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Aprendizaje-servicio en la educación superior
Service-learning in Higher Education

Héctor Opazo, Pilar Aramburuzabala y Lorraine McIlrath
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HOW DOES US COLLEGE STUDENTS' SENSE OF LIFE PURPOSE RELATE TO THEIR EMOTIONAL EXPECTATIONS OF BEING A VOLUNTEER IN THE COMMUNITY AS PART OF A SERVICE-LEARNING COURSE?

¿Cómo se relaciona el sentido de los propósitos de la vida de los estudiantes universitarios de EE. UU. con sus expectativas emocionales de ser voluntario en la comunidad como parte de un curso de aprendizaje-servicio?

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INTRODUCTION. Few studies consider how purpose in life predicts emotions related to community service in college courses even though a purpose in life, a “compass” for finding opportunities to make meaningful prosocial contributions, should motivate students to serve. **METHOD.** Multilevel structural equation modeling estimated direct and indirect effects of survey responses regarding students’ past service experience, sense of purpose, and searching for purpose on their emotional expectations for service-learning before starting. **RESULTS.** Controlling for age, gender, extrinsic motivation, and characteristics of universities and courses, students’ past service experience and two purpose variables positively related to expected positive emotions toward service work, mediated through both students’ helping identity and intrinsic motivation to serve. Only sense of purpose was associated with higher intrinsic motivation, which was associated with lower expected negative emotions. **DISCUSSION.** Considering students’ life purpose may stimulate intrinsic motivation and schemas of being a helping person, which could contribute to positive emotions toward community service even before the service work begins.

Keywords: Youth purpose, Service-learning, Postsecondary education, Prosocial behavior.

Introduction

Life Purpose and Service-Learning

Conceptually, service-learning is considered a pioneering educational experience for purpose development (Moran, 2018). Students (Moran, 2010) and teachers (Moran, 2016) recognize that service offers opportunities for students to gain feedback on their efforts to help others. In turn, their developing purposes can direct students toward further prosocial opportunities.

Numerous studies have investigated various antecedent behaviors and attitudes for why college students enter service-learning (Clary *et al.*, 1998; Cruce & Moore, 2012). But students' sense of life purpose, a meaningful direction toward contributing prosocially, has received scant attention (Moran, 2019). Purpose variables have been studied as *equating* volunteering with purpose (Barber, Mueller & Ogata, 2013); an *outcome* of service (Malin, Ballard & Damon, 2015; Malin, Han & Liauw, 2017; Whitley, 2014), including two studies in Spain (Folgueiras & Palou, 2018; Opazo, Aramburuzabala & Ramirez, 2018); and a *mediator* between hours of past service and future service (Rockenbach, Hudson & Tuchmayer, 2014) or between identity salience of volunteering and sense of mattering to others (Thoits, 2012). But we found only one study where a purpose-like variable was a *predictor* of service-learning participation (Hill, Burrow, Brandenberger, Lapsley & Quaranto, 2010).

A developing or fully-formed life purpose can influence students *entering* service. Purpose helps individuals perceive opportunities to enact, or at least practice, prosocial contributions through everyday actions (Kiang, 2011; Steger, Kashdan & Oishi, 2008), proactively seek service opportunities (Moran, Bundick, Malin & Reilly, 2013), receive feedback on the effects of their efforts, and thereby strengthen the meaningfulness and intentionality of their life purpose (Moran,

2017; Opazo, Aramburuzabala & Ramirez, 2018).

Purpose affords self-efficacy that purposeless students may lack (Dobrow Riza & Heller, 2014), so counterintuitively, purposeful students may already see themselves as agentic contributors to society (Quinn, 2013). Life purpose helps individuals persevere during challenges or when supports are scarce. For example, purpose has mitigated downward trends in community service (Vogelgesang & Astin, 2005), civic engagement (Malin *et al.*, 2017), and sense of power to have a positive effect in the world (Miller, 1997). By keeping in mind the long-term contributions students aim to make, purpose may buffer students from emotional difficulties of service work (Seider, 2008). Students may enter service with a) purpose that can frame the experience using a future vision of themselves, or b) uncertainty regarding the service's connection to their future.

Development and Functions of Life Purpose

Purpose orients individuals toward a life course both personally meaningful and prosocial to steer their efforts to pursue the purpose despite fluctuations in external support. But life purpose develops over time through experience (Malin, Reilly, Quinn & Moran, 2014). Scholars have proposed various models of purpose development. Integrating these models produces a generalized model of three stages.

First, a person searches for and finds a sense of purpose (Steger, Kashdan & Oishi, 2008). *Searching* for purpose can provoke anxiety and suffering (Blattner, Liang, Lund & Spencer, 2013) until the person gains a *sense* of purpose and *commits* to a specific life aim, which relates to positive feelings that can continue through adulthood (Bronk, Hill, Lapsley, Talib & Finch, 2009; Hill, Burrow, Brandenberger, Lapsley & Quaranto, 2010). Structured

activities to focus exploration, allow proactive engagement, and provide feedback can help searchers find a purpose (Malin *et al.*, 2014; Moran, 2016).

Second, a purpose integrates four dimensions: personal meaningfulness (“this is important to me”), intention (“I am going to pursue this aim into the future”), engagement (“I am going to act on and not just dream about it”), and beyond-the-self impact (“my actions aim to help others or society”) (Damon, 2008). Any dimension could launch a nascent purpose (Moran, 2017), although adolescence may have optimal periods for each dimension: initiating beyond-the-self orientation in ages 11-13, exploring roles to pursue a meaningful aim in ages 14-16, reflecting on priorities after secondary graduation in ages 17-18, and finding supportive pathways forward during college (Malin *et al.*, 2014). Service is one of few educational experiences that can address all four of these dimensions: it involves engagement with beyond-the self impact, can stimulate emotional meaning, and supports intentions to make the world better (Moran, 2018).

Third, commitment to purpose and purpose's influence in one's life can build. Purpose becomes *sustainable* by finding aligned venues to act, *increases* through positive feedback, and *changes* via critical incidents or additional resources (Bronk, 2012). Purpose can also broaden the *scope* of life domains it influences, the *strength* of its influence on perception and behavior, and how well it is *articulated* (McKnight & Kashdan, 2009). Eventually, purpose can become reciprocally reinforcing with identity (Burrow & Hill, 2011; Kiang & Fuligni, 2010).

Even before service work starts, purpose can help students “make sense” of the opportunity by connecting service to other meaningful life goals. Students entering service with more developed purposes may be able to harness

more personal capabilities and resources for the service work (Han, 2015). Even students searching for purpose may benefit from exposure to possible roles and pathways (Reinders & Youniss, 2006). But purpose's first task may be to encourage emotional investment in service.

Emotions Related to Service and Life Purpose

Many studies of service focus on “intent to serve” (e.g., Stukas, Snyder & Clary, 1999). But since our interest is in students already enrolled in service-learning courses, we know they *will* serve. Our focus is their *anticipated feelings* about their upcoming service and whether purpose relates to those emotions. Prosocial orientation in college predicts emotional well-being in adulthood (Hill *et al.*, 2010), and sense of purpose generally correlates with higher positive emotions and lower negative emotions (King, Hicks, Krull & Del Gaiso, 2006; Ryff & Singer, 2008).

Emotions help individuals plan for future experiences by learning from current experiences—in particular, by selecting how to act in *anticipation* of generating specific emotions (Baumeister, Vohs, DeWall & Zhang, 2007). Negative emotions suggest a need to avert threats or rethink one's direction, whereas positive emotions validate one's current trajectory (Baumeister *et al.*, 2007) plus “broaden and build” a person's perceptivity, behavioral flexibility, and resilience (Fredrickson, Tugade, Waugh & Larkin, 2003).

Interacting directly with those whom students expect will benefit from their service can be emotionally complex (Darby, Perry & Dinnie, 2015) and produce “emotional shocks” student may cope with and stay engaged (Rockquemore & Schaffer, 2003) or quit from anxiety (Seider, 2008). Students may experience negative emotions related to

conditions in the community, yet concurrently feel positively about their role in helping alleviate those conditions (Harre, 2007; Reinders & Youniss, 2006). Volunteering creates meaningful positive emotions that last until the following day (Steger *et al.*, 2008). Two small-sample, qualitative studies suggest that “trigger events” producing emotional intensity can change a person’s purpose (Bronk, 2012), and “frame-changing experiences” shifting students’ conceptions of their own role in the community may emotionally influence their commitment to social action (Seider, 2007).

Other Contributing Factors

Prior service experience. Students already familiar with service work are more likely to continue community contributions in the future (Hart, Donnelly, Youniss & Adkins, 2007), and the more hours of service before college, the stronger the probability of continuing in college (Cruce & Moore, 2012). This effect of prior service could be from forming a mindless habit that is enacted later with similar environmental cues or from developing to a mindful future-oriented purpose, each which can have differential effects on anticipated emotion (Wood, Quinn & Kashy, 2002). Habits do not generally elicit emotions, so without external motivators, subsequent service may not occur. Purpose’s personal meaning dimension keeps in mind the emotional resonances of one’s prosocial contributions as reference points for perceiving subsequent opportunities to serve. Generally, there is a downward trend in community service from adolescence into adulthood (Vogelgesang & Astin, 2005), suggesting many students’ prior service experiences generate habits that are not activated as other life responsibilities emerge. But purpose development may stall that downward trend (Malin *et al.*, 2017; Rockenbach *et al.*, 2014).

Extrinsic motivation. Extrinsic motivation is doing a task for a reward or a requirement. Individuals feel controlled by the motivator and less positively toward the task. Extrinsic motivators may be obstacles to launching a purpose, but students already with a sense of purpose should be less swayed by extrinsic motivators because their purpose orients them toward relevant, meaningful opportunities (Moran *et al.*, 2013). Furthermore, life goals oriented toward extrinsic rewards like wealth or fame do not provide the well-being benefits of prosocial purposes (Hill *et al.*, 2010; Kasser & Ryan, 1996).

College students not interested in volunteering but required to serve were less likely to intend to volunteer later than those who choose to volunteer, but requirement versus choice made no difference to those who were already interested in volunteering (Stukas *et al.*, 1999). Students who served for self-oriented benefits or because others wanted or required them to serve were also less likely to continue community involvement than students who believed in the cause, social change, or citizenship (Soria & Thomas-Card, 2014). Yet, extrinsic motivators may initiate students searching for a purpose, who may not otherwise serve, to the possibilities of “doing good” (Reinders & Youniss, 2006).

Intrinsic motivation. Intrinsic motivation is a relationship between person and task in that the person enjoys the task or finds it emotionally important. Students serving others for enjoyment or importance reasons tended to see themselves contributing further in the future (Soria & Thomas-Card, 2014; Stukas *et al.*, 1999). Intrinsic motives also tend to sustain purposes focused on supporting “the common good” (Malin *et al.*, 2017).

Helping identity. A helping identity is a relationship between person and role in that the person views a social role as part of one’s

self. Life purpose supports identity (Bronk, 2011; McKnight & Kashdan, 2009). Similarly, regular engagement in service has been framed in terms of identity development (Bronk, 2012; Harre, 2007; Reinders & Youniss, 2006). A few studies suggest that purpose mediates identity and well-being. Once a person identifies with a role, it becomes more meaningful and satisfying to enact the role because "it's just who I am" (Thoits, 2012), and both purpose and identity contribute to more positive emotion and less negative emotion over time (Burrow & Hill, 2011).

Research Questions and Hypotheses

To what degree does having a sense of purpose or searching for a purpose relate to college students' emotional expectations of upcoming community service work?

H1: Because both purpose and service address engagement to benefit others, we hypothesize that sense of purpose will correlate strongly with positive feelings toward service work.

H2: Because service-learning provides structure for exploring prosocial action, we hypothesize that searching for purpose will also correlate with positive feelings toward service work, albeit weaker.

As a long-term life aim, does purpose directly influence emotions toward an upcoming service experience, or is purpose's role eclipsed by more proximal influences like motivation or role identity?

H3: Because of the interrelationships between life purpose, service, motivation, identity, and emotions, we hypothesize that the relationship between life purpose and anticipated emotions toward service are partially mediated by more proximal influences.

Method

Participants

Demographics split by university appear in table 1. Nested within 2 universities and 74 community-engaged courses ranging in size from 2 to 74 students, 780 students took a pre-service online survey. 174 students (22.3%) were from a small private university and 606 (77.7%) were from a large public university. The public university sample included students in both student skill-development-oriented experiential learning courses ($n = 237$, 39.1%) and community-oriented service-learning courses ($n = 369$, 60.9%). All of the private university students were in service-learning courses. 63.3% reported that their course was required for their major or for graduation.

The average age of the total sample was 23.70 ($Mdn = 22$), ranging from 18 to 60 years. Males comprised 215 (27.8%) and females 531 (71.2%) of participants, with 34 (4.4%) students not indicating a gender. Racial identification ranged from 472 (60.5%) White/European-American, 80 (10.3%) Hispanic/Latino, 51 (6.5%) Asian/Asian-American, 47 (6.0%) multiracial, 44 (5.6%) Black/African-American, to 9 (1.2%) Middle Eastern/Arab, and 77 (9.9%) did not indicate race.

There was a relatively even distribution of class years with a slight skew toward upperclassmen: first years ($n = 110$, 14.1%), sophomores ($n = 87$, 11.2%), juniors ($n = 172$, 22.1%), seniors ($n = 192$, 24.6%), and graduate students ($n = 181$, 23.2%), with 38 (4.9%) not indicating class year. Declared majors included social sciences ($n = 228$, 29.2%), business ($n = 167$, 21.4%), education ($n = 135$, 17.3%), healthcare ($n = 71$, 9.1%), natural sciences ($n = 54$, 6.9%), humanities ($n = 47$, 6.0%), engineering ($n = 26$, 3.3%), and mathematics ($n = 12$, 1.5%), with 40 (5.1%) not indicating major.

TABLE 1. Demographics by University

		Private University (n = 174)		Public University (n = 606)		χ^2 or t
		n or M	% or SD	n or M	% or SD	
Gender	Male	45	25.9	170	28.1	0.05
	Female	115	66.1	416	68.6	
Race	White/European-American	118	67.8	354	58.4	15.80**
	Hispanic/Latino(a)	8	4.6	72	11.9	
	Asian/Asian-American	14	8.0	37	6.1	
	Black/African-American	11	6.3	33	5.4	
	Middle Eastern/Arab	1	0.6	8	1.3	
	Biracial/Multiracial	4	2.3	43	7.1	
	Age		20.79	3.73	24.54	
Class Year	Freshman	38	21.8	72	11.9	41.60***
	Sophomore	34	19.5	53	8.7	
	Junior	29	16.7	143	23.6	
	Senior	35	20.1	157	25.9	
	Graduate Student	21	12.1	160	26.4	
Major	Humanities	13	7.5	34	5.6	151.09***
	Social Sciences	102	58.6	126	20.8	
	Healthcare	2	1.1	69	11.4	
	Education	3	1.7	132	21.8	
	Engineering	2	1.1	24	4.0	
	Business	12	6.9	155	25.6	
	Natural Sciences	20	11.5	34	5.6	
	Mathematics	4	2.3	8	1.3	
Course Type	Experiential	0 ^b	0.0	237	39.1	
	Service-Learning	174	100.0	369	60.9	
Course Required?	No	90	51.7	191	31.5	24.69***
	Yes	82	47.1	412	68.0	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. ^aEqual variances not assumed. ^bThere were no experiential learning courses in the private university's sample so significance tests were not conducted.

Sampling and Data Collection Procedure

This study is part of a six-country data collection collaboration to survey students at three points during service-learning or experiential learning courses. Courses were recruited through professors. Professors were provided a small cash gratuity, but professors were not involved in data collection and had no access to data. Research colleagues made presentations within these courses to invite students to voluntarily participate. All students in a course were sent the first survey, which required consent to participate and consent to how they would allow their data to be used (no consent, use only for learning about themselves, allow their responses to be aggregated and analyzed). Data for students who did not allow analysis were removed.

Only students who consented and completed the first survey were sent the second and third surveys. Surveys were timed to before students started service, about halfway through their service, and after or near the end of service. Students could remove themselves from the study at any time. Surveys were conducted online through links sent by email using Qualtrics survey software. Reminders were sent every week to consenting participants who had not yet finished the survey.

This paper's analyses only used data collected in two universities in the United States. We used responses to select questions from the first survey—about participant demographics, history of and motivations for service, what participants expect to feel while serving, as well as their sense of having or searching for life purpose—to examine students' life purpose's influence on expected emotions to serve *before* engaging in service.

Measures

Outcome Measures

Expected positive and negative emotions. Students responded, on a scale from 1 = *not at*

all to 5 = *extremely*, to a prompt asking how much of each emotion they expected to experience during their service work related to this course. Items included the 20-item Positive and Negative Affect Scale (PANAS) (Watson, Tellegen & Clark, 1988) plus six additional items from the Positive Self Test (PST) (Fredrickson *et al.*, 2003) that are not represented in the PANAS but are expected to be useful in a service-learning context, four because of their self-transcendent focus (awe, grateful, optimistic, sympathetic) and two for their emphasis on *disengagement* (bored, disgusted). Positive and negative expected emotion scale scores were created by computing means across items for each scale. Eight PANAS plus four PST items measured positive emotions ($a = .936$). Twelve PANAS plus two PST items measured negative emotions ($a = .866$). Scales were not correlated ($r = .04$).

Predictors

Prior experiences with service-learning. A single item asked students: "Before this term, have you participated in any school-based service-learning?"

Sense of purpose and searching for purpose. The Meaning in Life Questionnaire (MLQ) (Steger, Frazier, Oishi & Kaler, 2006) factors 10 items into two scales. Five items, such as "I understand my life's meaning" and "My life has a clear sense of purpose," measured sense of purpose on a 7-point Likert scale from 1 = *absolutely untrue* to 7 = *absolutely true*, with one item reverse coded ($a = .86$). Five items, such as "I am looking to find my life's purpose" and "I am searching for something that makes my life feel significant," measured searching for purpose on the same Likert scale ($a = .91$). Scores were created for each scale by computing means. Scales were negatively correlated ($r = -.29, p < .001$).

Mediators

Intrinsic motivation. Five items responding to the question "Why are you motivated to do the

service work in this course?” (“I want to help others,” “I enjoy it,” “The fieldwork is fun,” “I care about the particular people or issue I am helping,” “I want to try out my own ideas,”) measured intrinsic motivation on a 7-point Likert scale from 1 = *completely untrue* to 7 = *completely true*. Scale score was created by averaging these items ($\alpha = .88$). A confirmatory factor analysis of intrinsic and extrinsic motivation factors showed good fit to the data. There was statistically significant group variance in intrinsic motivation ($\eta^2 = 0.15$, $Wald Z = 3.27$, $p < .001$, with $ICC = .12$).

Helping identity. A single item was used: “Being involved in helping others defines who I am” with response options 1 = *not at all*, 2 = *minimally*, 3 = *mildly*, 4 = *moderately*, 5 = *strongly*, and 6 = *more than anything else*.

Control Measures

Extrinsic motivation. Using the same prompt as the intrinsic motivation items, two items measured extrinsic motivation: “I need to satisfy a requirement for graduation” and “I need to satisfy a requirement for my course/major.” Intrinsic and extrinsic motivation scales were slightly positively correlated ($r = .13$, $p < .01$).

Four dummy variables controlled for public versus private university since community service tends to be more supported in small private versus large public universities (Rockenbach *et al.*, 2014), service-learning versus experiential courses because service oriented to community benefit tends to produce more prosocial orientation, whether the course was required or elective, and whether the student previously had volunteered in the community other than through service-learning (Eyler, Giles, Stenson & Gray, 2001).

Analytic Strategy

Multilevel SEM, with student at level 1 and course at level 2, was used to assess the effects of sense of purpose, searching for purpose, and past experiences with service-learning on expected positive and negative emotions during the service-learning class. Then we tested the extent to which helping identity, intrinsic motivation, and extrinsic motivation (as a control) were parallel mediators (Hayes, 2018). All models were fit using MPlus, version 7 (Muthén & Muthén, 2012).

Results

Descriptive Statistics

Table 2 shows descriptive statistics and correlations among variables. Forty-one percent of students had prior service-learning experience, but prior experience was not related to purpose.

On average, students felt they “somewhat” had a sense of purpose but also that they “somewhat” were searching for a purpose. Students thought helping others “moderately” defined “who I am”. Students were “mostly” motivated to participate in service to help others or to enjoy it, were “a little” motivated to participate because they needed to satisfy a requirement, and expected “quite a bit” to feel positive emotions but to feel negative emotions only “a little” during their upcoming service work.

Someone with a high sense of purpose tended to not be searching for purpose and vice versa. Yet both searching and sense of purpose were positively associated with expected positive emotions, as were prior service experience, intrinsic motivation and helping identity. Sense of purpose and intrinsic motivation were negatively associated with expected negative emotions.

TABLE 2. Descriptive Statistics and Correlations among Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.
1. Positive Emotions	-							
2. Negative Emotions	.04	-						
3. Past Service-Learning Experience	.18**	-.02	-					
4. Sense of Purpose	.19**	-.18**	.05	-				
5. Searching for Purpose	.15**	.03	.06	-.29**	-			
6. Intrinsic Motivation	.63**	-.12**	.25**	.20**	.19**	-		
7. Extrinsic Motivation	-.004	-.01	.03	.10**	-.02	.13**	-	
8. Helping Identity	.39**	-.03	.15**	.21**	.17**	.39**	.04	-
ICC	.13**	.02	---	.07**	.09**	.12***	.24***	.04*
M	3.71	1.72	0.41	4.93	4.75	5.77	5.06	4.20
SD	0.80	0.58	0.49	1.23	1.47	1.11	1.96	1.16

Note: + $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Direct Effects

Table 3 shows direct effects of control and predictor variables on expected positive emotions and negative emotions.

Expected positive emotion. There was a statistically significant positive effect of prior volunteering experience on expected positive emotions ($b = 0.16$, $SE = 0.06$, $p = .011$, $CI = [0.04, 0.27]$) but no significant effects of any of the other control variables on positive emotion. As hypothesized, prior experience in service-learning courses had a significant positive effect on expected positive emotions ($b = 0.15$, $SE = 0.06$, $p = .009$, $CI = [0.04, 0.26]$). Both sense and searching for purpose had statistically significant effects on expected positive emotions, (respectively, $b = 0.16$, $SE = 0.02$, $p < .001$, $CI = [0.11, 0.20]$, and $b = 0.11$, $SE = 0.02$, $p < .001$, $CI = [0.08, 0.15]$).

Expected negative emotion. Students at the public university expected significantly more

negative emotions than students at the private university ($b = -0.18$, $SE = 0.07$, $p = .008$, $CI = [-0.32, -0.05]$) but no other control variables had significant effects. There was no significant effect of past service-learning ($b = -0.03$, $SE = 0.04$, $p = .458$, $CI = [-0.12, 0.05]$) nor of searching for purpose ($b = -0.03$, $SE = 0.01$, $p = .389$, $CI = [-0.04, 0.02]$). But there was a significant negative effect of sense of purpose on expectations for negative emotions ($b = -0.08$, $SE = 0.02$, $p < .001$, $CI = [-0.12, -0.05]$).

Extrinsic and intrinsic motivation. Extrinsic motivation was included to control for how much students felt compelled to do the service work due to requirements for graduation or their major. Public university students reported significantly higher extrinsic motivation than private university students ($b = 1.53$, $SE = 0.27$, $p < .001$) and, as expected, extrinsic motivation was higher in required courses than in elective courses ($p < .001$).

Students who reported past experiences with service-learning had significantly higher intrinsic motivation for engaging in the service-learning course ($b = 0.40, SE = 0.08, p < .001, CI = [0.25, 0.56]$). There were also positive effects on intrinsic motivation of both sense of purpose ($b = 0.24, SE = 0.03, p < .001, CI = [0.18, 0.30]$) and searching for purpose ($b = 0.18, SE = 0.03, p < .001, CI = [0.13, 0.23]$). Public university students reported lower intrinsic motivation than private university students ($b = -0.32, SE = 0.14, p = .026, CI = [-0.59, -0.04]$).

Helping identity. Public university students reported lower helping identity than private university students ($b = -0.29, SE = 0.12, p = .025, CI = [-0.54, -0.04]$). Past experience with service-learning was related to having a higher helping identity ($b = 0.21, SE = 0.09, p < .001, CI = [0.04, 0.38]$), as was sense of purpose ($b =$

$0.28, SE = 0.04, p < .001, CI = [0.21, 0.35]$) and searching for a purpose ($b = 0.18, SE = 0.03, p < .001, CI = [0.13, 0.24]$).

Indirect Effects

See figures 1a and 1b for diagrams of mediation model results. Mediation analyses were conducted to test the prediction that intrinsic motivation and helping identity mediate the relationship of past service-learning experiences, sense of purpose, and searching for purpose on expectations for positive emotions during service work but does not similarly mediate the relationship on expected negative emotions. University type, course type, course requirement, past volunteer experience, and extrinsic motivation were included in the models as controls. The Monte Carlo Method for Assessing Mediation

TABLE 3. Direct Effects Model Estimates

	Expected Positive Emotion			Expected Negative Emotion		
	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>
Intercept	0.81	0.19	< .001	2.64	0.18	< .001
Controls						
University	0.03	0.07	.646	-0.23	0.07	0.002
Course Type	-0.03	0.06	.629	-0.05	0.06	0.397
Course Requirement	0.11	0.05	.039	-0.04	0.05	0.423
Past Volunteer Work	0.07	0.05	.190	-0.03	0.05	0.482
Extrinsic Motivation	-0.05	0.01	< .001	0.02	0.01	0.163
Predictors						
Past Service-Learning Experience	-0.01	0.05	.893	-0.02	0.05	0.643
Sense of Purpose	0.03	0.02	.111	-0.07	0.02	< .001
Searching for Purpose	0.02	0.02	.270	-0.003	0.02	0.853
Intrinsic Motivation	0.41	0.02	< .001	-0.07	0.02	0.001
Helping Identity	0.10	0.02	< .001	0.02	0.02	0.371

(MCMAM), a parametric bootstrap procedure, was used to test the indirect effects (Selig & Preacher, 2008).

Positive emotions. Intrinsic motivation fully mediates, and helping identity partially mediates, the effect of prior service-learning on positive emotions. Intrinsic motivation partially mediated both sense of purpose and searching for purpose on positive emotion, as did helping identity to a lesser degree. In sum, these tests provide evidence that the relationships between past service-learning experience, purpose, and expectations for positive emotions are explained by an increase in intrinsic motivation and a helping identity.

When controlling for intrinsic motivation and helping identity, there was no longer a statistically significant effect of past service-learning on expectation for positive emotions in upcoming service-learning ($b = 0.006$, $SE = 0.05$, $p = .893$, $CI = [-0.10, 0.09]$), providing evidence of complete mediation. Using MCMAM, the indirect effect of past service-learning on expected positive emotions through intrinsic motivation was found to be statistically significant ($indirect = 0.17$, $CI = [0.10, 0.23]$, $\%mediated = 100$), as well as the indirect effect through helping identity ($indirect = 0.02$, $CI = [0.004, 0.04]$, $\%mediated = 14$).

The effects of sense of purpose and searching for purpose on expected positive emotions were no longer statistically significant when controlling for intrinsic motivation and helping identity (respectively, $b = 0.03$, $SE = 0.02$, $p = .111$, $CI = [-0.01, 0.07]$, and $b = 0.02$, $SE = 0.02$, $p = .270$, $CI = [-0.01, 0.05]$). The indirect effect of sense of purpose on expected positive emotions through intrinsic motivation was statistically significant using the MCMAM ($indirect = 0.10$, $CI = [0.07, 0.13]$, $\%mediated = 64$) as was the indirect effect of searching for purpose through

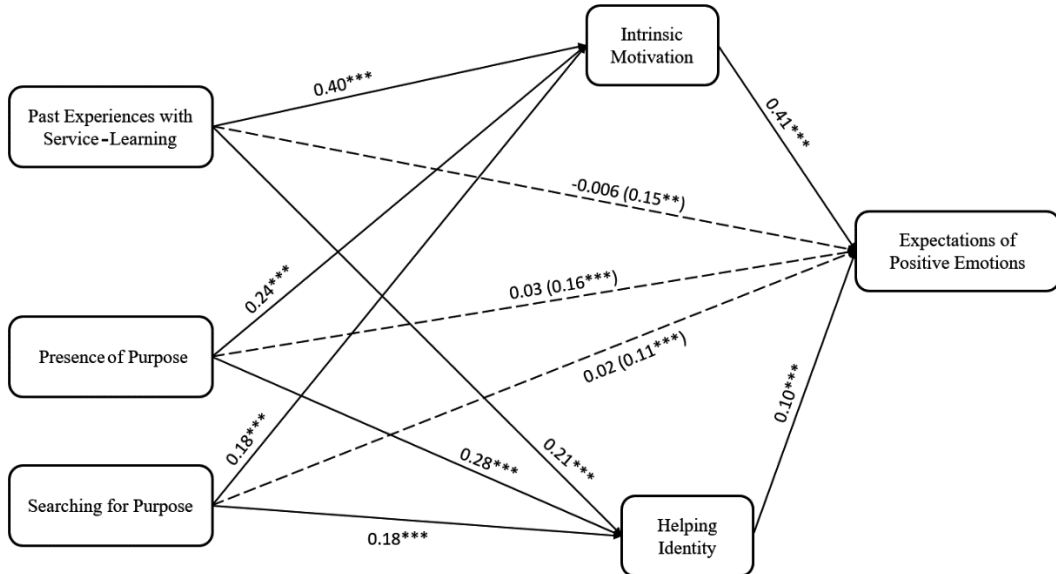
intrinsic motivation ($indirect = 0.08$, $CI = [0.05, 0.10]$, $\%mediated = 67$). The indirect effect of sense of purpose through helping identity was also significant ($indirect = 0.03$, $CI = [0.02, 0.04]$, $\%mediated = 18$) as was the indirect effect of searching through helping identity ($indirect = 0.02$, $CI = [0.01, 0.03]$, $\%mediated = 16$).

Negative emotions. Only sense of purpose had a statistically significant negative total effect on expectations for negative emotions, and intrinsic motivation was the only mediator with a significant effect. Thus, only a test of the indirect effects of sense of purpose on negative emotions through intrinsic motivation was performed. Intrinsic motivation partially mediated the relationship between sense of purpose and expectation of negative emotions such that sense of purpose was related to higher intrinsic motivation, which was related to lower chance of expecting negative emotions in one's service work.

Specifically, in the model testing direct effects (see the last column of table 3) intrinsic motivation is related to significantly reduced negative emotions ($b = -0.07$, $SE = 0.02$, $p = .001$, $CI = [-0.12, -0.03]$), but helping identity had no significant effects ($b = 0.02$, $SE = 0.02$, $p = .371$, $CI = [-0.02, 0.06]$).

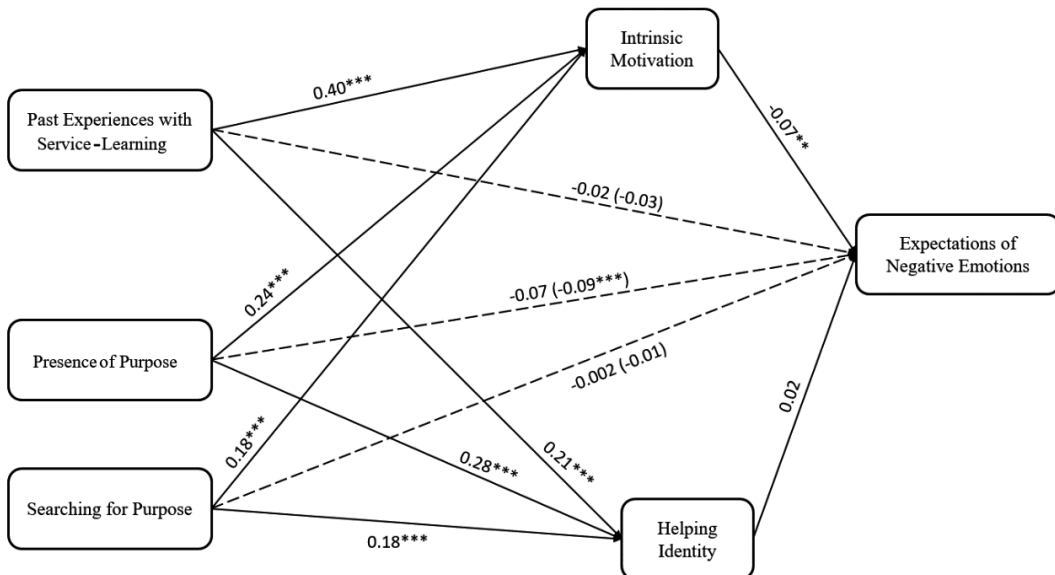
When controlling for intrinsic motivation and helping identity, sense of purpose retained a statistically significant direct effect on negative emotions. Thus, a sense of purpose was related to lower expectations of negative emotions above the effects of intrinsic motivation and helping identity. Although there was a direct effect of sense of purpose, there was a significant indirect, negative effect of sense of purpose through intrinsic motivation with lower negative emotions ($indirect = -0.02$, $CI = [-0.03, -0.01]$, $\%mediated = 21$).

FIGURE 1A. This figure depicts the mediation model tested for expectations of positive emotions



Total effects in parentheses: * $p < .05$; ** $p < .01$; *** $p < .001$.

FIGURE 1B. This figure depicts the mediation model tested for expectations of negative emotions



Total effects in parentheses: * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

This multilevel analysis of survey data from students at the start of service-learning courses in two US universities suggests that considering students' life purpose before engaging in community service may help teachers better understand the emotional and motivational frames that students bring into their service work.

Our first and second hypotheses that sense of purpose and searching for purpose would be positively related to expected positive emotions toward service was mostly supported. Sense of purpose showed a moderate rather than a strong correlation. Searching for purpose showed an almost-as-high correlation with expected positive emotions as sense of purpose showed, which supports prior researchers' assertions that service-learning may provide a structured environment for exploring possible ways for students to positively contribute (e.g., Malin *et al.*, 2014).

In addition, sense of purpose buffered against expected negative emotions similarly to how past studies found sense of purpose buffers against other negative outcomes (e.g., Malin *et al.*, 2017; Miller, 1997). This buffering seemed to come from sense of purpose supporting intrinsic motivation, which then protected students from considering negative emotions (Burrow & Hill, 2011). Yet, despite the impact of these more proximal influences on expected emotions toward service work, sense of purpose, as a long-term meaningful aim, also *directly* related to lower expectations for negative emotions.

Our third hypothesis was also supported: life purpose's effect on anticipated emotions toward service was partially mediated by the more proximal variables of having a helping identity and intrinsic motivation to serve. Intrinsic motivation was the stronger mediator, but helping identity also reduced the influence of purpose. Furthermore, the effect of prior service experience was fully mediated by intrinsic motivation, suggesting that experience contributes to

enjoyment and recognition that the work is important, which then can influence anticipation of enjoying similar work in the future, corroborating past research (e.g., Soria & Thomas-Card, 2014; Stukas *et al.*, 1999). Identifying as a helping person was much weaker as a mediator for both sense of purpose and searching for purpose on expected positive emotions.

There were also unhypothesized findings that nevertheless related to past research. University context mattered to extrinsic motivation, intrinsic motivation, and expected negative emotions, in alignment with past findings (Rockenbach *et al.*, 2014). But this finding likely resulted from the experiential learning courses that were recruited at the public but not the private university. Prior service experience related to helping identity and intrinsic motivation to serve but did not correlate with purpose, which perhaps supports the idea that prior experience is carried forward through habit rather than purposeful intention (Wood *et al.*, 2002). These unhypothesized findings require further investigation.

Limitations and further research. Despite this study linking purpose and service through emotional experience, we note some limitations. Other mediators should be considered, such as prosocial orientation (Hill *et al.*, 2010). A study with less variability in types of service work might test possible moderators of purpose's effect on anticipated emotions during service, such as student's level of commitment to their purpose, self-efficacy to serve, and alignment of the purpose's specific aim with the specific tasks of the service work.

Although mediation analyses can suggest how one predictor's influence might be absorbed by another more proximal variable to the outcome variable, this study's correlational design cannot address actual causality. Longitudinal research that perhaps incorporates daily diaries of purpose salience, emotions, and motivations related to serving others may clarify the relationships introduced in this study.

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Resumen

¿Cómo se relaciona el sentido de los propósitos de la vida de los estudiantes universitarios de EE. UU. con sus expectativas emocionales de ser voluntario en la comunidad como parte de un curso de aprendizaje-servicio?

INTRODUCCIÓN. Pocos estudios consideran cómo el propósito de la vida predice las emociones relacionadas con el aprendizaje-servicio universitario, aunque el propósito, una "brújula" para encontrar oportunidades para realizar contribuciones prosociales significativas, debe motivar a los estudiantes a prestar servicio. **MÉTODO.** La ecuación estructural multinivel modela los efectos directos e indirectos de las respuestas de la encuesta con respecto a la experiencia pasada de servicio de los estudiantes, el sentido y la búsqueda del propósito en sus expectativas emocionales de aprendizaje-servicio antes de comenzar. **RESULTADOS.** Controlando la edad, el género, la motivación extrínseca y las características de las universidades y de los cursos, la experiencia pasada de servicio de los estudiantes y dos variables de propósito se relacionaron de manera positiva con las emociones positivas esperadas hacia el trabajo de servicio, mediadas a través de la identidad de ayuda de los estudiantes y la motivación intrínseca para servir. Solo el sentido de propósito se asoció con una mayor motivación intrínseca, que se asoció con una menor cantidad de emociones negativas esperadas. **DISCUSIÓN.** Tener en cuenta el propósito de la vida de los estudiantes puede estimular la motivación intrínseca y los esquemas de ser una persona que ayuda, lo que podría contribuir a crear emociones positivas hacia el servicio comunitario incluso antes de que comience el trabajo de servicio.

Palabras clave: *Propósito de vida de los adolescentes, Aprendizaje-servicio, Educación postsecundaria, Comportamiento prosocial.*

Résumé

Quel rapport chez les étudiants américains entre leur sens de la vie et leurs attentes émotionnelles en tant que bénévoles pour la communauté dans le cadre d'un cours d'apprentissage par le service?

INTRODUCTION. Peu d'études examinent comment l'objectif de la vie prédit les émotions liées au service communautaire dans les cours des collèges, même si un objectif de la vie, une "boussole" permettant de trouver des occasions de faire des contributions prosociales significatives, devrait motiver les étudiants à s'engager dans des activités de service. **MÉTHODE.** La modélisation multiniveau par équation structurelle a permis d'estimer les effets directs et indirects des réponses à l'enquête sur l'expérience passée des étudiants en service, leur sens de la vie et leur quête d'un but dans la vie et leurs attentes émotionnelles d'apprentissage par le service avant d'en avoir eu l'expérience. **RÉSULTATS.** Tout en tenant compte de l'âge, du sexe, de la motivation extrinsèque et des caractéristiques des universités et des cours, le résultat est que l'expérience de service passée des étudiants et deux variables qui mesurent le but de la vie ont une relation positive avec les émotions positives que les étudiants s'attendent à ressentir pendant l'activité de service. Le sentiment de motivation apparaît comme associé à une motivation intrinsèque plus élevée, et une motivation intrinsèque plus élevée apparaît comme associée à des émotions négatives moins attendues. **DISCUSSION.** Considérer le but de la vie des étudiants pourrait stimuler la motivation

intrinsèque et l'identification en tant que personne qui aide les autres, ce qui pourrait aider à créer des sentiments positifs sur le service communautaire avant même que le travail de service ne commence.

Mots-clés: *But de la vie chez les adolescents, Apprentissage par le service, Etudes postsecondaires, Comportement prosocial.*

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