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The Effects of Attribute Framing and Political Party Affiliation on Taxpayer Preferences

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Abstract

Understanding how tax reforms, tax agency initiatives, and taxpayer characteristics influence attitudes such as perceptions of tax fairness is an important issue for tax researchers, administrators, and policy makers. Public support for the tax system has serious implications for taxpayer compliance as well as for political support on tax-related proposals. This study examines whether attitudes toward the federal income tax system and the 2001 tax rebate vary by political party affiliation and by attribute frames. Using data from a randomized telephone survey we find that perceptions differ significantly by political party affiliation. In addition, our study extends prior research by showing that simply manipulating the perspective or frames of an attribute can significantly affect normative evaluations of tax law preferences. Specifically, we test attribute framing in a tax context and find that negative frames elicit significantly different preferences about the tax system compared to positive frames with essentially equivalent information.

INTRODUCTION

For tax reform to occur, a major political party must support the reform, but this is not likely to happen unless politicians believe the reforms will be embraced by the voting public. Consequently, any study of taxpayer attitudes would benefit from examining whether the attitudes are dependent on underlying political affiliations. Prior research, however, has shown that taxpayer attitudes are highly variable and context-dependent (McCaffery and Baron 2001). These researchers warn that politicians who best “frame” their arguments will rally public opinion. The present study examines two potential influences on taxpayer attitudes—political party affiliation and attribute framing.

Our study contributes to the framing literature by examining how positive and negative attribute frames affect taxpayer responses on attitudes toward the fairness or unfairness of the current tax system. McCaffery and Baron (2001; 2002) did not study attribute framing but they examined and found other potentially biasing frames. Given the liability of public judgments, they warned that conclusions about taxpayer preferences may be illusive. Our study adds attribute framing to the list of biases that need to be considered before drawing conclusions about taxpayer judgments.

In addition to attribute framing, attitudes towards taxes may vary with political affiliation. McGowan (2000) found that Republicans were more likely to prefer flat tax and sales tax systems over the current system than were Democrats and Independents.

Since tax attitudes may be influenced by one’s political preferences, taxpayer attitudes towards the current system are tested for differences by political affiliation (Democrat,

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Republican, and Independent). We also test for political party effects on taxpayer attitudes towards a specific aspect of the income tax system, the tax rebate in 2001. Given new Congressional and Presidential proposals that include the use of rebates and given the constant political rhetoric about unfair taxes, academics will want to be informed about how the proposals and their presentation may impact their subsequent acceptance.

Our results support four basic conclusions. First, taxpayer preferences differ when they are in response to negative attributes such as unfairness rather than in response to positive attributes such as fairness. Second, political party affiliation is linked to taxpayer preferences. Third, the more closely identified the tax provision is to a specific party, the more favorably it will be received by members of that party relative to taxpayers with other political party affiliations. Fourth, the 2001 tax rebate tended to be viewed positively by taxpayers, and those who did perceive it positively also tended to perceive the current system as more fair.

This paper proceeds by reviewing the relevant literature, explaining the research method used for this study, presenting the results, and then discussing the conclusions and limitations from the study.

BACKGROUND

Framing Effects

Public opinion on the U.S. tax system can be a relevant factor for determining the characteristics of that system. Prior studies have attempted to measure the impact of traits, such as equity and complexity, on tax attitudes and compliance. Although some of the results are seemingly inconsistent, several studies document influential effects of these attitudes, especially for fairness (Roth et al. 1989; Roberts 1994; Forest and Sheffrin 2002). Given the potential impact of attitudes, it is important that the effect is not misrepresented because of a framing effect.

Prior research has shown that attitudes are biased by the way they are solicited. A growing body of literature has found a variety of framing effects. At a general level, Druckman (2001) notes in the political science literature that framing effects are subject to a lack of agreement in terms of their definition, and lack of understanding as to when they occur and why. This problem has been somewhat alleviated by Levin et al. (1998) who show that all frames are not equal and propose a taxonomy of three separate types of framing effects (risky choice, attribute, and goal framing).

In a tax context, prior research has shown that tax attitudes differ according to how information is presented, e.g., when tax rate preferences are framed in percents rather than dollar amounts (Hite and Roberts 1991; McCaffery and Baron 2001). McCaffery and Baron (2002) confirm that finding and also show that preferences are affected by a disaggregation bias. That is, subjects repeatedly assess a smaller tax when asked to calculate the sum of income and payroll taxes compared to when one tax is assigned and subjects calculate the remaining tax.

McCaffery and Baron (2001) also document a “penalty aversion” bias in which taxpayer preferences vary with framing manipulations that portray the tax system as either providing a bonus or assessing a surcharge. They found that subjects preferred to give a bonus (lower taxes) to couples with children rather than assess additional tax

to couples without children. The bonus/surcharge terminology is consistent with the literature on attribute framing (Levin et al. 1998).

The tendency for losses to loom larger than gains (Kahneman and Tversky, 1979) is closely associated with the framing literature. Prospect theory was originally described as an explanation for economic risk preferences, but researchers have validated it in many decision contexts (Payne et al., 1984; Levin et al. 1987). Levin et al. (1998) and Rothman and Salovey (1997) conclude that objectively equivalent information can differentially affect attitudes, depending on whether it is positively or negatively framed. For example, Ganzach and Karsahi (1995) found that negative messages that emphasized disadvantages of using checks or cash payments had a much stronger effect on the subsequent use of credit cards than did a positive message emphasizing the benefits of using a credit card.

In summary, prior research suggests that attitudes will differ for positively and negatively framed information. As no prior study has examined whether attribute framing will affect taxpayer attitudes, our study applies these contrasting frames to the measurement of taxpayer attitudes toward the current income tax system, as no prior study has examined whether taxpayer attitude toward the tax system is affected by positive or negative wording. The first proposition tests whether attitudes toward the current income tax system vary when asked whether the system has become more fair and less complex (positive frame) or more unfair and complex (negative frame). The framing literature suggests a significant difference is expected. Thus, the first hypothesis is:

H1: Taxpayer attitude towards the current income tax system will not differ when framed positively (fair system) or negatively (unfair system).

Political Party Affiliation

An association between political affiliation and taxpayer attitude was documented by McGowan (2000) in a July 1995 nationwide telephone survey of U.S. homeowners. Wildavsky (1996), however, did not find a significant relationship in her October 1995 telephone survey. McGowan (2000) attributed the inconsistent results to the wording of the attitude questions. Wildavsky's results (1996) were based on the question, "What is the highest percentage of income that would be fair for a family of four making \$200,000 to pay in all taxes combined?" In contrast, McGowan's results (2000) were based on taxpayers' preferences for a flat tax, value-added tax, sales tax, or the current income tax system. Thus, agreement exists in regards to maximum desired tax burden, yet political party affiliation influences preferences for different types of tax systems. Differences in the two studies emphasize the importance of acknowledging exactly what attitude is being examined. The differing results could be attributed to the distinct tax issues—maximum tax rates versus type of tax structure. This is supported by Gerbing (1988) who examined tax fairness and found that tax burden and tax structure represented distinctly different dimensions of tax fairness.

McGowan's hypothesis (2000) was based on Political Affiliation Theory, which posits that people with a strong party identification are more likely to support policies that their own party supports. Many researchers have documented the association between political beliefs and judgments about public policy issues (Sears et al. 1980; Rasinski and Tyler, 1988). Alvarez and McCaffery (2000) examined exit poll data from the 1996 presidential election and found that only 4.8 percent of the voters thought tax

was the most important issue facing the nation. Nonetheless, if voters thought of taxes as the most important issue, they were 15 percent less likely to vote for the Democratic presidential candidate, 13 percent less likely to vote for a Democratic senator, and 11 percent less likely to vote for a Democrat in the House of Representatives.

Prior research has not demonstrated which comes first, support for tax programs and then support for a specific party, or support for a political party and therefore support for its tax policies. In McGowan's study (2000) respondents were more likely to favor a flat tax or a national sales tax since those ideas had been previously proposed by prominent Republicans. That finding is based on a statistical correlation, making the cause-and-effect relationship difficult to establish. Similarly, our study does not test the chronological order of support for tax policies and support for a political party, as the results are based on statistical associations.

We test for the effect of political party affiliation on two tax attitudes: 1) overall taxpayer attitude about the current income tax system and 2) attitude towards a specific tax issue, the 2001 income tax rebate. It seems plausible that political party effects are more visible on specific issues rather than on general attitude towards the overall system. Roberts et al. (1994) found that tax preferences on progressivity varied by whether the question was an abstract or concrete one. An abstract idea tends to have a more diverse interpretation than a concrete application. Hence, systematic differences due to political party preferences could be harder to detect on an abstract question. Thus, the hypotheses we test are:

H2: Taxpayer attitude towards the current income tax system will vary by political party affiliation.

H3: Taxpayer attitude towards the 2001 income tax rebate issue will vary by political party affiliation.

Tax Rebate

In 2001 the U.S. Congress passed a tax relief plan that gave single taxpayers a \$300 tax rebate, head of households a \$500 rebate, and married filing joint taxpayers a \$600 rebate. The rebate represented a reduction in tax rates from 15 percent to 10 percent on the first \$6,000, \$10,000, or \$12,000 of respective taxable income. Treasury Secretary O'Neill stated that the tax relief plan "softened the economic downturn" (*Wall Street Journal*, February 27, 2002, p. A1), yet the Office of Tax Policy Research at the University of Michigan found that only 22 percent of respondents in a University of Michigan survey indicated that they anticipated they would spend the rebate. The present study was conducted a couple of months after the Michigan survey, and over 50 percent indicated they spent the rebate.

Given current tax reform proposals, attitude towards a tax rebate is both policy relevant and of practical interest. In early 2003 tax reforms were proposed to spur economic growth. Although the Democrat and Republican proposals differed on several dimensions, one element that both proposals included was a rebate feature (*Wall Street Journal* 2003). Apparently, both parties believe that providing a quick rebate is an effective strategy. Successfulness of the 2001 rebate has not been documented, yet clearly the idea is being embraced by both political parties.

In his State of the Union address on January 29, 2002, President George W. Bush stated that the “tax relief was just right.” To date, however, sentiment toward the tax rebate has not been documented, nor has its effect on taxpayers’ overall attitude towards the current income tax system. Thus, the fourth hypothesis is as follows:

H4: A positive attitude toward the rebate will be associated with a positive attitude toward the current income tax system.

METHOD

Approximately 500 subjects from Indiana participated in a statewide telephone survey during November-December, 2001. Households were selected by a professional survey firm using the Genesys list-assisted method. This method allows for unpublished numbers and new listings to be included in the sample. All subjects were asked whether for 2001 they expected to have a balance due or a refund. They were also asked whether they had received a rebate check, when they received it, and to describe what they did with the rebate check (e.g., spent it, saved it, gave it to charity, or did nothing yet).

Equity and simplicity have long been considered important criteria for determining good or bad tax policy. We use these two dimensions to examine framing effects. One-half of the subjects were asked if they agreed or disagreed with the statement “Recent tax laws are proof that the federal income tax laws are becoming more unfair and complex” For parsimony, this NEGATIVE FRAME is shortened throughout the paper as the “unfair” system. The other half were asked if they agreed or disagreed with the statement “Recent tax laws are proof that the federal income tax laws are becoming more fair and less complex” This POSITIVE FRAME is referred to as the “fair” system. To strengthen the positive versus negative frames we used two positive attributes, more fair and less complex, and two corresponding negative attributes, more unfair and complex. Thus, the nature of our test emphasizes the contrast between positive and negative frames.

After subjects were asked for their agreement or disagreement with the fairness or unfairness of the current tax system, they were then asked about their attitude toward the rebate. Subjects were asked whether they agreed or disagreed with the following statement, “Sending taxpayers a rebate check was the right thing for Congress to do.” The fair/unfair descriptors were not included in the rebate question to avoid creating a demand artifact that would overly influence a correlation between a fair [unfair] rebate and fair [unfair] tax laws.

Demographic information was collected at the end of the survey. Data included age, income level, education level, number of children in the household, gender, marital status, and political party affiliation (Democrat, Republican, Independent, or other). Parametric and non-parametric tests were calculated to ensure that the two randomly assigned groups for positive and negative frames did not differ on the rebate question or on any of the demographics. No statistical differences were found.

RESULTS

Table 1 shows the demographic statistics for 421 respondents who answered all of the survey questions. Political party affiliation was fairly balanced: 26 percent indicated they were Democrats; 34 percent indicated Republican, and 40 percent indicated either Independent or “other” (e.g., “I vote for the person,” “I don’t have a party,”...). The

Independents and those indicating “other” were tested for differences on demographic variables and on the attitude variables. No significant differences were found. Thus, the two groups were categorized as one larger group of Independents.

TABLE 1 DEMOGRAPHIC STATISTICS

<u>GENDER</u>	<u>AGE*</u>	<u>EXPECTED TAX STATUS*</u>
Male (1) 44%	18-29 (1) 17%	Refund (1) 75%
Female (2) 56%	30-44 (2) 35%	Balance Due (2) 25%
	45-64 (3) 33%	
	65+ (4) 15%	
<u>INCOME*</u>	<u>EDUCATION</u>	<u>POLITICAL AFFILIATION</u>
Under \$25,000 17%	1-11 years (1) 6%	Democrat (1) 26%
\$25,000-<\$75,000 60%	High School (2) 32%	Republican (2) 34%
\$75,000 or More 23%	Some College (3) 27%	Independent (3) 40%
	B.S. or higher (4) 35%	
<u>FAIR TAX SYSTEM+</u>	<u>UNFAIR TAX SYSTEM+</u>	<u>TAX REBATE CHECK*</u>
Strongly Agree (1) 4%	Strongly Agree (1) 19%	Strongly Agree (1) 34%
Agree (2) 38%	Agree (2) 32%	Agree (2) 27%
Unsure (3) 18%	Unsure (3) 25%	Unsure (3) 9%
Disagree (4) 23%	Disagree (4) 18%	Disagree (4) 14%
Strongly Disagree (5) 17%	Strongly Disagree (5) 6%	Strongly Disagree (5) 16%

*These demographics differed significantly ($p < .05$) by political party. Republicans tended to be older than the Democrats and Independents. More Republicans believed they would have a balance due than the others believed, and Republicans tended to have a higher income level.

+When FAIR TAX SYSTEM was reverse coded, the means for the two differently framed questions varied significantly (means 3.09 for FAIR and 2.59 for UNFAIR; $F = 7.00$, $p = .008$).

Demographic statistics (gender, age, expected tax refund, income, and education) were tested for differences by political party affiliation. Table 1 indicates that significant differences ($p < .05$) were found on age, expected tax refund, and income level. The lack of a significant effect on gender is consistent with the argument of Alvarez and McCaffery (2000) who found that men and women have similar “primary” tax preferences but significantly differ on those preferences when taxes are linked to social policies (e.g., pro-social spending positions). The researchers found that gender was not significant in explaining 1996 presidential voter choice once they controlled for specific issues such as pro-choice, social security, education, economy and jobs.

Republican respondents tended to be older than the Democrats and Independents. More Republicans expected a balance due than did the Democrats and Independents, and the Republican respondents had a higher average income level. Because of the

significant differences, these demographic variables are included as additional variables in a subsequent regression analysis to control for rival explanations.

In regards to the tax rebate check, 64 percent indicated they spent the money; 29 percent said they saved or invested it. A few said they gave it to charity, and the rest indicated they had not yet done anything with the money. The majority agreed that the “rebate check was the right thing for Congress to do” with 61 percent agreeing and 30 percent disagreeing.

In response to the question about an “unfair” tax system, 19 percent strongly agreed, 32 percent somewhat agreed, 18 percent somewhat disagreed, six percent strongly disagreed, and 25 percent were unsure. Thus, over half (51 percent) agreed the current income tax system was “becoming more unfair.” On the other hand, in response to the question about a “fair” tax system, four percent strongly agreed, 38 percent somewhat agreed, 23 percent disagreed, 17 percent strongly disagreed and 18 percent were unsure. That is, 40 percent disagreed the system is becoming more fair and less complex while 51 percent agreed that the current income tax system is becoming more unfair and complex.

To get a combined measure of attitude toward the current income tax system for all of the subjects, the question on a fair system [POSITIVE FRAME] was reverse coded to match the complementary responses to the question on an unfair system [NEGATIVE FRAME]. For example, when the POSITIVE FRAME is reverse coded, an original response of “1” for strongly agree the system is fair becomes a “5.” This equates that response with a “5” on the NEGATIVE FRAME, which indicates strong disagreement that the system is unfair. The combined measure then was used to test the first hypothesis, whether general attitude toward the current income tax system would differ by positive and negative frames. Respondents receiving the NEGATIVE FRAME were significantly more likely to believe the current income tax system was unfair ($F=7.00$, $p=.008$) with a mean of 2.59 versus a mean of 3.09 for the POSITIVE FRAME on a scale from one to five with “1” indicating strong agreement. Hence, the first hypothesis is supported as the framing effects did significantly affect the responses.

The second hypothesis posited that attitude toward the current income tax system would vary by political party affiliation. Since there were three categories for political party, a Bonferoni test was calculated to test for which groups significantly differed ($p<.05$). The results are presented in Table 2. Respondents who identified themselves as Republicans were significantly less likely to believe the system is unfair ($F=6.15$, $p=.002$) than were the Independents, with respective means of 2.97 (s.d. 1.25) and 2.56 (s.d. 1.12). The difference between the Republicans (mean 2.97, s.d. 1.25) and the Democrats (mean 2.78, s.d. 1.18) did not significantly differ. When Republicans were compared to all other respondents (e.g., both Democrats and Independents), the difference was still significant. These results provide support for the second hypothesis.

TABLE 2 ONEWAY ANOVA BY POLITICAL PARTY AFFILIATION

Dependent Variable: UNFAIR TAX SYSTEM [NEGATIVE FRAME]*

	Means (s.d.)	n	F-test	p Value	Bonferoni test
Republicans (R)	2.83 (1.22)	67	4.51	.012	R > I
Democrats (D)	2.76 (1.19)	45			
Independents (I)**	<u>2.36</u> (<u>.97</u>)	<u>92</u>			
	2.59 (1.13)	204			

Dependent Variable: FAIR TAX SYSTEM [POSITIVE FRAME]*

	Means (s.d.)	n	F-test	p Value	Bonferoni test
Republicans (R)	2.90 (1.27)	79	3.09	.048	R = D = I
Democrats (D)	3.27 (1.18)	55			
Independents (I)**	<u>3.14</u> (<u>1.20</u>)	<u>83</u>			
	3.09 (1.22)	217			

Dependent Variable: UNFAIR/FAIR SYSTEM [COMBINED FRAMES]*

	Means (s.d.)	n	F-test	p Value	Bonferoni test
Republicans (R)	2.97 (1.25)	146	6.15	.002	R > I
Democrats (D)	2.78 (1.18)	100			
Independents (I)**	<u>2.56</u> (<u>1.12</u>)	<u>175</u>			
	2.75 (1.19)	421			

Dependent Variable: TAX REBATE CHECK*

	Means (s.d.)	n	F-test	p Value	Bonferoni test
Republicans (R)	2.21 (1.41)	146	7.36	.001	R < I;
Democrats (D)	2.64 (1.47)	100			R < D
Independents (I)**	<u>2.68</u> (<u>1.49</u>)	<u>175</u>			
	2.51 (1.48)	421			

*See TABLE 1 for the coding of TAX REBATE CHECK, UNFAIR TAX SYSTEM and FAIR TAX SYSTEM. The latter was reversed coded for the COMBINED FRAMES.

**Those indicating "other" were grouped with those indicating they were Independents. When contrast tested, the means for Independents did not significantly differ from the "other" category.

The third hypothesis posited that taxpayer attitude toward the tax rebate, a concrete tax issue, would vary by political party affiliation with Republicans tending to favor the rebate more than the Democrats or Independents. The results in Table 2 indicate that the third hypothesis is supported. According to the Bonferoni test, Republicans were the most likely to agree with the Congressional decision to issue rebate checks (mean 2.21, s.d. 1.41). This was significantly more positive than either the Democrats' attitude (mean 2.64, s.d. 1.51) or the Independents' response (mean 2.68, s.d. 1.48).

Age, income, and expected refund status were significantly associated with political party affiliation. To ensure that the political party effects on tax attitudes reported in Table 2 were not being driven by these demographic variables, regression analyses were computed on overall attitude toward the current income tax system, fair tax system, unfair tax system, and on attitude toward the tax rebate. Independent variables included political party, framing effect, expected tax status (refund or balance due), age, and income level. In addition, since taxpayer rebate attitude was affected by political party affiliation, taxpayer rebate attitude was added to the model. By doing this, any resulting impact of political party affiliation would be over and beyond the influence of the tax rebate. The results are presented in Table 3.

The regression results for the combined measure of attitude towards the tax system (negative frame and reverse-coded for positive frame) are presented in the first column of Table 3. To simultaneously test differences between Democrats, Republicans, and Independents, two dummy variables were created, one for Democrats versus all others and another for Republicans versus all others. Furthermore, the multivariate models were tested with a linear model and a non linear model. Since the dependent variables are ordinal, a linear regression could be inappropriate if the data are not normally distributed. Thus, the dependent variables were recoded as discrete variables (fair/unfair or agree/disagree) and then tested using logistic regressions. The results were statistically equivalent, suggesting the statistical results are robust. Hence, the results presented in Table 3 reflect the data in its original form (using scales from 1-5).

The data show that after controlling for taxpayer rebate attitude, framing effects, age, income, and expected refund status, political party affiliation still had a significant impact on attitude towards the current income tax system (combined frames). Republicans were less likely to believe the system is unfair than were the other respondents. The variable comparing Democrats to all other respondents was not significant. In addition, framing effect and taxpayer rebate attitude were significantly correlated ($p < .05$) with attitude towards the tax system. Negatively framed attitude was associated with a greater tendency to perceive the tax system as unfair than was the positive frame. Agreeing with the tax rebate was associated with agreeing the system is fair (and disagreeing that the system is unfair), thus supporting the fourth hypothesis.

The impact of rebate attitude on attitude toward the system is further verified in the regression on FAIR SYSTEM, which analyzes only the subjects who were asked to agree or disagree that the current tax system is fair (POSITIVE FRAME). In other words, the more subjects agreed with the rebate, the more they believed the current tax system is fair. That relationship was not significant in the regression on UNFAIR SYSTEM. This implies that the rebate was salient to taxpayers and was likely to have been included in their mental schema representing what is fair about the system but not in their schema representing what is unfair about the system. Consequently, the implication suggests that the rebate may have increased overall positive attitudes towards current tax laws. Yet, it did not reduce any of the negative attitudes. A premise underlying attribute framing is that the positive terms cause the respondent to recall positive aspects while negative terms cause the respondent to focus on negative aspects (Levin et al. 1998).

TABLE 3 REGRESSION RESULTS ON COMBINED FRAMES, FAIR SYSTEM, UNFAIR SYSTEM, AND TAX REBATE CHECKS

Independent Variables	Dependent Variables [Coefficient Estimates (t-statistics)]			
	<u>COMBINED FRAMES</u>	<u>FAIR SYSTEM</u>	<u>UNFAIR SYSTEM</u>	<u>TAX REBATE</u>
Democrats vs. Others	-.08 (-1.48)	-.01 (-.19)	-.22 (-2.94)***	.00 (-.02)***
Republicans vs. Others	-.13 (-2.54)**	.04 (.57)	-.23 (-3.06)***	.16 (2.94)***
Expected Tax Status	.07 (1.30)	-.07 (-1.00)	.08 (1.14)	.13 (2.61)***
Age	-.09 (-1.86)*	.15 (2.21)**	-.05 (-.54)	.03 (.58)
Income	.02 (.34)	.00 (.06)	.02 (.30)	.08 (1.72)*
Framing Effect	-.13 (-2.73)***	na	na	-.02 (-.40)
Tax Rebate	-.17 (-3.57)***	.39 (6.09)***	.09 (1.22)	na
Combined Frames [^]	na	na	na	-.17 (-3.57)***
Intercept	(8.22)***	(2.76)***	(2.66)***	(2.35)**
Adjusted R-square	.06	.16	.05	.06
F-test	5.00***	7.75***	2.66**	5.06***
N	421	217	204	421

*Indicates level of significance: *p<.10; **p<.05; ***p<.01.

[^]Positive frame (Fair system) was reverse coded and then combined with the responses to negative frame (Unfair system). Thus, a low score of "1" means either agree system is more unfair or disagree system is more fair; "5" represents disagreement system is unfair or agreement system is fair.

Consistent with Table 2, political party affiliation was not associated with attitude towards a fair system [POSITIVE FRAME], but it was associated with attitude towards an unfair system [NEGATIVE FRAME]. Republicans and Democrats were less likely to agree the current tax system is unfair than were the Independents. Given the theory that losses loom larger than gains, it is plausible that attitudes were more salient in the NEGATIVE FRAME evoking a stronger response from the subjects.

The fourth regression in Table 3 presents the results on attitude towards the rebate for all of the subjects. Once again, responses by Democrats were compared to all other respondents, and Republican responses were compared to all other respondents. Thus, the model tests for the political party effect, while controlling for framing effect, combined tax system attitude, age, income, and expected refund status. The model was significant ($F=5.06$, $p=.000$) confirming that Republicans responded more favorably to the tax rebate than did other respondents and that subjects with a more positive attitude toward the system (disagreeing the system is unfair or agreeing system is fair) had a more positive attitude toward the rebate. Furthermore, those who expected a refund on their 2001 tax return were significantly more pleased with the rebate ($t=2.61$, $p<.01$) than were those who expected to pay additional taxes, and lower income respondents were slightly more likely to have a positive attitude towards the rebate. When the same model was tested using a discrete dependent variable for agree/disagree in a logistic regression, the results were statistically equivalent, confirming the results are statistically robust.

CONCLUDING REMARKS

Our study supports and extends prior research on attribute framing (Levin et al. 1998) and on penalty aversion (McCaffery and Baron 2001) by confirming that manipulations of perspectives or frames significantly affect normative evaluations of tax law preferences. When asked whether, given recent tax law changes, the current tax system is more unfair and complex, 51 percent agreed. This significantly differs from the 40 percent who disagreed when asked whether, given recent tax law changes, the current system is more fair and less complex.

A possible limitation, however, is the use of two descriptors in one statement. “More unfair and complex” was compared to “more fair and less complex” to provide salient manipulations of negative and positive attributes, respectively. However, asking for agreement to two terms could have mitigated the likelihood of an effect if the two were inconsistently combined. For example, if respondents agree the system is more complex but disagree the system is more unfair, then level of agreement on one could mitigate disagreement on the other. The same would be true for the opposite descriptors. For example, agreeing the system is more fair could offset disagreement that the system is less complex. The end result would be two responses that both gravitate toward the midpoint decreasing the likelihood of any significant differences between the responses, and therefore biasing *against* the likelihood of finding significant results. Nonetheless, a significant difference was found in our study.

Future research may want to test each attribute separately. To offer additional evidence for the fairness attribute, we asked students in an undergraduate tax class to answer a couple of tax attitude questions. Some of the students were asked to agree or disagree with the statement, “For the most part, the income tax system is an unfair system.” Others responded to “For the most part, the income tax system is a fair system.” Those asked about a fair tax system were significantly more likely to agree the system is fair (79%; $F=5.22$, $p=.03$) than those asked about an unfair system (only 43% disagreed that the system is unfair, or supposedly agreeing it is fair).

Another interesting finding in our study is the significantly negative attitude of the “Independent” respondents on fair/unfair system. The implication is that political party strategists may want to capitalize on the negative tax attitude that Independents have. The results suggest that tax reforms promoting a fairer system (or less unfair

system) could be a promising strategy for getting Independents to support proposed tax reforms. Alvarez and McCaffery (2001) reported that 1996 voter choices for the President, the Senate, and the House of Representatives were more likely to be Republican when the voters thought tax policy was an important issue.

McGowan (2000) reported that 64 percent of the 1995 survey respondents indicated the tax system was unfair. In the present study, the 2001 survey respondents did not judge the system quite as negatively. When asked whether the current tax system is unfair, 51 percent agreed. When asked whether the current tax system is fair, only 40 percent disagreed. Clearly, the wording of the attitude measure affects the response. In addition, perceptions could have changed over time. Perceptions of the respondents from Indiana could differ from the nationwide-homeowner respondents in the McGowan study. In addition, the major tax reform in 2001 could have significantly affected taxpayer opinions. Moreover, increased levels of patriotism after the events of 9/11 could have influenced taxpayer attitudes at least in the short term. Future research should test for long-term effects, for nationwide effects, and for other aspects of tax reforms that may have a positive impact on taxpayer perceptions of the current tax system. While nationwide generalizability on overall attitudes cannot be made, this study does demonstrate that the perceptions are affected by attribute framing effects. This finding is important not only for promoters of tax reforms but also for researchers, as any future reports of taxpayer attitudes should carefully scrutinize how the attitude measure is worded.

In addition, our study demonstrates a significant political party effect on tax rebate attitude. Overall, 61 percent of the statewide respondents indicated they agreed with Congress' decision to issue tax rebate checks. Republican respondents, however, were more likely to agree with the rebates than were Democrats and Independents. This is consistent with prior research by McGowan (2000) since President Bush and the Republican Party were the initial backers of this tax reform. A limitation of our study, however, is that it does not prove the directionality of the results. Future research may want to design a study that tests whether respondents accept a policy because their political party supports it or whether the political party adopts a policy because its constituents support it.

Another interesting finding of the present study is the correlation between favorable attitude on the rebate check and favorable attitude toward the current income tax system. A limitation of the study is that cause and effect cannot be proven. However, rebate checks were mailed a few months before this survey and subjects were asked to agree or disagree with a statement that referred to "recent tax laws." It is, therefore, plausible that the rebate was salient to the respondents and affected taxpayers' general attitude towards the system, at least in the short term. In addition, our study did not explore the reasons why taxpayers reported a favorable or unfavorable attitude toward the rebate. Agreeing the rebate was "the right thing to do" was considered a favorable or positive attitude towards the rebate, even though the "right thing" could be justified for a variety of reasons (e.g., fair, present value of a dollar, or good for the economy).

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