

Contextual and Individual Dimensions of Taxpayer Decision Making

Jeffrey Cohen · Gil B. Manzon Jr. ·
Valentina L. Zamora

Received: 26 October 2012 / Accepted: 12 November 2013 / Published online: 27 November 2013
© Springer Science+Business Media Dordrecht 2013

Abstract We examine whether a taxpayer's decision to choose a taxpayer-favorable (vs. a taxpayer-unfavorable) characterization of income is associated with contextual and individual dimensions of that decision. Using a 2×2 factorial experimental design, we manipulate the prevailing social norm on whether there is a general belief that a specific form of income should be characterized as a capital gain (taxed at a lower tax rate and hence taxpayer favorable) or as ordinary income (taxed at a higher tax rate and hence taxpayer unfavorable), and the group affiliation on whether the individual is making a tax characterization decision as a sole proprietor or as a member of a group practice. Moreover, we measure participants' fairness perception of characterizing the income as capital gains versus ordinary. We study the decisions of 180 graduate business and accounting students from two US business schools to explore these dimensions using a tax-ambiguous income situation. Results indicate that both contextual and individual dimensions impact taxpayer decisions. Specifically, the social norm and fairness perception of characterizing income as capital gains affects the likelihood of choosing such a characterization. Being a sole proprietor or

a member of a group practice does not have any significant main effect. However, relative to all other conditions, taxpayers are most likely to characterize income as capital gains when both the social norms are for capital gains characterization and when the taxpayer is a member of a group practice. Results remain largely robust to a variety of alternative explanations. We conclude the paper with a discussion of our findings and their implications for tax policy, enforcement, and research.

Keywords Taxpayer decisions · Social norm · Group affiliation · Fairness perception · Income characterization

Introduction

The net tax gap was estimated at \$385 billion in 2006 and continues to be a burden for US taxpayers. The net tax gap reflects the difference between the amount of tax that taxpayers should pay and the amount that is paid voluntarily and in a timely fashion. The tax gap persists despite increases in penalties, disclosure requirements and enforcement resources and efforts (IRS 2012). The National Taxpayer Advocate (2007) recommends that tax administrators move beyond a deterrence-centered system and seek a better understanding of non-economic factors that impact tax behavior, particularly in tax-ambiguous situations where taxpayer choices may result in significant variance in income reporting by individuals.

The purpose of this study is to examine non-economic, context- and individual-based dimensions to help explain the tax gap, or, as Alm and Torgler (2011) frame it, the tax compliance puzzle, and to consider the proposition that non-economic facts and circumstances of the decision at

J. Cohen (✉) · G. B. Manzon Jr.
Accounting Department, Carroll School of Management Boston
College, 140 Commonwealth Ave, Chestnut Hill, MA 02467,
USA
e-mail: cohen@bc.edu

G. B. Manzon Jr.
e-mail: manzong@bc.edu

V. L. Zamora
Department of Accounting, Albers School of Business and
Economics, Seattle University, 901 12th Avenue,
P.O. Box 222000, Seattle, WA 98122-1090, USA
e-mail: zamorava@seattleu.edu

hand influence an individual's view of tax non-compliance (McGee 2006).¹ Because these context- and individual-based dimensions are challenging to disentangle and/or measure with respect to how they influence tax decisions, we take an experimental approach (Wenzel 2005a, b; Blanthorne and Kaplan 2008). Specifically, we examine whether the prevailing social norm, the individual's group affiliation, and fairness perception of a taxpayer-favorable characterization of income impact a taxpayer's judgments in a tax-ambiguous situation.

The rationale for studying tax non-compliance situations within a tax-ambiguous situation is that the tax-ambiguous context gives taxpayers more latitude in applying the tax law to reach legally plausible, alternative interpretations, and as such require taxpayers to make "complex judgments with ethical overtones" (Cohen and Bennie 2006). We thus examine factors that may influence individual decisions in a tax-ambiguous situation as a way to provide insights on the claim that individual taxpayers significantly misreport income in these types of ambiguous situations (National Taxpayer Advocate 2007).²

We focus on the tax-ambiguous context of characterizing income as capital gains or ordinary income based on the assertion that "[a]ttempts to convert income into capital gains have probably accounted for more tax-planning abuses than any other activity" (Scholes et al. 2009, p. 21). Capital gains are derived from transactions that involve capital assets as defined in §1221 of the Internal Revenue Code. With notable exceptions such as inventory and receivables, capital assets are properties held by a taxpayer. Any income from transactions involving such property is appropriately characterized as capital gains. Income derived from all other transactions is characterized as either ordinary or tax-exempt income. The incentive to characterize income as capital gains versus ordinary is a function of the rates at which these two types of income are taxed. For individuals, the capital gains tax rate is approximately half that of the ordinary income rate. Hence, from an

economic benefit perspective, income characterized as capital gains is taxpayer favorable while income characterized as ordinary income is taxpayer unfavorable.

In this study, we examine individuals' decision to characterize income from the sale of real estate as capital gains versus ordinary income. The *appropriate characterization of income* in relation to the sale of real estate is a function of the *primary purpose* for which the investment in real estate was made. For an individual who buys and sells real estate in the normal course of business (e.g., a real estate dealer) the income from the sale of real estate is comparable to income from the sale of inventory and is appropriately treated as ordinary income. Alternatively, for an individual who buys real estate to generate rental income, income from the sale of such a property is appropriately treated as a capital gain. The primary purpose for which real estate is held is potentially ambiguous, and it is this potential ambiguity that may result in a tax abusive income characterization.

There are a number of non-economic factors that potentially affect taxpayer decisions. In this study, we focus on the effect of the prevailing social norm, the individual's group affiliation, and the perceived fairness of the tax issue itself. First, capital gains characterization of income may not be considered inappropriate by the taxpayer if the social norm endorses such a characterization. A social norm essentially influences the taxpayer by presenting what the socially-appropriate behavior is in a particular context. The moral psychology as well as the social psychology literature suggest that social norms influence individual decision making (e.g., Kohlberg 1969; Rest 1986; Jones 1991; Ajzen 1991) due to the individual's motivation to build and maintain social relationships (Cialdini and Trost 1998) and because "social consensus reduces the moral ambiguity of alternative actions and provides guidance as to appropriate behavior" (Bobek et al. 2007b, p. 51).

Second, capital gains characterization of income may be considered preferable by the taxpayer if it is (net) beneficial to his/her referent group. Being affiliated with a group makes the taxpayer accountable to that larger entity and not just to him/herself. Thus, the individual's group affiliation is an important construct of interest because prior literature suggests that individuals may change their behavior to conform to their perception of what their referent group prefers (Ajzen 1991; Lerner and Tetlock 1999; Peecher et al. 2013). For example, the attitudinal literature generally suggests that individuals will act consistent with the referent group's preference (e.g., Cialdini and Trost 1998). Likewise, prior studies of the egocentric interpretation of individual behavior generally suggest that individuals project their personal norms onto the group with which they identify, and so will act to maximize both their

¹ Alm and Torgler (2011) characterize the tax compliance puzzle as the observed, higher level of compliance relative to what is optimal for the taxpayer based on the economics-of-crime model (Becker 1968). In contrast, McGee (2006) focuses on the act of tax noncompliance (i.e., tax evasion). In this study, we acknowledge that a decision that minimizes taxes (by characterizing income in a manner that will be taxed at a lower rate) is unfavorable to the collective tax system, and assumes that, from an economic benefit dimension, characterizing income in such a manner is favorable to the tax-paying entity. However, we do not make any claims along non-economic dimensions as to the favorableness, ethicality or fairness of such a decision to any of the stakeholders.

² Of material importance is that of the \$385 billion net tax gap (i.e., the difference between what should be paid and what is paid voluntarily and on time), \$235 billion is attributable to individual taxpayers, and of that, \$122 billion relates to business income and an additional \$68 billion relates to non-business income (IRS 2012).

individual and the group's benefits (e.g., Thompson and Loewenstein 1992).

Third, capital gains characterization of income may depend on the taxpayer's perception of the outcome fairness of such a characterization.³ Prior accounting research suggests that an individual's sense of fairness about an issue itself influences his/her chosen action (e.g., Libby 2001; Jones et al. 2003; Cohen et al. 2007; Biersaker et al. 2012). Prior tax research finds that outcome fairness perception is associated with one's propensity to act with self-interest or for the greater good (e.g., Wenzel 2002, Wenzel 2005a, b; Trivedi et al. 2003), and that it is one individual-based ethical dimension that impacts taxpayer behavior (Alm and Torgler 2011). A taxpayer who perceives that the taxes paid are not commensurate to the tax-funded government benefits received (i.e., inequity in trade) *and/or* that the taxes paid are not commensurate to what others pay (i.e., inequity in burden) will assess the tax issue itself as less fair and act to rectify their own sense of equity (e.g., Jackson and Milliron 1986; Moser et al. 1995; Maroney et al. 2002; Van der Heijden et al. 2007).

We use a 2×2 factorial experimental design manipulating the social norm (majority of taxpayers would choose a capital gains or an ordinary income characterization) and the group affiliation (as a sole proprietorship or as a member of a ten-member partnership). Results from the experiment indicate that the social norm and the individual's fairness perception of capital gains characterization affect the individual's decision to characterize income as capital gains. Being a sole proprietor or a member of a group practice does not have any significant main effect. However, relative to all other conditions, taxpayers are most likely to characterize income as capital gains when both the social norms are capital gains characterization and when the taxpayer is in a group practice.

Our study makes several research contributions. First, we respond to calls for an experimental approach "to yield clearer evidence for the causal relation between tax ethics and compliance" (Wenzel 2005b, p. 492) and "possibly stronger evidence on the causality of variables" (Blanthorne and Kaplan 2008, p. 688). We contribute to the literature on social norms in the area of tax compliance as prior archival or experimental research finds that tax compliance is correlated with *measured* perceptions of social norms (e.g., Porcano 1988; Webley et al. 2001; Bobek et al. 2013), *assumed* referent group norms (e.g.,

Alm and Sanchez 1995; Bosco and Mittone 1997; Alm et al. 1999; Wenzel 2002; Bobek et al. 2007a), and *implied* ethical beliefs (e.g., Grasmick and Bursik 1990; Sheffrin and Triest 1992; Reckers et al. 1994). In our study, we *manipulate* rather than *measure* the context (social norm and group affiliation), and we *measure* rather than *infer* individual perspectives (perceived fairness). Thus, we add to the literature on social norms by documenting that manipulating the prevailing social norms has the potential to change actual behavior.

Second, we add to research on *individual taxpayers'* judgments in a *specific*, tax-ambiguous situation. To our knowledge, most studies focus on *tax professionals'* judgments in tax-ambiguous contexts (e.g., Cuccia et al. 1995; Carnes et al. 1996; Spilker et al. 1999; Mason 2010) despite the economic significance of individual taxpayer's decisions on the net tax gap (IRS 2012). One study of individual taxpayers did find that those regarding the *overall* tax system as less equitable take greater, allowable tax deductions (Schisler 1995). Another study finds that taxpayers are more willing to take aggressive tax positions in ambiguous but *unspecified* deduction versus income situations (Christensen and Hite 1997). Our experiment provides participants with a tax characterization issue related to income from the sale of real property. We are thus able to provide insights into factors affecting individual decision making in an *issue-specific*, tax-ambiguous circumstance (Schisler 1995; Henderson and Kaplan 2005).

Third, our research extends the growing body of research on the influence of non-economic dimensions on individual decisions. Cohen and Bennie (2006) call for research on the relevance of perceived fairness on decisions that has been found in other accounting contexts. Prior tax research generally finds that fairness perceptions of the overall tax system are related to tax compliance (see Christensen et al. (1994) for an early review). To our knowledge, two studies provide evidence in specific tax settings: Van der Heijden et al.'s (2007) study, that examines the tax deductibility of mortgage interest payments; and the Bobek et al. (2013) study, that examines automobile expense deductions. Neither study examines the role of fairness perceptions of the tax characterization of income.

Finally, we complement prior research that has studied tax *deduction* issues, both legally (Van der Heijden et al. 2007) and illegally (Bobek et al. 2013), by investigating a tax-ambiguous *income* tax issue. As mentioned above (Christensen and Hite 1997), taxpayers are more willing to take aggressive tax positions in ambiguous but unspecified deduction versus income situations. We examine contextual- and individual-level factors that may increase an individual's likelihood of choosing a taxpayer-favorable characterization of income.

³ We recognize that tax fairness can be considered along alternative dimensions (e.g., Wenzel 2003). We interpret equity in trade and equity in burden as two dimensions subsumed in the single construct of outcome fairness, which is cleaner to operationalize and to isolate from other, extraneous effects (Cohen et al. 2007; Bierstaker et al. 2012; Kaplan et al. 2013).

In the next section we present a review of the literature and hypotheses. We then discuss the research method and provide information about the experiments, the participants, and the variables. We present our results, and conclude with a discussion of our findings and implications for tax policy, enforcement, and research.

Literature Review and Hypothesis Development

Early tax research finds support for a deterrence model of tax non-compliance wherein individuals maximize their utility subject to the risks of detection (e.g., Allingham and Sandmo 1972). Subsequent research finds that taxpayer decisions are correlated with social norms, cognitive processes, and personal values (e.g., Frey 1997; Kornhauser 2007). Indeed, Alm and Torgler (2011) theorize that adding context- and individual-based ethical dimensions to a deterrence-centered model would help explain the tax compliance puzzle. However, it remains challenging to archivally measure these latent constructs (Wenzel 2005a, b; Blanthorne and Kaplan 2008). In this study, we examine the impact of social norm, group affiliation, and the perceived fairness of a specific income tax issue on taxpayer decision making.

Social Norm

Prior research generally defines the social norm construct as a code of conduct that has no force of law but that individuals implicitly understand and to which they conform. Kohlberg (1969) describes moral development in terms of hierarchical levels; centered first on self-interests (preconventional), then on referent group interests (conventional), and then around personally-developed morals (principled). Similarly, Cialdini and Trost (1998) provide a taxonomy of social norms, including descriptive (general belief of what would be done), subjective (beliefs of referent others), and personal norms (internalized beliefs).⁴ We consider the prevailing social norm as descriptive in that it is what the majority of taxpayers believe would be done.

First, social norms matter in taxpayer decisions when individuals are motivated to adhere to generally accepted beliefs as a way to build and maintain social relationships (Cialdini and Trost 1998). For example, Cowell (1990) adds a perceived social stigma against tax evasion in his analytical

⁴ Cialdini and Trost (1998) also discuss injunctive norms as broad societal expectations. We do not examine injunctive norms because we are interested in a tax-ambiguous situation where there is no normative, regular solution per se, but rather a set of plausible, legally acceptable alternatives. As such, the relevant construct of interest is a descriptive norm, which is more commonly activated in ambiguous situations. We acknowledge an anonymous reviewer for helping to clarify this distinction.

model and finds that potential social stigma increases tax compliance. Davis et al.'s (2003) simulations present how social norms of taxpayer compliance remain stable until enforcement becomes sufficiently lax, and how social norms of non-compliance gradually shift with enforcement increases.

Second, individuals may also be motivated to abide by social norms because "social consensus reduces the moral ambiguity of alternative actions and provides guidance as to appropriate behavior" (Bobek et al. 2007b, p. 51). For example, Alms et al. (1999) find that a higher level of voter support for non-compliance is associated with more cheating. Trivedi et al. (2003) find that the presence of non-compliant peers increases the non-compliance of individuals. Bobek et al. (2013) find that both injunctive and descriptive norms indirectly influence tax deduction decisions. Thus, we expect that taxpayers are more likely to characterize income as capital gains given a prevailing social norm of capital gains income tax characterization:

H1 Individuals are more likely to characterize income as capital gains when the prevailing social norm supports capital gains versus ordinary income characterization

Group Affiliation

In contrast to descriptive norms, subjective norms are those referent group norms that an individual adopts (Wenzel 2002, 2004, 2005a, b; Falsetta 2007). Prior research defines subjective norms as an individual's perception of what most people important to him/her believe should or should not be done (Fishbein and Ajzen 1975; Cialdini and Trost 1998). Subjective norms also include explicit or implicit social constraints which motivate individuals to tailor their decisions to please those to whom they are accountable to (Lerner and Tetlock 1999). Hence, individuals may make different decisions when they are acting for the group instead of just for themselves, and change their behavior for the benefit of the group and to conform to their perception of what their referent group prefers (Ajzen 1991; Lerner and Tetlock 1999; Peecher et al. 2013).

The attitudinal literature (e.g., Cialdini and Trost 1998) suggests that group affiliation matters in taxpayer decisions because individuals feel accountable to a larger entity than him/herself. For example, Grasmick and Bursik (1990) find that tax cheating is decreasing when there is peer pressure against non-compliance. Henderson and Kaplan (2005) find that ethical evaluations of others' beliefs (i.e., contextual ethical beliefs) are associated with less tax evasion intentions. Bobek et al. (2013) find that subjective norms directly impact taxpayer compliance with respect to deduction decisions.

Likewise, prior literature on the egocentric interpretation of individual behavior suggests that group affiliation

matters because individuals project their personal norms onto the group with which they identify. Wenzel (2004) provides evidence consistent with self-categorization (which is similar in spirit to Ajzen's (1991) theory of planned behavior) in that personal norms subsume the impact of social norms for tax compliance. Bobek and Hatfield (2003) find both taxpayers' attitudes and perceived social pressures influence illegal home office deductions, tip income non-reporting, and charitable contribution deductions. Jones (2010) finds that surveyed individuals' tax compliance is, in part, associated with social pressures from referent others. Thus, we expect that taxpayers are more likely to characterize income as capital gains when that decision affects an affiliated group rather than just him/herself⁵:

H2 Individuals are more likely to characterize income as capital gains when they are affiliated with a group practice versus a sole proprietorship

Further, we expect individuals are most likely to choose a capital gains characterization of income when in a referent group and when the prevailing social norm supports capital gains characterization. We are predicting a contrast effect rather than an ordinal effect because we do not have a basis to expect whether the prevailing social norm effect or the group affiliation effect will dominate. Rather, we expect to find the strongest effect, compared to all other conditions, to occur when the prevailing social norm is a capital gains income characterization and with a group affiliation. We expect this because the influence of the prevailing social norm (Bobek et al. 2007b) will be accentuated if the reporting individuals are also trying to act in the interest of the group (Thompson and Loewenstein 1992). The expected effect is depicted in Fig. 1, and is specified in the following directional hypothesis:

H3 Individuals are **most** likely to characterize income as capital gains when the prevailing social norm supports capital gains characterization and when they are affiliated with a group practice as opposed to all other conditions

Perceived Fairness

Perceived fairness refers to an individual's sense of how fair or unfair a particular action is. Prior research suggests that an individual's sense of fairness influences his/her

⁵ An implicit assumption is that the group prefers the capital gains characterization because it is tax-favored and, thus, beneficial to all members of the group, including the individual making the decision. Of note, group members, including the reporting individual, may not only be concerned about maximizing tax benefits, but also minimizing risks. We address the role of the individual's risk aversion in the sensitivity analysis section of this study.

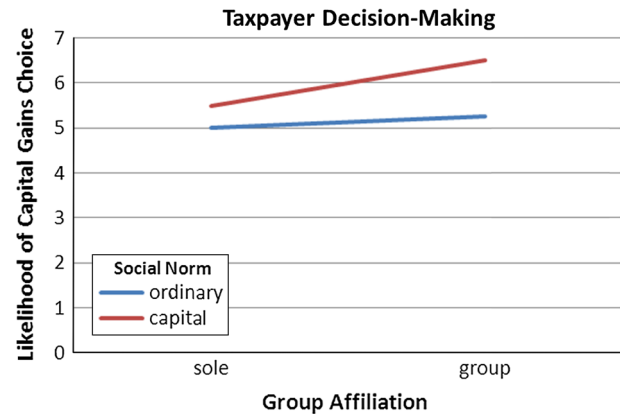


Fig. 1 Expected effect of social norm and group affiliation on taxpayer decision making. This is a graphical representation of the expected ordinal effect of social norm (capital gains or ordinary income characterization) and group affiliation (sole or group practice) on the individual's tax judgment. A lower tax judgment indicates that the individual is less likely to choose a capital gains characterization of income while a higher tax judgment indicates that the manager is more likely to choose an ordinary income characterization

propensity to act according to his/her sense of equity in budgeting (Libby 2001), auditing (Jones et al. 2003), management accounting (Cohen et al. 2007), and in audit committees (Bierstaker et al. 2012).⁶ Prior tax research finds that outcome fairness perception is associated with one's propensity to act with self-interest or for the greater good.⁷ Wenzel (2002) finds evidence consistent with taxpayers averse to perceived tax system injustices reporting less non-pay income. Trivedi et al. (2003) suggests that tax programs promote the fairness of the tax system and appeal to the moral conscience of taxpayers. Wenzel (2005a, b) suggests that individuals who perceive that referent others accept tax evasion are motivated to evade taxes so as not to subsidize other tax evaders.

⁶ This view is consistent with the contingent factors model (Jones 1991) which suggests that the moral intensity characteristics of an issue itself impact individuals' ethical decision making. Cohen and Bennie (2006) find that of six elements of moral intensity, the magnitude of harm and benefit consequences of an issue is the most important moral intensity element in all stages of ethical decision making.

⁷ We focus on the single construct of outcome fairness of a specific tax issue, acknowledging that the taxonomy of 'tax fairness' is multidimensional (e.g., Wenzel 2003). Some models, drawing from Schwartz (Schwarz 1977), find that providing *general* education that influences the fairness perceptions about a tax system, policies, and burden enhances compliance (e.g., White et al. 1990; Wartick 1994; Roberts 1994; Christensen et al. 1994). However, other taxonomies consider *issue-specific* elements of equity in trade (i.e., equity in tax-funded government benefits relative to taxes paid [equity in exchange]), equity in burden (i.e., equity in taxes paid relative to what economically-similar taxpayers pay [vertical equity]), and relative to economically-dissimilar taxpayers [horizontal equity] (e.g., Jackson and Milliron 1986).

The above tax studies consider general perceptions of tax fairness. However, Alm and Torgler (2011) argue that fairness perception is also an individual-based ethical dimension that impacts taxpayer behavior. These authors suggest that perceived equities in how an individual taxpayer feels he/she is treated impact his/her tax compliance decisions.⁸ Consistent with this view, Maroney et al. (2002) find that the fairness perception of the tax on social security benefits matter only to those being taxed on social security benefits (i.e., senior citizens). Moser et al. (1995) find that inequitably-treated subjects report less (more) income as imposed tax rates increase (decrease). Van der Heijden et al. (2007) find that, relative to landlords, renters (who therefore do not pay interest on a mortgage loan) perceive the tax deductibility of mortgage interest as less fair. Hence, a taxpayer who perceives more inequity in trade *and/or* inequity in burden will assess the tax issue itself as less fair and act to rectify their sense of equity. Thus, we expect that taxpayers perceiving ordinary income (capital gains characterization) as less (more) fair will more likely choose a capital gains characterization.

H4 Individuals are more likely to characterize income as capital gains when they perceive the capital gains characterization as fairer

Research Design

Experimental Materials

We examine taxpayer judgment using a 2×2 factorial experimental between subjects design with the independent variables being the prevailing social norm (operationalized as whether, given the same tax decision, a majority of taxpayers would recognize the gain on sale as ordinary income or as a capital gain) and the individual's group affiliation (operationalized as the participant owning and operating a real estate property company as a sole proprietor or as part of a ten-member partnership). Unlike prior research that correlates tax behavior with measured perceptions of social norms (e.g., Porcano 1988; Webley et al. 2001; Bobek et al. 2013) and assumed referent group norms (e.g., Alm and Sanchez 1995; Bosco and Mittone 1997; Alm et al. 1999; Wenzel 2002; Bobek et al. 2007a),

⁸ This proposition is also consistent with equity theory, which suggests that individuals are motivated to maintain equity between the inputs they contribute and the outcomes they receive (Adams 1965). This presumes that taxpayers take a solely self-interest and/or economic cost-benefit approach to tax decisions. We purport that taxpayers also assess perceived fairness of a specific tax issue based on the moral intensity characteristics of the issue itself. Nevertheless, we address the possibility of the alternative explanation in the sensitivity analysis section.

we chose to manipulate these variables because we are interested in providing direct evidence on the incremental as well as contrast effects of social norms and group affiliation (Wenzel 2005a, b; Blanthorne and Kaplan 2008).

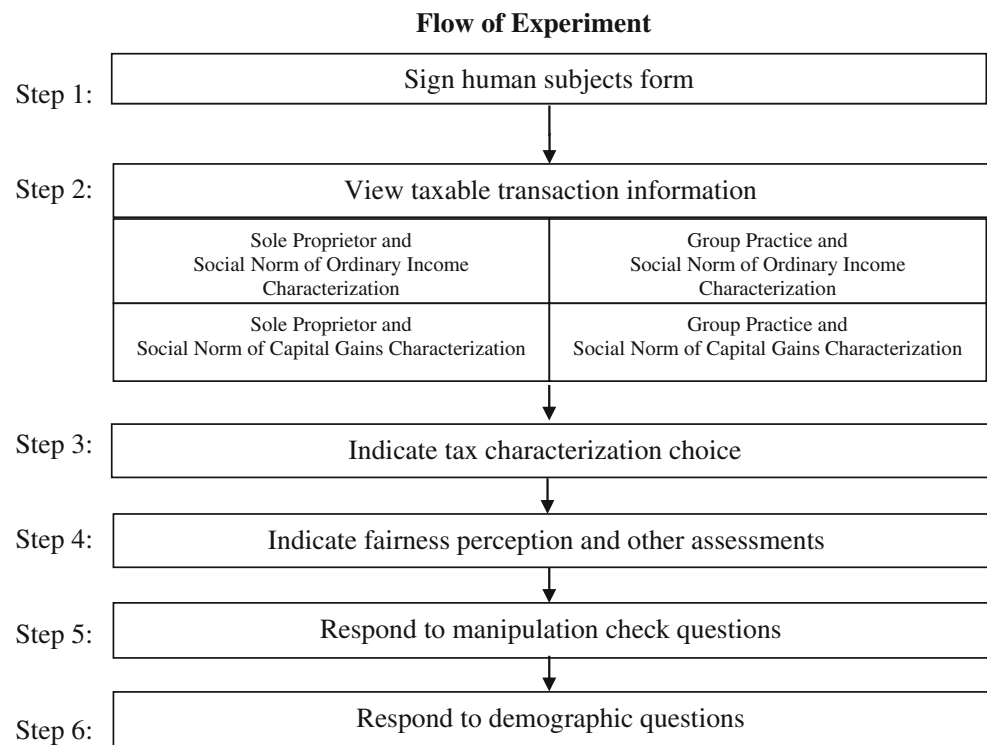
We also measure the participants perceived fairness of the capital gains characterization. This differs from prior research correlating tax behavior with measures of the perceived fairness of the overall tax system (see Christensen et al. (1994) and Henderson and Kaplan 2005 for reviews).⁹ This enables us to provide evidence on the incremental effect of perceived fairness of the tax issue itself (Cohen and Bennie 2006).

We administered the experiment as a pencil-and-paper experiment and used a tax setting in which the proper characterization of income is ambiguous. All participants were randomly assigned to the experimental conditions but were presented a common case that was developed in consultation with a partner at a regional tax firm. The case entails a real estate operating company that has purchased a multi-unit rental property, systematically renovated the property over several years while renting renovated units, and then sold the property at a gain after several years. The tax characterization decision turns on whether the company was acting as a property developer where any gain would be taxable at higher ordinary income tax rates or as a rental company where the gain would be taxable at lower capital gains tax rates. All information was held constant across all conditions except for those elements representing the independent variables of interest. To be consistent with prior research, we control for the economic context and outcomes to the individual (Jackson and Milliron 1986; Trivedi et al. 2003) by holding constant the amount of pre-tax economic effect on the participant (\$150,000), the amount of taxes assessed on the sale of real property under the capital gains (\$22,500) and ordinary income (\$52,500) and the corresponding amount of the individual's potential refund under the capital gains (\$40,000) and ordinary income (\$10,000).

We also make two choices that bias against finding evidence consistent with our expectations regarding the likelihood of characterizing the income as capital gains. First, we make salient that large dollar amounts are at issue in the case based on prior research finding that individuals are more tax conservative with larger dollar amounts than with smaller dollar amounts (e.g., Chang et al. 1987). Second, we make both tax characterization choices result

⁹ While Bobek et al. (2013) measure perceived unfairness using six items that generally reference *income* situation, laws, group and systems their experiment examines a tax *deduction* issue. This may explain why only a grouping of three of the six items results in acceptable scale validity. Our perceived fairness measure specifically asks about the participants' perception of the fairness of the capital gains characterization.

Fig. 2 Flow of experiment



in refunds to the individual. This is based on prior research applying prospect theory predictions and findings that individuals are more tax conservative in a gain frame (refund due) than in a loss frame (amount owed) (e.g., Jackson and Hatfield 2005). Figure 2 presents the flow of the experiment. Appendix 1 provides an example of the experimental materials [with alternative manipulations].

We asked participants to respond to additional questions (explained further below) and manipulation check questions as well as to provide demographic information. The instrument was pilot tested with graduate accounting students and then reviewed by two academics and a tax partner from a regional firm. Subsequently, minor modifications were made to the instrument.

Participants and Manipulation Checks

The participants in this study were graduate business and accounting students at two US universities who were intended to proxy for general individual taxpayers.¹⁰ To encourage participation, we gave each potential participant

a \$5 gift card.¹¹ Following prior research, we expect these participants to have the appropriate skills to engage in taxpayer decisions.¹² Nevertheless, we gather demographic data to examine individual tax decisions in the context of tax reporting experience (Bedard and Biggs 1991) and other variables that may correlate with taxpayer compliance (Jackson and Milliron 1986; Trivedi et al. 2003). Two hundred and forty two participants were recruited and asked two manipulation check questions to determine whether they encoded the experimental conditions as intended. First, we asked the participants to “Please indicate which of the two statements reflects the facts of the case: You own a real estate operating company that owns or operates residential real estate property or You and nine partners own a real estate operating company that owns and operates residential real estate property.” Two hundred twenty eight participants (94.2 %) answered this question correctly. Second, we asked the participants to “Please indicate which of the two statements reflects the facts of the case: You believe a large majority of taxpayers in your

¹⁰ Participants were recruited from two schools and at two different time periods. Untabulated analysis of covariance results remain qualitatively similar when we add an indicator variable for one school (versus the other) or for the first (versus second) recruitment period. The contrast effects become only marginally significant when we conduct by-school or by-time period analyses (both $p < 0.10$).

¹¹ One batch of students from one school was inadvertently not paid (50 students). Untabulated results remain qualitatively similar when we either add an indicator variable for paid (versus unpaid) participants or we drop the unpaid participants from the sample.

¹² Examples of experimental tax studies examining taxpayer decisions drawing from a similar subject pool include Falsetta and White (2005) and Jackson and Hatfield (2005). Participants in our sample have an average age of 26.19 and 4.88 years of tax filing experience.

Table 1 Sample demographics

Cell and sample mean (standard deviation)	Ordinary income norm, sole practice	Ordinary income norm, group practice	Capital gains norm, sole practice	Capital gains norm, group practice	Total
N	44	42	50	44	180
Age	26.18 (5.98)	25.50 (4.86)	26.60 (5.53)	26.41 (5.60)	26.19 (5.48)
Male	65.9 % (47.9 %)	63.4 % (48.8 %)	62.0 % (49.0 %)	50.0 % (50.6 %)	60.3 % (49.1 %)
Number of tax returns filed	4.50 (5.99)	4.88 (4.86)	5.44 (5.71)	4.64 (5.37)	4.88 (5.48)
Number of accounting courses	4.52 (2.45)	3.75 (2.16)	3.92 (2.66)	3.52 (2.73)	3.93 (2.52)
Number of finance courses	3.61 (3.62)	2.76 (2.29)	3.06 (2.62)	1.58 (1.75)	2.76 (2.74)

circumstances would recognize the income as capital gain income or You believe a large majority of taxpayers in your circumstances would recognize the income as ordinary income.” Of those passing the group affiliation manipulation, one hundred and eighty participants (78.9 %) also answered this question correctly. In all, 74.4 % of the recruited participants were included in the sample.¹³

Table 1 presents sample demographics and indicates a mean age of 26.19 years old, includes more males (60.3 %) than females, an average number of 4.88 tax returns filed, and more non-accounting experience than accounting experience. Untabulated analysis indicates no significance by-cell frequency distribution differences in age, gender, accounting or finance courses, and number of tax returns filed. This suggests successful randomization by experimental cell. Nevertheless, we add these factors as covariates as part of our sensitivity analyses, which are discussed in a later section.

Variable Measures

Appendix 2 presents the questions that were asked of each participant. The primary dependent variable is based on the participant’s response to the question “Given the facts in the case, how likely is it that you would recognize income from the sale as a capital gain instead of ordinary income,” measured on a 7 point Likert type scale anchored by (1) Not At All and (7) Very Likely. Besides the social norm

¹³ We consider each manipulation question’s pass rates to be within the range of pass rates (75–85 %) disclosed in experimental tax research published in top accounting journals in the last decade (1999–2011) including: Maroney et al. (2002), Alexander (2003), and Henderson and Kaplan (2005). The demographics for those passing and not passing the manipulation check questions were similar except that those not passing were marginally younger and had slightly less experience filing tax returns.

and group affiliation manipulations, the other independent variable of interest, fairness perception of capital gains characterization is based on the response to the question “Given the facts of the case, do you think it is ‘fair’ to characterize the income from the sale as a capital gain versus ordinary income,” measured on a 7 point Likert type scale anchored by (1) Not Fair and (7) Very Fair, since what we are interested in is the outcome fairness of this particular tax issue.

Appendix 2 also presents the additional questions and anchor scales we asked to capture contextual factors found in prior studies to potentially have an impact on taxpayer decision making. First, we ask a question about peer taxpayer behavior since there may be a social desirability bias (Cohen et al. 1998). Second, we ask about the ethicality of the capital gains characterization of income to tease out possible egocentric ethical effects (Thompson and Loewenstein 1992). Third, we ask a question about the willingness to evade taxes given the opportunity without the risk of detection since prior research suggests that individuals may judge an action as less unethical if they economically benefit from that action (Adams 1965; Blanthorne and Kaplan 2008). Fourth, we ask a question about risk-seeking preferences since this may impact the propensity to be less compliant in tax situations (Ghosh and Crain 1995; Trivedi et al. 2003). Fifth, and although in our experiment the tax characterization choice set in all conditions involve potential refunds rather than amounts due, we ask a question about the extent that the prospect of a refund impacts the participant’s tax characterization choice.¹⁴ Lastly, we ask about feelings toward their tax

¹⁴ The alternative perspective is that participants may view the capital gains characterization as a risky proposition and focus on this as being more of a threat (and less of an opportunity), in which case they would be less likely to choose that tax characterization (Highhouse and Yuce 1996; Jackson and Hatfield 2005).

Table 2 Sample description

Cell and sample mean (standard deviation)	Ordinary income norm, sole practice	Ordinary income norm, group practice	Capital gains norm, sole practice	Capital gains norm, group practice	Total
How likely is it that you recognize income from the sale as a capital gain instead of ordinary income?	4.59 (2.09)	4.86 (1.84)	5.82 (1.29)	5.93 (1.34)	5.32 (1.75)
How likely do you think it is that your peers would recognize income from the sale as a capital gain instead of ordinary income?	4.68 (1.74)	4.64 (1.59)	5.58 (1.57)	6.18 (0.76)	5.29 (1.59)
Do you think it is “fair” to characterize the income from the sale as a capital gain versus ordinary income?	4.66 (1.99)	5.17 (1.67)	5.22 (1.3)	5.32 (1.54)	5.09 (1.67)
Do you think it is “ethical” to characterize the income from the sale as a capital gain versus ordinary income?	4.34 (5.20)	4.88 (1.81)	5.20 (1.51)	5.14 (1.47)	4.90 (1.76)
If given the opportunity to evade the payment of tax knowing you would not get caught, would you [evade]?	3.66 (2.10)	2.98 (1.87)	3.60 (2.05)	2.95 (1.80)	3.31 (1.98)
Do you view yourself as a risk avoider or risk seeker?	3.68 (1.58)	4.07 (1.49)	3.76 (1.53)	3.11 (1.26)	3.46 (1.44)
Do you think the prospect of receiving a refund influenced your decision?	4.41 (2.12)	4.81 (2.04)	5.08 (1.89)	4.93 (1.82)	4.82 (1.97)
Indicate how “bad” or “good” you feel about your income classification decision.	5.55 (1.28)	5.43 (1.13)	5.16 (−1.06)	5.32 (1.16)	5.36 (1.16)

Table 2 presents the by-cell condition mean and (standard deviation) for questions posed to the participants. In order, the following are measured on a 7 point Likert type scale anchored as follows: capital gains tax characterization choice [(1) Not At All and (7) Very Likely]; perception of peers' capital gains characterization [(1) Not Likely and (7) Very Likely]; fairness perception [(1) Not Fair and (7) Very Fair]; perceived ethicality [(1) Not Ethical and (7) Very Ethical]; acting on economic benefit [(1) Not under all circumstances and (7) Yes under all circumstances]; risk-seeking preference [(1) Very much a risk avoider and (7) Very much a risk seeker]; acting on the prospect of a refund [(1) Absolutely not and (7) Absolutely yes]; and attitude toward decision [(1) Very bad and (7) Very good]

characterization choice to capture attitudinal effects (Falsetta 2007) and/or guilt/shame effects (Grasmick and Bursik 1990) that may be associated with increasing individual outcomes at the expense of the whole group (Trivedi et al. 2003).

Results

Descriptive Statistics

Table 2 presents descriptive statistics for the questions measuring the likelihood of characterizing the income as capital gains versus ordinary income, and perceived fairness of the capital gains characterization and other contextual elements. Untabulated analysis indicates that the overall sample mean for the likelihood of choosing a capital gains characterization of 5.32 is significantly greater than the neutral response of 4.00 ($t = 10.145$, $p < 0.001$). This suggests that participants were, on average, more likely to characterize the income as capital gains versus ordinary. Further, the overall sample mean of 5.09 for the perceived fairness of the capital gains characterization is also significantly greater than the neutral response of 4.00 ($t = 8.809$, $p < 0.001$), suggesting that in

all conditions participants perceive the capital gains characterization as a reasonably fair position.

Table 2 also presents descriptive statistics for the questions designed to capture other contextual factors. Untabulated analysis indicates that the participants' overall mean likelihood of treating the income as capital gains is not significantly different than their perception of their peers' tax characterization judgment (mean response of 5.32 vs. 5.29, respectively, $t = 0.253$, $p > 0.10$). However, the overall mean ethicality of the capital gains characterization is significantly lower than its perceived fairness (4.90 vs. 5.09, respectively, $t = -2.969$, $p < 0.01$). With respect to the acting on economic benefits, participants on average would not take advantage of an opportunity to evade taxes despite no risk of detection (mean response of 3.31 vs. 4.00 neutral response, $t = -4.679$, $p < 0.001$), but are risk averse (mean response of 3.46 vs. 4.00 neutral response, $t = -3.081$, $p < 0.01$). In addition, participants on an average consider the refund prospect in their decision (mean response of 4.82 vs. 4.00 neutral response, $t = 5.569$, $p < 0.001$), and feel good about their decision (mean response of 5.36 vs. 4.0 neutral response, $t = 15.731$, $p < 0.001$).

Table 3 presents the spearman correlation matrix for our dependent variable (capital gains choice, e.g., the

Table 3 Spearman correlation matrix

Correlation	Capital gains choice	Capital gains norm	Group practice	Perception of peers' judgment	Fairness perception	Perceived ethicalness	Acting on economic benefit	Risk preference	Acting on the prospect of a refund
Capital gains norm	0.2946*								
Group practice	0.0378	-0.0203							
Perception of peers' judgment	0.5275*	0.4032*	0.0584						
Fairness perception	0.6506*	0.0743	0.0812	0.3784*					
Perceived ethicalness	0.6714*	0.1229	0.0393	0.3574*	0.8736*				
Acting on economic benefit	0.0023	-0.0035	-0.1598 [†]	0.1180	-0.0342	-0.0423			
Risk preference	0.1723 [†]	-0.1390 [‡]	-0.0505	0.0590	0.1147	0.0715	0.1974*		
Acting on the prospect of a refund	0.2909*	0.0898	0.0176	0.2900*	0.1793 [†]	0.1820 [†]	0.2089*	0.1540 [†]	
Attitude toward decision	0.2838*	-0.1191	0.0045	0.0838	0.3454*	0.3908*	-0.1201	0.1526 [†]	0.0268

Table 3 presents the spearman correlation matrix for the dependent variable of interest (capital gains choice, that is, the likelihood of characterizing income as capital gains), the manipulated variables of capital gains norm and group practice (i.e., social norm condition as ordinary income or capital gains characterization; and the group affiliation condition as sole or group practice, respectively) and additional questions posed to the participants. In order, the following are measured on a 7 point Likert type scale anchored as follows: capital gains choice [(1) Not At All and (7) Very Likely]; perception of peers' capital gains characterization [(1) Not Likely and (7) Very Likely]; fairness perception [(1) Not Fair and (7) Very Fair]; perceived ethicality [(1) Not Ethical and (7) Very Ethical]; acting on economic benefit [(1) Not under all circumstances and (7) Yes under all circumstances]; risk-seeking preference [(1) Very much a risk avoider and (7) Very much a risk seeker]; acting on the prospect of a refund [(1) Absolutely not and (7) Absolutely yes]; and attitude toward decision [(1) Very bad and (7) Very good]. *,[†],[‡] Represents significance at the $p < 0.001$, 0.05 and 0.10 levels

likelihood of characterizing the income as capital gains), the two manipulated variables (social norm of capital gains or ordinary characterization of income; and group affiliation or sole practice) and participants' responses to our additional questions (discussed above), which proxy for contextual factors that prior research suggests may matter in taxpayer decisions. Indeed, the likelihood of characterizing the income as capital gains (i.e., capital gains choice) is highly correlated with all but one contextual factor, acting on the economic benefit of the choice (all other $p < 0.05$ or lower). We consider these factors in sensitivity analyses below. Not surprisingly, there is a highly significant correlation between the capital gains social norm and participant's assessment of what their peers would do ($p < 0.001$). Also, perceived fairness and perceived ethicality of the capital gains characterization are highly correlated with each other, with social desirability bias, and with the attitude toward the decision (all $p < 0.001$).

Overall, the participants in our sample lean more toward a capital gains characterization of income, view their choice as ethical, and perceive their choice as reasonably fair and favorably (i.e., more good than bad). They also view themselves as more risk averse than risk seeking. Since there appears to be a high correlation between our measured variable of interest (i.e., perceived fairness) and participants' responses to some of our additional questions as well as some variation in these contextual elements when we compare them on the basis of the four

experimental conditions, we add these as covariates as part of our sensitivity analyses, which we discuss in a later section.

Hypothesis Tests

Table 4 presents the results of the analysis of covariance. Consistent with our expectations, we find evidence that supports H1. Specifically, participants are more likely to characterize the income as capital gains when the prevailing social norm is capital gains characterization ($F = 36.096$, $p < 0.001$). We interpret this result as consistent with the individual's motivation to build and maintain social relationships (Cialdini and Trost 1998) and to follow the general social consensus which reduces the moral ambiguity of alternatives (Bobek et al. 2007b).

In contrast, we do not find that participants are more likely to characterize the income as capital gains when he/she is affiliated with a group (operationalized as membership in a partnership), contrary to our expectations in H2.¹⁵

¹⁵ Interestingly, we find, in untabulated analysis, a significant effect for both the social norm and group affiliation variables when we interact each with the perceived fairness variable. This may be indicative of individuals rationalizing their choice to adhere to social norms and/or to follow their referent group under the guise of behaving consistent with their perceptions of fairness of the tax item at issue (Wenzel 2005; Blanthorne and Kaplan 2008). Also, as an anonymous reviewer suggested, this interaction could be the primary context where perceptions of fairness would be fully engendered.

Table 4 Results of ANCOVA

Source	Prediction	df	SS	MS	F-statistic	p value
Corrected model		4	299.010	74.752	52.68	<0.001
Capital gains norm	+H1	1	36.096	36.096	25.44	<0.001
Group practice	+H2	1	0.231	0.023	0.02	0.449
Capital gains norm x group practice		1	0.194	0.194	1.01	0.712
Fairness perception	+H4	1	237.654	237.654	167.50	<0.001
Error		175	248.312	1.419		

Table 4 reports the results of ANCOVA of choosing capital gains over ordinary income characterization of income under the social norm condition (ordinary income or capital gains characterization) and the group affiliation condition (sole or group practice). The primary dependent variable is based on the participant's response to the question "Given the facts in the case, how likely is it that you would recognize income from the sale as a capital gain instead of ordinary income," measured on a 7 point Likert type scale anchored by (1) Not At All and (7) Very Likely. Besides the social norm and group affiliation manipulations, the other independent variable of interest, perceived fairness of the capital gains income tax characterization, is based on the response to the question "Given the facts of the case, do you think it is 'fair' to characterize the income from the sale as a capital gain versus ordinary income," measured on a 7 point Likert type scale anchored by (1) Not Fair and (7) Very Fair. *P* values are presented as one-tailed for those factors with directional predictions and two-tailed otherwise

However, we do find support for H3 that when compared to all other conditions, the presence of a prevailing social norm of capital gains characterization of income together with being affiliated with a group is significantly associated with the likelihood of characterizing the income as capital gains (see Fig. 3). Specifically, Table 5 reports the result of testing H3 using a planned contrast in cell means (Buckless and Ravenscroft 1990; Keppel 1991). The response to the capital gains characterization question for the participants in the capital gains social norm/group practice is coded as 3 and the responses of participants in all other groups were coded as -1. The weights used are consistent with prior research as well as our H3 prediction and the test is statistically significant ($F = 1.69, p < 0.05$). We interpret this result as consistent with the view that the likelihood of characterizing income as capital gains by a taxpayer in a group practice is particularly important when coupled with a prevailing social norm that supports such a tax characterization.

Going back to Table 4, we find support for H4 that the perceived fairness of the capital gains characterization of income is associated with a higher likelihood of characterizing income as capital gains ($F = 237.654, p < 0.05$). This result is consistent with the idea that a taxpayer who perceives ordinary income (capital gains characterization) as less (more) fair will more likely choose a capital gains characterization.

Sensitivity Analyses

We conduct several sensitivity analyses to address possible alternative explanations for our main results. First, participants may exhibit a social desirability bias (toward their peers) in their tax characterization judgment (Cohen et al. 1998). Second, participants may project egocentric ethics

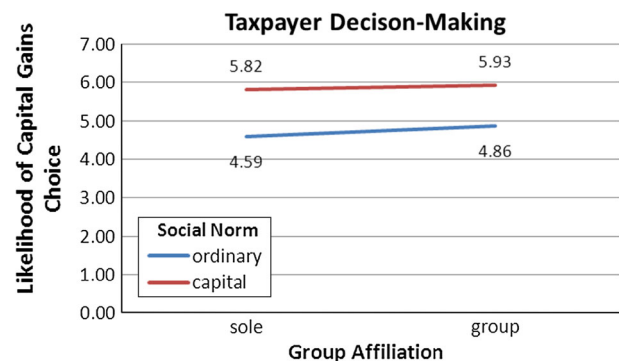


Fig. 3 Resulting effect of social norm and group affiliation on taxpayer decision making. This is a graphical representation of the resulting ordinal effect of social norm (capital gains or ordinary income characterization) and group affiliation (sole or group practice) on the individual's tax judgment. A lower tax judgment indicates that the individual is less likely to choose a capital gains characterization of income while a higher tax judgment indicates that the manager is more likely to choose an ordinary income characterization

(Thompson and Loewenstein 1992) in their tax characterization judgment. Third, participants may consider the relative economic benefits, net of the detection risks, of each tax characterization (Blanthorne and Kaplan 2008). Fourth, participants may act on their general risk-seeking preference in their tax characterization judgment (Ghosh and Crain 1995; Trivedi et al. 2003). Fifth, participants may fixate on the refund prospect in their tax characterization judgment, or the relative riskiness of each tax characterization (Highhouse and Yuce 1996; Jackson and Hatfield 2005). Lastly, participants may reflect their general attitude toward (Falsetta 2007) and/or guilt/shame over (Grasmick and Bursik 1990) each tax characterization.

To test these alternative explanations, we added the following contextual covariates, respectively, to our main analysis of covariance and planned contrast tests: social

Table 5 Planned contrast

Source	Value of contrast	df	Standard error	<i>t</i> -statistic	<i>p</i> value
H3: Contrast weights are (-1, -1, -1, +3)	4.033	175	248.301	1.69	0.0468

Table 5 reports the results of planned contrasts of capital gains over ordinary income characterization of income under the social norm condition (ordinary income or capital gains characterization) and the group affiliation condition (sole or group practice). Contrast coefficients are -1 for the ordinary income norm/sole practice condition, -1 for the ordinary income norm/group practice condition, -1 for the capital gains norm/sole practice condition, and +3 for the capital gains norm/group practice condition. The *p* value is presented as one-tailed

desirability bias (measured as the difference between the participant's likelihood of characterizing the income as capital gains and the participant's perception of the likelihood of their peers characterizing the income as capital gains); perceived ethicality (measured based on the participant's response to the question of whether he/she thinks it is "ethical" to characterize the income from the sale as a capital gain versus ordinary income); acting on economic benefit (measured based on the participant's response to the question of whether he/she would evade the payment of tax if given the opportunity to evade without the risk of detection); risk-seeking preference (measured based on the participant's response to the question of whether he/she views him/herself as a risk seeker or risk avoider); acting on the prospect of a refund (measured based on the participant's response to the question of whether he/she thinks the prospect of the refund influenced his/her decision); and attitude toward the decision (measured based on the participant's response to the question of how "bad" or "good" he/she feels about their income classification decision).

Results reported in Table 6 indicate that our main analysis of covariance results is robust to and incremental to these alternative explanations. Specifically, we continue to find evidence consistent with the participants' likelihood of characterizing the income as a capital gains increasing in the prevailing social norm of capital gains characterization (H1) and in their perceived fairness of a capital gains characterization (H4). Results presented in Table 6 also suggest that our planned contrast result (H3) is largely robust to considering the alternative explanations for five out of seven specifications. Moreover, and consistent with prior research, we find evidence that participants' capital gains characterization judgment are associated with participants' social desirability bias, perceived ethicality of capital gains characterization, risk-seeking preferences, and propensity to act on the prospect of a refund (all $p < 0.001$).

Finally, we also conducted additional analysis considering demographic and tax knowledge factors since prior research generally finds that these factors may affect taxpayer decisions. Our untabulated results suggest that our main results also hold after adding age, gender, number of tax returns filed, number of accounting courses, and

number of finance courses. None of these added covariates were significantly associated with the capital gains characterization.

Discussion and Conclusion

This study examines contextual and individual dimensions of taxpayers' decisions, specifically the effect of a prevailing social norm, an individual's group affiliation, and perceived fairness of a capital gains income characterization of income on the likelihood of characterizing income as capital gains. Using graduate business and accounting students as participants, we find that a prevailing social norm and perceptions of fairness of a capital gains income characterization are associated with a higher likelihood of characterizing income as capital gains. Relative to all other conditions, taxpayers are most likely to characterize income as capital gains when the prevailing social norm supports such a characterization and the taxpayer is in a group practice.

As in all studies, there are limitations that represent opportunities for future research. By design, our experiment only examines a tax-ambiguous income reporting situation. Moreover, we study a situation where in all scenarios the taxpayer will receive a refund. Future studies could examine if tax behavior is consistent when reporting choices involve a set of income and deduction items or result in additional tax payments as opposed to refunds. If we view payments as losses and refunds as gains, then prospect theory (Kahneman and Tversky 1979; Schepanski and Shearer 1995) would suggest that taxpayers would be more aggressive in making taxpayer-favorable choices when facing additional tax payments than they would when anticipating a refund. We test whether taxpayers will act to benefit members of a group partnership with similar economic interests. Future research could examine taxpayer behavior when preparer economic interests are at odds with group interests. As well, future research could measure multiple components of fairness such as procedural fairness in addition to the outcome fairness examined in this study (Kaplan et al. 2013). Fairness could also be explored by examining whether and how different referent groups

Table 6 Results of sensitivity analyses

Source	Prediction	Social desirability bias	Perceived ethicalness	Acting on economic benefit	Risk-seeking preference	Acting on the prospect of a refund	Attitude toward decision	All
Corrected model		378.134*	312.334*	300.079*	310.046*	308.762*	299.010*	339.547*
Capital gains norm	+H1	43.080*	29.883*	36.243*	41.752*	32.670*	35.428*	16.578*
Group practice	+H2	0.184	0.005	0.001	0.001	0.045	0.023	0.066
Capital gains norm × group practice		1.685	0.468	0.189	0.992	0.401	0.192	1.232
Fairness perception	+H4	119.933*	20.071*	237.021*	224.615*	219.571*	221.442*	11.283*
Social desirability bias		79.124*						7.025*
Perceived ethicalness			13.324*					15.650*
Acting on economic benefit				1.069				0.512
Risk preference					11.036*			10.182*
Acting on the prospect of a refund						9.752*		4.986 [†]
Attitude toward decision							0.001	1.227
Error								
Value of contrast	+H3	20.561	0.033	0.629	6.647 [†]	4.971 [†]	10.906*	8.149*

Table 6 presents the results of sensitivity analyses for the ANCOVA and planned contrast tests after adding covariates. These covariates are drawn from the contextual variables which are measured based on additional questions posed to the participants. The primary dependent variable is based on the participant's response to the question "Given the facts in the case, how likely is it that you would recognize income from the sale as a capital gain instead of ordinary income," measured on a 7 point Likert type scale anchored by (1) Not At All and (7) Very Likely. In order, the following are measured on a 7 point Likert type scale [anchored as follows]: fairness perception [(1) Not Fair and (7) Very Fair]; social desirability bias (i.e., measured as the difference between the participant's likelihood of characterizing the income as capital gains less the individual's perception of his/her peers' capital gains characterization anchored as (1) Not Likely and (7) Very Likely); perceived ethicality [(1) Not Ethical and (7) Very Ethical]; acting on economic benefit [(1) Not under all circumstances and (7) Yes under all circumstances]; risk-seeking preference [(1) Very much a risk avoider and (7) Very much a risk seeker]; acting on the prospect of a refund [(1) Absolutely not and (7) Absolutely yes]; and attitude toward decision [(1) Very bad and (7) Very good]. Table 2 presents the underlying questions corresponding to each of these additional contextual variables. *[†] Is significant at $p < 0.001$ and <0.05 levels, respectively, one-tailed for those factors with directional predictions, and two-tailed otherwise. For the value of contrast, *[†] is significant at the $F < 0.001$ and <0.05 levels, respectively, and one-tailed

influence taxpayers' decisions when the decisions explicitly juxtapose the referent group's economic interests versus the direct economic interests of society at large as well as indirect effects related to perceived and actual tax equity. Further, we used graduate students as participants. Although we did control for taxpayer experience, we did not use participants who may deal more regularly with the real estate setting. Finally, we only examine US taxpayers. A future study could apply the contingent factors model (Cohen and Bennie 2006) in settings where there are different tax regimes and/or maintained beliefs regarding ethical decision making.

We believe this study has important implications for tax policy, enforcement, and both tax and ethics research. Today, there is a clear and significant negative view of taxation in the United States. Some portion of this negative view is likely grounded in the perception that the tax system is unfair. This, in turn, likely creates a bias in favor of taking controversial tax positions to rectify these perceptions and judgments. Prospective tax reform developed and evaluated on the basis of actual and perceived fairness as opposed to reflecting biased political and ideological perspectives may well be more effective (National Taxpayer Advocate 2007). As well, the study

could be replicated in countries where there is abundant evidence that the citizenry accept significantly higher levels of taxation, e.g., Scandinavia. Further, from a research perspective, this study reinforces the importance of social norms on individuals' compliance decisions. Future research could investigate what message or framing of a message could be constructed that would best enhance the view that the tax system is equitable and enhance the compliance behavior of the taxpaying public (Bierstaker et al. 2012).

Appendix 1

Example of Experimental Instrument [with alternate manipulations]

You [and nine partners] own a real estate operating company that owns and operates residential real estate property. You [The group] bought a five unit residential building with the intention of systematically renovating units while renting units not under renovation. When the building was completely renovated you [the group] intended to sell the unit.

Three years after acquiring the building you [the group] sold the building and realized a taxable gain of \$150,000 [\$1,500,000].

[You are responsible for preparing the group's tax return in the year of sale.] You can choose to recognize the income from the sale as either capital gains or ordinary income.

If you recognize the income as capital gains you [each member of the group] will pay taxes on the sale in the amount of \$22,500. When you file your [each member of the group files their] tax return your total tax bill [their total tax bill related to the group] will be less than you've [they've] already paid in tax and you'll [they'll] get a \$40,000 refund when you file your tax return [in relation to the group's activities]. Classifying the income in this way would be consistent with your prior filing practice when selling units you had managed for rental income.

If you recognize the income as ordinary you [each member of the group] will pay taxes on the sale in the amount of \$52,500. When you file your [each member of the group files their] tax return their] tax return your total

tax bill [their total tax bill related to the group] will be less than [you've] they've already paid in tax and you'll [they'll] get a \$10,000 refund when you file your tax return [in relation to the group's activities]. Classifying the income in this way would be consistent with the manner in which property developers file when selling units they had acquired for renovation and resale.

You believe a large majority of taxpayers in your circumstances would recognize the income as capital gains [ordinary] income.

Appendix 2

Experimental Questions

For the following questions, please indicate by circling the number on the scale, which most closely represents your decision or belief. The closer you place a circle to the end points, the stronger you agree with the phrase at that end of the scale.

1. Given the facts in the case, how likely is it that you would recognize income from the sale as a capital gain instead of ordinary income

Not at All	Very Likely
1 2 3 4 5 6 7	

2. Given the facts in the case, how likely do you think it is that your peers would recognize income from the sale as a capital gain instead of ordinary income?

Not Likely	Very Likely
1 2 3 4 5 6 7	

3. Given the facts of the case, do you think it is “fair” to characterize the income from the sale as a capital gain versus ordinary income?

Not Fair	Very Fair
1 2 3 4 5 6 7	

4. Given the facts of the case, do you think it is “ethical” to characterize the income from the sale as a capital gain versus ordinary income?

Not Ethical	Very Ethical
1 2 3 4 5 6 7	

5. If given the opportunity to evade the payment of tax knowing you would not get caught would you?

Not under all circumstances	Yes under all circumstances
1 2 3 4 5 6 7	

6. Do you view yourself as a risk seeker or risk avoider?

Very much a risk avoider	Very much a risk seeker
1 2 3 4 5 6 7	

7. Do you think the prospect of receiving a refund influenced your decision?

Absolutely not	Absolutely yes
1 2 3 4 5 6 7	

8. On the scale below, indicate how “bad” or “good” you feel about you income classification decision

Very bad	Very good
1 2 3 4 5 6 7	

References

- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267–299). New York: Academic Press.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Alexander, R. M. (2003). The effect of source credibility on tax professional judgment in consulting engagements. *Journal of the American Taxation Association*, 25(Supplement), 33–49.
- Allingham, M., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1, 323–338.
- Alm, J., McClelland, G., & Schulze, W. (1999). Changing the social norm of tax compliance by voting. *Kyklos*, 52(2), 141–171.
- Alm, J., & Sanchez, I. (1995). Economic and noneconomic factors in tax compliance. *Kyklos*, 48(1), 3–19.
- Alm, J., & Torgler, B. (2011). Do ethics matter: Tax compliance and morality. *Journal of Business Ethics*, 101(4), 635–651.
- Becker, G. S. (1968). Crime and punishment—An economic approach. *The Journal of Political Economy*, 76, 169–217.
- Bedard, J. C., & Biggs, S. F. (1991). The effect of domain-specific experience on evaluation of management representation in analytical procedures. *Auditing: A Journal of Practice and Theory*, 10(Suppl), 77–95.
- Bierstaker, J., Cohen, J., DeZoort, T., & Hermanson, D. (2012). Audit committee compensation, fairness and the resolution of accounting disagreements. *Auditing: A Journal of Practice and Theory*, 31, 131–150.
- Blanthorne, C., & Kaplan, S. (2008). An egocentric model of the relations among the opportunity to underreport, social norms, ethical beliefs, and underreporting behavior. *Accounting, Organizations and Society*, 33, 684–703.
- Bobek, D. D., Hageman, A. M., & Kelliher, C. F. (2013). Analyzing the role of social norms in tax compliance behavior. *Journal of Business Ethics*, 115, 451–468.
- Bobek, D. D., & Hatfield, R. C. (2003). An investigation of the theory of planned behavior and the role of moral obligation in tax compliance. *Behavioral Research in Accounting*, 15, 13–38.
- Bobek, D. D., Hatfield, R. C., & Wentzel, K. (2007a). An investigation of why taxpayers prefer refunds: A theory of

- planned behavior approach. *Journal of the American Taxation Association*, 29(1), 93–111.
- Bobek, D. D., Roberts, R., & Sweeney, J. (2007b). The social norms of tax compliance: Evidence from Australia, Singapore, and the United States. *Journal of Business Ethics*, 74(1), 49–64.
- Bosco, L., & Mittone, L. (1997). Tax evasion and moral constraints: Some experimental evidence. *Kyklos*, 50, 297–324.
- Buckless, F. A., & Ravenscroft, S. P. (1990). Contrast coding: A refinement of ANOVA in behavioral analysis. *The Accounting Review*, 65(4), 933–945.
- Carnes, G. A., Harwood, G. B., & Sawyers, R. B. (1996). A comparison of tax professionals' individual and group decisions when resolving ambiguous tax questions. *Journal of the American Taxation Association*, 18(2), 1–18.
- Chang, O. H., Nichols, D. R., & Schultz, J. J. (1987). Taxpayer attitudes toward tax audit risk. *Journal of Economic Psychology*, 8, 299–309.
- Christensen, A. L., & Hite, P. A. (1997). A study of the effect of taxpayer risk perceptions on ambiguous compliance decisions. *Journal of the American Taxation Association*, 19(1), 1–18.
- Christensen, A. L., Weihrich, S. G., & Gerbing Newman, M. D. (1994). The impact of education on perceptions of tax fairness. *Advances in Taxation*, 6, 63–94.
- Cialdini, R., & Trost, M. (1998). Social Influence: social norms, conformity, and compliance. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed.). New York: Oxford University Press.
- Cohen, J., & Bennie, N. M. (2006). The applicability of a contingent factors model to accounting ethics research. *Journal of Business Ethics*, 68(1), 1–18.
- Cohen, J., Holder-Webb, L., Sharp, D., & Pant, L. (2007). The effects of perceived fairness on opportunistic behavior. *Contemporary Accounting Research*, 24(4), 1119–1138.
- Cohen, J., Pant, L., & Sharp, D. (1998). The effect of gender and academic discipline diversity on the ethical awareness of potential public accounting recruits. *Accounting Horizons*, 12, 250–270.
- Cowell, F. (1990). *Cheating the government*. Cambridge: MIT Press.
- Cuccia, A. D., Hackenbrack, K., & Nelson, M. W. (1995). The ability of professional standards to mitigate aggressive reporting. *The Accounting Review*, 70(2), 227–248.
- Davis, J., Hecht, G., & Perkins, J. (2003). Social behaviors, enforcement, and tax compliance dynamics. *The Accounting Review*, 78(1), 39–69.
- Falsetta, D. (2007). A discussion of “An investigation of why taxpayers prefer refunds: A theory of planned behavior approach”. *Journal of the American Tax Association*, 29(1), 113–116.
- Falsetta, D., & White, R. A. (2005). The impact of income tax withholding position and stock position on the sale of stock. *Journal of the American Tax Association*, 27(1), 1–23.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Frey, B. S. (1997). *Not just for the money. An economic theory of personal motivation*. Cheltenham: Edward Elgar.
- Ghosh, D., & Crain, T. L. (1995). Ethical standards, attitudes toward risk, and intentional noncompliance: An experimental investigation. *Journal of Business Ethics*, 14, 353–365.
- Grasmick, H. G., & Bursik, R. J., Jr. (1990). Conscience, significant others, and rational choice: Extending the deterrence model. *Law and Society Review*, 24, 837–861.
- Henderson, B. C., & Kaplan, S. E. (2005). An examination of the role of ethics in tax compliance decisions. *Journal of the American Tax Association*, 27(10), 39–72.
- Highhouse, S., & Yuce, P. (1996). Perspectives, perceptions, and risk-taking behavior. *Organizational Behavior and Human Decision Processes*, 65(2), 159–167.
- Internal Revenue Service. (2012). *Tax gap for tax year 2006: Overview*. U.S. Internal Revenue Service. Retrieved, January 6, 2012, from http://www.irs.gov/pub/newsroom/overview_tax_gap_2006.pdf.
- Jackson, S. B., & Hatfield, R. C. (2005). A note on the relation between frames, perceptions, and taxpayer behavior. *Contemporary Accounting Research*, 22, 145–164.
- Jackson, B. R., & Milliron, V. C. (1986). Tax compliance research: Findings, problems, and prospects. *Journal of Accounting Literature*, 5, 125–166.
- Jones, T. M. (1991). Ethical decision making by individuals in organizations: An issue contingent model. *Academy of Management Review*, 16, 366–395.
- Jones, C. R. (2010). *Understanding use-tax compliance: A theory of planned behavior approach*. Working paper, Western Illinois University.
- Jones, J., Massey, D., & Thorne, L. (2003). Auditors' ethical reasoning: Insights from past research and implications for the future. *Journal of Accounting Literature*, 22, 45–103.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision's under risk. *Econometrica*, 47, 263–291.
- Kaplan, S., Samuels, J., & Cohen, J. (2013). *An examination of the effect of CEO social ties and CEO reputation on non-professional investors' say on pay judgments*. Forthcoming: *Journal of Business Ethics*.
- Keppel, G. (1991). *Design and analysis: A researcher's handbook*. Upper Saddle River, NJ: Prentice Hall.
- Kohlberg, L. (1969). Stage and sequence: the cognitive-developmental approach to socialization. In D. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally.
- Kornhauser, M. E. (2007). A tax morale approach to compliance: Recommendations for the IRS. *Florida Tax Review*, 599, 601–640.
- Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. *Psychological Bulletin*, 125(2), 255–275.
- Libby, T. (2001). Referent cognitions and budgetary fairness: A research note. *Journal of Management Accounting Research*, 13, 91–106.
- Maroney, J., Rupert, T., & Wartick, M. (2002). The perceived fairness of taxing social security benefits: The effects of explanations based on different dimensions of tax equity. *The Journal of the American Taxation Association*, 24(2), 79–92.
- Mason, J. D. (2010). The use of certainty threshold criteria for tax compliance enforcement in ambiguous tax scenarios. *Academy of Accounting and Financial Studies Journal*, 14(1), 7–28.
- McGee, R. W. (2006). Three views on the ethics of tax evasion. *Journal of Business Ethics*, 67, 15–35.
- Moser, D. V., Evans, J. H. I. I., & Kim, C. K. (1995). The effects of horizontal and exchange inequity on tax reporting decisions. *The Accounting Review*, 70, 619–634.
- National Taxpayer Advocate. (2007). *2007 Annual report to congress* (Vol. 2). Retrieved, from http://www.irs.gov/pub/irs-utl/arc_2007_vol_2.pdf.
- Peecher, M., Solomon, I., & Trotman, K. (2013). An accountability framework for financial statement auditors and related research questions. *Accounting Organizations and Society* (Forthcoming).
- Porcano, T. M. (1988). Correlates of tax evasion. *Journal of Economic Psychology*, 9(1), 47–67.
- Reckers, P. M. J., Sanders, D. L., & Roark, S. J. (1994). The influence of ethical attitudes on taxpayer compliance. *National Tax Journal*, 47, 825–836.

- Rest, J. R. (1986). *Moral development: Advances in research and theory*. New York: Praeger.
- Roberts, M. L. (1994). An experimental approach to changing taxpayers' attitudes towards fairness and compliance via television. *Journal of the American Taxation Association*, 16(Spring), 67–86.
- Schepanski, A., & Shearer, T. (1995). A prospect theory account of the income tax withholding phenomenon. *Organizational Behavior and Human Decision Processes*, 63(2), 174–186.
- Schisler, D. L. (1995). Equity, aggressiveness, consensus: A comparison of taxpayers and tax preparers. *Accounting Horizons*, 9(4), 76–87.
- Scholes, M. S., Wolfson, M. A., Erickson, M., Maydew, E. L., & Shevlin, T. (2009). *Taxes and business strategy: A planning approach* (4th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Schwarz, S. (1977). Normative influence on altruism. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 221–279). New York: Academic Press.
- Sheffrin, S., & Triest, R. (1992). Can brute deterrence backfire? Perceptions and attitudes in taxpayer compliance. In J. Slemrod (Ed.), *Who pays taxes and why? Tax compliance and enforcement* (pp. 193–218). Ann Arbor: University of Michigan Press.
- Spilker, B. C., Worsham, R. G., & Prawitt, D. F. (1999). Tax professionals' interpretations of ambiguity in compliance and planning decision contexts. *Journal of the American Taxation Association*, 21(2), 75–89.
- Thompson, L., & Loewenstein, G. (1992). Egocentric interpretations of fairness and interpersonal conflict. *Organizational Behavior and Human Decision Processes*, 51, 176–197.
- Trivedi, V. U., Shehata, M., & Lynn, B. (2003). Impact of personal and situational factors on taxpayer compliance: An experimental analysis. *Journal of Business Ethics*, 47, 175–197.
- Van der Heijden, E., Nelissen, J., & Potters, J. (2007). Opinions on the tax deductibility of mortgages and the consensus effect. *De Economist*, 155, 141–159.
- Wartick, M. L. (1994). Legislative justification and the perceived fairness of tax law changes: A referent cognitions theory approach. *The Journal of the American Taxation Association*, 16(Spring), 106–123.
- Webley, P., Cole, M., & Eidjar, O. P. (2001). The prediction of self-reported and hypothetical tax-evasion: Evidence from England, France and Norway. *Journal of Economic Psychology*, 22, 141–155.
- Wenzel, M. (2002). The impact of outcome orientation and justice concerns on tax compliance: The role of taxpayers' identity. *Journal of Applied Psychology*, 87(4), 629–645.
- Wenzel, M. (2003). Tax compliance and the psychology of justice: mapping the field. In V. Braithwaite (Ed.), *Taxing democracy: Understanding tax avoidance and evasion* (pp. 41–70). Aldershot: Ashgate Publishing.
- Wenzel, M. (2004). An analysis of norm processes in tax compliance. *Journal of Economic Psychology*, 25, 213–228.
- Wenzel, M. (2005a). Motivation or rationalization? Causal relations between ethics, norms, and tax compliance. *Journal of Economic Psychology*, 26, 491–508.
- Wenzel, M. (2005b). Misperceptions of social norms about tax compliance: From theory to intervention. *Journal of Economic Psychology*, 26, 862–883.
- White, R. A., Curatola, A. P., & Samson, W. D. (1990). A behavioral study investigating the effect of knowledge of income tax laws and tax policy on individual perceptions of federal income tax fairness. *Advances in Taxation*, 3, 165–185.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.