AMERICAN EXPRESSIONS OF ALTRUISM AND GENERATIVITY
IN THE AFTERMATH OF THE SEPTEMBER 11, 2001 TERRORIST ATTACKS

J. Azarow, M. J. Manley, C. Koopman, A. Platt-Ross, L. D. Butler, D. Spiegel
Stanford University

RESUMEN	ABSTRACT
Se analizan las declaraciones escritas de altruismo y solidaridad generacional de los ciudadanos de Estados Unidos y residentes, a raíz de los ataques terroristas del 11 de septiembre de 2001. El altruismo se refiere a conductas y compromiso con el bienestar de los demás, realizadas de forma desinteresada, mientras que la solidaridad generacional (Erikson, 1950) alude a la preocupación y compromiso con el bienestar de las generaciones siguientes y futuras. Los objetivos del estudio son describir los tipos de preocupaciones y conductas altruistas así como la solidaridad, expresadas en las declaraciones recogidas en el momento y después de seis meses; observar los posibles cambios con el paso del tiempo en su relevancia; y determinar si la expresión de estos intereses prosociales se relacionan con la orientación política de los encuestados. Participaron 137 personas. La orientación política no se relacionó con las alusiones al altruismo o la solidaridad generacional, es decir, que se expresaron por igual entre encuestados de distintas orientaciones políticas.	This study examines expressions of altruism and generativity in narratives written by United States citizens and residents in the aftermath of the September 11, 2001 terrorist attacks. Altruism refers to concern and behavior on behalf of another's well-being that is not motivated primarily by anticipated self-benefit, while generativity (Erikson, 1950) denotes concern for and commitment to the well-being of the next and future generations. The study's aims were to: characterize the kinds of altruistic and generative concerns and behavior expressed in narratives collected at baseline and six-month follow-up; explore possible changes in their salience over time; and determine whether expression of these prosocial concerns in the narratives was associated with authors' political orientation. Participants included 137 persons. Political orientation was not related to mentions of altruism or generativity; these concerns were expressed to a comparable degree across respondents of diverse political orientations.

Key words: altruism, generativity, political orientation, September 11, terrorism.

The terrorist attacks of September 11, 2001 were a collective trauma unparalleled in American history. The scale of death and destruction, the symbolism of the targets, and the nature of the attacks as deliberate acts of terrorism combined to stamp the events as unique in the American experience. The traumatic impact of the attacks (as shown in increased rates of psychiatric illness and other forms of distress) extended beyond

New York (Galea, et al., 2002) and Washington to affect the entire nation (Schuster et al., 2001; Silver et al., 2002). However, a sole focus on 9/11's negative effects would be short-sighted, as the immediate and short-term aftermath of the attacks was also marked by adaptive coping and vivid examples of resiliency (Butler, Koopman, Azarow, et al., 2003). The extraordinary courage displayed by rescue workers at the World Trade Center and Pentagon was paralleled in less dramatic ways by the kindness and caring of ordinary citizens—evidenced in media reports of sharp increases in charitable contributions and blood donations, community service, and looking out for neighbors—and by a general perception of increased concern for the promotion of community and national well-being. As part of a large-scale study of the psychosocial effects of 9/11 (described in Butler et al., 2002) that was designed to document and better understand resilience as well as risk (Butler et al., 2003), we have been able to investigate prosocial behavior, such as altruism and generativity, and other phenomena of interest to political psychologists and political scientists, including political orientation. This paper reports on altruistic and generative expression, and the association between left-right political orientation, altruism, and generativity, in the aftermath of 9/11.

Altruism has been a topic of interest to sages and scholars throughout recorded history (reviewed in Post, 2003), but has received substantial scientific interest only in the past two decades. The term refers to a class of other-regarding behaviors "in which what one wants is that another person do well" (Sober, 2002, p. 2). Sorokin's (1950, 1954) pioneering socio-logical research on altruism in the 1940s and 1950s was followed by a period of relative neglect, and most of the empirical work on altruism since then has been conducted by social psychologists as part of that domain's interest in prosocial behavior. Batson's seminal work (reviewed in Batson, Ahmad, Lishner, & Tsang, 2002) and that of others (e.g., Krueger, Hicks, & McGue, 2001) emphasizes altruism's motivational features: the primary goal, to benefit another, is motivated by the other-oriented emotion of empathy. Notably, there is a growing body of evidence that although altruistic acts are intended to benefit their recipients/targets, altruistic individuals themselves benefit through enhanced well-being (i.e., increased life satisfaction and positive emotionality) and better psychosocial adjustment (Dulin, Hill, Anderson, & Rasmussen, 2001; Krueger et al., 2001). Definitional disputes are replete in the literature—some authors (reviewed in Batson et al., 2002) argue that the term altruism should be restricted to purely selfless behavior, and thus that true altruism is rare, perhaps impossible—but we favor a broader definition consistent with that

of Post (2003) that would label as altruistic all beneficent behavior that is motivated primarily by concern for another (and is therefore not primarily self-serving).

Erik Erikson's (1950, 1980) assertion that generativity—concern for and commitment to the next and future generations—is a critical undertaking both for the middle-aged adult and for society at large has become a widely known proposition in contemporary psychology since its initial publication over 50 years ago. Erikson's construct of generativity—elaborated on by Vaillant (1993), Kotre (1984), and McAdams and de St. Aubin (1992), among others—has influenced other disciplines as well, resonating in such recent concepts as "social capital" (Putnam, 2000) and "communitarianism" (Etzioni, 2001), and has prompted a call for a "politics of generativity" (Bellah, Madsen, Sullivan, Swindler, & Tipton, 1991). There are many ways to express generativity, but it most commonly takes the form of parenting, mentoring, leadership, and service to others; less common forms include cultural contributions like artistic and scientific creation. As Erikson proposed, generativity has been found to be associated with adults' psychological well-being, adaptive coping, and life satisfaction (reviewed in Azarow, 2003), and generative individuals have been found to espouse a fundamental belief in the goodness of the human species and in human potential (McAdams & de St. Aubin, 1992). Altruism and generativity are related; both constructs tap prosocial cognitions and behaviors. However, generativity can be distinguished from altruism by its scope and temporal orientation (emphasizing the next generation and the future) and by its motivational structure, which blends a special form of narcissism (i.e., a concern with one's psychological legacy, or "symbolic immortality"; Kotre, 1984) with an altruism-like concern for the other. The latter point is important, as generativity incorporates a fundamental human motivational duality (McAdams & de St. Aubin, 1992): the self-expression and self-enhancement of "agency", and the sharing of the self and devotion to the other of "communion" (Bakan, 1966), are both essential elements of generativity.

Recent investigations of the social ecology of generativity as an individual difference variable have found associations with a wide range of social concerns and involvements, including volunteerism (Snyder & Clary, 2004); interest in political issues (Peterson, Smirles, & Wentworth, 1997); and voting, working for a political party, and contacting public officials about a problem or concern (Hart, McAdams, Hirsch, & Bauer, 2001). Generativity is also associated with several politically relevant personality variables, including higher levels of openness to experience and lower

levels of authoritarianism (Peterson et al., 1997), and, in women, more prosocial personality characteristics (Peterson & Klohnen, 1995). In a similar vein, generativity has been found in a recent national probability sample to be the strongest and most consistent predictor of social responsibility in family, work, and community domains, even after controlling for age, social class, and other demographic factors (Rossi, 2001).

Given their importance as prosocial phenomena, it is surprising that altruism and generativity are mentioned infrequently in the political psychology and political science literatures. For example, only a handful of studies directly address linkages between the constructs and political orientation or ideology. As noted above, several studies have found associations between generativity and political interest and involvement, although a study of college undergraduates and their parents found no association between generative concern and political orientation (Peterson et al., 1997). Research on the relationship between altruism and political orientation has been similarly sparse. An early experiment found that liberal participants were more likely than conservatives to provide assistance to persons in need of help who were black, but no differences when the targets were white (Gaertner, 1973). Another series of experiments found a strong association between prosocial moral reasoning/altruism and liberalism (Eisenberg-Berg, 1976, 1979).

More generally, however, altruism and generativity would seem to relate to the deep structural values and motivations that are of interest to political psychologists because of their potential effects on such phenomena as attitudes, ideological preferences, and political orientation. Although the underlying structure of political attitudes is frequently described as ultimately reducible to a single left-right dimension, in fact the reality is much more complex (Kinder, 1998), and many researchers have argued that "values are the ultimate underpinnings of attitudes" (Feldman, 2003, p. 479). Several theorists have suggested a two-dimensional structure for values, dating back to Rokeach's pioneering *The Nature of Human Values* (1973), which argued that ideologies are structured by the emphasis placed on the core values of freedom and equality. Schwartz's more recent (1994) formulation identifies openness to change versus conservation, and self-transcendence versus self-enhancement, as the critical axes that underlie a host of less central value types, and he suggests that these two dimensions of values correspond to two core dimensions of ideology: "classical liberalism" (i.e., whether government should devote more energy to promoting individual freedoms or maintaining the status quo), and

"economic egalitarianism." These two value dimensions are associated with other important constructs: the openness to change versus conservation dimension strongly predicts right wing authoritarianism (Altemeyer, 1996), and the self-transcendence/self-enhancement polarity is closely related to social dominance orientation (Sidanius & Pratto, 1999). Similarly, a recent comprehensive meta-analysis (Jost, Glaser, Kruglanski, & Sulloway, 2003) identified resistance/openness to change and tolerance of inequality as the two key underlying dimensions of political values and ideology.

Thus, there are clear points of theoretical contact between altruism and generativity, on the one hand, and the core value dimension of self-transcendence versus self-enhancement identified by Schwartz (1994) and the similar tolerance of inequality dimension identified by Rokeach (1973) and Jost et al. (2003). This theoretical convergence, despite the lack of association between generativity and political orientation found by Peterson et al. (1997), would lead us under normal circumstances to hypothesize that altruistic and generative expression beyond the family should be associated with a relatively more liberal political orientation. However, it is impossible to predict whether and how altruism and generativity relate to political orientation in the aftermath of large-scale societal trauma such as the 9/11 attacks. Therefore, we did not have specific hypotheses about whether any particular political orientation would exhibit more altruism or generativity, but decided instead to explore possible differences. We also were interested in describing the prevalence of altruistic and generative expression. Consistent with Suedfeld's (1997) argument that adaptive coping is widely evident on a group and societal level in the aftermath of political trauma, we would hypothesize that altruistic and generative expression would be widely prevalent in the short-run aftermath of 9/11. We would expect, however, that the level of such expression for both constructs would decline over time as the individual and collective psychosocial impact of the terrorist attacks dissipates.

Method

Research Design

The data for the present study are drawn from a large Internet-based panel survey that included assessments at two time-points: baseline and six-month follow-up. After obtaining Institutional Review Board approval, we began to collect baseline data via a secure Stanford University server beginning on September 28, 2001, 17 days after the 9/11 attacks. The 6-month follow-up survey was initiated on March 11, 2002 by contacting

baseline participants who had provided email and home address information, and achieved a 53% response rate. Narrative data were collected at baseline and six-month follow-up; political orientation and demographic data were collected at baseline. (For details on the parent study, see Butler et al., 2002).

To recruit participants, the survey was widely publicized through a variety of channels (as detailed in Butler et al., 2002). Our research team forwarded the survey website link to colleagues and acquaintances, and press releases were issued from Stanford University's Media Office and the National Mental Health Association. As a result, the study received considerable regional and national media exposure, which increased the visibility of the survey to potential participants. Links and advertising were placed on Internet search engines and relevant Internet resource sites. In an effort to increase minority participation, minority-focused community organizations and professional associations, and public libraries located in minority communities, were contacted and asked to publicize the study.

The 7238 individuals who participated in the Internet-based survey at baseline had to meet the following criteria: be at least 18 years of age; provide informed consent; provide information on their degree of exposure to the attacks, including geographic proximity; and provide demographic information including gender, age, race/ethnicity, education, and income. The data reported in this paper are from a subset (N = 137) of the larger subsample (N = 1657) who met the following additional requirements for inclusion: completed the baseline assessment during November and early December of 2001, provided all requested demographic data, completed the follow-up assessment in Spring 2002, and were U.S. citizens or living in the U.S. at the time of the survey.

In addition to completing a number of closed-ended scaled questionnaires, participants were asked both at baseline and at follow-up to write and submit a personal narrative in response to the following prompt:

Please tell us the story of your experience *since first learning of the terrorist attacks of September 11th, 2001*. We are particularly interested in your deepest *thoughts and feelings* about what has happened, including your reactions over time and your hopes and concerns for the future. In addition, what is the *meaning* of these events for you? That is, how do you make sense of them, and have these events and your experiences of them affected your view of what is important in life?

The personal narratives were content-analyzed for expressions of altruism and generativity, as detailed subsequently under "Measures". The present study documents the prevalence of altruistic and generative themes in

the narratives, and examines the relationship of political orientation (assessed at baseline) to expressions of altruism and generativity (assessed at both baseline and follow-up). Thus, these relationships are examined cross-sectionally as well as longitudinally.

Participants

The demographic characteristics of the present study sample are summarized in Table 1. The sample consists primarily of young and middle-aged adults, and is primarily female (75%), white/European-American (95%), well-educated (four-fifth have a college degree), and middle and upper-middle class. The sample is thus somewhat more female and white/European-American than the complete sample for the parent study, which is broadly representative of the demographics of Internet users except with respect to gender.

Table 1
Summary of Demographic Characteristics and
Terrorist Attack Exposure Proximities (N = 137)

Demographic Variable	N	%
Gender		
Female	103	75.2
Male	34	24.8
Age ranges, in years		
18-24	14	10.2
25-34	25	18.2
35-44	21	15.3
45-54	46	33.6
55-64	28	20.4
65-74	3	2.2
Ethnicity		
African-American/African/Black	1	.7
Asian/Indian/Pakistani	2	1.5
European/White	130	94.9
Hispanic/Latino	3	2.2
Other	1	.7
		continued

Highest education level completed		
Less than high school	2	1.5
Graduated from high school	1	.7
Some college	23	16.8
Bachelor's degree	25	18.2
Some graduate school	18	13.1
Master's degree	44	32.1
Doctoral or professional degree	24	17.5
Income		
Less than $20,000	9	6.6
$20-39K	19	13.9
$40-59K	24	17.5
$60-79K	23	16.8
$80-99K	19	13.9
$100K or more	38	27.7
No response	5	3.6
Proximity to Terrorist Attacks		
Immediate vicinity	3	2.2
Up to 1 mile away	2	1.5
1-5 miles away	6	4.4
5-10 miles away	4	2.9
10-50 miles away	8	5.8
50-100 miles away	3	2.2
100-500 miles away	19	13.9
500-1000 miles away	15	10.9
More than 1000 miles away	77	56.2

Note: Income, n = 132.

Measures

Political Orientation and Demographic Characteristics. Political orientation was assessed with the following item: "I would describe myself as generally: 1) liberal; 2) conservative; 3) moderate; 4) libertarian; 5) socialist; or 6) other." Because very few respondents described themselves as libertarians (*n* = 4) or socialists (*n* = 6), these responses were recoded as "other" political orientation (yielding a total *n* = 12). Demographic items assessed respondents' gender, age, race/ethnicity, income, and education.

Altruism Thematic Content Analysis System. A system for analyzing participant narratives for the presence of altruism was developed by the authors of this study (Azarow, Manley, & Koopman, 2003). This multi-faceted content analysis system, consistent with the recommendations of Smith (2000), was designed to provide a detailed picture of the rich and varied expressions of altruism we expected to find in the personal narra-tives of study participants, rather than to merely capture and document the frequency of reported acts of altruism.

Each identified expression of altruism (or altruistic *coding unit*) was classified by (a) *type* (i.e., behavior or concern), (b) *target* (family, friends, acquaintances, strangers, organizations, multiple targets), and (c) *nature* (instrumental/informational or emotional). First, each coding unit was iden-tified as an expression of either (a) altruistic *behavior* (e.g., "I donated blood at a Red Cross blood drive) or (b) altruistic *concern* (e.g., "I plan to donate blood as soon as I am well")[1]. The latter category, altruistic concern, was created to capture expressions of behavioral intentions that have a clearly altruistic quality. Coding criteria for altruism were stringent. For example, the narratives are replete with simple expressions of empathy for the victims or family members of victims of the September 11th attacks (e.g., "I feel so badly for the persons trapped in the World Trade Center"), but such statements were not coded as either altruistic behavior or concern.

Second, coding units were then categorized by the *target* of the expre-ssion of altruism (i.e., the recipient or object of the altruistic expression.) Target categories were based on content classes Krueger and colleagues (2001) adapted from Rushton, Chrisjohn, and Fekken's (1981) widely-used Self-Report Altruism Scale. Five potential target categories were initially identified: (a) family (e.g., "I called my daughter and told her it wasn't safe to go to work"), (b) friends (e.g., "I brought my elderly neighbor dinner and ate with her because I knew she was alone"), (c) acquaintances (e.g., "I ma-de sure to be sensitive to my co-workers who were shaken by the attacks"), (d) strangers (e.g., "I have defended Middle Eastern people from verbal attacks"), and (e) organizations (e.g., "I signed up as a mental health relief counselor"). We added a sixth target category, (f) "multiple targets," to the altruistic concern dimension to capture and better characterize several clearly altruistic coding units in which more than one target was mentioned (e.g., "I sent cards to my mother, my cousin, and my best friend to let them how much I loved them").

Third, our content analysis system for altruism sought to identify the *nature* of expressions of altruism extracted from the personal narratives. This resulted in the creation of two tertiary categories that were drawn from

the literature on social support. The first category, "instrumental/informational," refers to a class of altruistic behaviors that are action-oriented and have a concrete, tangible quality to the interpersonal exchange (e.g., "I babysat my friend's daughter so that she could go donate blood"). The second category, "emotional," captures altruistic expressions that are primarily oriented to the provision of emotional or social support and in which the interpersonal exchange has a less tangible quality (e.g., "I spent time comforting my daughter; she was very upset and frightened by the attacks").

Expressions of Generativity Thematic Content Analysis System. Personal narratives were coded for generativity by means of a well-validated thematic content analysis protocol developed by de St. Aubin and McAdams (McAdams, de St. Aubin, & Logan, 1993) and based on their theory of generativity (1992). Their system identifies five forms or modes of generativity that can appear in narrative material: creating, maintaining, helping/offering, intergenerational involvement, and symbolic immortality. At the suggestion of Ed de St. Aubin (personal communication, June 17, 2003), a consultant to this project, we modified the McAdams and de St. Aubin protocol slightly by restricting the intergenerational category to involvement with a younger person(s). This change was made to reduce unnecessary construct overlap, because generative involvements with older persons would be captured in the coding of expressions of altruism; in addition, restricting the focus to younger persons is more consistent with Erikson's original theory. The five categories as adapted include (a) creating (the narrator "creates a new product or outcome or manifests creative skills in life"); (b) maintaining (the narrator "puts forth effort to sustain ongoing projects, products, or traditions"); (c) helping and offering (the narrator "offers help, assistance, guidance, mentoring, and so forth, to another"); (d) intergenerational involvement (the narrator becomes meaningfully involved with members of a younger generation); and (e) symbolic immortality (the narrator "expresses concern or interest in becoming involved with a phenomenon that is enduring, even immortal" (quoted material is from McAdams, de St. Aubin, & Logan, 1993, p. 224).

The following extracts from participants' narratives illustrate the generativity content categories. Examples of generative creating include "I developed a psychoeducational program for parents to help their children cope with the attacks" and "I began playing the piano and writing music again." Generative maintaining was expressed in one narrative as "the desire to keep writing," and generative intergenerational involvement was expressed in the following passage: "As a teacher, I tried to protect my students through limiting discussions of the (terrorist) attacks and by an-

swering their direct questions." Generative symbolic immortality was expressed by one participant as "desire to get back into painting to create something lasting."

Content Analysis Procedures. The content analysis systems were extensively pilot-tested and the manual was revised before we began to analyze the personal narratives of the participants in the present study. Our coders, who were undergraduate psychology students, received eight hours of classroom training in the altruism and generativity coding systems, refined their skills by coding practice narratives for an additional 15-20 hours each, and underwent a series of performance evaluations before actual coding commenced. Baseline and follow-up narratives for each participant were first coded for altruism using the coding system outlined above. Narratives were then analyzed separately for generativity.

All identifying information was masked from the coders, and each of the 137 narratives was coded by two independent coders in a two-phase process. First, for each personal narrative, coders noted the presence of altruism by entering a "1" in the appropriate cell of the scoring matrix, or entering a "0" if no altruistic coding unit for the given type, target, and nature was identified. Each narrative received an overall score of "1" if any altruistic coding units were identified or "0" if a coder determined no altruistic coding units were present. The same presence/absence value system (i.e., "0" or "1" for each cell) was applied to the generativity scoring matrix. Interrater agreement was achieved when there was consensus between the two coders on the presence or absence of a construct in an assigned personal narrative. A total of five coders were involved; thus, there were ten coder dyads. Simple initial interrater agreement for the presence or absence of altruism ranged from $r = .47$ to $r = .91$, with a mean of $r = .78$; comparable rs for generativity ranged from .65 to .94, with a mean $r = .79$; all of these results were deemed satisfactory. Interrater reliability was also assessed using Cohen's kappa, which adjusts for the presence of chance agreement and thus produces lower scores. These results were quite satisfactory, as well: the unweighted means were $\kappa = .54$ for altruism and $\kappa = .63$ for generativity.

Second, coded narratives that contained any disagreement between coders went through a consensus coding process, in which the two coders for a particular narrative met to discuss and resolve the discrepancy. Two of the authors of this paper (Azarow and Manley) were the co-developers of the coding protocols and served as final arbiters to resolve the relatively few cases (8 altruism discrepancies and 7 generativity discrepancies) in which coders were unable to reach consensus.

Procedures for Analyzing Data

The analyses were designed to: (a) document the prevalence of altruism and generativity at baseline and six-month follow-up, both overall and by category of altruism/generativity; (b) determine whether altruism and generativity were related to political orientation; and (c) assess the temporal stability of altruism and generativity from baseline to follow-up. First, we performed a series of preliminary analyses to determine whether several key demographic variables might themselves be related to generativity and altruism and therefore need to be included as control variables in the primary analyses. To accomplish this, we first conducted Chi-square analyses of the presence/absence of altruism and generativity in the narratives at each assessment point (baseline and follow-up) by gender, race/ethnicity, and marital status. None of these relationships was significant; therefore none of these variables was employed subsequently as a control variable. We then computed correlation coefficients to examine the relationships of age, income, education, and level of exposure (i.e., geographic proximity) to the attacks with the presence/absence of altruism, generativity, and both altruism and generativity. Once again, none of these relationships was found to be significant, precluding the need to use these variables subsequently as control variables. Second, as part of the primary analyses, we assessed altruism and generativity's relationship to political orientation by means of two-way Chi-square analyses that related the presence/absence of altruism, generativity, and both altruism and generativity to the four political orientation categories (liberal, moderate, conservative, and other) at both baseline and follow-up. Wilcoxon signed ranks tests were then used to examine the significance of any changes from baseline to follow-up in the prevalence of altruism or generativity.

Results

Table 2 presents frequency data on the presence of altruism and generativity in the narratives, both overall and by political orientation. The results indicate that expressions of altruism declined over time after the 9/11 attacks. At baseline, 43% of respondents expressed altruistic concerns and/or behavior, but only 28% at six-month follow-up, a statistically significant decline ($z = -2.57$, $p = .01$). Generative concerns and/or behavior were expressed by 44% of respondents at baseline; this declined to 34% at follow-up, which demonstrated a statistical trend but did not reach significance ($z = -1.82$, $p = .07$).

Table 2

Expressions of Altruism and Generativity in Post 9/11 Narratives by Political Orientation and Overall

Construct	Liberal (*n* = 68)		Moderate (*n* = 34)		Conservative (*n* = 23)		Other (*n* = 12)		Overall (*n* = 137)	
	N	%	N	%	N	%	N	%	N	%
Altruism										
At baseline	25	36.8	18	52.9	10	43.5	6	50.0	59	43.1
At follow-up	18	26.5	10	29.4	6	26.1	4	33.3	38	27.7
Generativity										
At baseline	24	35.3	18	52.9	10	43.5	8	66.7	60	43.8
At follow-up	19	27.9	16	47.1	8	34.8	4	33.3	47	34.3
Altruism & Generativity										
At baseline	19	27.9	15	44.1	8	34.8	6	50.0	48	35.0
At follow-up	11	16.2	7	20.6	6	26.1	4	33.3	28	20.4

Note: The differences across political orientations are not significant

None of the Chi-square tests assessing the relationships between political orientation and altruism and generativity at either baseline or follow-up were significant at the $p < .05$ level. At baseline, political orientation was not related to altruism, $\chi^2(5) = 5.41$, $p = .37$; not related to generativity, $\chi^2(5) = 7.40$, $p = .19$; and not related to the joint presence of altruism and generativity, $\chi^2(5) = 6.85$, $p = .23$; with N = 137 in all analyses. Similarly, at six-month follow-up political orientation was not related to altruism, $\chi^2(5) = 7.40$, $p = .19$; generativity, $\chi^2(5) = 4.05$, $p = .54$; or their joint presence, $\chi^2(5) = 2.95$, $p = .71$; with N = 137 in all analyses. This series of analyses thus establishes clearly that the expression of altruism and generativity in the narratives is independent of political orientation.

Table 3. Targets of Altruism by Political Orientation and Overall

	Group								
	Liberal ($n = 68$)		Moderate ($n = 34$)		Conservative ($n = 23$)		Other ($n = 12$)		Overall ($n = 137$)	
Altruism Target	N	%	N	%	N	%	N	%	N	%
Family										
At Baseline	12	17.6	8	23.5	7	30.4	3	25.0	30	21.9
At Follow-up	10	14.7	6	17.6	2	8.7	1	8.3	19	13.9
Friends										
At Baseline	7	10.3	1	2.9	2	8.7	0	0	11	8.0
At Follow-up	1	1.5	0	0	0	0	0	0	1	<1
Acquaintances										
At Baseline	7	10.3	1	2.9	0	0	1	8.3	9	6.6
At Follow-up	3	4.4	1	2.9	1	4.3	1	8.3	6	4.4
Strangers										
At Baseline	11	16.2	10	29.4	3	13.0	3	25.0	27	19.7
At Follow-up	3	4.4	2	5.9	4	17.4	1	8.3	10	7.3
Organizations										
At Baseline	2	2.9	3	8.8	3	13.0	2	16.7	10	7.3
At Follow-up	2	2.9	1	2.9	2	8.7	1	8.3	6	4.4
Multiple targets										
At Baseline	2	2.9	1	2.9	0	0	1	8.3	4	2.9
At Follow-up	0	0	1	2.9	0	0	0	0	1	<1

As shown in Table 3, at baseline the most frequently mentioned target of altruistic concern/behavior was family (21.9% of participants), followed in prevalence by altruism directed to strangers (19.7%), friends (8.0%), organizations (7.3%), and acquaintances (6.6%). At six-month follow-up, the pattern of targets of altruistic concern and behavior was similar, except that altruism directed toward a friend was only mentioned by one person (< 1%).

Table 4. Categories of Generativity by Political Orientation and Overall

Category	Liberal (n = 68) N	%	Moderate (n = 34) N	%	Conservative (n = 23) N	%	Other (n = 12) N	%	Overall (n = 137) N	%
Generativity: Creating										
At Baseline	3	4.4	2	5.9	0	0	1	8.3	6	4.4
At Follow-up	5	7.4	2	5.9	1	4.3	0	0	8	5.8
Generativity: Maintaining										
At Baseline	10	14.7	1	2.9	0	0	1	8.3	12	8.8
At Follow-up	4	6.0	0	0	0	0	0	0	6	4.4
Generativity: Helping & Offering										
At Baseline	8	11.8	9	26.5	5	21.7	2	16.7	24	17.5
At Follow-up	8	11.8	4	11.8	2	8.7	3	25.0	17	12.4
Generativity: Intergenerational Involvement										
At Baseline	9	13.2	8	23.5	7	30.4	3	25.0	27	19.7
At Follow-up	5	7.4	9	26.5	4	17.4	1	8.3	19	13.9
Generativity: Symbolic Immortality										
At Baseline	2	2.9	0	0	1	4.3	1	8.3	4	2.9
At Follow-up	1	1.5	2	5.9	0	0	0	0	3	2.2

Table 4 presents data on the prevalence of the various types of generative expression. Both at baseline and follow-up the most prevalent type of generativity was intergenerational involvement (19.7% at baseline, 13.9% at follow-up), followed by helping and offering help to others (17.5% at baseline, 12.4% at follow-up), generative maintaining (8.8% at baseline, 4.4% at follow-up), generative creating (4.4% at baseline, 5.8% at follow-up), and symbolic immortality (2.9% at baseline, 2.2% at follow-up). None

of the changes from baseline to follow-up in categories of generative expression was statistically significant.

Discussion

Our search of the relevant English language literature indicates that this is the first study to systematically examine narrative expressions of altruism and generativity in the aftermath of terrorism and other societal trauma. Narrative expressions of altruistic and generative themes are quite common in this sample of American citizens and residents, who reported little direct exposure to the 9/11 attacks but extensive indirect exposure via television. In the baseline assessment that occurred about two months after 9/11, 43% of the participants mentioned altruistic concerns or behaviors, 44% of the participants described generative concerns or behaviors, and 35% expressed both altruism and generativity.

These findings suggest that altruism and generativity, rather than being rare or idiosyncratic in the wake of terrorism, may in fact be quite common. Altruistic and generative concerns may be stimulated by societal trauma as well as by personal or private traumatic events. Such concerns may in turn inspire and motivate citizens not only to help members of their immediate social networks like family and friends, but also to assist strangers and donate their time and resources to social service and relief organizations. This interpretation finds empirical support in several large-scale studies of 9/11's effects. For example, in a national probability sample Schuster et al. (2001) found that Americans employed a variety of coping strategies in the aftermath of 9/11, including making donations to relief and community service organizations (36%). Hence, prosocial behaviors like volunteering that are elicited by altruistic and generative concerns may serve to strengthen the social fabric of societies like the United States that face the potentially enduring threat of terrorism. Such a result would be particularly welcome in light of the decline over the past several decades in volunteerism and other forms of social capital identified by Putnam (2000) and others.

In addition, in light of the prevalence of altruism and generativity reported here and the growing evidence for an association between both altruism and generativity and well-being (reviewed in Azarow, 2003), we wonder whether similar benefits accrue to those who engage in altruistic behavior and generative concern in the context of societal-level traumatic events, particularly those events produced by human volition rather than acts of nature. The literature on individual-level traumatic stress in recent years has incorporated a new emphasis on resilience as the product of both

individual and contextual factors, and has highlighted the common occurrence of post-traumatic growth (Calhoun & Tedeschi, 2001). Post-traumatic growth is frequently marked by a new or renewed commitment to goals and pursuits that could be labeled altruistic or generative, as part of the search for meaning. Finding meaning in the face of trauma and adversity is an important mechanism for individual-level adaptive coping (Park & Folkman, 1997), and similar phenomena may well occur in groups and whole societies (Suedfeld, 1997). This is an important topic that we plan to address in future research and that should be examined by others interested in protecting mental health in the aftermath of terrorism and other societal trauma.

Another important finding of the study is that, although altruistic and generative narrative themes were still widely prevalent in the six-month follow-up assessments in Spring 2002, the rates declined somewhat. Systematic future study is needed to determine whether this pattern is replicable. If real, these declines may be the result of a national decline in post-traumatic stress and other symptoms of distress in the six months following 9/11 (Silver et al., 2002) and a waning of citizen fears about terrorism, which were most acute in Fall 2001 following the terrorist attacks and the anthrax deaths in several states. With the passage of time, our participants may have felt less traumatized or less personally affected emotionally by 9/11, and therefore may have become less inclined to engage in altruism and generativity as potential sources of meaning. Alternatively, perhaps the decline in altruism and generativity in our sample from Fall 2001 to Spring 2002 parallels the decline that was evident over the same period in mass media coverage of volunteerism and other prosocial phenomena. The decline in altruism and generativity since 9/11 also may have resulted in part from a missed opportunity on the part of American national leadership. By all accounts, the immediate aftermath of 9/11 witnessed a rare period of national unity and sense of purpose, and the time was ripe for a "politics of generativity" (Bellah et al., 1991). Political pundits from across the ideological spectrum have observed that national leaders did not take full advantage of the opportunity to mobilize the public to adopt an ethic of shared sacrifice in order to enhance the country's social and physical infrastructure as part of promoting "homeland security."

To better understand the apparent decline in altruism and generativity, future research should examine whether their salience tends to decline over time following other types of traumatic events, and if so, what individual and contextual factors account for the change. Future research also should attempt to determine whether and how media coverage of instances of pro-

social phenomena like altruism and generativity influences the salience of these concerns in individuals and communities. If in fact media coverage increases the salience of such prosocial concerns at the individual- and community-level, its influence may be able to be harnessed constructively.

It is also noteworthy that we did not find any significant differences in altruistic or generative expression by persons of different political orientations. One possible explanation is that methodological limitations –including sample size, demographic bias, and the use of a single-item measure of political orientation– may have impeded the identification of true differences. Consequently, the question should be re-examined in future research that can bring to bear greater statistical and inferential power by means of samples that are larger and more representative with respect to race/ethnicity and social class. On the other hand, altruism and generativity as relatively broad constructs may simply be unrelated to political orientation. Future research should examine more specific values constructs, such as belief in the responsibility of the individual for the well-being of others, to assess their possible association with altruism and generativity.

Several methodological features of the study, as suggested above, necessitate that its findings be interpreted cautiously. The content analysis of narrative material is a time– and resource–intensive enterprise; as a result, the sample for the present study was necessarily limited. As noted, the study may have lacked sufficient power to find relatively small differences by political orientation to be significant. In addition, the sample was an Internet-based convenience sample with limited racial/ethnic and social class diversity, and was not drawn randomly from a specific population. Therefore, the generalizability of the findings to specific populations cannot be determined. However, it is important to point out that studies with Internet convenience samples offer numerous methodological and practical advantages (Couper, 2000), including: speed of data collection; flexibility; cost-effectiveness; geographic diversity of response; enhanced sample size; breadth and depth of variables assessed; the opportunity to use psychometrically-established measures; and low overall subject burden. In addition, Internet-based studies are generally perceived by participants as less intrusive and less inconvenient, and are less inherently restrictive with respect to the length of the data collection encounter and the format for and perceived intensity of data collection (Couper, 2000). There is also evidence that respondents may be more candid in reporting psychiatric symptoms and other sensitive material in online formats than in interviewer-administered assessments because of the more prominent social desirability features of the latter (Epstein, Barker, & Kroutil, 2001).

Another methodological limitation of the study is the potential for "volunteer bias"–i.e., that volunteering to participate in a study like this that confers no tangible benefit may in itself constitute a generative and altruistic act. Individuals disinclined to participate in research of this type might report less concern with generativity and altruism than our respondents did. Another feature of the study that may affect the validity of its findings is its use of a narrative measure for the key constructs. The narrative item we prepared has a semi-projective quality, has less face validity than most questionnaire measures of altruism and generativity, and does not directly pull for altruistic and generative responses. Some (perhaps many) participants who did not provide altruistic or generative content in their narratives might nevertheless have reported relevant cognitions or behavior in conventional closed-ended scaled measures of those constructs. On balance, we would argue that our method enhances validity: by not explicitly cueing altruistic or generative content it reduces the likelihood of an acquiescent or socially desirable response. But it would be useful for future research to enhance convergent validity by incorporating both narrative and closed-ended scaled measures of these constructs, and perhaps include other, non-self-report methods (e.g., spousal/partner ratings), as well.

In conclusion, this study's main contribution is to suggest that the antecedents, correlates, and consequences of altruism and generativity in the aftermath of terrorism and other forms of societal trauma represent a fruitful area for future inquiry. There is clear evidence from research in other contexts on those constructs that altruistic behavior and generative concern tend to promote the well-being of those who engage in them. In light of the many unmet needs for volunteers in American society and the decline in social capital in recent decades, this area of research has potentially important implications for public policy in an age of terrorism, and deserves further study in well-evaluated preventive and therapeutic interventions and social programs as well as in descriptive and naturalistic research.

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Footnote
[1]The extracts from participant narratives that appear in this paper have been altered to protect confidentiality.

Jay Azarow, Ph.D. is a postdoctoral fellow in psychology in the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine. His research interests include: traumatic stress (including medical illness and societal trauma); psychological resilience and growth; altruism and generativity; religion and health; and the psychosocial treatment of medical illness. His most recent publication is *Generativity, health, and well-being: An investigation of the Eriksonian hypothesis*, 2003.

Melinda J. Manley, B.S., is a research assistant at the Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine. **Cheryl Koopman,** Ph.D., is an Associate Professor (Research) in the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine. **Aaron Platt-Ross** is an undergraduate at Stanford University majoring in human biology, and plans to attend medical school. **Lisa D. Butler**, Ph.D. is a Senior Research Scholar in the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine. **David Spiegel**, M.D. is Willson Professor and Associate Chair in the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine.

Address: Jay Azarow. Department of Psychiatry and Behavioral Sciences. Stanford University School of Medicine, 401 Quarry Road, Stanford, CA 94305-5718, USA. E-mail: azarow@stanford.edu