


Altruism and Existential Well-Being

Juan Xi¹  · Matthew Lee¹ · William LeSuer¹ ·
Peter Barr¹ · Katherine Newton¹ ·
Margaret Poloma¹

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Abstract Recent empirical research has established that a strong purpose in life, what has been called existential well-being, has important implications in many health and behavioral outcomes. However, what factors contribute to a strong purpose in life, and the role of altruistic values and behaviors specifically, has not been well-studied. A body of literature has emphasized having a strong sense of a common bond with all humanity as the “heart” of altruism. Does a strong sense of a common bond lead to a strong purpose in life? If it does, will it do so directly or through altruistic values and behaviors generated by it? Using a national survey of 1207 US adults, this study aims to investigate links between the sense of a common bond, altruism, and existential wellbeing. We elaborate altruism into four levels of extensity, depending on whether it is directed towards family, friends, the local community, or the entire world. Results from structural equation modeling indicated that altruism at different levels of extensity accounted for over half of the variation in existential well-being. Altruistic acts and

✉ Juan Xi
jx@uakron.edu

Matthew Lee
mlee2@uakron.edu

William LeSuer
wml6@ziips.uakron.edu

Peter Barr
pbb319@gmail.com

Katherine Newton
kln34@ziips.uakron.edu

Margaret Poloma
mpoloma@uakron.edu

¹ Department of Sociology, University of Akron, Akron, OH 44325-1905, USA

values that extended beyond family, friends, and local community offered greater benefits for existential well-being than those focusing on the “near and dear”. We also found that the sense of a common bond underlay altruism at all levels of extensity. However, this bond mattered to existential well-being only when it was realized in altruistic attitudes and acts, especially ones toward the whole world.

Keywords Meaning and purpose in life · Altruism · Well-Being

Introduction

Altruism, or helping others without expectation of material reward, is a core ingredient of a healthy, happy, and satisfying life (Lee et al. 2013; Post 2011; Post and Niemark 2007). Yet few studies have explored how altruism might impact an individual’s sense of meaning and purpose or what has been called *existential well-being* (Poloma and Pendleton 1990; Ryff 2014). This study based on a national survey of 1207 respondents addresses this research gap. Using structural equation modeling, we examine the direct and indirect effects of what has been referred to as the “heart” of altruism (Monroe 1996) – having a strong sense of a common bond with all humanity – on meaning and purpose in life. We also examine the effects of different levels of altruistic extensity (Sorokin 1954/2002) on existential well-being, while controlling for demographics, Christian affiliation, and the importance of spirituality. We disaggregate altruism into four extensity types (family, friend, community, and world) in order to see whether altruistic acts and values that extend beyond the “near and dear” offer additional benefits for existential well-being (Neusner and Chilton 2005; Sorokin 1954/2002).

The Heart of Altruism

The vast interdisciplinary literature on altruism employs diverse definitions of values, behaviors, and traits that are considered altruistic (Batson and Powell 2003; Oord 2008, 2010; Unger 1991). Behaviors range from the more mundane acts of everyday compassion, such as giving a small amount of money to charity, to a life thoroughly devoted to service to others. In this study, we define altruism as the attempt to benefit another without regard for personal material gain (fame, money, favor). Thus altruistic values support and are consistent with benevolent behavior (Lee et al. 2014).

We do not mean to imply that altruists share a common stance on particular economic or social issues. According to Kristen Renwick Monroe (1996), the financial and religious backgrounds of altruists vary greatly, as do their views on issues such as welfare, civil rights, and morality. Altruists do, however, share a certain cultural orientation, a way of looking at the world: “where the rest of us see a stranger, altruists see a fellow human being” (Monroe 1996: n.p., from the book description). Many people rely on this altruistic worldview to make sense of their world and give meaning to self-sacrificing behavior (Monroe 1996; Lee et al. 2013). This is evident in another study conducted by Monroe about people who risked their lives during WWII to rescue Jews from Nazi persecution. She found that “identity and perspective trump choice” (Monroe 2004:xii-xiii). In other words, many rescuers were compelled to act by their

deeply held altruistic perspective. In the words of Otto Springer, a German who saved over one hundred Jews before being sent to a concentration camp himself, “The hand of compassion was faster than the calculus of reason” (Monroe 2004:91).

Altruists like Otto Springer have a unique way of looking at the world in which “human connection is the key” (Monroe 2004:265) and “all people are one” (p. 198). Altruists see themselves “as part of all mankind, rather than as members of any particular group or subgroup” (p. 204). This “sense of one’s self in relation to other people” was the “decisive factor” in Monroe’s study that distinguished altruists from ordinary self-interested people (p. 260). In other words, when compared to most people altruists have reduced the social distance (Vela-McConnell 1999) between themselves and other people; in cases like Otto Springer this perceived distance is close to zero. Monroe (1996) identifies this perception of a common bond with all people as the heart of altruism. It is “a different way of seeing things... in which each individual is linked to all others and [is] entitled to a certain humane treatment merely by virtue of being alive” (Monroe 1996:206). Along this line, we define the sense of common bond as a perception, or a belief, that all people share an unbreakable bond of humanity regardless of their situation.

Altruistic Extensity

Although altruism may arguably have a common core, sociologist Pitirim Sorokin (1954/2002) in his pioneering social study of altruism in the 1950s has convincingly demonstrated that it is multidimensional. Although little has been done to further test his thesis, Sorokin’s five dimensional typology of altruistic love (intensity, extensity, duration, purity, and adequacy) remains useful today. Although the other four dimensions of altruistic love are worthy of additional research, this study focuses on the recipients of altruism that tap into a dimension that Sorokin terms *extensity*. At its highest level, extensity expresses an abiding love for all people, regardless of their ascribed or achieved characteristics and without reference to a hierarchy of worth (Post 2003). A person who helps regardless of in-group or out-group status, that is to say with a high level of social affinity for all (Vela-McConnell 1999), would rank high on Sorokin’s continuum of extensity. However, Sorokin (2002/Sorokin 1954:20) recognized that, “There are many persons who profess to love the whole of humanity” but this “rarely goes beyond speech-reactional declarations, and shows little in their deeds.” Similarly, an “inverse relationship between intensity and extensity” may also limit tangible altruism for the near and dear: “the more one loves ‘all people’ the more difficult it may be to maintain intense interpersonal relationships with close family and friends” (Poloma 2004:214).

There are several reasons why we focus on extensity in this paper. First, definitions of purity and adequacy will vary from one group to another: one person’s freedom-fighter serving a noble purpose is another’s terrorist driven by impure motives. We did capture intensity in our measures of altruism by asking respondents about the strength of their agreement with statements related to altruism. But our focus on extensity, instead of the other dimensions, is theoretically and substantively important, because when we make distinctions between ourselves and others who are different in some way, there is a tendency to create a hierarchical order in which some are less deserving

of our altruism and possibly even a threat to our way of life. As Pitirim Sorokin (2002/Sorokin 1954:459) argued:

...in-group altruism tends to generate an out-group antagonism. And the more intense and exclusive the in-group solidarity of its members, the more unavoidable are the clashes between the group and the rest of humanity. Herein lies the tragedy of tribal altruism not extended over the whole of mankind....

History is replete with the disastrous consequences of this process and practical applications of research on extensity have the potential to address such problems. If we better understood how the sense of a common bond with all humanity contributed both to extensive altruism *and* to existential well-being, we could begin to devise strategies for cultural change that incorporate these two important building blocks of a more altruistic and inclusive society.

Our paper will have made an important contribution if we are able to demonstrate that a high level of extensity is compatible with a high level of existential well-being and not necessarily incompatible with intense caring for the near and dear. In other words, neither the inverse relationship between intensity and extensity, nor the tragedy of tribal altruism, are inevitable. In order to explore this possibility, we build on preliminary research which separated altruism into four types, depending on whether it is directed towards family, friends, the local community, or the entire world (Lee et al. 2013). We pursue this strategy partly because the “heart of altruism” should be most closely related to the widest possible extensity, but also because the different levels of extensity may have specific implications for well-being, especially existential well-being.

Altruism, Common Bond, and Existential Well-Being

Although altruistic actors may not seek returns for their behavior, altruistic attitudes and behaviors are eventually rewarding to the actors themselves. For example, a longitudinal study on elderly population has established that volunteering, informal helping behavior and altruistic attitudes make unique contributions to the maintenance of psychological well-being including life satisfaction and positive affects (Kahana et al. 2013). Other studies focusing on teens (Schwartz et al. 2009) and university students (Gulacti 2014) found similar effects of altruism on psychological well-being.

In the literature concerning general well-being, quality of life, or mental health, existential well-being has been recognized as an indispensable dimension of subjective well-being (Ai et al. 2012; Ryff 2014). For many researchers, the center of existential well-being is having a strong purpose or meaning in life. Tracing back to Aristotle’s thoughts on virtue and wisdom which is believed to be a higher human good above health, wealth, and even a happy mood (Aristotle 1962) this group of scholars argue that existential well-being is a higher level of well-being than merely living well (Ai et al. 2012, Rogers 1963; Ryff 1989). It links to the “activities of the soul” that strive to achieve the best that is within us (Ryff 2014:11) and involves ultimate purposes in life which give meaning to daily activities and life experiences.

Recent empirical research has established that this higher level of well-being has important implications in many health and behavioral outcomes. For example, existential

well-being has been found to be a protective factor against stroke (Kim et al. 2013a; b), myocardial infarction (Kim et al. 2013a, 2013b), drug abuse (Lamis et al. 2014), suicidal ideation (Taliaferro et al. 2009), eating disorders (Fox and Leung 2009; Watkins et al. 2006), and depression (Lee et al. 2014; Mela et al. 2008), to name just a few. It has also been found to be associated with self-esteem (Yakushko 2005), life satisfaction (Yakushko 2005), physical activity and health (Dreyer and Dreyer 2012; George Dalmida et al. 2011), social functioning (Reinhoudt 2005), and prolonged life expectancy (Steptoe et al. 2015).

While literature has documented a positive association between altruism and general well-being, the relationship between altruism and existential well-being specifically is not well studied. Furthermore, when altruism is separated into four levels of extensity, depending on whether it is directed towards family, friends, the local community, or the entire world, their link to existential well-being is unknown.

The reason we suspect that altruism has a special contribution to existential well-being lies in the heart of it, the sense of an unbreakable bond shared by all mankind. The sense of a common bond enables individuals to sacrifice themselves for the benefit of others. When a stranger is perceived as a fellow human being, helping him or her even at the cost of personal interests is justified by the mere relatedness of humanity. This sense of shared bond is similar to the concept of “positive relatedness” proposed by Ai and colleagues (2012:18), which is “a sense of deep interconnectedness or deep connections, defined as a profound relationship with a significant entity or context in life that primarily bestows grand purpose and meaning, be it religious or secular.” Put differently, the sense of a common bond, which enables individuals to transcend a life pursuing self-interest, leads to higher meanings in life. Therefore, we suspect that a sense of a shared bond would directly link to the purpose or meaning in life and thus enhance existential well-being. On the other hand, empirical studies have found evidence that helping others provide individuals with a way to find higher meanings in their life (Lee et al. 2013). If the sense of a common bond is underlying altruism and gives rise to altruistic acts, it should not only directly enhance existential well-being, but also contribute to it indirectly through altruistic behaviors enabled by it. To the best of our knowledge, few empirical studies have looked into the role of a sense of a common bond in understanding existential well-being.

Little research attention has been paid to the effects of different extensity of altruism on existential well-being. Do those who primarily help their family experience lower well-being compared with those who enlarge their circle of care? We usually love those who love us. We experience minimal hesitation or quandary in helping people who help us in our daily life and with whom we have blood ties (Simmons et al. 1977). If helping strangers requires special justifications for generally self-centered human beings, it might involve more meaning making and producing processes. As a result, helping strangers might benefit existential well-being to a higher degree than helping family or friends. The common bond or relatedness of all humanity as a meaning-generating mechanism might have the strongest effect on existential well-being through the broadest helping behavior or altruistic orientation. The existing literature does not provide empirical data on such relationships.

Hypotheses

In this study we attempt to answer the following research questions: how does altruism at different levels of extensity affect existential well-being? Does a strong sense of a

common bond lead to a strong purpose in life? If it does, will it do so directly or through altruistic values and behaviors generated by it? Specifically, we test the following hypotheses: The sense of an unbreakable bond among all humans has a direct effect on existential well-being. It also contributes to existential well-being through its influence on altruistic attitudes and behaviors, measured at different levels of extensity. The indirect link between the sense of a common bond and existential well-being vary across the extensity categories of altruism. The broader the extensity, the stronger the indirect effects.

Methods

Data

Data used for this study came from a national telephone survey conducted in the fall of 2009 in the United States. Data were collected from a random sample of 1207 adults with a response rate of 36 %. Previous studies on existential well-being have often relied on special samples which only included a small segment of a general population, such as the elderly, patients going through major surgeries, or patients with specific disorders or conditions. Purpose in life and altruism should be relevant to all humans rather than a subset of them. Our data provide us with a great opportunity to examine these concepts among the general adults population of the United States. Along with being nationally representative, the sample size is large enough for estimating complex relationships among our key concepts.

Our sample is 48 % men and 80 % white. The sample mean age is 49 with a range of 18 to 92. Twenty-five percent of the sample are below 40 and 22 % are 65 or above. Seventy-eight percent of the respondents identify themselves as Christian. The typical respondents have some college education and make \$36,000-\$53,999 annually. Our sample profile is similar to those of Pew studies on similar topics of US adult population (Pew Forum on Religion and Public Life 2008).

Measures

Existential Well-Being (EWB) Was measured by 2 questions asking respondents whether or not they have a strong sense of purpose that directs their life (mepurpos) and whether or not they believe their life matters to others (mematter) (see Appendix 1 for the wording of the 2 items). We used internal reliability coefficients (Acock 2013) to assess the reliability of the latent factor measured by the 2 items. The internal reliability for EWB was .71 (Table 1). The coefficients were calculated based on unstandardized factor loadings (λ_i), error variances ($\text{Var}(\varepsilon_{ii})$) and covariances ($\text{Cov}(\varepsilon_{ij})$ when applicable) estimated by a confirmatory factor analysis (CFA) model, using the equation:

$$\rho = \frac{\left(\sum \lambda_i\right)^2}{\left(\sum \lambda_i\right)^2 + \sum \text{Var}(\varepsilon_{ii}) + 2\sum \text{Cov}(\varepsilon_{ij})}$$

Where $i, j = 1, 2, \dots$, total number of indicators. We prefer this reliability coefficient to Cronbach's alpha mainly because Cronbach's alpha assumes that all indicators of the underlying construct equally contribute to it, and the standardized factor loadings from our CFA rendered little support to this assumption. Comparing the two standardized loadings reported in Table 1, it seemed that purpose of life was a stronger indicator for *EWB*.

Altruism consisted of 4 latent variables corresponding to the four levels of extensity from family (*Fam*), friends (*Frd*), the local community (*Com*), and the entire world (*World*) (Lee et al. 2013). A total of 9 items were used to measure these 4 dimensions of altruism (see Appendix 1 for the wording of all 9 items). These 9 items included both altruistic values and behaviors at different levels of extensity as the literature has documented that they both are important predictors of well-being (Kahana et al. 2013; Midlarsky and Midlarsky 2004). We evaluated content and discriminant validity as well as reliability of the four factors. All factor loadings were strong and statistically significant indicating content validity. The highest correlation among the four extensity factors of altruism was .68 (between family and friends). Further likelihood ratio tests indicated divergent validity for the four factors of altruism. As indicated in Table 1, the

Table 1 Descriptive statistics for indicators and summary scale for ew and dimensions of altruism ($n = 1207$)

Variable	Mean ^a	SD ^a	Min ^a	Max ^a	Reliability ^b	Stand. factor loading ^b	Valid N
Existential Well-being	3.15	0.51	1	4	0.71	-	1168
Life matters to others	3.23	0.62	1	4	-	0.55	1199
Strong sense of purpose	3.26	0.63	1	4	-	0.78	1200
Altruism Factors							
Family	3.51	0.50	1	4	0.76	-	1198
Help loved ones	3.55	0.54	1	4	-	0.83	1205
Kindness toward upset family member	3.48	0.57	1	4	-	0.74	1198
Friends	3.38	0.49	1	4	0.74	-	1205
Enjoy doing favors	3.37	0.55	1	4	-	0.76	1206
Helpful to friends, neighbors, co-workers	3.39	0.56	1	4	-	0.77	1206
Community	2.87	0.56	1	4	0.63	-	1188
Help stranger in need	2.87	0.67	1	4	-	0.64	1197
Assist struggling people in community	2.87	0.65	1	4	-	0.70	1197
World	3.12	0.52	1	4	0.70	-	1190
Leave world better place	3.40	0.60	1	4	-	0.67	1198
Desire to help humanity	3.16	0.60	1	4	-	0.76	1203
Support causes around world	2.80	0.76	1	4	-	0.57	1200
Shared bond with all of humanity	2.99	0.74	1	4	-	-	1196

^a Statistics in these 4 columns were based on observed sample data. For existential well-being and dimensions of altruism, these statistics were calculated from scales created by averaging over observed values of corresponding items

^b Statistics reported in these columns were produced by a confirmatory factor analysis

internal reliability coefficients for the four factors were acceptable. They were higher or around .7, while the lowest was for community (.63).

The sense of a common bond with all humanity (*Comonbond*) is measured by a single question asking respondents whether they “Strongly agree” (coded 4), “Agree” (3), “Disagree” (2), or “Strongly disagree” (1) with the statement “I believe that all people share an unbreakable bond of humanity regardless of their situation.” Although more sophisticated measures of this construct are now available (see McFarland, Webb, and Brown 2012), when our survey was conducted in 2009 we relied on a single item that measures the *belief* in a common bond, rather than a feeling, value, attitude, social identity, or some combination of these items (see also Monroe 1996, 2004).¹

In order to eliminate possible confounding effects, we included controls for demographic and religious variables. All descriptive statistics for control variables are presented in Table 2. The demographic variables included four dichotomized variables, including gender (men coded as 1), current marital status (married coded as 1), race (Whites coded as 1), and children under 18 living at home (children present coded as 1). Controls also included age at time of survey (mean = 49.45, SD = 16.28), annual income measured in categories (under \$18 k, \$18,000-\$35,999, \$36,000-\$53,999, \$54,000-\$71,999, and over \$72 k) and educational attainment (grade school, some high school, HS graduate, some college, college graduate, post-graduate). Religious variables included a dichotomized variable where self-identified Christians (Protestants, Roman Catholics, Mormons, and Russian or Greek Orthodox) were coded as 1 and all others were coded as 0. Because the literature has documented a positive association between spirituality and existential well-being, we controlled for importance of spirituality (*impspirt*) which was measured on a 5-point Likert scale. Respondents were asked, “how important is spirituality in your life?” with response choices ranging from 1 (not at all important) to 5 (extremely important).

Analytic Strategy

We used Stata 13.1 to estimate our measurement and structural models. We prefer structural equation modeling to test our hypotheses because it allowed us to account for measurement errors while estimating parameters under interest. We could also evaluate the overall model fit for equations simultaneously estimated in the model, which is not available with regular regression analysis.

Although each individual variable had a low level of missing values, if we apply listwise deletion in the final model, 169 cases (14 %) would be deleted due to their missing values on one or more variables. The partially available information of these deleted observations would be wasted. We estimated our model using maximum likelihood with missing values (Acock 2013) which uses all available information in

¹ It is possible that our results might be different if we had used a scale that incorporated these types of items. The most we can say is that it is at least plausible that a belief in a common bond would support the feeling that one is connected with others, as well as an identity that defines self in terms of connection to others. Our single-item measure was inspired by Monroe’s (1996, 2004) nuanced qualitative research and we hope to use a broader range of measures in future work, such as the Identification With All Humanity Scale (McFarland, Webb, and Brown 2012).

Table 2 Descriptive statistics for control variables ($n = 1207$)

Variable	Mean/Percentage	SD	Min	Max	Valid N
Age	49.46	16.38	18	90	1201
Male	0.48	0.50	0	1	1207
White	0.80	0.40	0	1	1189
Education	4.15	1.19	1	6	1204
<i>Grade school (1 to 6 years)</i>	2.3 %	-	-	-	28
<i>Some high school (9 to 11 years)</i>	5.1 %	-	-	-	61
<i>High school graduate</i>	20.9 %	-	-	-	252
<i>Some college, trade school, 2-yr. degree</i>	33.2 %	-	-	-	400
<i>College graduate</i>	23.9 %	-	-	-	288
<i>Post graduate</i>	14.5 %	-	-	-	175
Currently married	0.62	0.49	0	1	1203
Kids under 18 living at home	0.37	0.48	0	1	1205
Income	3.42	1.48	1	5	1104
<i>Under \$18,000</i>	13.7 %	-	-	-	151
<i>\$18,000 - \$35,999</i>	19.3 %	-	-	-	213
<i>\$36,000 - \$53,999</i>	15.4 %	-	-	-	170
<i>\$54,000 - \$71,999</i>	14.4 %	-	-	-	159
<i>\$72,000 or more</i>	37.2 %	-	-	-	411
Christian	0.78	0.42	0	1	1202
Importance of spirituality	3.85	1.14	1	5	1202
<i>Not at all important</i>	5.3 %	-	-	-	64
<i>Not very important</i>	7.1 %	-	-	-	85
<i>Somewhat important</i>	19.8 %	-	-	-	238
<i>Very important</i>	32.6 %	-	-	-	392
<i>Extremely important</i>	35.2 %	-	-	-	423

all observations and considers the likelihood of missing when the overall likelihood function is constructed. Although we could not test the missing at random (MAR) assumption associated with this method, the model did consider many demographic and religion/spiritual variables to make the MAR assumption more plausible. We compared our results with the ones from using list-wise deletion, and found no noticeable difference.

Before estimating the theoretical model, we used a confirmatory factor analysis (CFA) to evaluate the measurement model for altruism and existential wellbeing. The purpose was to evaluate the validity and reliability of each latent construct. The full theoretical model can be seen in Fig. 1. The path from *Comonbond* to *EWB* represents the hypothesized direct effect of the sense of a common bond on existential well-being. The paths linking *Comonbond* and *EWB* through the four levels of extensity of altruism represent the hypothesized indirect effects of the sense of a common bond. The same set of demographic, spiritual, and religion variables were controlled for in the equation for existential well-being and those for four dimensions of altruism.

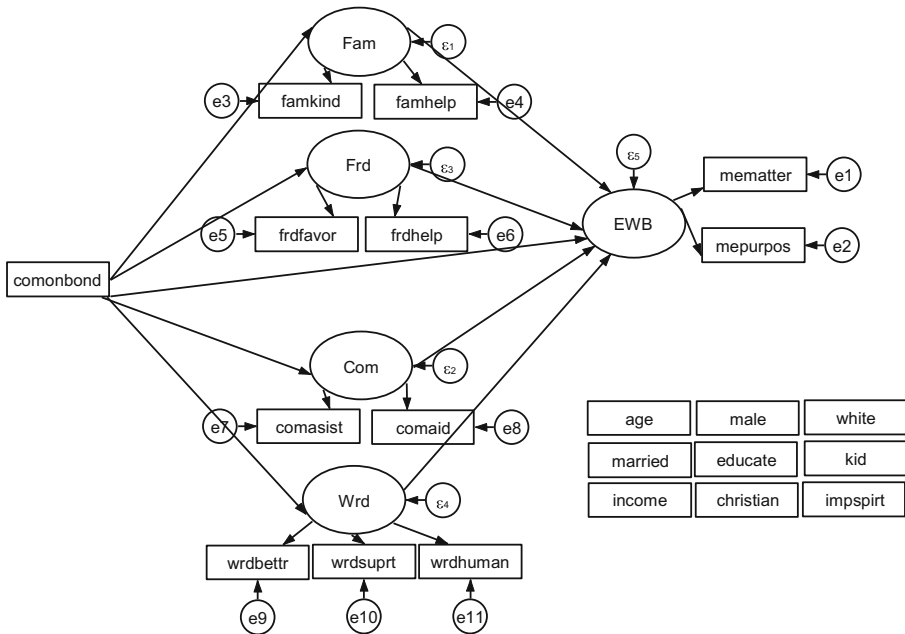


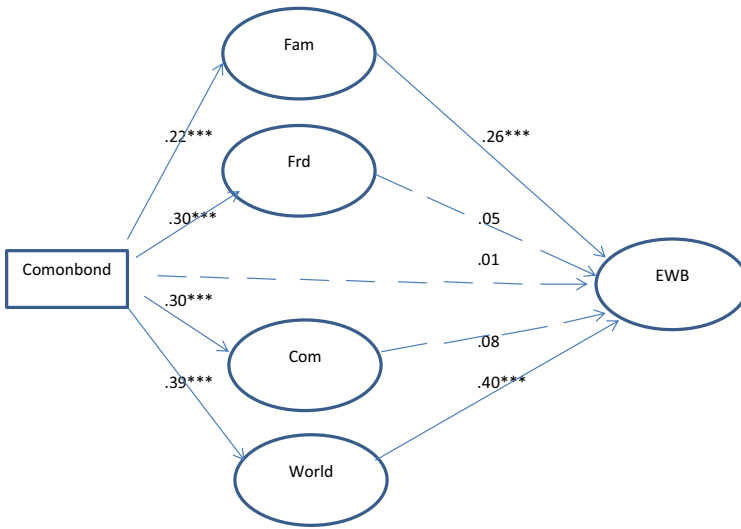
Fig. 1 The theoretical model

Results

Table 1 reported descriptive statistics for key dependent and independent variables in the analysis. The summary *EWB* scale created by adding the scores of the two contributing items indicated good existential well-being of the sample. The means for *purpose in life* and *life matters to others* were both toward the higher end of the ordinal scale. Comparing four levels of extensity of altruism, respondents scored highest on family scale, but lowest on community scale.

To test our hypotheses, the estimated structural equation model was reported in Fig. 2. Due to the large number of control variables and their involvement in all structural equations, we did not display paths started from them. We reported their effects separately in Table 3. Although not displayed in Fig. 2, we allowed the disturbances for the four dimensions of altruism to be correlated because there might be other shared mechanisms besides the sense of a common bond and control variables that would influence altruistic behaviors at different extensity. To facilitate future studies replicating our analysis, we reported a correlation matrix for the observed variables used in this study in Appendix Table 4 and their means and standard deviations can be found in Tables 1 and 2.

We used a number of fit measures to assess the goodness-of-fit of the model which were reported at the bottom of Fig. 2. The Chi-square test statistic was significant which meant that our model did not fit as good as a saturated model, or an inadequate fit. However, since the Chi-square test statistic is known to be sensitive to sample size and model complexity (Bollen and Curran 2006), we gave more weight to other fit measures which predominantly



Note: Numbers are standardized path coefficients. Statistically significant paths are indicated by solid arrow headed lines. Dashed lines represent non-significant paths. All structural equations have controlled for age, male, white, married, kid, education, income, Christian, and importance of spirituality. Disturbances for altruism factors are allowed to co-vary. For this model: n=1207; Chi-square=218.27, df=94, p<.001; RMSE=.033, 90%CI for RMSEA:(.027, .039); CFI=.97; TLI=.95; BIC=-448. R-sq for EWB=.60. R-sq for Fam=.16. R-sq for Frd=.16. R-sq for Com=.18. R-sq for World=.25.

Fig. 2 Path diagram of the relationships among shared bond (Comonbond), dimensions of altruism, and existential well-being (EWB)

Table 3 Standardized path coefficients for control variables on altruism extensity factors and existential well-being

	EWB	Altruism Extensity			
		Family	Friend	Community	World
Age	-0.01	-0.07	-0.08 *	0.01	-0.06
Male	0.05	-0.16 ***	-0.09 **	0.01	-0.11 ***
White	-0.01	0.13 ***	0.05	-0.13 **	-0.03
Education	0.01	0.08 *	0.01	-0.02	0.07 *
Currently married	0.04	0.06	0.02	0.06	0.02
Kids under 18 living at home	0.07 *	0.04	-0.15	0.03	-0.05
Income	0.01	0.11 *	0.12 **	-0.03	0.00
Christian	0.10 **	-0.03	0.03	-0.01	-0.07 *
Importance of spirituality	0.20 ***	0.14 ***	0.15 ***	0.20 ***	0.20 ***

**p* < .05

***p* < .01

****p* < .001

indicated that the model had a good fit. The Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) were both at or above .95 (.97 and .95, respectively) indicating good fit. The Root Mean-Squared Error of Approximation (RMSEA) was .033, with a narrow 90 % confidence interval of .027 to .039. These numbers indicated good fit. Following Raftery (1995) we calculated the Bayesian Information Criterion (BIC) with the equation $BIC = T_m - df \cdot \ln(n)$, where T_m is the Chi-square test statistic, df is degree of freedom, and n is the sample size. A negative BIC would indicate acceptable fit. The BIC for our model is -448.74 , well below the .00 threshold. Besides fit statistics, we also checked the normalized residual matrix (estimated by regular maximum likelihood method) which did not reveal problems in model fit. In sum, the above evidence suggested that our model was well specified and thus allowed us to assess the hypothesized relationship between the sense of a common bond, altruism with different levels of extensity and the existential well-being.

Numbers marked on Fig. 2 represent the standardized path coefficients. Our results indicated that helping others, near and far, contributed to better existential well-being. In addition, different levels of extensity of altruism had different effects on existential well-being. Consistent with our expectation, the altruistic attitudes and acts toward the highest level of extensity, the whole world, which might involve least potential returns, provided the strongest boost to a person's existential well-being, controlling for other types of altruism, demographic variables, religion and spirituality variables. Helping one's family would also contribute to better existential well-being although to a lesser degree compared with helping around the world. Our hypothesis on differential effects of altruism at different extensity was largely supported. However, helping friends or local community had no significant effect net of other dimensions of altruism and control variables. Results from our CFA analysis showed that bivariate correlations between all extensities of altruism and existential well-being were positive and above .5. Bivariate correlations among levels of extensity of altruism were also positive and statistically significant. (not reported in the tables). It seemed that most of the bivariate associations between existential well-being and altruism towards friends and local community were due to their associations with other factors. But helping at the two ends of the extensity spectrum have substantial implication on existential well-being. Notably, the model explained much of the variation in existential well-being (about 60 %). Results from supplemental analysis indicated that, without control variables, the sense of a shared bond and altruism extensity factors explained 55 % of the variation in existential well-being.

The four levels of altruism, in turn, were influenced by a sense of unbreakable bond of humanity regardless of situation (*Comonbond*). Contrary to our expectation, the path between *Comonbond* and *EWB* was not significant. Our hypothesized direct effect of the sense of a shared bond on existential well-being was not supported. A belief in the common bond itself did not contribute to existential well-being above and beyond altruistic acts and values. In other words, a person who strongly agreed that there was a common bond shared by all humanity, but did not hold any altruistic values or act altruistically, would not have a higher level of existential well-being compared to a similar person who did not believe in such a common bond. It seemed that the sense of a common bond worked mainly through its impacts on altruistic values and

behaviors. Indeed, it was linked to altruism at all four levels of extensity even after controlling for demographic variables, religion, and spirituality. The strongest effect was on altruism toward the whole world and the lowest effect on altruism toward the near and dear. The sense of a shared bond, which Monroe (1996) argued as the heart of altruism, did speak differently to people who travel thousands of miles to help in a disaster area from those who burn themselves out from caring for a disabled parent. This was expected because the major reasons of helping family might not come from the sense of a common bond of all humanity. On the other hand, a strong sense of a common bond would motivate an individual to help strangers suffering at the other corner of the world. With a strong link from *Comonbond* to altruism toward the whole world (.39), and a similarly strong link from altruism toward the whole world to existential well-being (.40), the indirect effect from *Comonbond* to wellbeing via altruism toward the whole world was substantial ($.40 \times .39 = .16$, $p < .001$). As expected, the indirect link between the sense of a common bond and existential well-being varied across the extensity categories of altruism. The indirect effect of *Comonbond* on well-being via the broadest extensity of altruism is stronger than its indirect effects via other levels of extensity. The estimated standardized total effect of the common bond on existential well-being was .26, which was the summation of its indirect effects via all four levels of altruism and its negligible direct effect. About two thirds of the total effect of the common bond on existential well-being worked through its effect on altruism toward the whole world ($0.16/0.26 = 0.62$). These findings indicated that a person who strongly agreed that all people shared a common bond would have a higher level of existential well-being because of the combined effects of her/his altruistic attitudes or behaviors toward family, friends, community, and especially, the whole world.

The effects of demographic variables and the perceived importance of spirituality on altruism factors and existential well-being were reported in Table 3. Having young kids at home seemed to boost existential well-being. Controlling for the altruism factors, shared bond, other demographic variables, and importance of spirituality, being a Christian was associated with higher existential well-being. Consistent with previous findings in the literature, those who consider spirituality as very important in their life had higher levels of existential well-being. This effect was net of demographic background, religious background, and even altruism. In our sensitivity analysis, we added an item about sense of destiny in life to measure existential well-being. This change did not produce noticeably different results.

Turning to altruism, men were less altruistic at almost all levels of extensity compared to women. More education enabled people to be more altruistic for both near and far. Higher income was associated with more altruism towards family and friends but not broader community and world. While enjoying higher levels of existential well-being, there was little evidence that Christians were more altruistic than others. On the other hand, they were less likely to be altruistic toward the broader world after controlling for demographic variables and spirituality. Those who consider spirituality more important in their life were also more likely to help, at all levels of extensity from family to the

whole world. This effect was net of demographic background and religious background. Being a Christian or not, a person who consider spirituality very important in his/her life would be more likely to help. S/he would also benefit from helping others and have higher levels of existential well-being.

Discussion and Conclusions

Throughout the world, various spiritual traditions often seek to answer the question, “How are we going to radiate our love to the whole of humanity, to the whole world?” (Trungpa 1973:117). That sentiment, offered by a Buddhist, was expressed in somewhat different terms by Jesus to his disciples when he said that they should “deny themselves and take up their cross” if they wanted to follow him (*Matthew* 16:24, New International Version). Despite their very different contexts, Trungpa and Jesus shared a commitment to expressing altruism at a high level of extensity. Altruistic acts at this level often serve as an “invitation to discomfort” (Baugher 2014:84) by working to reduce the suffering of others, although they also have the potential to make life more “meaningful and worthwhile” (Lee et al. 2013:67), sometimes called *existential well-being*. However, there are not many empirical investigations on the link between altruism and existential well-being. Using a large national representative sample, this study aimed at investigating the direct and indirect effect of the heart of altruism, the sense of a shared bond of humanity, on existential well-being. It also examined the differential effects of altruism at different levels of extensity on existential well-being. These issues transcend specific cultural contexts and represent universal human concerns. We hope that our findings will generate interest both in the U.S. and abroad.

Results from our analysis indicated that the sense of a shared bond linked to all levels of extensity of altruism with the strongest link at the highest level of extensity: altruism toward the whole world. Altruistic attitudes and behavior, in turn, contributed to existential well-being. Altruism toward the broadest world offered strongest benefits to existential well-being. We also found that the sense of a common bond mattered to existential well-being only when it was realized in altruistic attitudes and acts, especially ones toward the whole world.

As Mencius preached in China two thousand years ago: “Honor and care for the elderly as we do our own aged parents, love and care for other’s young children as our own”(Chan 2002). Or, as Jesus put it, “Love your neighbor as yourself” (Mark 12:31, New International Version). Our findings indicated that ancient wisdom from both East and West on love and helping others make sense in regards to existential well-being. Altruism at different extensities accounted for over half of the variation in existential well-being. To enhance existential well-being, which has been found to have important implications on many health and behavioral outcomes, intervention efforts should focus on altruistic attitudes and behavior. Especially important are programs that facilitate aid and support for populations in need around the world. Programs aiming at increasing altruistic behaviors should consider the sense of a shared bond of all

humanity. The sense of a shared bond enables individuals to help others near and far with the strongest influence on helping around the world.

Our study also found that after controlling for altruism toward family and the world, helpings to friends or communities did not matter that much to existential well-being. In addition to demonstrating that altruism at the widest level of extensity is not necessarily incompatible with caring for the near and dear, these findings are consistent with the broader trends in US society. Robert Putnam (2000) has described a powerful tide characterizing local civic engagement during the first two-thirds of the twentieth century in his best-seller "Bowling Alone." As Putnam (p. 27) summarizes his thesis, "Without at first noticing, we have been pulled apart from one another and our communities over the last third of the [20th] century." The significant drop in active participation in voluntary organizations where "local clubs and organizations of all sorts fell by more than half in the last several decades of the twentieth century" (p. 61) appears to have continued into the twenty-first century. Also worthy of note, active involvement in community organizations has been found to affect volunteer work: "Americans who regularly attend both church and clubs volunteer an average of 17 times per year, ten times as often as those who are involved in neither church nor club, who volunteer on an average 1.7 times per year" (p. 119). Lower involvement in community organizations may help us understand our findings, which reflect Putnam's description of the move of Americans toward "bowling alone." Community relations, as a factor in existential well-being, play a much less significant role than the "family" and "world" levels.

While this study provided insightful revelations about the relationship between altruism and existential well-being, it is not without limitations. First, our instrument did not consistently cover the same aspects of altruism across all levels of extensity. As a result, indicators for altruism towards family and community mainly focused on behaviors, items for altruism toward friends were mainly about values and attitudes, and items for altruism toward the whole world were a mix of behavior, value, and motivation.² Therefore, although we have found that altruism at different levels of extensity have different impacts on existential well-being, we could not say for sure that the detected differences were due to the levels of extensity rather than due to the differential effects of values and behaviors. Unfortunately, there is not much previous research that we can draw upon to evaluate how different the effects of altruism values and behaviors on existential well-being are from each other. One hint we might be able to use was that although indicators for altruism towards family and community all focused on behaviors, the "family" construct

² There was a motivation item used in measuring altruism toward the whole world. Because none of other extensity constructs had a motivation item, we conducted additional sensitivity analysis on this item. Specifically, we deleted this item from the analysis and compared results with the reported ones. The path coefficients reported in Fig. 2 were barely changed. The full model without the item still had a good fit to the data. The only difference we have noticed was that the reliability for the factor "World" dropped to .57, which meant the internal consistency among the items for "World" was not as high after we deleted the motivation item. Because the item did not change the main results, but including it improved the internal consistency of the construct "World", we kept it in the analysis.

had a strong and significant effect on existential well-being and the “community” construct had not. Therefore, at least we can conclude that altruism towards family played a more important role than altruism towards community with respect to existential well-being. Secondly, with cross-sectional observational data, we were limited in testing causal relationships. As a result, the relationships found in this study were mainly associational rather than causal. Future studies should collect longitudinal data with altruism being measured prior to existential well-being. This would also permit the inclusion of duration, another of Sorokin’s (2002/Sorokin 1954) dimensions of altruism, in the analysis. This is important because the influence of a common bond with humanity might vary over the life course and the level of extensity might vary as well. Randomized clinical trials should also be considered. For example, interventional programs aiming to enhance the sense of a common bond with humanity can be introduced to a randomized treatment group. Comparisons between the treatment group and a control group with respect to existential well-being would provide a clearer picture on the causal relationship between the sense of a common bond and existential well-being. Thirdly, psychological literature has documented some personality traits (extraversion, conscientiousness, and neuroticism) as predictors for existential well-being (Schmutte and Ryff 1997). The same set of personality traits might also be associated with altruistic orientation. Unfortunately, we did not have data on these variables to eliminate them as potential confounders.

Fourthly, the response rate for the survey was 36 % which is low. However, it is higher than a typical Pew Research Center survey conducted in the same year (15 % in 2009; Dillman et al. 2014). Without a 100 % rate of completion of the survey, there is always possibility of selection bias. Those who answered the phone and completed the survey may be different from those who did not answer the phone or refused to take the survey. However, it is hard to evaluate the exact magnitude and direction of the selection bias this low response rate would produce. To get a sense of possible selection bias, we compared our sample weighted to reflect population it represented with the US census data. Major demographic characteristics of the weighted sample data were very similar to those of US adult population. There were only slight differences. Specifically, our respondents were just slightly older, a little bit more likely to have some college, and less likely to have kids at home compared to US adult population. Although there is no way we can evaluate possible selection bias on unobserved variables, the similarity of our sample and census statistics on demographic variables did give us some confidence in the generalizability of our findings. Finally, the sample contains a relatively small number of respondents who were not white or whose religion was different from Christianity. We were unable to consider variations across small subgroups. Future studies should investigate variations in the relationship between altruism and existential well-being across different racial and religious groups.

Despite these limitations, our results suggest that an inverse relationship between intensity and extensity is not inevitable, and neither is Sorokin’s tragedy of tribal altruism. People who express altruism at the highest level of extensity have a strong sense of existential well-being. And because the family

and world levels of altruism both significantly predicted well-being, we suggest that caring for the near and dear is not incompatible with serving the world. In our findings, the “heart of altruism” (a belief in a common bond) was important, but only to the extent that it was expressed through altruistic attitudes and acts. All of this suggests to us that the heart of altruism can be strengthened by attention to altruism at multiple levels of extensity and that some levels (friends and community) may benefit from special attention in our context of “bowling alone.”

Appendix 1

Existential Well-Being Instrument

Respondents were asked whether they “Strongly agree” (coded 4), “Agree” (3), “Disagree” (2), or “Strongly disagree” (1) with the following statement:

Mematter: I believe my life matters to others.

Meppurpos: I have a strong sense of purpose that directs my life

Altruism Instrument

Respondents were asked whether they “Strongly agree” (coded 4), “Agree” (3), “Disagree” (2), or “Strongly disagree” (1) with the following statement:

Altruism towards family (Fam)

Famhelp: When my loved ones are having problems, I do all I can to help them.

Famkind: When someone in my family is upset or discouraged, I make a special effort to be kind.

Altruism towards friends (Frd)

Frdfavor: I enjoy doing favors for people I know.

Frdhelp: It is important to me personally to be helpful to friends, neighbors.

Altruism towards local community(Com)

Comasist: I go out of my way to assist people in my community who are struggling.

Comaid: I have often come to the aid of a stranger who seemed to be having difficulty.

Altruism towards the whole world (Wrld)

Wrldbetter: It is important for me to leave this world better than I found it.

Wrdsuprt: I actively support causes around the world that seek to help the less fortunate.

Wrldhuman: My efforts are motivated by a desire to help humanity in some way.

Appendix 2

Table 4 Bivariate correlations between variables in Model^a

	EWB											
	Comonbond						Altruism Factors					
	Family		Friend		Community		World		Wrldhuman		Mematter	
	Famkind	Famhelp	Frdfavor	Frdhelp	Comasist	Comaid	Wrdbetter	Wrdsuprt	Wrldhuman	Mematter	Mcpurpose	
Famkind	1.00											
Famhelp	0.62	1.00										
Frdfavor	0.40	0.44	1.00									
Frdhelp	0.36	0.43	0.58	1.00								
Comasist	0.25	0.27	0.29	0.32	1.00							
Comaid	0.20	0.22	0.31	0.30	0.45	1.00						
Wrdbetter	0.33	0.32	0.34	0.33	0.31	0.25	1.00					
Wrdsuprt	0.09	0.19	0.18	0.22	0.29	0.27	0.37	1.00				
Wrldhuman	0.32	0.29	0.32	0.33	0.37	0.33	0.50	0.47	1.00			
Mematter	0.23	0.25	0.23	0.27	0.23	0.17	0.31	0.18	0.30	1.00		
Mcpuspos	0.23	0.32	0.33	0.33	0.31	0.26	0.37	0.25	0.37	0.43	1.00	
Impspirit	0.17	0.13	0.13	0.18	0.21	0.13	0.16	0.18	0.19	0.19	0.34	
Age	0.04	-0.03	-0.04	0.01	-0.06	-0.02	0.00	0.05	-0.03	-0.01	-0.03	
Male	-0.10	-0.15	-0.12	-0.07	-0.12	-0.08	-0.10	-0.08	-0.15	-0.05	-0.11	
Married	-0.05	0.10	0.10	0.07	0.00	0.03	0.01	-0.01	-0.02	0.04	0.10	
Kids	-0.01	0.03	0.12	0.03	0.01	0.06	-0.03	-0.03	0.02	0.05	0.11	
Income	-0.02	0.13	0.14	0.10	-0.02	-0.04	0.03	-0.04	-0.01	0.04	0.05	

Table 4 (continued)

	Altruism Factors										EWB			
	Comonbond		Family		Friend		Community		World		Wrdsupt	Wrldhuman	Mematter	Mepurpose
	Famkind	Famhelp	Frdfavor	Frdhelp	Comasist	Comaid	Wrdbetter	Wrldhuman						
White	-0.02	0.14	0.09	0.05	0.02	-0.11	-0.10	-0.01	-0.06	0.03	-0.03	0.03	-0.03	
Education	0.05	0.11	0.14	0.07	0.07	-0.01	-0.04	0.10	0.06	0.06	0.06	0.06	0.06	
Christian	0.00	0.03	0.00	0.06	0.06	0.06	0.03	0.01	0.00	0.01	0.00	0.03	0.18	
	Impspirt	Age	Male	Married	Kids	Income	White	Edu.						
Famkind														
Famhelp														
Frdfavor														
Frdhelp														
Comasist														
Comaid														
Wrdbetter														
Wrdsupt														
Wrldhuman														
Mematter														
Mepuspos														
Impspirt	1.00													
Age	0.09	1.00												
Male	-0.20	-0.09	1.00											

Table 4 (continued)

	Impsprt	Age	Male	Married	Kids	Income	White	Edu.
Married	0.03	0.03	0.08	1.00				
Kids	0.03	-0.45	-0.02	0.24	1.00			
Income	-0.09	-0.11	0.15	0.47	0.22	1.00		
White	-0.10	0.15	0.04	0.14	-0.04	0.17	1.00	
Education	-0.04	-0.06	0.05	0.16	0.07	0.46	0.14	1
Christian	0.38	0.10	-0.10	0.05	0.01	-0.05	-0.01	-0

^abold values indicate significance at $p < 0.05$

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