The Linkage of Public Service Motivation and Charitable Activity

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Abstract

Most public service motivation (PSM) research focuses on comparisons between government and business employees, with a consistent finding that PSM is a valid construct indicating different motivators between people in public jobs and those working in business. There is an emerging body of PSM research that links PSM with volunteer activity. This paper fits into that growing body of research.

PSM is a needs-based approach to motivation. People may sate this need in ways other than direct government service. In this paper, we investigate the relationship between public service motivation and donating and volunteering choices. The research question driving this paper is: Does PSM affect the choice individuals make amongst charitable activities?

To answer this question we surveyed undergraduate students in the American Politics and Government (Introduction to Political Science) courses at North Carolina State University. Students were surveyed using Perry's PSM Likert scale questions and a Q-sort of these statements. To further investigate students' motivations toward public service, we asked an additional series of questions focused on volunteering and donating behavior. We find that students with higher levels of PSM are more likely to choose to engage in charitable activity.

Keywords: Public service motivation, volunteering, donating, Q-methodology

John F. Kennedy inspired a generation to engage in public service with remarks made to students at the University of Michigan and through creation of the Peace Corps in 1961. Though Peace Corps volunteers have amassed impressive service records in 46 years, most of us will never heed the call to volunteer in that way. However, many Americans participate in volunteering and donating every day. The U.S. Department of Labor estimated that 61.2 million Americans, averaging 52 hours of service each, volunteered between September 2005 and September 2006 (Bureau of Labor Statistics, 2007). Coupled with service work, Americans also donated at record levels. More than $295 billion were donated in 2006; included in this figure are dollars donated by more than 65% of the households with less than $100,000 annual income (Giving USA, 2007). How do organizations attract these volunteers and donors? This study is sheds light on one type of motivation driving individuals to volunteer and donate.

Background

Regardless of economic sector - public, private or nonprofit - attracting, motivating and retaining workers are critical and ongoing human resource management concerns activities (Armstrong, 1999). Despite this shared concern, several authors have noted differences between public sector employees and those working for private concerns organizations (Buchanan, 1975; Wittmer, 1991; Perry, 1997; Rainey, 1997; Houston, 2000; Wright, 2001). Motivation is the most important of these distinctions between public sector workers and those in the private industry (Rainey, 1982; 1997; Brewer and Selden, 1998; Houston, 2000).

Public administration scholars point to Perry and Wise's seminal work (1990) to define this orientation toward public service. Public service motivation (PSM) is "an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions and

organizations (Perry and Wise, 1990)." Derived from three motivational bases, PSM is characterized as rational, affective, and normative motives. A person's decisions draw on a mix of motives which can vary so much that changing perspectives, experiences, and points of reference create different meanings over time (Perry & Wise, 1990).

Subsequently, Perry (1997) found that formative experiences (modeling behavior of parents, profession, and religion) inculcate values affecting one's PSM. To measure PSM, Perry (1996) developed a set of questions designed to capture personal traits associated with public service. Using confirmatory factor analysis, his measurement model identified four dimensions of PSM corresponding to rational, affective, and normative motivational bases. Perry's dimensions, and the associated motivational traits, are attraction to policymaking (rational), commitment to the public interest (normative), compassion (affective) and self-sacrifice (affective).

However, Brewer, Selden and Facer (2000), argued that the PSM construct was more complex. They analyzed individual perceptions of PSM to determine if people characterized the concept similar to Perry's dimensions. Applying Q- methodology to Perry's (1996) instrument, Brewer, Selden and Facer (2000) found that individuals rank the underlying motivational bases differently.[1] They identified four distinct conceptions of PSM classifying people as Samaritans, Communitarians, Patriots or Humanitarians. Thus, PSM is not a one-size fits all construct - a point that adds to Wright's (2007) argument about the difficulties in developing a coherent base of empirical knowledge about PSM.

A noteworthy distinction of PSM research, relative to other scholarly activity in public management, is its extension beyond governmental and private sector workplaces. Wittmer

[1] Brewer, Selden and Facer used Perry's original 40 question survey. In this study we use the 24 items from Perry's validated instrument.

(1991) found similarities in service ethic between public and nonprofit managers. Perry (2000) also explicitly expanded his PSM construct to incorporate nonprofit sector workers. Though the labor pool is dominated by staff in formal employment arrangements, volunteers are critical resources for many organizations, particularly for nonprofits (Grovekar & Govekar, 2002). People choosing to volunteer select from a diverse range of opportunities. Such choices are a function of individual level preferences incorporating available information about the organization and the work (Wolff, Weisbrod & Bird, 1993). However, there is little consensus in the volunteering literature beyond finding that it is a complex behavior. Indeed, the "related theories are so varied and contradictory that no single conceptual model has received general support" (Winniford, Carpenter and Grider, 1997 as quoted by Govekar & Govekar, 2002).

Perhaps Wilson (2000) best summed up the state of the field by noting that people volunteer because of their values, and the perceived net benefits from participation.[2] As such, there are substantial similarities between the PSM construct and the various theories on volunteering. As demonstrated by their propensity to volunteer, persons working for public and nonprofit organizations have more "prosocial" attitudes than private sector employees (Rotolo & Wilson, 2006). This may occur because many nonprofit employees choose to work in organizations that allow them to advance ideological goals in a manner unfettered by marketplace constraints (Rose-Ackerman, 1996).

However, having a stable paid and volunteer labor force is not the only concern for nonprofit organizations. Charitable financial contributions to organizations are related to volunteering behavior (Rose-Ackerman, 1996) and can be addressed in organizational strategic plans. Govekar & Govekar (2002) stated that these are substitute goods. Similarly, Lindahl and

[2] Of course, social resources and human capital affect the costs and benefits of volunteering. Thus, some groups like the highly educated or those with extensive social networks are more likely to volunteer.

Conley's (2002) review of the fundraising literature noted the complexity of the factors that affect donating behavior. Donors get a "warm glow" (Andreoni, 1990) stemming from the combination of psychological (self interest motives) and sociological (altruism, religion and identification) forces that compel donations. It is not surprising that Houston (2005) connected PSM to volunteering and charitable giving. However, he did not utilize Perry's instrument (1996) to confirm this relationship, Subsequently, Perry, et al. (forthcoming), using Perry's measures, further strengthened the link between volunteering and PSM by finding evidence that formal and informal volunteering is positively related to PSM.

While we seek to add to this literature linking charitable activities and PSM, we treat the decision to volunteer or donate as a consequence of, as opposed to an antecedent of PSM. To accomplish this, we: 1) use Perry's measures to attempt to build a more consistent/coherent empirical base to PSM research. 2) Use Q-methodology to determine if other measurements of PSM provide different insights or results about the relationship between PSM and charitable activities. Our research focuses on a group of interest to the discipline, college students (Chetkovich, 2003; Reinke, 2003), and their preferences for volunteering, donating, or doing neither over the next week. While we do not develop any formal hypotheses in this exploratory study, we expect that the higher an individual's level of PSM, the more likely they are to either donate or volunteer rather than do neither. Before reporting our findings, we first discuss the data and methods we use in this paper.

Data and Methods

This study centers around two research questions. The first targets an improved understanding of individual charitable choices. The second focuses on which measurement tools are most appropriate for in PSM studies. To answer our questions we use a sample of

convenience, undergraduates taking introductory political science courses at North Carolina State University (NCSU) in the spring of 2007. A total of 329 (70 percent response rate) students completed the survey. While not a random sample, given that participants are fulfilling university general education requirements the sample is representative of NCSU's undergraduate population (Boettcher, 2004).

Students were given Perry's PSM instrument and its antecedent questions. We asked an additional series of questions focused on volunteering and donating behavior (See Appendix A). Our final analysis improves our understanding of the factors affecting volunteering and donating decisions. Before proceeding, we discuss our dependent variable, the choice respondents make between volunteering, donating, and doing neither. We then report the results of a confirmatory factor analysis (CFA) to verify that Perry's (1997) construct is valid in our sample (See Appendix B for the CFA analysis). Finally, we discuss the other independent variables used in our model to predict the choices individuals make between giving and volunteering. We use a conditional logit to fit mixed models (Long & Freese, 2003 pg. 243), to explain the choices respondents make between giving and volunteering. This random utility model assumes that a rational individual chooses a particular choice option only if that option maximizes their utility. In this mixed model we combine elements of a multinomial logit model (MNLM) and a conditional logit model (CLM). A MNLM uses the attributes of the individual choice maker to predict the outcome of the choice (Long & Freese, 2003 pg. 189). A conditional logit model (McFadden, 1973) uses the characteristics of the alternatives to predict the outcome that is chosen. In using a conditional logit to fit a mixed model, we are able to examine how characteristics of the alternatives interact with the characteristics of the individuals to predict the chosen outcome (Long & Freese, 2003 pg. 243).

The second part of our analysis focuses on the research question; does a Q-Methods approach to measuring PSM give us similar insights into the relationship between PSM and the choices individuals make between donating, volunteering, and maintaining the status quo as Perry's Likert scale approach? To answer this question we use a subset of our data to run models with Perry's and the Q-method derived PSM measure to: 1) compare coefficients on these different PSM measures and 2) compare the similarities across the other variables in the models. (See Appendix C for a discussion of Q-Methodology and the results of our Q-analysis.)

Dependent Variable: Choice between donating and volunteering

To capture the respondent's preferences for giving and volunteering, we presented them with profiles of hypothetical human service and arts/culture nonprofits. Background data included mission statements, revenues, number of employees, and the number of volunteers (see Appendix A). Subjects were also provided a series of questions asking them to give varying amounts of money and/or time volunteering over the next week. Requested donations ranged from $10 to $25 while volunteer labor ranged from 2 to 5 hours. In all cases, they were given the option to neither volunteer nor donate in the coming week. Participants chose the donate option between 21 percent and 33 percent of the time, the volunteer option between 26 percent and 46 percent of the time, and neither option between 23 percent and 51 percent of the time.

Independent variables: Public Service Motivation

To substantiate the appropriateness of using Perry's (1997) PSM construct in our analysis, we performed a CFA (see Appendix B). Each indicator variable was restricted to loading on only the latent PSM construct indicated by Perry's research. The model did not allow for error correlations between the indicator and the latent variables. While the chi-square value of 561.51, with 246 degrees of freedom, indicates there is not a perfect fit between our data and

Perry's model, the Root Mean Square Error of Approximation (RMSEA) is .065. This represents a reasonable fit between our data and Perry's model (Byrne 1998).

Consistent with this approach to measuring PSM, we averaged respondents' answers to 5-point Likert scale questions for each dimension. Higher averages indicate higher levels of PSM. The descriptive statistics for the PSM measures are reported in Table 1.

Table 1: PSM Descriptive Statistics

PSM Measure	N	Mean	SD	Min	Max
Compassion	316	3.27	0.63	1.50	5.0
Self Sacrifice	316	3.59	0.65	1.75	5.0
Civic Duty	316	3.52	0.68	1.20	5.0
Attraction to Public Policy	316	3.00	0.84	1.00	5.0
Overall PSM	316	3.40	0.50	1.70	4.8

Though our data reasonably fit Perry's (1997) overall model, the Cronbach's alpha, which measures of internal consistency of the PSM scales (Garson, 2007), are lower than expected. The Compassion ($\alpha = 0.70$) and Self-sacrifice ($\alpha = 0.78$) scales meet generally accepted guidelines for indication of reliability, $\alpha = 0.70$ (Garson, 2007). The Civic Duty dimension ($\alpha = 0.69$) is close to this threshold. However, the Attraction to Public Policy Making scale ($\alpha = 0.59$) is below this threshold. The reliability of the overall scale ($\alpha = 0.85$), using all twenty-four items, is much stronger. Given the reasonable fit between our data and Perry's model, we include all four PSM dimensions in our analysis, even though the reliability of the Attraction to Public Policymaking dimension is less than ideal.

In the second part of our analysis, we used measures of PSM derived from Q-analysis of the 24 statements used in the CFA (See Appendix C). This identified four types of PSM in our data. We used the respondent's factor loadings (see Appendix C, Table 8 for these scores) to capture how closely an individual's conceptualization of PSM matched each of these groups. The descriptive statistics for these factors scores are reported in Table 2.

Table 2: Descriptive Statistics Q-analysis Factor Score

PSM Measure	N	Mean	SD	Min	Max
Dealers	65	0.13	0.41	-0.8	0.7
Commiserators	65	0.06	0.32	-0.7	0.7
Guardians	65	0.07	0.28	-0.6	0.8
Activists	65	0.03	0.28	-0.6	0.6

The Dealers category represents individuals that empathize with the plight of people who cannot help themselves, but are interested in using the policy process to address these problems rather than engaging in direct service. Commiserators closely identify with Perry's Compassion dimension. In contrast to the Dealers, they do not believe that the political system is the way to address community problems. Guardians identify with a more rational approach to PSM. They appear more likely to engage in hands-on approaches to dealing with social problems. We have termed the last group Activists. They are concerned about social issues, but do not appear to think that public policy or their own individual action can be used to address these problems. (See Appendix C for a fuller description of these categories.)

Independent variables: Control Variables

To account for potentially confounding impacts on an individual's choice for volunteering, donating, or doing neither, we include a number of control variables. In particular, we control for a respondent's wage rate, sex, and political ideology. Wages are controlled for because donations might have a positive relationship with income. Thus, individuals with higher wages should be more likely to donate rather than select the status quo. Sex is controlled for to see if women prefer to volunteer or donate more than men. We control for political ideology because the more conservative an individual is, the more likely they may be to volunteer or donate, rather than relying on government, to address social problems. The descriptive statistics

for continuous control variables are reported in Table 3. Categorical independent variable descriptive statistics are reported in Table 4.

Table 3: Continuous Control Variables

Control Variable	N	Mean	SD	Min	Max
Political Orientation (5pt scale Very Liberal to Very Conservative)	314	3.00	0.93	1	5
Hourly Wage	305	5.15	5.22	0	35
When I was growing up, my parents told me I should be willing "to lend a helping hand"	314	4.46	0.82	1	5
When I was younger, my parents very often urged me to get involved with volunteer projects for children	312	3.56	1.23	1	5

Three of Perry's (1997) antecedent measures are also used to capture the impact of family socialization and religious activity on a person's giving and donating choices. Parents affect their children's volunteer commitment significantly by modeling and teaching altruistic behavior (Clary and Miller, 1986). To depict the family socialization aspect we asked, "When I was growing up, my parents told me I should be willing to 'lend a helping hand'" and "When I was younger, my parents very often urged me to get involved with volunteer projects for children." We expect that respondents whose experiences reflect those statements will have an increased likelihood of volunteering or donating over doing neither. The volunteering literature notes that identifying with an organization is more important to organizational commitment than simple membership; a notion especially cogent to explanations of commitment to religious organizations (Schervish, 1993; 1997). We captured the impact of religious activity by asking the respondent to report how frequently he or she attended religious services. We expect this higher association might "crowd out" giving and volunteering to our hypothetical nonprofits because of existing commitments to religious institutions.

Some of the variables in our study are unique to our sample because it is drawn from undergraduate students. Variables unique to this population including respondent's class year, membership in a fraternity or sorority, familiarity with campus service organizations, student family income, whether they volunteered in high school and if this volunteering was mandatory. We control for class standing as a proxy for age. To reduce the number of variables in our models, we dichotomize the variable to being a Freshman/Sophomore or a Junior/Senior. We expect that Junior/Seniors will have less time/money available to donate or volunteer than Freshman/Sophomores. Whether a student is in a fraternity/sorority is included to control for the service activities such membership entails. The familiarity with the Center for Student Leadership, Ethics, and Public Service (CSLEPS) is included to control for exposure to campus volunteering opportunities. Family income controls for the other resources that students can use to "supplement" their volunteering and donating activities. We dichotomize this variable at the $100,000 level and expect students from the higher income category to donate or volunteer more than the students from the lower category. Finally, we include a student's experience with volunteering in high school to examine the impact of this past behavior and socialization on current choices. The descriptive statistics for these categorical variables are contained in Table 4.

Table 4: Categorical Control Variables

Control Variable	N	Proportion
Male	179	56%
Member of a Fraternity/Sorority	45	14%
Volunteered in High School	280	88%
HS Volunteering was Mandatory	115	37%
Junior or Senior Standing	78	25%
Family Income >=$100K	149	48%
Attend Religious Service At Least Once a Week	147	46%
Familiar with CSLEP	75	24%

Now that we have described the variables used in our analysis of individual level giving and volunteering choices, we turn to describing the results of our analysis.

Results

We present our results in two parts. First, using a conditional logit model, we analyze data from our entire sample using Perry's traditional measures of PSM. Then, we analyze the results of additional conditional logit models using a random sub-sample of our data to examine the relationship between PSM and volunteering/donating. In one model we use Perry's measures of PSM. In the other model we use measures of PSM from Q- analysis. The latter analysis provides leverage to discuss the relative merits of these two approaches to measuring PSM.

The results from the analysis of the full sample reported in Table 5 are grouped as follows: 1) the intercept and slope of an individual's preference for donating relative to neither donating nor volunteering (this option is referred to as the status quo going forward) and volunteering relative to the status quo. 2) Intercept changes in an individual's preference for donating and volunteering based on changes in PSM. 3) Intercept changes in an individual's preference for donating and volunteering relative to the status quo for control variables applicable to the general public. 4) Intercept changes in an individual's preference for donating and volunteering relative to the status quo for control variables applicable to college undergraduates.

Table 5: Choice Between Donating, Volunteering, and Status Quo

Donating and Volunteering	Choice involves donating	-3.59**
		(0.75)
	Amount of $s to be Donated	-0.07**
		(0.01)
	Choice involves volunteering	-3.33**
		(0.64)
	Amount of Time to be Volunteered	-0.48**
		(0.05)
PSM	PSM-Compassion/Donate Choice Interaction	0.47**
		(0.15)

	PSM-Self-Sacrifice/Donate Choice Interaction	0.001
		(0.15)
	PSM-Civic Duty/Donate Choice Interaction	0.53**
		(0.16)
	PSM-Public Policy/Donate Choice Interaction	-0.11
		(0.08)
	PSM-Compassion/Volunteer Choice Interaction	0.27*
		(0.13)
	PSM-Self-Sacrifice/Volunteer Choice Interaction	0.21
		(0.15)
	PSM-Civic Duty/Volunteer Choice Interaction	0.84**
		(0.16)
	PSM-Public Policy/Volunteer Choice Interaction	-0.15
		(0.08)
General Control Variables	Social Service Organization/Donate Choice Interaction	0.36**
		(0.13)
	Social Organization/Volunteer Choice Interaction	0.35**
		(0.13)
	Male/Donate Choice Interaction	-0.04
		(0.14)
	Male/Volunteer Choice Interaction	-0.64**
		(0.14)
	Hourly wage/Donate Choice Interaction	0.01
		(0.01)
	Hourly wage/Volunteer Choice Interaction	0.01
		(0.01)
	Family Income>$100k/Donate Choice Interaction	0.43**
		(0.14)
	Family Income>$100k/Volunteer Choice Interaction	0.40**
		(0.13)
	Attend Relig Service weekly or more/Donate Choice Interaction	0.11
		(0.15)
	Attend Relig Service weekly or more /Volunteer Choice Interaction	-0.40**
		(0.14)
	Willingness to help/Donate Choice Interaction	0.21*
		(0.10)
	Willingness to help/Volunteer Choice Interaction	0.01
		(0.10)
	Urged to volunteer/Donate Choice Interaction	-0.27**
		(0.07)
	Urged to volunteer/Volunteer Choice Interaction	-0.11
		(0.07)
	Political Identity/Donate Choice Interaction	0.16*
		(0.08)
	Political Identity/Volunteer Choice Interaction	0.15
		(0.08)
College Undergraduate	Junior or Senior/Donate Choice	-0.12

Specific Control Variables	Interaction	(0.16)
	Junior or Senior/Volunteer Choice Interaction	-0.40*
		(0.16)
	Fraternity or Sorority/Donate Choice Interaction	0.16
		(0.21)
	Fraternity or Sorority/Volunteer Choice Interaction	0.20
		(0.20)
	Volunteered in High School/Donate Choice Interaction	1.07**
		(0.24)
	Volunteered in High School/Volunteer Choice Interaction	1.25**
		(0.24)
	Mandatory HS Volunteer/Donate Choice Interaction	-0.35*
		(0.15)
	Mandatory HS Volunteer/Volunteer Choice Interaction	-0.51**
		(0.14)
	CSLEPS/Donate Choice Interaction	0.26
		(0.17)
	CSLEPS/Volunteer Choice Interaction	0.48**
		(0.16)
	Observations	5,145
	Standard errors in parentheses	
	* significant at 5%; ** significant at 1%	

Since we have not monetized the respondent's volunteer time, and because many respondents do not work and must make non-monetary trade-offs to volunteer (time away from studying, of course), the differences in magnitude of the coefficients in the model does not have any substantive meaning. Instead, we make a qualitative interpretation of the results from the conditional logit model in terms of changes in relative utility. Preferences for choosing donating or volunteering over the status quo are indicated by the direction and statistical significance of the coefficients. These coefficient characteristics reflect a change in utility from maintaining the status quo.

Overall, college student's time and money are precious commodities. Relative to the status quo, the prospect of choosing to volunteer or donate over the coming week decreases a respondent's utility. Additionally, the greater the amount of money they are asked to donate or the more amount of time they are asked to volunteer the more they will experience a decrease in

utility. While respondents do not necessarily experience disutility from volunteering and donating, given finite resources, the prospect of doing so lowers their utility below that of maintaining the status quo.

As expected, PSM has a positive effect on volunteering and donating. The greater a person's PSM the greater their likelihood of choosing volunteering or donating over the status quo. However, not all dimensions of PSM impact this choice. In particular, the Compassion and Civic Duty dimensions are positively related to both volunteering and donating. The affective Self-sacrifice and rational Attraction to Public Policy Making dimensions are not significantly related to volunteering or donating decisions. The greater a person's affective and normative motivations to serve the public interest, the more likely he or she will volunteer or donate relative to the status quo.

These results indicate that organizations wanting to attract donors or volunteers would do better, on average, to appeal to people's affective and normative motivations rather than their rational motivations. Our control for whether the nonprofit in the scenario was a social service agency or an arts and culture agency indicates that, at least among this sample of college students, it may be easier for social service nonprofits to attract volunteers/donors than arts and culture nonprofits.

Individual characteristics are also related to decision-making about donating and volunteering. Men are less likely to choose volunteering over the status quo than women. Sex is not related to whether someone makes a donation relative to the status quo. While a student's wage rate does not impact the likelihood of choosing to donate or volunteer over the status quo (about 40 percent engage in paid work during the semester), individuals with family incomes greater than $100,000 are more likely to donate or volunteer over the status quo. This latter

finding may be related to families with incomes over $100,000 having more slack resources. This makes the tradeoffs between donating or volunteering and the status quo less costly for college students. This level of income may also allow families to socialize their children to engage in such activities. Next, we look at this socialization aspect more directly.

The responses to the questions "When I was growing up, my parents told me I should be willing to 'lend a helping hand'" and "When I was younger, my parents very often urged me to get involved with volunteer projects for children" are positively coded; higher scores indicate more strongly agreeing with the statement. People whose parents told them they should be willing to lend a helping hand are more likely to choose to donate over the status quo. Respondents whose parents very often urged them to volunteer are less likely to choose to donate over the status quo. At first, this seems to be contradictory. While both statements focus on family socialization as engagement in service to others, there is a qualitative difference in the tone of the statements. Being very often urged to volunteer is a more active form of encouragement or socialization than being told to be willing to lend a helping hand; search out your opportunities rather than be open to possibilities that unexpectedly arise. We will return to this idea of active versus passive socialization in community engagement when we look at whether respondents volunteered in high school.

Now we turn to the final individual characteristics examined in this study: political identity and religiosity. A person's political ideology is related to the choice made between donating and the status quo. Religiosity only impacts selection between volunteering and the status quo. We found that the more conservative someone's ideology, the more likely they are to choose to donate over the status quo. As discussed above, more religious individuals, defined as attending services at least weekly, are less likely to volunteer over the status quo than those who

attend religious services infrequently. We believe this finding is related to an individual's resource constraint. Given existing service obligations connected to their house of worship, respondents do not have the capacity to undertake volunteering at additional organizations. Somewhat surprisingly, religiosity is not related to the choice between donating and the status quo.

The final group of results in Table 5 addresses the relationship between individual characteristics specific to college undergraduates and donating and volunteering decisions. To control for exposure to campus based cues/socialization about giving and volunteering, respondents were asked if they were aware of the Center for Student Leadership, Ethics, and Public Service (CSLEPS)[3], a campus based organization that sponsor's alternative spring breaks and other volunteering related activities. Respondents that were aware of CSLEPS were more likely to select volunteering over the status quo. This indicates that students more inclined to volunteer are also more likely to remember this source of opportunities to engage in public service.

Though fraternities and sororities usually oblige members to undertake service activities, participation in these organizations is not related to the choice individuals make between donating, volunteering, and the status quo. However, there is a relationship with class standing. Juniors and Seniors are less likely to choose these activities relative to the status quo than are Freshman and Sophomores. A few factors may affect this difference. First, Juniors and Seniors might have less slack resources available for volunteering and donating. The financial impact of college tuition and fees or the time needed to search for a job after graduation may sop up resources available during the first two years of college. Second, Juniors and Seniors may have

[3] Since very few respondents actually participated in a CSLEPS event or workshop we cannot test if participation in CSLEPS increases the likelihood choosing volunteering over the status quo.

already determined which organizations and causes they want to support on campus and in the community, therefore making them less open to giving additional money and time to new organizations.

Finally, we examine the impact of a respondent's experience with volunteering in high school and the volunteering/donating choices. American high school students are engaged in more community service projects than ever before (Reich, 2005). In fact, a recent survey of college freshmen found that 80 percent volunteered during high school (Reich, 2005) compared to 88 percent in our sample (see Table 4). Community service projects are increasingly part of secondary curricula. Educators promote these programs as ways to engage students in independent, critical thinking that results in their growth into "well-adjusted, contributing adults" (Stone, 2007). Our study both supports and contradicts these findings.

Volunteering behavior in high school appears to carry over into college. Respondents who volunteered in high school were more likely to choose donating or volunteering than opt for the status quo. However, if these activities were a requirement for high school graduation, the utility received from donating and volunteering relative to the status quo is lower than if participation was not compulsory.

As previously noted, more active forms of parental control over giving and volunteering socialization reduced the likelihood that students would choose to donate or volunteer. Taken together with the finding that mandatory high school volunteering reduces the likelihood an individual chooses to volunteer or donate, a pattern emerges in our data that suggests external motivations to donate and volunteer crowd out an individual's internal motivation to choose such

behaviors. Providing the opportunities for young people to volunteer rather than mandating or strongly urging their participation may be a better means of socialization into these behaviors.[4]

Comparing Q-Method and Perry's Approach to PSM

Having examined the relationship between PSM and individual characteristics and the choices individuals make between donating, volunteering, and the status quo, we now examine if two different measures of PSM lead to differing interpretations of the relationship between PSM and volunteering and donating choices. In Table 5, we report the results from the conditional logit models of the choice between donating, volunteering, and the status quo using two different measurements of PSM for our sub-sample of respondents. These different measurements of PSM tell very different stories about the relationship between PSM and an individual's choices between donating, volunteering, and the status quo. We include the results from the full sample for ease of reference.

Table 5: Two Measures of PSM and Choices Among Donating, Volunteering, and the Status Quo

		Full Sample	Perry	Qmeth
Donating and Volunteering	Choice involves donating	-3.59**	-2.28	-1.45
		(0.75)	(2.24)	(1.59)
	Amount of $s to be Donated	-0.07**	-0.13**	-0.13**
		(0.01)	(0.03)	(0.03)
	Choice involves volunteering	-3.33**	-4.54*	-2.55
		(0.73)	(2.09)	(1.55)
	Amount of Time to be Volunteered	-0.48**	-0.63**	-0.66**
		(0.05)	(0.13)	(0.13)
PSM - Perry	PSM-Compassion/Donate Choice Interaction	0.47**	1.42**	
		(0.14)	(0.47)	
	PSM-Self-Sacrifice/Donate Choice Interaction	0.001	-1.15*	
		(0.15)	(0.47)	
	PSM-Civic Duty/Donate Choice Interaction	0.53**	0.15	
		(0.16)	(0.54)	
	PSM-Public Policy/Donate Choice Interaction	-0.11	0.09	
		(0.08)	(0.24)	

[4] We plan to test this assertion in the future by interacting these responses with PSM dimensions.

	PSM-Compassion/Volunteer Choice Interaction	0.27*	0.88	
		(0.13)	(0.44)	
	PSM-Self-Sacrifice/Volunteer Choice Interaction	0.21	-1.16**	
		(0.15)	(0.41)	
	PSM-Civic Duty/Volunteer Choice Interaction	0.84**	1.79**	
		(0.16)	(0.49)	
	PSM-Public Policy/Volunteer Choice Interaction	-0.15	-0.33	
		(0.08)	(0.20)	
PSM - Q-Method	PSM-Dealers/Donate Choice Interaction			0.84
				(0.48)
	PSM-Commiserators/Donate Choice Interaction			-1.18*
				(0.57)
	PSM-Guardians/Donate Choice Interaction			1.94*
				(0.82)
	PSM-Activists/Donate Choice Interaction			1.43
				(0.79)
	PSM-Dealers/Volunteer Choice Interaction			0.62
				(0.46)
	PSM-Commiserators/Volunteer Choice Interaction			-1.86**
				(0.53)
	PSM-Guardians/Volunteer Choice Interaction			2.84**
				(0.73)
	PSM-Activists/Volunteer Choice Interaction			1.14
				(0.71)
General Control Variables	Social Service Organization/Donate Choice Interaction	0.36**	0.61	0.65
		(0.13)	(0.34)	(0.34)
	Social Service Organization/Volunteer Choice Interaction	0.35**	0.80**	0.84**
		(0.13)	(0.30)	(0.31)
	Male/Donate Choice Interaction	-0.04	-0.42	-0.45
		(0.14)	(0.43)	(0.43)
	Male/Volunteer Choice Interaction	-0.64**	-1.18**	-1.45**
		(0.14)	(0.39)	(0.39)
	Hourly wage/Donate Choice Interaction	0.01	0.01	0.04
		(0.01)	(0.04)	(0.05)
	Hourly wage/Volunteer Choice Interaction	0.01	0.06	0.10*
		(0.01)	(0.04)	(0.04)
	Family Income>$100k/Donate Choice Interaction	0.43**	1.83**	1.71**
		(0.14)	(0.44)	(0.42)
	Family Income>$100k/Volunteer Choice Interaction	0.40**	0.72	0.64
		(0.13)	(0.39)	(0.39)
	Attend Relig Service >2-	0.11	0.41	0.09

	3 per month/Donate Choice Interaction	(0.15)	(0.42)	(0.40)
	Attend Relig Service >2-3 per month/Volunteer Choice Interaction	-0.40**	-1.19**	-1.11**
		(0.14)	(0.39)	(0.39)
	Willingness to help/Donate Choice Interaction	0.21*	0.19	0.12
		(0.10)	(0.34)	(0.32)
	Willingness to help/Volunteer Choice Interaction	0.01	0.24	0.27
		(0.10)	(0.27)	(0.28)
	Urged to volunteer/Donate Choice Interaction	-0.27**	-0.52*	-0.43
		(0.07)	(0.22)	(0.24)
	Urged to volunteer/Volunteer Choice Interaction	-0.11	-0.29	-0.14
		(0.07)	(0.20)	(0.22)
	Political Identity/Donate Choice Interaction	0.16*	0.31	0.30
		(0.08)	(0.23)	(0.22)
	Political Identity/Volunteer Choice Interaction	0.15	0.59**	0.42*
		(0.08)	(0.19)	(0.19)
College Undergraduate Specific Control Variables	Junior or Senior/Donate Choice Interaction	-0.12	0.21	-0.26
		(0.16)	(0.50)	(0.50)
	Junior or Senior/Volunteer Choice Interaction	-0.40*	-1.10*	-0.10*
		(0.16)	(0.45)	(0.47)
	Fraternity or Sorority/Donate Choice Interaction	0.16	-0.27	-0.38
		(0.21)	(0.55)	(0.54)
	Fraternity or Sorority/Volunteer Choice Interaction	0.20	-0.79	-1.10*
		(0.20)	(0.49)	(0.49)
	Volunteered in High School/Donate Choice Interaction	1.07**	2.27**	3.15**
		(0.24)	(0.80)	(0.83)
	Volunteered in High School/Volunteer Choice Interaction	1.25**	2.14**	3.94**
		(0.24)	(0.74)	(0.89)
	Mandatory HS Volunteer/Donate Choice Interaction	-0.35*	-1.12*	-1.24**
		(0.15)	(0.44)	(0.44)
	Mandatory HS Volunteer/Volunteer Choice Interaction	-0.51**	-0.55	-0.94*
		(0.14)	(0.38)	(0.40)
	CSLEPS/Donate Choice Interaction	0.26	0.78	0.61
		(0.17)	(0.46)	(0.48)
	CSLEPS/Volunteer Choice Interaction	0.48**	0.49	0.19
		(0.16)	(0.42)	(0.45)
	Observations	5,145	1,023	1,023

Standard Errors in parentheses
* significant at 5%; ** significant at 1%

Before analyzing the relationships between the different operationalizations of PSM and donating/volunteering, we first need to comment on the differences in the coefficient estimates in the full sample and the sub-sample. A casual glance through Table 5 reveals a number of instances where the coefficient is statistically significant in the full sample but not in the sub-sample. The larger sample size of the full sample has greater statistical power to pick up differences in the data. Also, the values of the coefficients in the sub-sample fall within the 95 percent confidence intervals of the parameter estimates of the full sample. So while they may not be statistically significant in the sub-sample, it is reasonable to assume that the values are not different from those in the full sample.

There are three instances where the coefficient is significant in the sub-sample but not in the full sample. In one case, the interaction between political ideology and volunteer choice, the estimated coefficient in the sub-sample still falls within the 95 percent confidence interval of the estimate in the full sample. Additionally, the z-score for the variable in the full model is 1.89, just outside the p=.05 level for indicating statistical significance. However, the interaction of the Self-Sacrifice dimension and both donating and volunteering is of concern. The statistically significant and negative interaction between Self-Sacrifice and choosing to donate or volunteer over the status quo is unexpected. The estimated coefficient in the sub-sample falls outside of the 95 percent confidence interval for the estimate in the full sample for both of these interactions. For the interaction between Self-Sacrifice and volunteering, there is not an overlap between the 95 percent confidence intervals around each estimate. This qualitative indicator likely means that the estimates came from different populations.

This difference raises the concern that while we may have drawn a random sample to create our comparison group, there are systematic differences between the two groups. If this is

the case, our ability to make comparisons between the full and sub-sample, much less to generalize our findings from the sub-sample to the population of NCSU undergraduates, is compromised. However, given that we have 38 variables in our model and are using 95 percent confidence intervals, we would expect about two of the values to be different by random error. Indeed, that appears to be the case. We drew a couple of other same sized random samples and reran the model. In those instances, the relationship between Self-Sacrifice and the choice between donating, volunteering and the status quo was not statistically significant; similar to the relationship found in the full sample. While we need to perform additional random samples to provide more support, we believe that the statistically significant negative relationship between Self-Sacrifice and donating and volunteering is a stochastic anomaly in our particular sub-sample.

For the balance of this section, we focus on what the two measurements of PSM tell us about the choices individuals make when deciding to donate, volunteer, or maintain the status quo. The balance of the coefficients in the two models indicates the same direction of relationships between the variables and the choices respondents made, and are generally similarly statistically significant.

Setting aside the anomalous relationship for Self-Sacrifice in Perry's PSM measurement, Compassion and Civic Duty are positively related to choosing to donate or to volunteer over the status quo. As previously discussed, affective and normative motivations are important indicators of individual decisions to donate or volunteer over the status quo in our full sample. Based on how we have interpreted the Q-Method derived measurement of PSM, a different story seems to be emerging from the data. The more an individual identifies with being a Commiserator, those driven by affective motivations, the less likely they are to choose to donate or to volunteer than

the status quo. The more an individual identifies with being a Guardian, those individuals that we see being driven by rational motivations, the more likely they are to choose to donate or to volunteer over maintaining their status quo.

The more an individual identifies with the Commiserator category, the better they may be at identifying needs in their community. However, they are less willing do anything about the problem. Given that indicators of self-sacrifice tend to be the trade-offs for this category of PSM, it is not a surprising finding that they are less likely to donate or volunteer relative to maintaining the status quo. Individuals who more highly identify with being a Guardian are more likely to donate or volunteer than maintain the status quo is consistent with our discussion of this category. These individuals do not trust human services providers to address their community's problems. As such, they need to be engaged in providing that solution. We explore some reasons for these different findings of the relationship between PSM and the choice between donating, volunteering, and the status quo below.

Discussion

PSM, regardless of being measured in Likert-scale or Q-analysis format has an impact on the choices individuals make between donating, volunteering, and maintaining the status quo. But it is just one of many individual characteristics that impact this choice. Some of these characteristics indicate constraints on time and money influences a person's choice. Family incomes over $100,000 increase the likelihood of donating or volunteering choices over the status quo. Families with this higher income level might makes resources available to their children to engage in charitable behavior. With respect to religion and academic class status, devoutness or being an upperclassman reduced the likelihood of choosing to volunteer over the

status quo. Students in these groups might have already allocated their volunteer time and are unable to undertake the additional volunteer hours.

Socialization into community service also affects donating and volunteering decisions. However, if formative participation was compulsory, the less likely they were to choose to donate or volunteer versus maintaining the status quo. When parents provided more passive forms of encouragement, such as teaching children to lend a hand, there was an increased likelihood of choosing donating over the status quo. Relatively active or heavier handed actions deceased the likelihood of donating behavior over the status quo.

This difference between active and passive socialization is even more apparent when we examine donating and volunteering choices of college undergraduates when they were in high school. On the one hand, volunteering and donating appears to be a habit. Volunteering in high school increased the likelihood of choosing to donate or volunteer over the status quo. On the other hand, consistent with other findings in the literature (e.g., Warburton & Smith, 2003), compulsory volunteering may lead to weaker civic/citizenship identities. If students were forced to volunteer in high school, they are less likely to choose to volunteer or donate over the status quo. Taken together, these two findings about the impact of socialization indicates that if we want to increase the level of volunteering or donating, carrots may be more important tools than sticks. Understanding which dimensions of PSM are related to these decisions may give us some insights on how to shape these incentives.

Unfortunately, different measurements of PSM lead to different conclusions. Perry's four dimensions of PSM indicated that affective (Compassion) and normative (Civic Duty) motivations to public service increases the likelihood that an individual will select volunteering or donating over the status quo. Our Q-analysis derived measures indicate that rational

(Guardians) conceptualization of PSM increases the likelihood of choosing to donating or volunteering over the status quo. Affective (Commiserators) conceptualization actually decreases the likelihood of choosing to volunteer or donate over the status quo. On the surface, these different measurements of PSM indicate different and conflicting underlying motivations for giving and volunteering.

In part, these differences are due to the very different measures of PSM. Perry's dimensions derive from a validated instrument that facilitates comparisons across samples. The Q-analysis measures are only valid for the sample (in our case sub-sample) studied; these are not generalizable to our full sample, much less to people whom are not undergraduates at NCSU. Perry's dimensions indicate that affective or normative appeals to generate donations or volunteers should be more effective than rational appeals. Our Q-analysis findings lead us not to reject this implication, but rather to refine them. At least for our sub-sample, it is not enough to just make affective appeals to donate or volunteer. The Commiserator group indicates that increasing college student awareness of problems might overwhelm them. In reaction, they walk away from these large, daunting and complex problems. Rather, based on the Guardians, students may be open to affective and normative appeals, but there needs to be a rational connection between their dollars or time and the impact on the problem.

Conclusions

PSM matters in the decisions that individuals make to volunteer or donate versus maintaining the status quo. These findings may be useful considerations for development directors and volunteer managers.[5] Yet with a single sample, it is difficult to conclude that one approach is superior to another in terms of consistency and validity of our results. In the future,

[5] Of course, this assumes that nonprofits have such programs. Based on data from Indiana, this is not very likely. Only 18 percent reported having volunteer recruitment policies and 21 percent report having a volunteer training program (Grønbjerg & Clerkin, 2004).

we plan to address this limitation by applying Q-methods to additional sub-samples to ascertain whether these produce similar factors and conceptualizations of PSM and similar choices between volunteering and donating. However, as Q-Method is premised on the notion that you cannot generalize beyond the sorts you are analyzing, we do not expect that the factors will be the same in other analyses. If that is the case, the lack of generalizability and the relative tediousness of Q-Method's statement sorting relative to Likert scale questions may lead us to believe Perry's validated measures of PSM are more useful to understanding individual donating and volunteering decisions.

A major drawback of this research is our sample of convenience. We are not sure to what extent we can generalize our findings beyond college undergraduates at NCSU. Although, as we explore mandatory high school volunteering more in depth in the future this will not necessarily be a problem. We also need to generate more random samples using both Perry's and Q-analysis measurements of PSM to check the validity of our assessment that the statistically significant and negative relationship between Self-Sacrifice and volunteering or donating is an anomaly.

We plan to extend this research in the future by interacting the slopes not just the intercepts of the donation and volunteering choice characteristics. We also plan to develop new scenarios that will test the relational vs. normative vs. affective appeals on individual donating and volunteering decisions. We may also survey graduate students to see if the negative effect of compulsory service in high school or in family environments wears off over time. Finally, we wonder if compulsory service has a negative effect, what impact does the move towards service learning in college do to the choices students make about volunteering and donating?

Appendix A

Below is the portion of the survey regarding tradeoffs between donating, volunteering, and the status quo. In an attempt to make sure that the particular missions of social service or arts and culture organizations in the scenario are not driving the choices respondent made respondents were randomly assigned into two groups. Half of the respondents saw the descriptions for the social service organization (The Therapeutic Zone) and the arts and culture organization (The Arts Place) used in questions presented below. The other half were presented with the mission for The Food Bank for the social service organization and The County Museum for the arts and culture organization. While we changed the mission for the social service and arts and culture organization, the description of the organizations did not change.

There are no statistically significant differences in answers to the tradeoff questions between the social service scenarios or between the arts and culture scenarios. Therefore, we pool these two groups together in our analysis. The percentages for each answer below reflect average the pooled data.

The missions for The Food Bank and the County Museum scenarios are as follows:

Mission: The Food Bank is a nonprofit organization that provides food to people at risk of hunger. The Food Bank distributes food through partner agencies such as soup kitchens, food pantries, shelters, and after school programs for children. The mission of The Food Bank is to supply resources so that no one goes hungry in their service area.

Mission: The County Museum's main services include exhibits, educational programs and collections care. They provide educational programs, tours and lectures, as well as knowledge about the history of our county. All services are free to residents and visitors. Their mission is to preserve the past for the future.

Part II: Feelings towards volunteering and donating

PHILANTHROPIC TRADEOFFS

Many organizations solicit volunteer contributions of time and/or money. Individuals who contribute to these organizations may volunteer their time, some choose to contribute money, and others contribute time and money. We want to understand individual motivations for contributing money or volunteering. Below, we will ask you to make choices about volunteering or contributing money to different organizations. Although these organizations are not real, we would like you to answer the questions as if the described situation were real. At the top of each set of choices, we provide you with a brief description of these organizations. This description includes the nonprofit's mission, amount of revenue, the sources of revenue, number of employees, and number of volunteers. Please keep in mind that, in surveys of this kind, individuals often do not fully consider all their financial obligations and time commitments. Please consider these factors when making your choices below. There are no right or wrong answers to the questions.

The Therapeutic Zone

Mission: The Therapeutic Zone is a nonprofit facility for homeless people with alcohol and drug addictions. Their mission is to offer recovery and rehabilitation services to homeless alcoholic and chemically dependent individuals by providing basic shelter and a program that encourages participants to be responsible to each other.

Organization Description:

Total Revenue: $10 million annually
Revenue Mix: 80% from government, 20% from donations, 0% from sales
Number Employees: 35 full-time employees
Number of Volunteers: 100

For each question, please choose the answer that best represents your preference for how to use your time or money this week.

17. Given my limited time and money,

32% . "I prefer to donate $10 to The Therapeutic Zone this week"
46% . "I prefer to volunteer 2 hours to The Therapeutic Zone this week"
23% . "I prefer not to donate or volunteer this week"

18. Given my limited time and money,

32% . "I prefer to donate $25 to The Therapeutic Zone this week"
26% . "I prefer to volunteer 5 hours to The Therapeutic Zone this week"
43% . "I prefer not to donate or volunteer this week"

19. Given my limited time and money,

22% . "I prefer to donate $20 to The Therapeutic Zone this week"
46% . "I prefer to volunteer 3 hours to The Therapeutic Zone this week"
32% . "I prefer not to donate or volunteer this week"

The Arts Place

Mission: The mission of The Arts Place is to nourish the arts, creativity, and community through education, performance, and exhibition. Their programs include Art School, which offers classes in all art forms for adults and children and a theater program. The Arts Place also has children's programs.

Organization Description:

Total Revenue: $185,000
Revenue Mix: 25% from government, 40% from donations, 35% from sales
Number Employees: 8 full time, 4 part time
Number of Volunteers: 80

For each question, please choose the answer that best represents your preference for how to use your time or money this week.

22. Given my limited time and money,

33% . "I prefer to donate $10 to The Arts Place this week"
40% . "I prefer to volunteer 2 hours to The Arts Place this week"
27% . "I prefer not to donate or volunteer this week"

23. Given my limited time and money,

23% . "I prefer to donate $25 to The Arts Place this week"
26% . "I prefer to volunteer 5 hours to The Arts Place this week"
51% . "I prefer not to donate or volunteer this week"

24. Given my limited time and money,

21% . "I prefer to donate $20 to The Arts Place this week"
41% . "I prefer to volunteer 3 hours to The Arts Place this week"
38% . "I prefer not to donate or volunteer this week"

Appendix B

The 24 questions respondents answered on a 5 point Likert-scale are reported in the first column of Table 6. The dimension of PSM they indicate is listed in the second column. We use MPlus 3.11 (Muthén & Muthén, 2004) to carry out the factor analysis. In the third column we report the standardized factor loading, which indicates the direct effect of the factor on the indicator variable (Bollen, 1989). This measure indicates the expected standard deviation change in the indicator resulting from a one standard deviation change in the latent variable (Bollen, 1989). Finally, in the fourth column I report the squared multiple correlation (R^2). Since each indicator variable depends on only one latent variable, this value can be interpreted as indicating the amount of variation of the indicator variable that is explained by the latent factor (Bollen, 1989).

Table 6: PSM Factor Analysis

Question	Dimension	Factor Loading	R^2
I seldom think about the welfare of people I don't know personally. (REVERSED)	Compassion	0.598	0.297
I have little compassion for people in need who are unwilling to take the first step to help themselves. (REVERSED)	Compassion	0.435	0.323
Most social programs are too vital to do without.	Compassion	0.485	0.071
It is difficult for me to contain my feelings when I see people in distress.	Compassion	0.519	0.417
I am often reminded by daily events about how dependent we are on one another.	Compassion	0.621	0.339
I am rarely moved by the plight of the underprivileged. (Reversed)	Compassion	0.599	0.382
To me, patriotism includes seeing to the welfare of others.	Compassion	0.579	0.272
There are few public programs I wholeheartedly support. (Reversed)	Compassion	0.296	0.385
Much of what I do is for a cause bigger than myself.	Self Sacrifice	0.671	0.115
I am one of those rare people who would risk personal loss to help someone else.	Self Sacrifice	0.635	0.292
Making a difference in society means more to me than personal achievements.	Self Sacrifice	0.672	0.449
I think people should give back to society more than they get from it.	Self Sacrifice	0.438	0.389

I believe in putting duty before self.	Self Sacrifice	0.662	0.592
Doing well financially is definitely more important to me than doing good deeds.(Reversed)	Self Sacrifice	0.395	0.519
Serving citizens would give me a good feeling even if no one paid me to for it.	Self Sacrifice	0.502	0.241
I am prepared to make enormous sacrifices for the good of society.	Self Sacrifice	0.679	0.102
I unselfishly contribute to my community	Civic Duty	0.646	0.25
Meaningful public service is very important to me.	Civic Duty	0.739	0.133
I consider public service my civic duty.	Civic Duty	0.735	0.234
It is hard to get me genuinely interested in what is going on in my community. (Reversed)	Civic Duty	0.556	0.219
I would prefer seeing public officials do what is best for the community, even if it harmed my interests.	Civic Duty	0.303	0.417
Politics is a dirty word. (Reversed)	Attraction to Public Policy	0.733	0.36
The give and take of public policymaking doesn't appeal to me. (Reversed)	Attraction to Public Policy	0.389	0.145
I don't care much for politicians. (Reversed)	Attraction to Public Policy	0.854	0.613

N = 303

Overall, while the data are a reasonable fit to the model, (RMSEA = 0.065; CFI = 0.83; TLI = 0.81), some of the latent factors (PSM dimensions) explain relatively small amounts of variation in the indicator variables. As argued in the main text, given the reasonable fit between our data and Perry's model, we include all four PSM dimensions in our analysis, even though some of the relationships between indicator variables and dimensions are less than ideal.

Appendix C

Q-Methods Overview

Q-methodology (Q) is a quantitative research technique primarily concerned with understanding human subjectivity (McKeown and Thomas, 1988). By identifying and categorizing individual perceptions and opinions, Q groups individuals based on internal viewpoints (Brown, 1980; McKeown and Thomas, 1988). Respondents express perceptions and preferences by rank-ordering statements (called Q-statements) and the completed ranking (the Q-sort) reflects an individual's values and trade-offs within a given topic. Correlation and PCA factor analysis are then used to identify respondents who have rank-ordered the statements in similar patterns. Finally, respondents are grouped by common perceptions or attitudes (Brown 1980).

A critical concern with Q-methodology is to preserve respondent self-reference without confusing it with the external frame of reference of the researcher attempting quantify subjective phenomena (McKeown and Thomas, 1988). The goal is to analyze the patterns created by the items of most and least influence, not to analyze specific individual information about a given question or topic (Brown and Ungs, 1970). Furthermore, Q-methodology allows the researcher to test human subjectivity, in that the traditional Likert methods often produce score inflation for individual items, while this methodology requires individuals to evaluate each item in relation to the other items.

There are two primary sampling designs used with this tool: naturalistic Q-samples and ready-made Q-samples. The differences in the two are based on whether the responses are taken from respondent's oral or written communication or if this information is gathered without considering these kinds of information. The advantage of the naturalistic sample is that answers

generated are more likely to fit the overall intent of this methodological tool; however, this is not always feasible because of the costs of time and other resources that are involved with interviewing and analyzing personal essay style answers (McKeown and Thomas, 1988). In addition, many subjects are unwilling to invest substantial time and effort into interviews (McKeown and Thomas, 1988) while they may be willing to provide either written responses or to answer survey style questions.

Results from Q-analysis

Our study uses a naturalistic Q-sample taken from survey responses provided by students from the P-sample (person sample). Q-statements previously validated in extant public service motivation studies (Perry, 1996) were given to subjects for sorting. The Q-sample includes 24 statements from Perry's (1996) study. These statements are all positively worded and were presented in random order to each respondent (see Table 7).

Table 7: Q-Statements

Statement Number	Statement
1	I often think about the welfare of people I don't know personally.
2	I have much compassion for people in need who are unable to take the first step to help themselves.
3	Most social programs are too vital to do without.
4	It is difficult for me to contain my feelings when I see people in distress.
5	I am often reminded by daily events about how dependent we are on one another.
6	I am often moved by the plight of the underprivileged.
7	To me, patriotism includes seeing to the welfare of others.
8	There are many public programs I wholeheartedly support.
9	Much of what I do is for a cause bigger than myself.
10	I am one of those rare people who would risk personal loss to help someone else.
11	Making a difference in society means more to me than personal achievements.
12	I think people should give back to society more than they get

	from it.
13	I believe in putting duty before self.
14	Doing good deeds is definitely more important to me than doing well financially.
15	Serving citizens would give me a good feeling even if no one paid me to for it.
16	I am prepared to make enormous sacrifices for the good of society.
17	I unselfishly contribute to my community
18	Meaningful public service is very important to me.
19	I consider public service my civic duty.
20	It is easy to get me genuinely interested in what is going on in community.
21	I would prefer seeing public officials do what is best for the community, even if it harmed my interests.
22	Politics is not a dirty word.
23	The give and take of public policymaking appeals to me.
24	I respect politicians.

We randomly sampled 65 the 319 useable q-sorts available for this study. Q-methodology is designed for intense scrutiny of a relatively small number of cases. Our attempts to use the full data set caused problems with the PQMethod program and generated un-interpretable results. We used a similar sample size as found in previous literature (Brewer, Selden, and Facer, 2000) resulting in 65 sorts included for the final analysis.

The scoring continuum for our PSM study ranged from -3 to +3 with a mean score of 0. Following the literature, (Brown, 1980) the mean and standard deviation for all Q-sorts are zero because they are forced distributions. The original data matrix contains 65 columns (Q sorts) and 24 rows (statements) for a total of 1,560 entries. The correlation matrix was used to find pairs of Q sorts with similarities leading to factor analysis using the principal components method and varimax rotation. Four factors resulted from this process.

The factor loadings in Table 8 indicate the correlation of the Q-sort to the factors. Standard error (.204) was used to compute the value corresponding to significance at the $p<0.01$ level. Any q-sort correlating at or above .53 was a significant loading meaning that it most closely resembled the characteristics of a "model" for the factor. We interpret this as capturing an individual's association with the four categories of PSM described below. The higher the magnitude of the factor loading the more closely the individual identifies with that category. We use these factor loadings as our independent variable measure of Q-analysis PSM in the model reported in Table 6. The significant Q-sorts characterize the ideal types that follow.

Table 8: Q-Analysis Factor Loadings

QSort: Respondent	Factor 1: Dealers	Factor 2: Commiserators	Factor 3: Guardians	Factor 4: Activists
1	.58*	.15	.45	-.05
2	.56*	.28	.38	-.12
3	-.52	.29	-.12	.41
4	.46	.31	.08	-.34
5	.32	.07	.63*	.34
6	.43	-.16	.02	-.22
7	-.15	.30	-.51	-.37
8	-.46	-.08	.03	-.20
9	.17	-.19	.45	-.61
10	.59*	-.34	.07	-.04
11	.65*	-.56	-.03	-.37
12	.38	-.08	.84*	.16
13	.03	.21	-.12	.33
14	.57*	.02	-.39	.15
15	-.21	-.45	.10	.00
16	.02	-.19	-.20	-.25
17	.13	-.26	-.03	-.03
18	-.20	-.40	-.20	.34
19	.50*	.42	-.14	-.42
20	.39	-.04	.22	-.15
21	.68*	-.51	.20	.11
22	-.51	.18	.42	.10
23	.33	-.15	.20	.12
24	-.03	.01	.48	-.22
25	-.55	.48	.01	-.21
26	.40	.19	-.02	.16
27	-.29	-.17	.20	.13

28	.40	.28	.04	.33
29	-.30	-.00	.40	.48
30	-.56	.72*	.09	-.06
31	.29	.34	.18	.49
32	.45	.50*	-.07	.11
33	.38	.48	.08	.00
34	-.65	.31	.17	-.17
35	.13	.24	.41	-.01
36	-.14	.08	-.19	-.44
37	-.18	.02	-.07	.08
38	-.10	.49	.29	-.05
39	.72*	.01	-.38	-.17
40	.42	.46	.23	-.22
41	.42	.01	-.06	-.17
42	-.07	-.27	-.31	.44
43	-.36	.03	-.11	.28
44	-.83	.27	.01	-.06
45	.63*	.21	-.25	-.11
46	.56*	.11	.31	-.14
47	.35	.10	-.45	.46
48	.07	.34	.10	.12
49	.70*	-.27	-.46	-.15
50	.38	.49	-.15	.62*
51	.68*	.25	.10	-.07
52	-.60	-.19	.19	-.29
53	.16	.29	.38	.04
54	-.59	.36	.05	-.39
55	.27	-.65	-.02	-.08
56	.03	-.62	.18	.15
57	.74*	-.03	-.34	.22
58	.71*	.46	-.03	-.11
59	.15	-.52	.20	-.01
60	-.19	-.16	.48	.45
61	.07	.17	.32	.44
62	.23	.24	-.55	.40
63	-.23	-.35	.25	.22
64	-.04	-.36	-.15	.54*
65	.34	.49	-.28	.23

Four groups emerged from this analysis and those groups are both similar and different from the typologies Perry (1996) and Brewer, Selden and Facer (2000) discuss. Our Q-sorts are described as Dealers, Commiserators, Guardians, and Activists. The following section combines both the results from the Q-analysis describing priorities and trade-offs (see Table 9 for the

associated statement numbers) as well as implications for the PSM literature. Our interpretations reflect how we believe the groups would behave in practice.

Table 9 Factor Priorities and Trade-offs

Factor	Priority Statement Numbers	Trade-off Statement Numbers
1: Dealers	23 24 22 2	9 14 15
2: Commiserators	1 3 6 4 5	23 9 20 21 24
3: Guardians	22 16 4 23 17	12 15 7 3 5
4: Activists	20 6 18 8	17 10 13 2

Dealers

The individuals identified in this group are strongly attracted to public policymaking and respect politicians. These people are focused on politics and have a compassion for people who cannot help themselves. Policy making can reinforce self-image for these individuals. Dealers compare most closely to Perry's (1996) Attraction to Policy Making dimension and thus exhibit a rational motivation to engage in public service. The Dealers score low on issues of self-sacrifice (negative association with statements 9, 14, 15) meaning that they are more responsive when a direct connection exists between them and the issue at hand.

They exhibit rational motivations as described by Perry (1996) because their favorable responses toward policymaking and political solutions (statements 22, 23, 24). Their compassion extends only to those in need and unable to take the first step themselves. The Dealers have slightly positive or neutral feelings about statements comprising Perry's commitment to public interest factor. The Dealers scored neutrally (statements 1, 3, 4, 7, 8) or slightly negative (statements 5,6) on seven of eight statements linked to compassion, and extremely negatively to statements linked to self-sacrifice. While Dealers may feel your pain, they will work the levers of government to fix the problem rather than personally addressing this need.

If we considered Dealers in the context of public entities and non-profit organizations these might be board members, philanthropists, venture capitalists, or policy analysts in "think tanks." In the context of our sample, we would expect them to be business majors, public policy majors, or students who are interested in law school. The Dealers are probably not economists or social workers.[6]

Commiserators

The priorities for this group are related to compassion and they trade-off with a negative reaction to politics. They are aware that problems exist (statements 1 and 6) but have yet to discover how to solve them. Individuals in this group relate to problems experienced by others on an emotional level (statements 4 and 6) and in this way compare to Samaritans (Brewer et al, 2000).

Programs and the social system are important to Commiserators who believe that society matters; that communities are connected by people throughout the world (statement 5). These individuals desire to do "good" (statements 1 and 3). They are internally focused and respond to affective motivations (statement 1, 3, 4).

The Commiserators are more likely to work with organizations that have a direct connection between mission, constituent group, and outcomes; for example, interest groups or nonprofits devoted to health and disease issues, the environment, or human services. They want to see actions that have tangible, positive effects. It is important for these individuals to be able to visualize the impact of their work as evidenced by their strong disagreement with statements related to politics or policy making (statements 23and 24).

According to how they sorted the q-statements, the Commiserators might be more likely than the other groups to seek careers in social work, public administration, or possible in health

[6] We have captured, but not yet coded, the respondent's major. We will test this assertion in future research.

care. These people indicated that they are neither motivated by a sense of duty to their country nor rational approaches to public policy.

Commiserators sorted their statements in such a way that they too mirror one of Perry's PSM dimensions. They most positively associate with Perry's compassion factor. In fact, 7 of the 8 statements that make up this trait are the Commiserators highest loadings. They are neutral, though with a slightly positive correlation, to Perry's self-sacrifice factor and, again, the statements associated with the trait are sorted closely together (statements 10, 11, 12, 14).

Guardians

Like the Dealers, Guardians believe that political solutions can matter. They want to sacrifice for the good of society but temper that sacrifice with a belief that good works demand a return on investment (statement 23; and negative association with 15). For Guardians, neither social programs nor redistributing wealth is the answer. Unlike other groups, they believe that individuals have the ability to affect the system to create positive change (statements 23, 17). They are self-centered and the most internally focused of our groups with an almost rational approach to public service.

When the Guardians think about public service it is more likely that they consider solutions in their own community before widening the scope of programs beyond their own environments (statement 17; and negative association with statement 5). Their concerns with the social system are more likely to be tied to how policies will effect them personally (or their community) than other groups. Patriotism is strongly negatively associated with taking care of neighbors. A normative factor (statement 17) motivates them to civic duty – possibly as a function of social desirability. Guardians take on local problems with an eye towards hands-on

problem solving. They could be police officers or fire fighters; and are probably the political science majors in our sample.

Activists

Members of this group feel that community matters (statement 20). For Activists, the plight of the underprivileged matters (statement 6), but they are neither social system nor policy centered in addressing these problems. Though they see the value in public programs, the Activists are skeptical of politicians and their ability to create effective solutions. They espouse values but do not demonstrate these values with practice. They are emotionally connected (statements 6 and 20) but physically disconnected to the work they support (statement 17 is a trade-off).

Their normative motivation (statements 18, 20) makes them risk averse. Activists respond to the sense of duty often imparted with cultural norms and values. They seem to be willing to give unselfishly to their communities and react emotionally to issues (statements 6, 8, 18). Their Q-sorts indicate a sense of optimism and identification with the idea of personal initiative.

Interestingly, though they scored high on interest in the community and being moved by the plight of the underprivileged, they also have significant negative association with unselfish contribution to their community. This could be because our respondents are college students who are most probably still dependent on some resource (parents, loans, scholarships) other than full time employment.

Unlike other groups, the Activists do not associate the statements comprising Perry's dimensions. While four statements have z-scores above 1.0 (the cut-off used in this study for strong association) none of them are higher than 1.3 – the statement that indicates genuine

interest in community. However, they react strongly negatively to putting duty before self (z-score = -2.32) and compassion for others who can not care for themselves (z-score -2.32). These trade-offs are somewhat contradictory to their priority statements.

However, another interpretation might be that Q-methodology does not allow this group to express their sense of public service fully. Q will not allow people to rank all statements as disagree or agree; rather, there is a forced distribution in the rankings. If this is the case, it is possible that respondents interpreted words like “duty” or “unselfishly” differently. Though this kind of interpretation is a departure from the traditional PSM literature, it is possible that Activists do not see themselves as unselfish (statement 17) but are more humble than that. In this vein, they might engage in public service because it offers them an opportunity to serve and is not a duty (negative association statement 13), a term that can carry a negative connotation for this category. Further, Activists may not qualify the help they are willing to offer by only assisting those unable to take a first step (negative association statement 2) and instead, these people might be willing to help anyone who identifies a need for aid.

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