alignment, that is, the consistency (or a lack thereof) between the definition and the measurement within every single article. Third, we examine how tax morale has been studied across different populations. Lastly, we integrate the findings to provide a clearer picture of how tax morale is being understood within the literature, what conclusions we can draw from the research findings thus far, and outline the next steps towards unobscuring tax morale.

Method

Systematic Literature Search and Article Selection

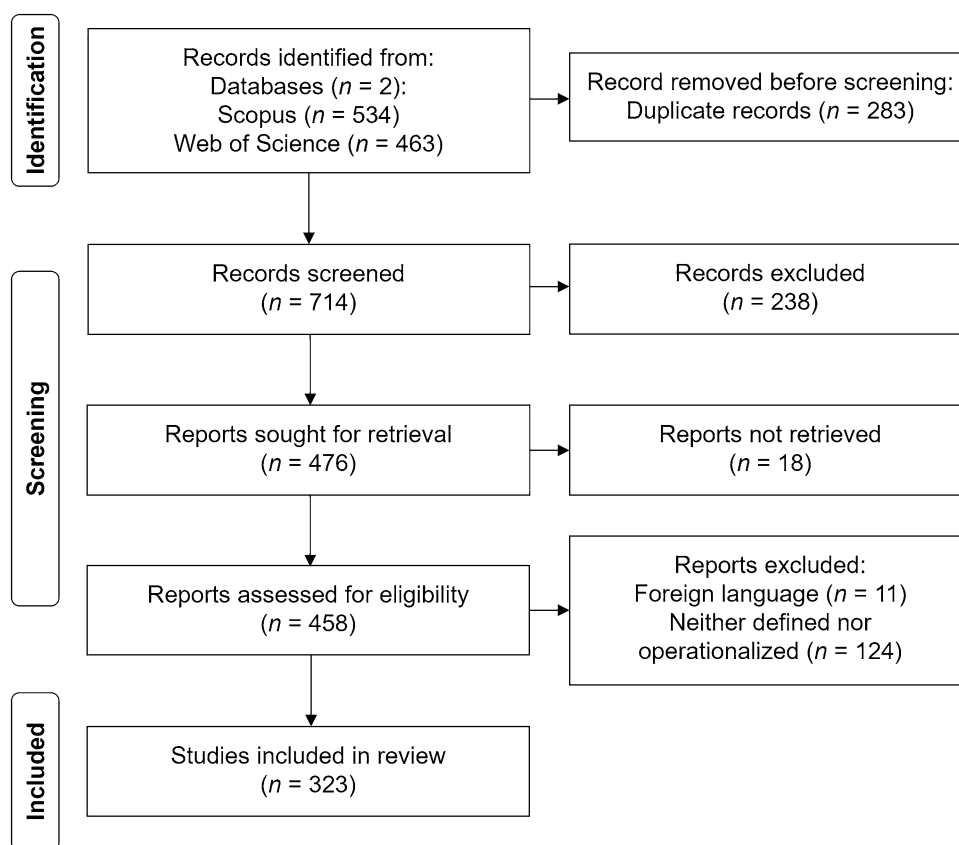
The search for eligible articles and article selection comprised several steps, as depicted in Fig. 2 using the PRISMA flow diagram (Page et al., 2021). In June 2022, 997 articles from the Scopus and Web of Science databases were gathered, using the query “tax* AND morale*”.³ Using the web application Rayyan (Ouzzani et al., 2016) 283 exact duplicate records were reviewed and excluded and the number of articles was reduced to 714. The first author did an initial screening of titles, abstracts, and keywords, as well as a manual identification of duplicates, further reducing the number of articles to 476.

Based on a small sample of articles (~ 10) the first author created a coding system and discussed it with the rest of the authors. They agreed upon a coding approach including the article's author(s), year of publication, journal outlet, the operationalization of tax morale, and the definition of tax morale. The main inclusion criterion was that an article contains at least one of the main features of interest: a definition or operationalization of tax morale, as these were necessary elements to enable documenting their prevalence and alignment. The articles were also required to be in either English or German.

The first author and two research assistants then retrieved the articles. A total of 18 articles could not be retrieved. Another 11 articles were excluded because they were written in a language other than English or German, and 124 articles were excluded due to missing both the definition and operationalization of tax morale. The final number of articles included in the literature review was 323. The first author and the research assistants coded the articles, and assessed them for eligibility. For that, the articles were first split into three sets with each coder being assigned one set. The coding of both research assistants was checked a second time by the first author, and was adjusted if necessary. The first author additionally coded the sample characteristics of each article that assessed tax morale. A full documentation of these articles, including a complete reference list of reviewed articles and a coding sheet containing definitions, operationalizations, and the sample composition, can be found in the online supplement: <https://osf.io/qxcje>.

³ The asterisk indicates a wildcard, matching any number of characters (including zero) after the specified search term. These databases were chosen because they include the majority of empirical studies on tax morale.

Fig. 2 Study selection procedure through the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flow diagram



Categorization and Summary

The initial coding of the definitions and operationalizations was summarized into broader categories, to facilitate interpretation. The first author proposed the initial categories and made an initial categorization of all definitions and operationalizations. All cases that could not be categorized clearly were discussed between the first and second author until agreement was reached. The first and second author also finalized the categories as described in Table 1. Importantly, a single article could include multiple definitions and operationalizations. Afterwards, the third and fourth author blindly categorized the definitions⁴ and operationalizations again. All cases with discrepancies were discussed a final time between all authors until agreement was reached.

Some of the categories were not applicable for both definitions and operationalizations. While tax morale was often defined as intrinsic motivation, none of the operationalizations could be categorized as specifically measuring intrinsic motivation. Similarly, while tax morale is often seen as

an umbrella term for psychological phenomena that affect tax paying, none of the operationalizations could be categorized as such. This is partly due to the non-specific nature of the umbrella term definition, and partly due to the current approach allowing for operationalizations within articles to have multiple categories.

Results

Frequencies of Definitions and Operationalizations

Out of the 323 articles included in the review, 103 included only a definition of tax morale, 21 included only an operationalization, and 199 included both a definition and an operationalization. To see if there is heterogeneity in definitions and operationalizations, we first compared the frequencies of both (see Fig. 3). The frequencies have been obtained by categorizing definitions and operationalizations, based on the categories presented in Table 1. If a single article contained multiple definitions, or if the operationalization could be categorized into multiple categories, this was also reflected in the frequencies. While this approach might slightly overweight certain articles, it should represent the least biased way of mapping the heterogeneity of definitions and operationalizations within the research field.

⁴ Some definitions were clearly categorizable based on the exact wording in the original manuscript and were thus not categorized again by the third and fourth author. For example, if the manuscript stated “tax morale is the intrinsic motivation to pay taxes” or similar.

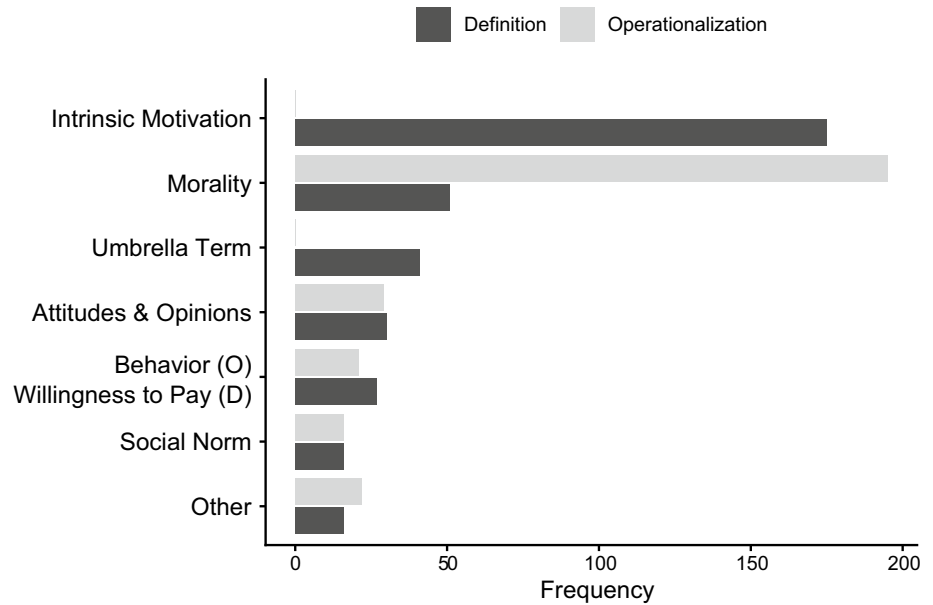
Table 1 Categories of definitions and operationalizations of tax morale

Category	Description	Tax morale definition	Tax morale operationalization
Morality	Here, seen primarily as moral judgment; principles or intuitions distinguishing “right” behavior from “wrong” behavior, for example, fairness versus unfairness (e.g., Haidt & Graham, 2007)	Tax morale is seen as an evaluation of (im-)moral tax-related behavior or the moral obligation of paying taxes	Items reflecting moral judgements, most often including evaluations of whether it is “justifiable” or “acceptable” to engage in a certain behavior as well as references to a moral obligation, responsibility, or duty. If the mentions of obligation/responsibility/duty were clearly related to a non-moral perspective (e.g., a purely legal responsibility), they were not included in this category. Lastly, this category also includes mentions of moral emotions (e.g., shame, guilt, regret) in relation to paying taxes
Intrinsic Motivation	Commonly refers to the drive of engaging in an activity for its inherent enjoyment. Here, the more appropriate construct is internalized extrinsic motivation. That is, engaging in an activity because one identifies with its goals, related values, or belief systems (Organismic Integration Theory; Ryan & Deci, 2000)	Tax morale is specifically defined as the intrinsic motivation (or intrinsic willingness) to comply or pay taxes. Also the propensity to pay taxes	N/A
Umbrella Term	Here, the “nonpecuniary motivations for tax compliance as well as factors that fall outside the standard, expected utility framework” (Luttmer & Singhal, 2014, p. 150)	Tax morale is seen as a combination of multiple (psychological) factors that affect paying taxes. This category is chosen if it is specially defined as an “umbrella term”, defined very broadly (e.g., nonpecuniary motives), or includes more than three of the categories described here	N/A
Attitudes and Opinions	An attitude is a relatively enduring evaluative predisposition towards an object, person, or issue (Fishbein & Ajzen, 1975). An opinion is a judgment or evaluation concerning a specific issue or proposition (e.g., Sherif & Hovland, 1961)	Tax morale is seen as an attitude or personal norm towards paying taxes or taxation	Items reflecting how people evaluate (e.g., feel or think about) taxes or taxation (e.g., usefulness) and governmental processes (e.g., efficiency). It also includes personal norms and preferences in relation to paying taxes
Behavior (O)	The actual behavior of paying, or expressing intention or willingness to pay taxes	Tax morale is defined as the willingness to pay taxes	Items that ask about engaging into some kind of (hypothetical) behavior with regards to paying taxes
Willingness to Pay (D)	Commonly understood as the unwritten rules shared by members of the same group or society (Legros & Cislighi, 2020). Often divided into descriptive (what most others do) and injunctive (what most others approve of) norms (Cialdini et al., 1990)	Tax morale is seen as the social norm towards paying taxes	Items about social norms of how a larger group of individuals (or the whole population) behave or should behave
Social Norm			
Other	N/A	Definitions that could not be classified in any of the above categories	Items that could not be classified in any of the above categories. For example, it includes proxy indicators from external sources (e.g., income or expenditures per capita) or experiments that manipulated tax morale

While not representing entirely the same concept, for illustrative purposes, the categories behavior (operationalization) and willingness to pay (definition) were combined

O Operationalization. D Definition

Fig. 3 Frequencies of definitions and operationalization categories of the 323 articles on tax morale. Note. *O* Operationalization, *D* Definition. The x-axis represents the frequency of coded categories for both definitions and operationalizations. The thin bars at 0 frequency are added only for visualization purposes, and do not represent any observations



The findings suggest that within the literature, tax morale is most commonly defined as the intrinsic motivation to pay taxes. All other definition categories (morality, umbrella term, attitude, willingness to pay, social norm, and others) are nearly equally frequent, yet nearly four times less common in comparison to the intrinsic motivation category.

Regarding the operationalizations, the most frequent way of operationalizing tax morale is through the lens of morality. Similarly, all other operationalization categories (attitude, behavior, social norm, and others) are much less common in comparison.

A salient finding is that while the most common definition of tax morale is the intrinsic motivation to pay taxes, not a single one of the articles included an operationalization of tax morale as an intrinsic motivation. Similarly, as the most common operationalization of tax morale is through the lens of morality, only a small amount of articles defined tax morale as such. The definition of tax morale as an umbrella term also had no counterpart in the operationalizations categories.

Finally, when inspecting the various operationalizations, it is noteworthy that across the categories, tax morale was operationalized very differently not only in terms of the content but also regarding the instrument length. For example, some authors treat tax morale as a unidimensional construct and operationalize it with only one question. Others treat it as a multidimensional construct, measured with up to 25 questions. By far, the most common operationalization of tax morale was a single question, asking participants whether “cheating on tax if you have the chance” is justified. This question had been included in several large-scale cross-national comparative surveys, such as the World Values Survey (WVS), the European Values Survey (EVS), and is

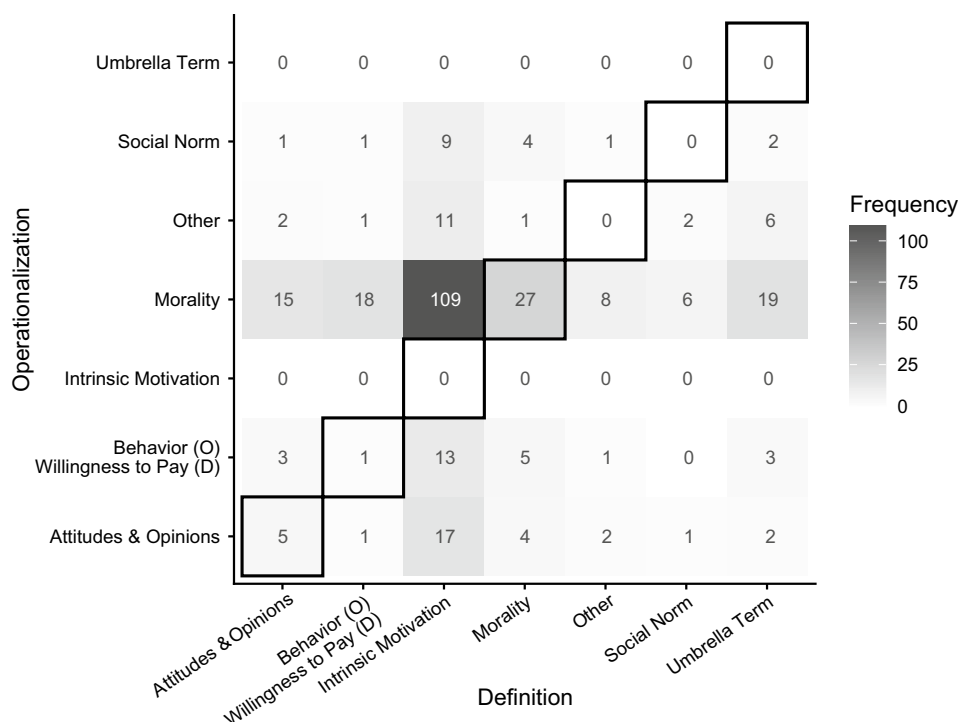
almost identical to the question in the Latinobarómetro (LB). Out of 220 articles that included an operationalization, 82 (~37%) used this specific single-item operationalization to measure tax morale. Furthermore, we identified a total of 91 different operationalizations, out of which 72 were used only once. Thus, approximately 33 percent of articles included in the review used a unique operationalization of tax morale. Only some of these articles included reliability statistics of the utilized operationalizations (Cronbach’s alphas: $N_{articles} = 12$; $N_{alphas} = 26$; $M = 0.74$; $min = .53$; $max = .93$). This is, at least in part, because the majority of them were single-item measures, which do not allow for computing reliability statistics.

Alignment of Definitions and Operationalizations

Next, we examined whether the definitions and operationalizations align (i.e., are consistent) with each other within the same article. For this comparison, only articles that included both elements ($n = 199$) were considered. All combinations are presented in Fig. 4. In line with our previous approach, a single article could include multiple categories for both definitions and operationalizations. Consequently, some counts of the combinations in Fig. 4 stem from the same article.

If there was an alignment between definitions and operationalizations, we would have found the highest numbers on the diagonal line (bottom left to top right) in Fig. 4. Yet, out of all combinations, only 33 (~11%) cases are located on the diagonal and thus show consistency, 27 of which are combinations of the morality categories. Further, Fig. 4 suggests that within the taxation literature, tax morale is usually defined as the intrinsic motivation to pay taxes, while at the same time operationalized through the lens of morality,

Fig. 4 Alignment of definition and operationalization categories of tax morale in 199 articles. Note. The x-axis contains the coded definitions categories. The y-axis contains the coded operationalization categories. The numbers represent the frequency of co-occurrence between both within the same article. The black squares on the diagonal highlight cases where definition and operationalization are aligned. For visualization purposes, categories for intrinsic motivation and umbrella term were added for the operationalizations (y-axis), although these had a frequency of 0



within the same article ($n = 109$). All other combinations are much less frequent.

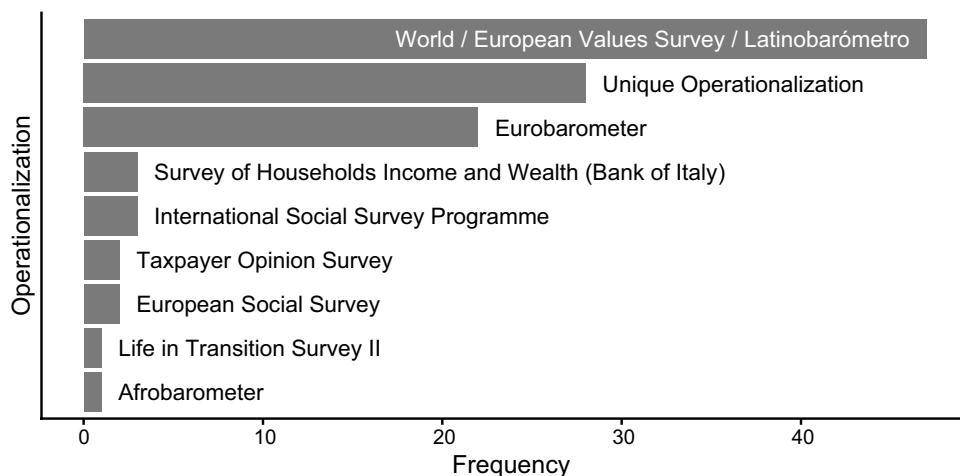
As this combination of defining and operationalizing tax morale (intrinsic motivation vs. morality) is the most prevalent, it made sense to look into what kind of specific measures (e.g., which specific questionnaires) are used most often within it. Figure 5 presents a breakdown of measurements for this combination of categories (i.e., tax morale defined as intrinsic motivation and operationalized as morality). By far, the most common way of measuring tax morale, when defined as the intrinsic motivation to pay taxes, is by asking participants a single question on whether “cheating on taxes if you have the chance” can be justified (i.e., WVS, EVS,

and LB surveys). The complete list of operationalizations for these and other measures can be found in the online supplement: <https://osf.io/qxcje>.

Sample Characteristics

Finally, we examined the sample characteristics of the articles included in the review. Of the 323 articles, 236 reported an identifiable sample in which tax morale was assessed. These sample fell into four broad groups: (1) General population: Samples drawn from a country’s (or multiple countries’) general population; (2) Students: Samples in which all participants, or the vast majority of participants, were

Fig. 5 Breakdown of measures of tax morale in the intrinsic motivation vs. morality combination. Note. The x-axis represents the frequency of measures that have been used in the specific definition (intrinsic motivation) and operationalization (morality) combination (see tile with the largest count in Fig. 4)



students; (3) Entrepreneurs: Samples of self-employed individuals, business owners, and business managers; (4) Other: Rare or specialist samples (i.e., tax professionals, accountants). The most commonly studied samples by far were general population samples ($n = 175$; 74%), followed by student samples ($n = 29$; 12%) and entrepreneur samples ($n = 22$; 9%). The remaining were classified as “other” ($n = 10$; 4%).

In terms of operationalization, studies using general population samples most often relied on archival datasets from large cross-national surveys (e.g., WVS, EVS, Eurobarometer): about 74% of articles using general population samples drew from these datasets. By contrast, student and entrepreneur samples typically used study-specific operationalizations. Roughly 73% of articles studying student samples and about 94% articles studying entrepreneur samples used operationalizations that appear only once (or in two instances, twice) across the reviewed literature.

Because operationalization approaches of tax morale in student and entrepreneur samples differ substantially, we repeated the main analyses for each subset. Additional frequency (of definitions and operationalizations) and alignment plots for the student and entrepreneur subsets are included in the “additional analyses” file of the online supplement. Both subsets indicate a heterogeneity of definitions and operationalizations (Figure S1), mirroring the pattern in the full sample (cf. Figure 3). Notably, the most common definition (intrinsic motivation) and most common operationalization (morality) in the full sample are also the most common in both subsets. The lack of alignment observed in the full sample (~11% alignment; cf. Figure 4), persists in both subsamples, being somewhat lower in the entrepreneur subset (~21% alignment; Figure S2) and considerably higher in the student subset (~2% alignment; Figure S3).

Discussion

Tax morale is an important concept within psychology, law, and economics, with relevant policy applications. Given its significance, it is thus of great importance that tax morale is clearly and properly defined and operationalized. The present systematic literature review was designed to take stock of existing definitions and operationalizations of tax morale, and to assess the degree of alignment between them. The results contrasting the definitions and operationalizations clearly reveal a large heterogeneity in both, and little to no alignment between them. This heterogeneity and misalignment was present both across the field as a whole, as well as within single articles. The dominant definition of tax morale is the intrinsic motivation to pay taxes,⁵ while the dominant

operationalization is a single question about the justifiability of cheating on taxes.

When looking at how tax morale is operationalized throughout the research field, it becomes clear that a measurement that has been specifically developed for operationalizing tax morale does not exist. The dominant operationalization of tax morale comes from a single question concerning the justifiability of “cheating on tax, if you have the chance.” This question is present in various surveys, such as the World Values Survey, European Values Survey, and the Latinobarómetro, and using it has clear benefits: large representative samples, possibilities for cross-national comparative research, and temporal analyses. Yet, this operationalization does not reflect the most common definition of tax morale as the intrinsic motivation to pay taxes. There are obvious direct downstream consequences of this misalignment for policy development. For example, policies aimed at improving people’s intrinsic motivation could be easily misguided by research focusing on people’s moral justifications of evading taxes.

Another interesting finding was that a third of all operationalizations were used only once (i.e., in a single article), which is consistent with a recent finding using the APA PsycInfo database, showing that most psychological measures have been used only once (43%) or twice (13%; Elson et al., 2023). These one-time-measures often lack psychometric information on reliability, validity, and factor structure. Such a proliferation of measures can seriously impede cumulative knowledge, as generalizations across different articles can become very challenging, if not impossible.

The review also revealed an important confounding in how tax morale is operationalized. The single-item operationalization is typically used with samples from large cross-national surveys (e.g., EVS, WVS). Other study-specific operationalizations are often used with student and entrepreneur subsamples. This further limits the extent to which findings can be generalized across different populations.

Importantly, research among entrepreneurs is scarce, probably due to the difficulty of gaining access to them. Out of the 323 reviewed articles, only 22 used entrepreneur samples, compared to 175 articles using general population samples. Entrepreneurs are a key interest group within tax morale research, due to their role in shaping business strategies (e.g., Mickiewicz et al., 2019; Williams, 2017) and often having more opportunities to evade taxes than individuals whose income is subject to third-party reporting (e.g., Kleven et al., 2011).

Footnote 5 (continued)

on intrinsic motivation in general (e.g., Frey & Jegen, 2001; Ryan & Deci, 2000).

⁵ The prevalence of the intrinsic motivation definition could be a reflection of time frame when tax morale research started gaining attention, specifically, due to the important developments in research

The current state of tax morale research is thus far from optimal.⁶ There is a clear need for improvement, of which the first step is reaching consensus about what tax morale actually is. Only after this is achieved, it makes sense to proceed to the next step, which represents the development of a valid operationalization of tax morale, consistent with its definition. The availability of these wide ranged definitions and operationalizations, and the stickiness of old ideas (the unwillingness to update them) make clear that this is not an easy task. We next provide propositions on how to move forward.

We propose that since tax morale is most prominently defined as the intrinsic motivation to pay taxes in the current literature, it makes sense to develop an instrument that specifically targets people's intrinsic (or internalized; see Onu et al., 2019) motivations. In comparison, most other definitions overlap with other well-established constructs within taxation research (e.g., moral aspects of tax paying, attitudes and opinions towards taxation, or social norms related to tax paying). Studying these under another label (i.e., tax morale) can considerably hinder summarizing and integrating findings across studies. Such an instrument could capitalize on measures of intrinsic motivation from psychological literature (e.g., Di Domenico et al., 2022; Ryan, 1982) and adapt them to the taxation context.

We next propose to begin with a qualitative exploration (e.g., focus groups) with tax researchers from economics, law, and psychology, as well as from governmental tax agencies. Existing guidelines, like the Standardization of Behavior Research guidelines (SOBER; Elson et al., 2023), or the APA Guidelines for Psychological Assessment and Evaluation (American Psychological Association, 2020) can provide meaningful aid in the development of new instruments. For example, SOBER, among others, stresses the importance of non-redundancy (in comparison to other measures or constructs), providing justifications for any deviations or modifications of already existing scales, as well as comprehensively reporting all materials and measurement characteristics.⁷

⁶ As a robustness check, the main analyses were repeated on subsets of articles based on their Academic Journal Guide ranking (low vs. high; see Fig. S4–S7). These can be found in the “additional analyses” file of the online supplement (<https://osf.io/qxcje/files/8ebfz>). The conclusions remain the same: the heterogeneity in terms of definitions and operationalizations, and the lack of alignment between the two, is observable in both subsets.

⁷ We do recognize that it is also possible to keep the most prominent operationalization of tax morale (in terms of the justifiability of cheating on taxes) and adjust the definition of tax morale to align it with the moral aspects of (not) paying taxes. We do not propose this, as a measurement instrument for a construct should be developed to reflect this construct definition, not the other way around (American Psychological Association, 2020). Nonetheless, we realize that it might be valuable, as it offers a possibility to understand moral

One could also adopt the umbrella term of tax morale, including all non-pecuniary factors of taxpaying. It seems though, that this view originates from necessity, rather than utility: the large heterogeneity of definitions and operationalizations invites an umbrella term out of necessity, yet it reduces its utility, as it even further impedes generalizations that can be made. As an immediate improvement, before agreement on definition and assessments is achieved, researchers should be more specific when referring to tax morale and make explicit how they define it, making sure that the measurement aligns with it. For example, if tax morale is being defined as a moral evaluation, it should also be measured as such. When referring to another non-pecuniary or psychological factor of paying taxes, this specific factor should be explicitly named, without putting a non-specific label on it. This will not solve the issue of heterogeneity in approaches, but would allow for a much more comprehensive analysis of how specific factors that comprise tax morale affect tax compliance, or broader, the shadow economy.

Before closing we should note that the articles included in this review do not necessarily represent the entire field of tax morale research. We restricted the literature search to articles that mention tax morale in the title, abstract, and keywords, and thus might have missed some in which tax morale was not one of the central constructs. Nevertheless, we think that the large number of articles included (323), makes it plausible that the review features a good representation of the existing tax morale literature. Another potential source of bias is the inclusion of only English and German language publications. Additionally, it is important to note that the categorization of definitions is based on extracts (from each article) that defined tax morale, and these might not precisely represent how tax morale was viewed by the researchers. In fact, many scholars seem to, at least indirectly, acknowledge a certain uncertainty around its definition.

In conclusion, the present article summarized the definitions and operationalizations of tax morale, and found a large heterogeneity in its definitions and its operationalizations, and a lack of alignment between the two. Tax morale is mostly seen as the intrinsic motivation to pay taxes, yet operationalized as a moral judgment of cheating on taxes. We believe that there is a need for researchers to reach a consensus regarding what tax morale actually is, and start developing and testing instruments to capture this definition.

Footnote 7 (continued)

aspects of taxation attitudes (Jacquemet et al., 2019; Puklavec et al., 2025), which is important as moral judgment often predicts behavior (e.g., Reynolds & Ceranic, 2007).

Although, first and foremost, we need to be more precise about what we talk about, when we talk about tax morale.

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