The Helping Orientations Inventory: Measuring Propensities to Provide Autonomy and Dependency Help

Alexander Maki

Vanderbilt University

Joseph A. Vitriol

University of Minnesota

Patrick C. Dwyer

University of North Carolina at Chapel Hill

John S. Kim

Lesley University

Mark Snyder

University of Minnesota

Total words (abstract, main text, endnotes): 10,792

Correspondence concerning this article may be addressed to Alexander Maki, Vanderbilt Institute of Energy and Environment, Vanderbilt University, 159 Buttrick Hall, PMB 407702, 2301 Vanderbilt Place, Nashville, TN 37240. Phone: 218-348-0418. E-mail:

alexander.maki@vanderbilt.edu

Abstract

Research on helping behavior distinguishes between giving recipients the tools to solve problems for themselves (autonomy-oriented help) and direct solutions not requiring recipients' involvement (dependency-oriented help). Across three studies, we examined whether individuals can be characterized by *dispositional* propensities toward offering autonomy-oriented and/or dependency-oriented help. In initial studies, factor analyses revealed the two hypothesized Helping Orientations Inventory scales along with an additional scale capturing opposition to helping, all acceptable in internal consistency and test-retest reliability (*Study 1a – 1c*). Next, we found that the three scales related in distinct ways to constructs from the intergroup (e.g., social dominance orientation) and interpersonal (e.g., empathic concern) helping literatures (*Study 1d and 1e*). Additionally, these orientations predicted satisfaction with volunteer behavior (*Study 2*) and interest in future volunteering (*Study 3*). Overall, people vary in their helping orientations, and these orientations implicate a range of variables relevant to intergroup and interpersonal helping.

Keywords: prosocial behavior, helping, empathy, intergroup relations, autonomy

The Helping Orientations Inventory: Measuring Propensities to Provide Autonomy and

Dependency Help

Prosocial behavior assumes many forms and incorporates numerous ways in which

people help other individuals and groups (Dovidio, Piliavin, Schroeder, & Penner, 2006; Snyder

& Dwyer, 2013). It is both an individual and a collective phenomenon (Snyder & Omoto, 2008),

reflecting people's beliefs and motives, as well as their connections to others in their

communities (Snyder, 2009). Research on prosocial behavior has traditionally examined

personality and situational factors that determine the provision of help in both intergroup and

interpersonal contexts, but only recently have psychologists begun to consider factors affecting

the provision of different *types* of help.

One such attempt stems from Nadler's (1997; 2002) distinction between autonomy-

oriented and dependency-oriented help. Autonomy-oriented help provides recipients with the

skills, knowledge, and tools to independently identify and implement the full solution to their

problems. Providing this type of help often requires more time and effort from the helper, and

implies a view of the help-recipient as a capable and efficacious actor who is empowered by the

helper's support. In contrast, dependency-oriented help provides recipients with a full solution to

an immediate problem, and does not teach them the skills, knowledge, or tools necessary to reach

such a solution independently in the future. Traditionally, the provision of dependency-oriented

help implies a view of the help-recipient as less able to solve their own problems, and therefore

more reliant on support provided by more able others (Halabi, Dovidio, & Nadler, 2008; Jackson

& Esses, 2000; Nadler & Chernyak-Hai, 2014).

Although researchers have distinguished between autonomy- and dependency-oriented

help, little is known about how people vary in their inclination toward providing these types of

help. In the current research, we consider whether individuals can be characterized by distinct orientations regarding the type of help they are willing to provide (i.e., autonomy-oriented and dependency-oriented helping dispositions) in both interpersonal and intergroup contexts. Relying on diverse samples, we developed and validated the Helping Orientations Inventory (HOI), a measure of individuals' propensities to offer autonomy-oriented and dependency-oriented help. Across six independent samples, we examine and confirm the HOI's factor structure and internal reliability (Study 1a and 1b), temporal stability (Study 1c), convergent and discriminant validity (Study 1d and 1e), and predictive validity (Studies 2 and 3).

Autonomy- and Dependency-Oriented Help in the Intergroup Context

Considerable research has examined factors that determine the provision of help between groups, with particular focus on the amount and type of help offered across intergroup boundaries. Intergroup helping transactions are not only calibrated to the specific needs or resources of individuals and groups, but are also shaped by broader strategic and symbolic considerations through which the superiority of one's group and a positive view of oneself can be asserted and maintained (Jackson & Esses, 2000; van Leeuwen & Täuber, 2011; Wakefield, Hopkins, & Greenwood, 2013). Helping relations are inherently unequal, and can be understood as "both an expression of caring and a demonstration of superiority" (Nadler & Halabi, 2006, p. 109). From this perspective, the help-recipient can be viewed as dependent on the kindness and abilities of a more competent other (Alvarez & van Leeuwen, 2015; Hardy & van Vugt, 2006). This disparity between helper and recipient has important implications for the type of help that individuals are willing to provide and accept.

Prior research suggests that members of high-status groups are often selective in the type of help they are willing to provide to, and accept from, members of low-status groups,

particularly when high-status group members strongly identify with their group or view the

existing social hierarchy as legitimate (e.g., Halabi et al., 2008; Nadler, Harpaz-Gorodesiky, &

Ben-David, 2009). However, this dynamic can be further influenced by the perceived instability

of the power relations between groups and consequent threats to group status. When status

relations are perceived to be unstable, high-status group members are either less willing to

provide help to low-status individuals, or are more likely to provide help in a manner that

preserves existing social hierarchy and inequality (i.e., dependency-oriented help). Moreover,

when status relations between groups are unstable, high-status group members are more willing

to seek autonomy-oriented rather than dependency-oriented help (Komissarouk & Nadler, 2014;

Täuber & van Zomeren, 2011; Wakefield et al., 2013).

Based on this research, we expect that constructs relevant to intergroup processes will

relate to autonomy-oriented and dependency-oriented helping dispositions in theoretically

consistent ways. In particular, we expect that people who are authoritarian (Stenner, 2005),

prefer rigid social hierarchy (i.e., social dominance orientation; SDO; Pratto, Sidanius,

Stallworth, & Malle, 1994) or hold negative feelings toward marginalized groups will be more

interested in providing dependency-oriented help, because such helping can preserve the existing

social hierarchy and status relations. Alternatively, we expect that individuals with more positive

intergroup attitudes, or who believe that groups can and should work to better their social

standing, will be more interested in providing autonomy-oriented help, which benefits recipients

in ways consistent with those goals.

Autonomy- and Dependency-Oriented Help in the Interpersonal Context

Much of the empirical work on the psychological determinants of prosocial behavior has

focused on *interpersonal* contexts, or situations involving one-to-one helping interactions

(Batson, 2011; Dovidio et al., 2006) and predictors of who provides help to whom, and when and why (e.g., Fisher, Nadler, & Whitcher-Alagna, 1982; Penner, Fritzsche, Craiger, & Frefield, 1995). The distinction between autonomy- and dependency-oriented help is also relevant to the interpersonal helping literature. Attitudes toward providing autonomy- and dependency-oriented help may be affected by potential helpers' attributions about why help-recipients are seeking aid, expectations about their future performance, and perceptions of their efficacy (e.g., Nadler & Chernyak-Hai, 2014), all of which may foster more global judgments about the help-recipients' deservingness or appropriateness for receiving specific kinds of help. Attributional models of help-giving suggest that people are more likely to provide help to individuals who are believed to not have caused their own problems (Rudolph, Roesch, Greitemeyer, & Weiner, 2004; Weiner, Perry, & Magnusson, 1988). Specifically, prior research suggests that potential helpers are more inclined to provide autonomy-oriented help when the reason for help-seeking is due to factors *outside* of the potential help-recipient's control, and dependency-oriented help when the reason for seeking help is due to factors *within* the potential help-recipients' control (Correll & Ridgeway, 2006; Nadler & Chernyak-Hai, 2014).

Therefore, a helper's understanding of another's situation might influence the type of help they prefer to offer. This ability to understand another's situation has typically been referred to as empathy in the interpersonal helping literature, and has both an affect-based component ("empathic concern") and a cognition-based component ("perspective taking"), both of which are relevant to autonomy- and dependency-oriented help (Davis, 1983). Indeed, individuals higher in empathic concern are more willing to identify with help-recipients' circumstances and also formulate more favorable attributions, and are therefore more likely to offer autonomy-oriented help (Pavey, Greitemeyer, & Sparks, 2012), especially when interacting with acquaintances,

friends, and family members (Maner & Gailliot, 2007). Similarly, interpersonal-helping constructs such as perspective taking and a sense of social responsibility may relate to autonomy-oriented helping (e.g., Penner et al., 1995). For example, helpers high in perspective taking may also be more likely to prefer autonomy-oriented helping; helpers high in social responsibility might be willing to engage in helping interactions that, although more time- and energy-consuming, may lead to better long-term outcomes. Alternatively, other interpersonal helping constructs might more strongly relate to dependency-oriented helping, such as feelings of personal distress in helping situations (e.g., Batson, Fultz, & Schoenrade, 1987; Stocks, Lishner, & Decker, 2009). Because people who feel anxious or uncomfortable during a helping interaction might want the interaction to end quickly, they may be more inclined to provide dependency-oriented help, which often requires less of a time investment. Moreover, helping in order to reduce one's own distress is a self-oriented helping strategy, and is therefore more consistent with a dependency-oriented helping orientation than an autonomy-oriented helping orientation, which calls for more attention to the recipient's unique circumstances and needs.

In summary, we expect that people higher in empathic concern, perspective taking, and social responsibility will be more likely to offer autonomy-oriented help, whereas people who experience personal distress in helping situations will be more likely to offer dependency-oriented help.

Current Research: Development of an Inventory of Helping Orientations

Research on autonomy- and dependency-oriented help has mostly focused on the *situational* conditions under which each type of help is likely to be provided or accepted, and the consequences of each kind of assistance for outcomes such as help-seeking tendencies, social-hierarchy maintenance, self-efficacy, and intergroup attitudes. Furthermore, most of this work

has involved experimental manipulations and paradigms (e.g., minimal groups), which are designed to simulate a range of conditions in which specific types of help can be provided to individuals belonging to specific types of social groups. Although this approach has proven fruitful, we propose that people can also be characterized by relatively stable dispositions to offer autonomy- and dependency-oriented help that can be linked to *both* intergroup and interpersonal contexts. Understanding such dispositional orientations is relevant to both basic and applied science, as measures of autonomy- and dependency-oriented helping dispositions would allow researchers to link these constructs to a wide range of thoughts, feelings, and behaviors in the laboratory, and examine helping orientations in field settings where experimental methods may be more difficult to utilize.

In the current research, we used Study 1 to develop an inventory of helping orientations (the HOI) and examined its factor structure (Studies 1a and 1b), internal reliability (Studies 1a-1e), and test-retest reliability (Study 1c). We also examined the convergent and discriminant validity of the inventory (Studies 1d and 1e), drawing primarily from constructs in the intergroup (e.g., authoritarianism, SDO, and outgroups attitudes) and the interpersonal (e.g., empathic concern, perspective taking, social responsibility, and personal distress) helping domains, but also the broader psychological literature. Additionally, to establish predictive validity we examined "matching" hypotheses, such that helping orientations should predict higher volunteer interest and satisfaction when there is a match between one's helping orientation and the activities and goals of the volunteer organization with which one is involved (Studies 2 and 3).

Study 1: Developing the Helping Orientations Inventory

For Study 1, we determined the factor structure and internal reliability of the autonomy and dependency orientation scales of the HOI. We also evaluated convergent and discriminant

validity with constructs from the intergroup and interpersonal helping literatures, as well as more

general personality traits. To establish the factor structure of the HOI, Study 1a uses exploratory

factor analysis and Study 1b uses confirmatory factor analysis. To determine test-retest

reliability, Study 1c captures people's HOI scale scores at two time points separated by one

month. To examine convergent/discriminant validity of the HOI scales, Study 1d examines

correlations between the HOI scales and important constructs in the intergroup and helping

literature, while Study 1e examines correlations between the HOI scales and more general

personality traits.

<div align="center">

Study 1

</div>

Study 1a Method[1]

  Participants. Participants were 285 students (194 females, 89 males, 2 unknown) from a

public university in the Midwestern United States. Mean age was 20.36 (SD = 3.80). Participants

were allowed to identify as more than one race if appropriate; most participants identified as

White (77%), but participants also identified as Latino (3%), African-American (4%), Asian or

Asian-American (14%), Native American (1%), or other (2%).

  Procedure. We generated possible items to measure autonomy and dependency helping

orientations based on existing definitions (Nadler, 2002) of autonomy-oriented helping (e.g.,

"*The goal of helping should be to make sure people can eventually take care of their own*

needs") and dependency-oriented helping (e.g., "*The goal of helping should be to make sure that*

people have their immediate needs met"). Each member of the research team initially generated

possible items for the two scales (i.e., capturing autonomy and dependency orientations), and

through subsequent discussions a pool of 32 items was generated.[2] After collecting data for

Study 1a, we conducted a preliminary factor analysis and first removed items that strongly cross-

loaded on more than one of the factors (>.30). We then examined the Cronbach's alpha for each

scale and further removed items to maximize Cronbach's alpha for each scale. We thus ended up

with 24 total items. Four autonomy items and four dependency items were negatively worded,

for a total of 16 positively-worded items and 8 negatively-worded items. Participants indicated

the extent to which they agreed with each item using a 1 ("strongly disagree") to 7 ("strongly

agree") scale. Participants in Study 1a completed the original 32 HOI items using an online

questionnaire, but we only focused on the aforementioned 24 HOI items. We always computed

scale scores by averaging across respective items.

Study 1a Results[3] and Discussion

We first investigated the factor structure and other psychometric properties of the 24-item

HOI. We used a principal-axis factor analysis with an oblique rotation (promax) to allow for

correlated factors (Kim & Mueller, 1988), as we expected that the autonomy orientation and

dependency orientation scales would be positively related. However, initial exploratory analyses

suggested that there were actually *three* factors: two factors corresponding to the hypothesized

helping orientations, plus a third factor comprising all eight of the negatively-worded items,

which likely represented a general opposition to helping (see Table 1 for scale items).

Subsequently, we treated opposition to helping as a separate scale in subsequent analyes, and

expected that this opposition to helping factor would negatively correlate with both helping

orientation factors. Given these early analyses, we conducted our factor analysis with three

forced factors.[4]

We report results for the largest six factors, first reporting the eigenvalue, followed (in

parentheses) by the cumulative percent variance accounted for: 6.63 (28%), 4.19 (45%), 2.27

(55%), 1.02 (59%), .99 (63%), .85 (66%). Additionally, the scree plot clearly suggested three

factors (Cattell, 1966). Based on the eigenvalues and scree plot, we report the three-factor

solution in Table 1. Results indicated that the items clearly loaded onto three separate factors.

We adhered to the recommendation that items should load on appropriate factors at .32 or more,

and cross-loaded items should load onto other factors at .32 or less (Osborne & Costello, 2009;

Tabachnick & Fidell, 2001). Only two of the 24 items in the pattern matrix cross-loaded onto

more than one factor, and in only one case did an item load higher on the unexpected factor (item

21). We retained these two items in the intended scales, as exploratory analyses revealed that

dropping the items led to decreases in the respective scale alphas. Overall, the data support a

three-factor solution, specifically indicating that it is possible to locate people on these three

separate helping-orientation dimensions: a) willingness to provide autonomy-oriented help, b)

willingness to provide dependency-oriented help, and c) general opposition to helping. The

results also suggest that these orientations are not redundant, and that it may be possible to hold

more than one simultaneously.

Autonomy, dependency, and opposition orientation scale scores were derived from the

average across all items for each scale. We computed each scale's internal consistency using

Cronbach's alpha coefficient: .87 (autonomy), .79 (dependency), and .90 (opposition to helping).

We also computed the correlations among the scales: autonomy orientation and dependency

orientation, $r = .49$ ($p < .001$), autonomy orientation and opposition, $r = -.19$ ($p < .01$), and

dependency orientation and opposition, $r = -.16$ ($p < .01$). Finally, we determined the mean and

standard deviation of each scale: autonomy orientation ($M = 4.93$, $SD = 0.97$), dependency

orientation ($M = 4.00$, $SD = 0.90$), and opposition ($M = 2.86$, $SD = 1.02$).

The findings from our exploratory factor analysis strongly suggest that there are three

distinct orientations toward helping. Using a student sample, our initial factor analysis showed

evidence of three factors. All three scales also had acceptable Cronbach's alpha coefficients.

Finally, each scale had sufficient variability, and clear differences were found in mean levels,

such that people were most likely to endorse an autonomy orientation, followed by a

depedendency orientation and opposition to helping, respectively. This early support for the HOI

gave us confidence that these helping orientations were not redundant, and the correlations

between scales provide further support for this conclusion. Next, we moved to confirming this

factor structure in a diverse online sample, and also to determining common correlates of the

HOI across constructs found in the intergroup and interpersonal helping literatures.

Study 1b Method

  Participants. Participants were 363 individuals, 312 of who provided demographic

information (136 females, 176 males; mean age = 32.09, *SD* = 10.67). We recruited participants

from Amazon's Mechanical Turk (MTurk; see Buhrmester, Kwan, & Gosling, 2011 and Paolacci

& Chandler, 2014 on the usefulness of MTurk for psychological research). Participants were

allowed to identify as more than one race if appropriate; most participants identified as Asian or

Asian-American (66%), although some identified as White (22%), Latino (1%), African-

American (3%), Native American (<1%), or other (7%). 54% of the sample reported not being a

U.S. citizen.[5]

  Procedure. Participants completed the same 24 HOI items from Study 1a using an

online questionnaire, with eight items to capture each autonomy orientation, dependency

orientation, and opposition to helping.

Study 1b Results and Discussion

  We sought to verify the HOI factor structure by assessing the extent to which the three-

factor model would best explain the structure of the data when using CFA in an independent

sample. Using SPSS AMOS (v20.0.0), we ran three confirmatory models, comparing fit statistics among the models. We expected that the three-factor (eight items per scale) solution that emerged from our EFA in Study 1a would prove to be the best fit in the CFA. As in Study 1a, we allowed factors to correlate in our primary model, as we expected that the autonomy- and dependency-oriented helping scales would be positively correlated, and both scales would negatively corelate with opposition to helping. We compared this model to a one-factor solution, which would suggest that the HOI is a measure of one's general orientation toward helping, unable to differentiate between the three orientations. We also compared our proposed model to a model that did not allow the three factors to be correlated, to determine whether the three scales should be allowed to correlate. In our CFAs, we removed participants who were missing any data on our measure ($N = 51$).[6]

We compared models according to a number of fit statistics. Figure 1 shows our proposed model, which was the best fitting model and had adequate fit statistics (χ^2 (249, $N = 307$) = 745.89, χ^2 / df = 3.00, RMSEA = .08, CFI = .86, and BIC = 1,037.96; MacCallum, Brown, & Sugawara, 1996; Schreiber, Nora, Stage, Barlow, & King, 2006). The one factor solution was a less ideal fit for the data (χ^2 (252, $N = 307$) = 2,215.44, χ^2 / df = 8.79, RMSEA = .16, CFI = .45, and BIC = 2,490.33), as was the model with three factors but not allowing correlations between the factors (χ^2 (252, $N = 307$) = 952.77, χ^2 / df = 3.78, RMSEA = .10, CFI = .81, and BIC = 1,227.66). Comparing the Bayesian information criterion statistic across models (Schwarz, 1978) again suggested that our proposed model was optimal.

The HOI scales again demonstrated acceptable levels of internal consistency: .87 (autonomy), .83 (dependency), and .91 (opposition to helping). The latent correlations among the scales were as follows: autonomy orientation and dependency orientation, $r = .77$ ($p < .001$);

autonomy orientation and opposition, $r = .03$ ($p = .61$); and dependency orientation and

opposition, $r = .30$ ($p < .001$). The scale means followed the same order as the previous study:

autonomy orientation ($M = 5.42$, $SD = 0.94$), dependency orientation ($M = 4.95$, $SD = 0.89$), and

opposition ($M = 3.84$, $SD = 1.39$). In summary, Study 1b provided clear evidence for the three

separate scales in the HOI.

Study 1c Method

   Participants. Participants were 237 students (165 females, 70 males, 2 unknown; mean

age = 20.28, $SD = 2.76$) at a public university in the Midwestern United States. Participants were

allowed to identify as more than one race if appropriate; most participants identified as White

(74%), but participants also identified as Latino (3%), African-American (4%), Asian or Asian-

American (16%), or Native American (1%). Of the 244 participants, 216 participants completed

both Time 1 and Time 2 surveys (11% attrition).

   Procedure. We used a two-wave panel design to measure participants' responses to the

HOI during both the first and second time points. Both surveys were completed online, and three

to five weeks passed between the first and second surveys. The same 24 items from Studies 1a

and 1b were used, with eight items to capture each autonomy orientation, dependency

orientation, and opposition to helping.

Study 1c Results and Discussion

   To examine the test-retest reliability of our three scales, we computed correlations

between each scale at the two time points. We found high correlations across time points for

autonomy orientation ($r = .63$), dependency orientation ($r = .62$), and opposition to helping ($r =$

.58; all ps < .001), revealing that all three scales are relatively stable over a one-month time

period. The means, standard deviations, and internal consistency of the three scales mirror our

findings from Studies 1a and 1b. First, means and standard deviations of each scale were consistent across time: autonomy orientation – $M = 5.10$, $SD = 0.87$ (T1) and $M = 5.02$, $SD = 0.95$ (T2); dependency orientation – $M = 4.26$, $SD = 0.79$ (T1) and $M = 4.24$, $SD = 0.83$ (T2); opposition to helping – $M = 2.67$, $SD = 1.04$ (T1) and $M = 2.88$, $SD = 1.07$ (T2). Cronbach's alphas were acceptable across time points: autonomy – .84 (T1) and .90 (T2); dependency – .67 (T1) and .76 (T2); opposition – .91 (T1) andnd .92 (T2). We also computed the correlations among the scales at time one and time two: time one – autonomy and dependency, $r = .36$, autonomy and opposition, $r = -.23$, and dependency and opposition, $r = -.31$; time two – autonomy and dependency, $r = .37$, autonomy and opposition, $r = -.10$, and dependency and opposition, $r = -.04$. Overall results from Study 1c suggest the three HOI scales have acceptable test-retest reliability and are endorsed at comparable levels over time.

It is worth noting that, although the scales had an acceptable level of test-retest reliability, the reliabilities were not as high as for other constructs in the individual-differences literature that are theorized to be more fundamental and stable (e.g., the Big Five personality traits) which consistently show test-retest correlations of $r = .80$ (Gosling, Rentfrow, & Swann, 2003). This might suggest that the HOI scales are more influenced by social,cultural, or contextual factors that produce some variability across time. Perceptions of the value of different types of helping relationships are potentially less ingrained than fundamental aspects of personality. With ample evidence of strong psychometric properties (e.g., factor structure, internal reliability, temporal stability), we next turned to further exploration of convergent and discriminant validity, considering commonly used measures in social and personality psychology.

Study 1d Method

    Participants. The participants were from the same sample as Study 1b.

    Procedure. After completing the HOI using an online questionnaire, participants then completed measures relevant to interpersonal (i.e., empathic concern, perspective taking, social responsibility, other-oriented moral reasoning, personal distress, and self-reported altruism) and intergroup (i.e., authoritarianism, social dominance orientation, perceptions of group malleability, group feeling thermometers) helping. We expected that autonomy orientation would more strongly relate to constructs associated with understanding others, including outgroup members. In contrast, we expected that dependency orientation would display similar (albeit weaker) patterns, but would also be linked to constructs associated with personal distress. Finally, based on extant theory, we expected that opposition to helping would be associated with lower empathic concern, negative intergroup attitudes, belief in the legitimacy of social hierarchy, and strict adherence and deference to existing social norms and authority. We did not have explicit expectations about how moral reasoning and self-reported altruism should relate to helping orientations, but chose to include these additional measures to examine possible differences.

    Measures.

    Authoritarianism. Participants reported the extent to which children should adhere to social norms and authority (Stenner, 2005), a typical way to assess authoritarianism. Participants responded to four binary items that asked them to choose either authoritarian or non-authoritarian child-rearing values (e.g., independence or respect for elders). We averaged responses across the four items (alpha = .66; $M = 0.59$, $SD = 0.38$).

Social dominance orientation. Participants reported the extent to which they endorsed social hierarchy using the 16 items from the SDO-16 scale (Pratto et al., 1994). Using an interval scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"), participants responded to items such as "*Some groups of people are simply inferior to other groups.*" We averaged responses across all 16 items (alpha = .91; $M = 3.20$, $SD = 1.05$).

Perceptions of group malleability. Participants completed a seven-item scale to report the extent to which they believed that groups are capable of change (Rydell, Hugenberg, Ray, & Mackie, 2007). Using an interval scale ranging from 1 ("strongly disagree") to 6 ("strongly agree"), participants responded to items such as "*Groups can change even their most basic qualities.*" We averaged responses across all seven items (alpha = .63; $M = 3.78$, $SD = 0.66$).

Group feeling thermometers. Participants reported the extent to which they felt negatively toward marginalized groups. Using an interval scale ranging from 1 ("positive") to 10 ("negative"), participants reported how they felt about traditionally marginalized social groups (e.g., blacks, Hispanics, those with physical disabilities). We averaged responses across the ten groups (alpha = .92; $M = 4.09$, $SD = 1.89$).

Prosocial Personality Battery. Participants completed the Prosocial Personality Battery (Penner et al., 1995), which measures multiple individual differences related to interpersonal helping. We focused on six scales: empathic concern, perspective taking, social responsibility, other-oriented moral reasoning, personal distress, and self-reported altruism. All of the scales except for the self-reported altruism scale used an interval response scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The self-reported altruism scale used an interval response scale ranging from 1 ("never") to 5 ("very often"). Empathic concern was measured with four items (e.g., "*I am often quite touched by things I see happen*"; alpha = .55[3]; $M = 3.43$,

SD = 0.66); perspective taking was measured with four items (e.g., "*When I'm upset at someone,*

I usually try to 'put myself in their shoes' for a while"; alpha = .51; *M* = 3.34, *SD* = 0.56); social

responsibility was measured with seven items (e.g., "*No matter what a person has done to us,*

there is no excuse for taking advantage of them"; alpha = .67; *M* = 2.97, *SD* = 0.61); other-

oriented moral reasoning was measured with three items (e.g., "*My decisions are usually based*

on concern for the welfare of others"; alpha = .72; *M* = 3.74, *SD* = 0.67); personal distress was

measured with three items (e.g., "*When I see someone who badly needs help in an emergency, I*

go to pieces"; alpha = .56; *M* = 2.83, *SD* = 0.77); self-reported altruism was measured with five

items (e.g., "*I have helped carry a stranger's belongings (e.g., books, parcels, etc.)*"; alpha = .76;

M = 3.30, *SD* = 0.78).

Although some of the measures displayed internal consistency that was lower than

desired, we retained them as they are existing measures commonly used in the literature in the

current forms. Responses across all relevant items were averaged to form each participant's scale

scores.

Study 1d Results and Discussion

First, we examined how our scales related to relevant *intergroup* helping constructs and

the results largely support our hypotheses (see Table 2). Authoriarianism did not correlate with

autonomy orientation (*r* = .00), but positively correlated with both dependency orientation and

opposition to helping (*r* = .17 and *r* = .18, respectively; *p*s < .01). Social dominance orientation

was negatively related to autonomy orientation (*r* = -.37, *p* < .001), unrelated to dependency

orientation (*r* = .04), and positively related to opposition to helping (*r* = .60, *p* < .001).

Perceptions of group malleablility were associated with autonomy orientation and opposition

(r = .30 and r = -.35, respectively; ps < .001). Finally, negative intergroup attitudes negatively

correlated with autonomy (r = -.28, p < .001) and dependency orientations (r = -.12, p < .05), and

positively correlated with opposition to helping (r = .41, p < .001).

      Next, we examined how our scales correlated with *interpersonal* helping constructs. As

expected, we found that the variables associated with helping other individuals were more

strongly associated with autonomy orientation, and to a lesser degree dependency orientation.

(see Table 3). Empathic concern was positively related to autonomy orientation (r = .32, p <

.001), unrelated to dependency orientation (r = .01), and negatively related to opposition to

helping (r = -.60, p < .001); these trends largely held when considering perspective taking as well

(r = .26, .11, and -.39, respecitvely; ps < .05). Surprisingly, social responsiblity was unrelated to

autonomy orientation (r = .00, p = .95), and negatively related to dependency orientation

(r = -.22, p < .001), though, as expected, it was negatively related to opposition to helping

(r = -.55, p < .001). Other-oriented moral reasoning was positively related to both autonomy and

dependency orientations (r = .45 and r = .49, respectively; ps < .001), and unrelated to opposition

(r = .04). Personal distress was also unrelated to autonomy orientation (r = .06), and was

positively related to both dependency- orientation and opposition to helping (r = .21 and r = .39,

respectively; ps < .001). Finally, self-reported altruism was positively related to all three scales

(r = .22, .34, and .21, respectively; ps < .001).[7]

      Convergent and discriminant validity analyses demonstrated that intergroup and

interpersonal helping constructs were related to our three scales in distinct patterns. Autonomy

orientation positively related to perceptions that group characteristics and social status are fluid,

illegitimate, and capable of changing, and also related to predictors of helping behavior found in

the interpersonal helping domain. Dependency orientation positively related to authoritarianism,

personal distress, and lower social responsibility. Finally, opposition to helping shared some overlap with dependency orientation (e.g., high authoritarianism and personal distress; lower social responsibility), but was also linked to negative intergroup attitudes, belief in the legitimacy of rigid social structures, and support for authority.

Study 1e Method

Participants. Participants were 486 students (344 females, 134 males, 1 genderqueer, 7 unknown; mean age = 20.03, *SD* = 3.31) at a public university in the Midwestern United States. Participants were allowed to identify as more than one race if appropriate; most identified as White (69%), but some identified as Latino (4%), African-American (5%), Asian or Asian-American (22%), Native American (1%), or other (3%). 13% of the sample reported not being a US citizen.

Procedure. Participants completed an online survey, first responding to the HOI items, followed by items assessing the Big Five, self-efficacy, and self-esteem. We considered how the scales of the HOI relate to other individual differences (i.e., Big-Five personality traits; McCrae & Costa, 1999) and constructs commonly studied in the helping literature (i.e., self-efficacy and self-esteem). Among the Big-Five personality traits, agreeableness has been identified as an important predictor of helping behavior (Graziano & Eisenberg, 1997). Therefore, we expected that agreeableness would be positively associated with both autonomy and dependency orientations, and negatively associated with opposition to helping. We did not have predictions about how HOI would otherwise be related to the Big Five, although one might expect neuroticism to be linked to both dependency orientation and opposition to helping, given our expectation that personal distress would relate to these two orientations.

We also expected that autonomy orientation would be positively linked to self-esteem and self-efficacy (Bandura, 1977; Rosenberg, 1965), since research indicates that both giving and receiving autonomy-oriented help is linked to higher self-esteem and self-efficacy (e.g., Alvarez & van Leeuwen, 2011; Weinstein & Ryan, 2010). Additionally, we expected that opposition to helping would be negatively associated with self-efficacy. Helping others requires ability and effort, and feeling a lack of efficacy to bring about meaningful change by helping others may serve as a disincentive for future prosocial behavior.

Measures.

Helping Orientations Inventory. Autonomy orientation, dependency orientation, and opposition to helping were captured with eight items each; all three scales had an acceptable Cronbach's alpha (autonomy = .83; dependency = .69; opposition = .89). Means (and standard deviations) were as follow: autonomy – 5.25 (0.83); dependency – 4.24 (0.83); opposition – 2.91 (1.03).

Big-Five personality traits. Participants completed the Ten Item Personality Inventory (TIPI; Gosling et al., 2003), which measures each of the Big-Five personality traits with two items per trait. We used the TIPI given limited survey space constraints, and the TIPI has been found to be useful in such contexts. Participants used an interval scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"); bivariate correlations between item pairs, means, and standard deviations were as follow: agreeableness ($r = .26$ $M = 4.93$, $SD = 1.20$); conscientiousness ($r = .31$; $M = 5.40$, $SD = 1.17$); extraversion ($r = .56$; $M = 4.35$, $SD = 1.54$); neuroticism ($r = .41$; $M = 3.50$, $SD = 1.32$); and openness ($r = .26$; $M = 5.23$, $SD = 1.18$). Correlations between pairs of items were lower than typically found in studies where the TIPI has been used, but we nonetheless retained all items given the extensive use of the TIPI in the literature.

Self-efficacy. Participants reported their belief that they are generally able to overcome barriers and resolve problems using a pre-existing scale (Schwarzer & Jerusalem, 1995) ranging from 1 ("not at all true") to 4 ("exactly true"; ten items; alpha = .85; $M = 3.13$, $SD = 0.42$).

Self-esteem. Participants reported their self-perceptions of worth and value using the Rosenberg Self-Esteem Scale (Rosenberg, 1965) ranging from 1 ("strongly disagree") to 4 ("strongly agree"; ten items; alpha = .90; $M = 3.12$, $SD = 0.57$).

Study 1e Results and Discussion

We first examined correlations with the *Big-Five*, finding that only agreeableness, conscientiousness, and openness were related to our three scales (see Table 4). Consistent with our predictions, agreeableness was positively correlated with both autonomy ($r = .14$, $p < .01$) and dependency orientations ($r = .17$, $p < .001$), and negatively correlated with opposition to helping ($r = -.20$, $p < .001$). We also found that conscientsciousness was positively correlated with autonomy orientation ($r = .14$, $p < .01$) and negatively correlated with opposition to helping ($r = -.11$, $p < .05$); it was not significantly correlated with dependency orientation. Like conscientsciousness, opennesss was unrelated to dependency orientation, positively correlated with autonomy orientation ($r = .13$, $p < .01$), and negatively correlated with opposition to helping ($r = -.26$, $p < .001$). Extraversion and neuoriticsm were not signifcantly related to any of the helping orientations. Finally, regarding self-relevant beliefs (see Table 7), self-efficacy was positively correlated with both autonomy ($r = .28$, $p < .001$) and dependency orientations ($r = .13$, $p < .01$), and self-esteem was positively correlated with autonomy orientation ($r = .12$, $p < .01$) and negatively correlated with opposition to helping ($r = -.13$, $p < .01$).

The personality results corroborated overall trends in the previous sample, such that paying attention to the concerns of others (i.e., agreeableness and conscientiousness) was

positively correlated with autonomy and dependency helping orientations and negatively

correlated with opposition to helping. People higher in autonomy orientation were also more

open to new experiences, while the opposite was true for those opposed to helping. As expected,

self-relevant beliefs were related to all three HOI scales in a pattern consistent with previous

research. People higher in autonomy orientation had higher levels of self-efficacy and self-

esteem, people higher in dependency orientation reported greater self-efficacy, and people

opposed to helping reported lower self-esteem. Likewise, these results suggest that there are

three clearly distinct helping orientations, and that they relate to relevant constructs in unique

and theoretically expected ways.

Study 2: The HOI and Volunteer Satisfaction

Having established the factor structure, temporal stability, and convergent and

discriminant validity of the HOI, we next investigated predictive validity of the three scales. We

sought evidence that the HOI scales predict satisfaction with actual volunteer behavior.

Specifically, we employed a matching approach (e.g., Clary et al., 1998) to test the hypothesis

that volunteers would be more satisfied with their position when the nature and goals of

volunteering were consistent with their orientation (i.e., "matched"). Although we could consider

the ability of the three orientations to predict satisfaction on their own, a more nuanced matching

approach is more appropriate in this context. This approach allows us to adjust for the fact that

potential volunteers do not always have complete freedom to choose the types of volunteer

activities in which they engage (given limited volunteer options), nor are they always able to

accurately identify the types of helping a given position might eventually allow.

Method

Participants

Participants were 327 individuals (176 females, 151 males; mean age = 33.83, $SD =$ 11.88) recruited from MTurk. Participants mostly identified as White (79%), but some identified as Latino (6%), African-American (10%), Asian or Asian-American (10%), Native American (1%), or other (1%).

Procedure

We recruited participants for a study on volunteer behavior, explicitly requesting participants who had volunteered in the past five years. Participants first completed the HOI using an online questionnaire, followed by measures of SDO and PPB, to allow us to determine whether our scales predict relevant outcomes after accounting for constructs that were strongly related to one or more of our scales in the previous study (SDO with opposition and other-oriented moral reasoning with both autonomy and dependency orientations). To ensure that our sample only consisted of recent volunteers, we asked participants whether they had volunteered in the past five years, and found that 293 people reported being a recent volunteer (89%) and 34 people reported not being a volunteer (10%). All participants who reported being a recent volunteer answered questions pertaining to their perceptions of their most recent volunteer position and satisfaction with the position.

Because autonomy and dependency helping are constructs that are inherently about helping other human beings (and thus less relevant to helping nonhuman animals or the environment), we focused only on volunteers who reported helping other human beings ($N =$ 222).[8] Given our sample size of volunteers working with other humans, we estimated that we had 32% power to detect a Cohen's d of 0.2, 96% power to detect a Cohen's d of 0.5, and 99% power to detect a Cohen's d of 0.8.

Measures

Helping Orientations Inventory. Autonomy orientation, dependency orientation, and opposition to helping were captured with eight items each; all three scales had an acceptable Cronbach's alpha (autonomy = .87; dependency = .76; opposition = .93). We used our scales as predictors in the study, in addition to computing median splits on the variables to help create one overall matching variable to test our matching hypothesis.

Perceptions of volunteer activities. Participants responded to five questions designed to capture the extent to which they perceived their volunteer activity to be more autonomy-oriented or dependency-oriented. Two questions captured perceptions of the position as having autonomy-oriented attributes ("Did these activities involve mentoring, coaching, or teaching someone a new set of skills?" and "Were these activities designed to provide individuals with the skills and abilities to solve their own problems in the future?"), and two questions captured perceptions of the position as having dependency-oriented attributes ("Did these activities primarily focus on addressing individuals' specific needs or alleviating individuals' discomfort?" and "Were these activities intended to provide an immediate solution to someone's pressing problem?"; scales ran from 1, "not at all," to 7, "definitely"). A fifth question asked people to report the extent to which the volunteer activity focused on individuals' short-term needs versus long-term goals (from 1, "focus on short-term/immediate needs," to 7, "focus on long-term skills/goals").

These five items were standardized and combined (the two dependency-oriented items were reversed) to form one scale capturing overall perceptions of the extent to which one's position was more focused on dependency or autonomy outcomes ($M = 0$, $SD = .64$, alpha = .64). We used this combined scale as an outcome variable in some analyses, and as the basis for a

median split to help create the matching variable that served as the key outcome of interest in our other analyses.

Volunteer status and satisfaction. Participants reported whether they had volunteered in the past five years (yes or no), as well as satisfaction with that volunteer experience on a single-item with an interval scale ranging from 1 ("not at all satisfied") to 7 ("completely satisfied").

Other-oriented moral reasoning. Participants completed the PPB other-oriented moral reasoning subscale (Penner et al., 1995) to ensure autonomy and dependency orientations' predictive validity beyond this measure (alpha = .73).

Social dominance orientation. Participants reported the extent to which they endorsed social hierarchy to ensure opposition to helping's predictive validity beyond this measure using the SDO-16 scale (Pratto et al., 1994; alpha = .95).

Results and Discussion

We first examined whether the helping orientations predicted volunteer status using a logistic regression model with all three HOI scales as predictors and the outcome variable being whether participants had volunteered (to help people) or not. We found that autonomy orientation was a positive predictor ($b = .53$, $SE = .22$, $p = .01$) and opposition orientation was a negative predictor of being a volunteer to help others ($b = -.41$, $SE = .15$, $p = .004$; dependency orientation was not a significant predictor, $p = .80$). We also ran an additional model to examine whether controlling for SDO and other-oriented moral reasoning made any difference ($p = .22$ and .37, respectively); results revealed that autonomy orientation remained a signficiant predictor ($b = .55$, $SE = .22$, $p = .01$) and opposition became a marginal predictor ($b = -.31$, $SE = .17$, $p = .07$); dependency orientation did not significantly predict volunter status ($p = .92$).

We first considered how well autonomy and dependency orientations predicted perceptions of whether the position was more focused on autonomy- or dependency-oriented volunteering. Considering the subsample of only volunteers who had worked with other humans, regression analyses with all three scales included as predictors revealed that dependency orientation predicted perceptions of one's volunteer position as addressing dependency needs of individuals ($b = -.10$, $SE = .05$, $CI = -.19$, $-.004$, $p = .04$, $d = .28$), while autonomy orientation did not predict perceiving one's volunteer position as addressing autonomy needs ($p = .99$). This may be because it is more difficult to find autonomy-oriented positions, as follow-up analyses indicated that participants were generally more likely to perceive their positions to be dependency-oriented than autonomy-oriented, $t(219) = 4.30$, $p < .001$). We ran an additional model to control for SDO and other-oriented moral reasoning, and dependency was still a marginal predictor of dependency perceptions.

To determine whether a match between helping orientation and perceptions of volunteer positions predicted satisfaction, we conducted median splits on autonomy orientation, dependency orientation, and the standardized perception variable. Volunteers who were above the median on autonomy orientation and also above the median on their perceptions that their volunteer position was autonomy-oriented were coded as a 1, or being matched. Participants who were above the median on dependency orientation and also above the median on their perceptions that their volunteer position was dependency-oriented were coded as a 1. Participants who had incongruent orientations and position perceptions were coded as a 0, or being not matched. This allowed us to create one matching variable with which to predict satisfaction. This also means that someone who has an autonomy orientation above the median but was engaged in volunteering they perceived to be dependency-oriented would be categorized as non-matched.

Similarly, someone who is above the median on both autonomy or dependency, but who perceives their volunteer behavior as low in both dependency or autonomy, would be coded as being non-matched. Thus, with this strategy, we were not simply observing the degree of satisfaction among people high in autonomy or dependency versus people low in autonomy or dependency. Instead, we are directly measuring satisfaction as a function of the degree to which helping orientations and volunteer behaviors align. In total, 111 volunteers were coded as matched, and 106 were coded as non-matched (for autonomy positions: 57 matched, 61 non-matched; for dependency positions: 54 matched, 45 non-matched).

Analyses revealed that matched volunteers were indeed more satisfied than non-matched volunters (matched $M = 6.22$, $SD = 0.96$; non-matched $M = 5.73$, $SD = 1.18$; $t(214) = 3.36$, $p = .001$, $d = .46$). Controlling for SDO and other-oriented moral reasoning ($p = .38$ and $.44$, respectively) did not affect these results. Additional follow-up analyses revealed that both the matching of autonomy orientation to an autonomy position (matched $M = 6.32$, $SD = 0.77$; non-matched $M = 5.79$, $SD = 1.16$; $t(115) = 2.92$, $p = .004$, $d = .55$) and the matching of dependency orientation to a dependency position (matched $M = 6.11$, $SD = 1.13$; non-matched $M = 5.64$, $SD = 1.23$; $t(97) = 1.97$, $p = .05$, $d = .40$) predicted higher volunteer satisfaction. We again controlled for SDO and other-oriented moral reasoning, and these variables did not affect the results. However, in the autonomy-matched model, SDO negatively predicted satisfaction, $p = .03$ while other-oriented reasoning did not predict satisfaction, $p = .58$. Meanwhile, in the dependency-matched model, neither SDO ($p = .38$) nor other-oriented reasoning ($p = .53$) predicted satisfaction.

In summary, and consistent with our hypotheses, we found that the matching of a person's helping orientation to their volunteer position predicts greater volunteer satisfaction.

This trend was at least marginally significant both for people with an autonomy orientation and people with a dependency orientation. We also found evidence that opposition to helping predicted not being a volunteer in the past five years, and autonomy orientation predicted greater involvement in volunteer behavior in the past five years. Finally, we also found evidence that people high in dependency orientation perceived their volunteer position to be more consistent with helping people address dependency concerns.

However, we did not find evidence that people who are higher on autonomy orientation perceived their position to be primarily concerned with helping people with autonomy outcomes. In general, some evidence suggests that people were more likely to view their positions as being more concerned with dependency than autonomy outcomes. These results indicate that it might not always be possible to find positions that adequately aim to address autonomy concerns. Furthermore, many volunteer positions that appear autonomy-oriented might, over time, prove less suitable for the pursuit of autonomy-related goals.

Given the inability of volunteers' autonomy orientations to predict engagement in actual autonomy volunteer behavior in this context, we next shifted to an experimental context to determine whether autonomy orientation can indeed predict people's interest in autonomy-oriented positions when people have the ability to freely choose a position clearly described as being autonomy-focused. We also wanted to replicate our previous finding that dependency orientation predicts interest in dependency-oriented volunteer positions.

Study 3: Using the Helping Orientations Inventory to Predict Intentions toward Future Behavior

We next examined whether the HOI could predict interest in volunteer opportunities. As before, we employed a message-matching approach (e.g., Clary et al., 1998), with a repeated-

measures experimental design, to test the hypothesis that people are more interested in

volunteering for nonprofit organizations that are characterized in ways consistent with their

helping orientations. This type of design allowed participants complete freedom of choice when

considering types of volunteer activities, and avoided the difficulty involved in locating and

engaging in autonomy-related volunteer activities. We also examined the hypothesis that

opposition to helping would negatively predict interest in volunteering for both autonomy-

oriented and dependency-oriented organizations. Finally, we again aimed to demonstrate the

ability of the HOI scales to predict perceptions and interest above and beyond the predictive

ability of other-oriented moral reasoning.

Method

Participants

Participants from Studies 1b/1d were contacted two to eleven months after the initial

survey to complete a questionnaire including the HOI and measures of helping interest.[9]

Participants were 129 students (84 females, 26 males, 1 genderqueer, 18 unknown; mean age =

20.29, $SD = 3.97$) at a public university in the Midwestern United States. Participants mostly

identified as White (64%), but some identified as Latino (3%), African-American (2%), Asian or

Asian-American (20%), Native American (1%), or other (1%). Given our sample size, we

estimated that we had 20% power to detect a Cohen's d of 0.2, 79% power to detect a Cohen's d

of 0.5, and 99% power to detect a Cohen's d of 0.8.

Procedure

Participants first completed the three HOI scales using an online questionnaire. Then,

participants read descriptions of four separate hypothetical nonprofits concerned with addressing

problems related to poverty. All participants read each of the four descriptions, two for

autonomy-oriented nonprofits and two for dependency-oriented nonprofits. The order of presentation of the nonprofits was randomized across participants. Participants then reported how effective they perceived each organization to be, and their interest in volunteering for the organization. For example, one autonomy-oriented nonprofit was described as follows:

> *Organization A is a national organization dedicated to fighting poverty in the United States, including Minnesota. Our goal is to engage in community-based interventions to combat the major causes of poverty. Accordingly, Organization A's primary focus is on providing people with meaningful work, safe communities, healthcare, and quality education in low-income neighborhoods throughout the country. We believe that these actions will help reduce the rate of poverty, and improve the future prospects of all individuals to get out and stay out of poverty.*

> A dependency-oriented nonprofit was described as follows: *Organization D is a national organization dedicated to fighting poverty in the United States, including Minnesota. Our goal is to engage in community-based interventions to alleviate the suffering of the poor. At Organization D we work to ensure that all individuals have adequate food and shelter by organizing and maintaining food kitchens, homeless shelters, and healthcare clinics in at-risk neighborhoods throughout the U.S. At least in the short term, all needy people will have something to eat and a place to eat.*

Measures

Helping Orientations Inventory. Autonomy orientation, dependency orientation, and opposition to helping were captured with eight items each; all three scales had an acceptable Cronbach's alpha (autonomy = .85; dependency = .78; opposition = .92).

Perceptions of the nonprofits. Participants reported the perceived effectiveness of and their interest in volunteering for each nonprofit using interval scales ranging from 1 ("not at all effective/interested") to 7 ("extremely effective/interested"). Because participants read about two autonomy-oriented and two dependency-oriented nonprofits, we averaged effectiveness and interest measures across similar types of nonprofits, such that participants had both an autonomy organization effectiveness score ($M = 5.62$, $SD = 1.28$) and interest score ($M = 5.26$, $SD = 1.49$), and a dependency organization effectiveness score ($M = 4.32$, $SD = 1.48$) and interest score ($M = 4.80$, $SD = 1.50$).

Other-oriented moral reasoning. Participants responded to the PPB's other-oriented moral reasoning subscale (Penner et al., 1995) to ensure the HOI's predictive validity beyond this measure (alpha = .71).

Results and Discussion

We entered all three scales into four regression models, with separate models predicting perceived effectiveness of and interest in autonomy volunteering, and predicting perceived effectiveness of and interest in dependency volunteering. This allowed for the possibility that all three scales, entered together in each model, could be significant predictors of each outcome, and allowed us to control for shared variance between scales, similar to relevant analyses in Study 2.

We first examined the ability of each scale to predict perceived effectiveness of and interest in volunteering for autonomy-oriented nonprofits. Autonomy orientation was a positive predictor of perceived effectiveness ($b = .49$, $SE = .13$, $CI = .24, .74$, $p < .001$, $d = .69$), and opposition to helping was a negative predictor ($b = -.31$, $SE = .09$, $CI = -.49, -.13$, $p = .001$, $d = -.61$). Autonomy orientation was also a marginal positive predictor of interest ($b = .29$, $SE = .16$, $CI = -.02, .60$, $p = .07$, $d = .33$), and opposition to helping was a negative predictor of interest (b

= -.24, SE = .11, CI = -.46, -.02, p = .04, d = -.38). As expected, dependency orientation failed to

significantly predict perceive effectiveness of (p = .91) and interest in autonomy organizations (p

= .27).

　　We ran analagous analyses with our scales concerning dependency-oriented nonprofits.

Dependency orientation positively predicted perceived effectiveness (b = .59, SE = .14, CI = .31,

.86, p < .001, d = .75), and opposition to helping negatively predicted perceived effectiveness (b

= -.23, SE = .11, CI = -.44, -.02, p = .03, d = -.39). Dependency orientation also positively

predicted interest (b = .53, SE = .14, CI = .25, .82, p < .001, d = .66), and opposition negatively

predicted interest (b = -.22, SE = .11, CI = -.43, -001, p = .05, d = -.35). As expected, autonomy

orientation failed to significantly predict perceived effectiveness of (p = .85) and interest in

dependency-oriented organizations (p = .98). Finally, we ran additional models in which we

controlled for other-oriented moral reasoning; including this variable did not change any of the

findings regarding the HOI scales predicting relevant perceptions.

　　Predictive validity of the three HOI scales was impressively confirmed in Study 3 as all

three scales predicted relevant perceptions and behavioral choices in theoretically-consistent

patterns. Autonomy orientation and dependency orientation predicted perceived effectiveness of

and interest in volunteering for nonprofits that were presented as addressing autonomy-oriented

or dependency-oriented issues surrounding poverty, respectively. Furthermore, opposition to

helping negatively predicted perceived effectiveness of and interest in both types of

organizations. Finally, autonomy orientation and dependency orientation did not predict

perceived effectiveness of and interest in non-matched nonprofits, demonstrating discriminant

predictive validity. Overall, we found strong and clear support for our matching hypothesis, such

that presenting nonprofits as being more relevant to the goals of autonomy- or dependency-

oriented individuals elicits greater perceptions of effectiveness of and interest in those organizations.

General Discussion

Taken together, this series of studies makes four key points: (1) individuals vary in the extent to which they are disposed toward providing autonomy-oriented help, dependency-oriented help, and opposing helping, more generally, (2) constructs relevant to intergroup and interpersonal helping, as well as general personality constructs, are related to these orientations in distinct and predictable ways, (3) these orientations predict satisfaction with one's volunteering, and (4) perceived effectiveness of and interest in providing different types of help to those in need. Across six samples, the HOI scales demonstrated a clearly specified and consistent factor structure, acceptable levels of internal consistency, and temporal stability. Moreover, results from these studies strongly support the convergent, discriminant, and predictive validity of the HOI scales.

People higher in autonomy orientation tended to be more empathetic, higher in perspective taking, and more likely to engage in moral reasoning. They were also less willing to endorse a rigid social hierarchy, more strongly believed in group malleability, reported more positive intergroup attitudes, and tended to be higher in self-efficacy. Overall, autonomy-oriented individuals were better able to identify with the needs and circumstances of others, felt more capable in helping, and were more supportive of a fluid social structure. In contrast, individuals higher in dependency orientation, although also being relatively high in moral reasoning, tended to report lower feelings of social responsibility and higher feelings of personal distress. Dependency-oriented individuals tended to avoid conflict, desired a stable environment, and did not believe that they should influence society or enact meaningful social change.

Although we did not initially set out to create a measure of opposition to helping, factor analyses clearly indicated that some people are simply opposed to helping others. These people tended to be lower in empathic concern, perspective taking, and social responsibility, and higher in personal distress, authoritarianism, and SDO. They also tended to hold negative feelings toward marginalized outgroup members, reduced belief in group malleability, and were lower in agreeableness and openness to experience. The opposition to helping items emphasized the negative consequences of helping, including its perceived costs (e.g., creating dependency) and lack of clear benefits (e.g., ineffectiveness in solving problems). Interestingly, individuals who opposed helping reported that they occasionally engaged in stereotypical helping behaviors with strangers (e.g., on the altruism scale), so perhaps participants had specific types of helping behaviors or recipients in mind while completing the HOI. Alternatively, some of these individuals may be attuned to social norms that encourage helping others, and while not dispositionally favorable to helping others, are motivated to engage in impression-management strategies to minimize the social consequences of appearing uncaring or unempathetic. Future research should examine this possibility.

We obtained strong support for the predictive validity of the HOI. First, autonomy-oriented volunteers who reported engaging in volunteer work focused on autonomy-related outcomes reported being more satisfied with their volunteer positions, as did dependency-oriented volunteers who reported engaging in dependency-related volunteering. Second, autonomy-oriented individuals were more interested in, and perceived as more efficacious, nonprofit organizations described as providing an autonomy-oriented solution to poverty. The same pattern was observed for dependency-oriented individuals in regard to dependency-oriented solutions to poverty. Additionally, opposition to helping was a consistent negative predictor of

interest in, and perceived effectiveness of, efforts of nonprofit organizations to help individuals

living in poverty, regardless of the type of organization. These results have implications for how

nonprofits advertise their positions to prospective volunteers, and how they might better leverage

what they know about their supporters to elicit greater support in time and resources.

Although prior work on helping orientations has focused primarily on intergroup

contexts, the HOI draws upon research from *both* the intergroup and interpersonal literatures.

Future work should further explore how the HOI operates in both contexts, including whether

researchers can replicate the *strength* of the relationships between the HOI scales and the

constructs we examined from the intergroup and interpersonal helping literatures. To be sure,

there were some inconsistencies in how strongly the HOI scales related to these intergroup and

interpersonal helping constructs. However, our objective was to establish the existence and

direction of these relationships, and to obtain some evidence of the strength of these relationships

to guide future research. Additional research would provide greater confidence in the strength of

these relationships, providing further evidence for the development of new theoretical

frameworks. It might also, for example, explore the ways in which the HOI scales predict

helping behavior in various interpersonal interactions and relationships. Also, future research

should link the HOI scales to intergroup helping transactions, and extend prior theory and

research on the provision of help across group boundaries, which has traditionally required

releatively complex and resource-intensive experimental paradigms and manipulations.

Additionally, the role of moral emotions (e.g., guilt, shame, or sympathy) has rarely been

explored in the help-giving literature, although it implicates both intergroup and interpersonal

helping (e.g., Basil, Ridgway, & Basil, 2008; Rudolph et al., 2004). Future work should examine

how moral emotions might relate to individuals' helping orientations in both interpersonal and

intergroup contexts.

Moreover, the HOI could be used as a tool to help clarify the types of helping behaviors

and transactions that people view as autonomy-oriented or dependency-oriented. The extant

literature, largely experimental, usually assigns participants to receive or give either autonomy-

oriented or dependency-oriented help (e.g., Alvarez & van Leeuwen, 2011; Nadler et al., 2009).

Less is known about the ways in which individuals perceive *specific* helping acts in terms of

autonomy or dependency orientations and goals. Future work should link types of helping acts to

the HOI orientations. For example, whereas donating money or food to the homeless might be

perceived as dependency-oriented helping, working with homeless individuals to gain stable

housing or employment might be perceived as autonomy-oriented helping. With such a typology,

researchers could further examine the consequences of incongruency between helping orientation

and the type of help provided, potentially predicting maintenance of behavior over time.

People's helping orientations could also shape professional identities, such that

individuals higher in autonomy orientation might be drawn to careers that allow them to help

others gain new skills (e.g., a teacher), while those higher in dependency orientation may prefer

helping solve people's immediate problems for them (e.g., a nurse). Use of additional non-

student samples may help researchers appreciate how a diverse age range of individuals think

about and approach autonomy- and dependendency-oriented helping roles. Likewise, future

research should examine how demographics, such as age, gender, and race relate to endorsement

of autonomy and dependency helping orientations.

Finally, the current research connects with other work in the helping literature on the

factors that affect a person's willingness to seek out autonomy- or dependency-oriented help

from others. Since our focus is on people's orientations toward *providing* help, the present

research on help-provision and the prior work on help-seeking should be understood as different

sides of the same equation (Nadler, 1987). Research on help-seeking has found that people are

generally less likely to accept help that confirms a negative stereotype or the inferiority of their

social group (Alvarez & van Leeuwen, 2015; Nadler, 1997). Consequently, members of low-

status groups are often less receptive to dependency-oriented help and feel more negative affect

and less esteem upon acceptance of such help from members of high-status groups. However,

when the status relations between groups are unstable, members of low-status groups are more

likely and willing to accept autonomy-oriented help (Nadler & Halabi, 2006; Nadler et al., 2009;

Wakefield et al., 2013). Combining these two lines of work would reveal whether certain people

are more or less consistent in the type of help they prefer to provide and receive. Future work

should consider both sides of the equation by examining features of the helper (e.g., through the

HOI scales) and the help-seeker (e.g., their help-seeking preferences; Nadler & Chernyak-Hai,

2014; Tscharaktschiew & Rudolph, 2015), and how these interactions can lead to effective

helping relationships and positive outcomes for all involved (e.g., well-being; Oarga, Stavrova,

& Fetchenhauer, 2015).

Conclusion

The introduction of the HOI encourages future research in a number of new directions.

The HOI should facilitate investigations of helping orientations and behaviors in the field, as

prior work on the provision of types of help has largely been limited to experimental paradigms

and laboratory contexts. Using the HOI, researchers may be better prepared to investigate the

interaction between helping orientations and helping experiences, and how these interactions

predict helping outcomes, such as the maintenance of helping behavior over time. In so doing, it

should now be possible to identify who engages in which forms of helping, with what amount of

satisfaction and what degree of effectiveness, as well as their continued involvement in helping

over time and across contexts.

Endnotes

[1] Open materials for this article can be accessed at https://osf.io/82qrh/.

[2] Initially, we wrote 16 autonomy orientation items and 16 dependency orientation items – 12 positively-worded and 4 negatively-worded items per orientation.

[3] Open data for this article, and corresponding codebooks, can be accessed at https://osf.io/482gn/.

[4] We also ran exploratory factor analyses without forced factors, and the results were consistent with the results using three forced factors.

[5] We ran separate confirmatory factor analyses for citizens and non-citizens, to test whether US citizenship status made a difference. Differences between the two models were minimal, and our proposed model was the best fitting model for both groups when examined separately.

[6] We ran models with the missing data included, but differences between the models were minimal.

[7] These findings may be due to the nature of the self-reported altruism measure (from Penner et al., 1995), as it captures very general, relatively stereotypical, instances of helping (e.g., helping strangers carry an object or helping someone cross the street). These types of helping behaviors might be less relevant to the autonomy/dependency helping distinction, thus leading to the unexpected correlation. It may also be that people high in opposition to helping are relatively more likely to endorse the stereotypical helping items captured in the measure, because helping in these specific instances involved little cost to the helper and the beneficiaries did not engage in an action that made them culpable for the issue with which they needed help. Moreover, previous research uncovering similarly unexpected findings (i.e., that self-reported altruism was negatively correlated with online helping behavior) has also noted the face-to-face nature of the

items (Fuglestad et al., 2012). In light of this, we feel it is also possible that endorsing altruism is an impression management strategy engaged in by individuals who might otherwise oppose helping others, but who are aware of social norms promoting the helping of others. Thus, both the less effortful and more public nature of the items assessed by the Penner et al. (1995) measure might have made it easier to engage in such an impression management strategy. Future research can and should further investigate the psychological underpinnings of opposition to helping and self-reported altruism.

[8] Our initial analyses considered whether or not HOI would predict the act of helping humans at all, and necessarily included both volunteers and non-volunteers ($N = 256$). However, the rest of our analyses focused on satisfaction after volunteers had *already* started helping other people, and as such, the rest of our analyses focused only on the subset of volunteers who had reported helping human beings.

[9] Given the large, and variable, interval of time between surveys completed in Studies 1b/1d and Study 3, we did not examine test-retest reliability for this sample.

References

Alvarez, K., & van Leeuwen, E. (2011). To teach or to tell? Consequences of receiving help

from experts and peers. *European Journal of Social Psychology*, *41*, 397-402.

Alvarez, K., & van Leeuwen, E. (2015). Paying it forward: How helping others can reduce the

psychological threat of receiving help. *Journal of Applied Social Psychology*, *45*, 1-9.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change.

Psychological Review, *84*, 191-215.

Basil, D. Z., Ridgway, N. M., & Basil, M. D. (2008). Guilt and giving: A process model of

empathy and efficacy. *Psychology & Marketing*, *25*, 1-23.

Batson, C. D. (2011). *Altruism in humans*. New York: Oxford University Press.

Batson, C. D., Fultz, J., & Schoenrade, P. A. (1987). Distress and empathy: Two qualitatively

distinct vicarious emotions with different motivational consequences. *Journal of

Personality*, *55*, 19-39.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source

of inexpensive, yet high-quality, data? *Psychological Science*, *6*, 3-5.

Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*,

1, 245-276.

Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Huagen, J., & Miene, P.

(1998). Understanding and assessing the motivations of volunteers: A functional

approach. *Journal of Personality and Social Psychology, 74*, 1516-1530.

Correll, S. J., & Ridgeway, C. L. (2003). Expectation states theory. In J. Delameter (Ed.), *The

Handbook of Social Psychology* (pp. 29-51). New York: Kluwer-Academic Press.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a

      multidimensional approach. *Journal of Personality and Social Psychology*, *44*, 113-126.

Dovidio, J. F., Piliavin, J. A., Schroeder, D. A., & Penner, L. A. (2006). *The social psychology of*

      prosocial behavior. Mahwah, NJ: Erlbaum.

Fisher, J. D., Nadler, A., & Whitcher-Alagna, S. (1982). Recipient reactions to aid.

      Psychological Bulletin, *91*, 27-54.

Fuglestad, P. T., Dwyer, P. C., Moses, J. F., Kim, J. S., Mannino, C. A., Terveen, L., & Snyder,

      M. (2012). What makes users rate (share, tag, edit…)?: Predicting patterns of

      participation in online communities. *Proceedings of the Association for Computing*

      Machinery 2012 Conference on Computer Supported Cooperative Work (CSCW 2012),

      969-978.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. Jr. (2003). A very brief measure of the Big-Five

      personality domains. *Journal of Research in Personality*, *37*, 504-528.

Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In R.

      Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp.

      795-824). San Diego, CA: Academic Press.

Halabi, S., Dovidio, J. F., & Nadler, A. (2008). When and how do high status group members

      offer help: Effects of social dominance orientation and status threat. *Political Psychology*,

      29, 841-858.

Hardy, C. L., & Van Vugt, M. (2006). Nice guys finish first: The competitive altruism

      hypothesis. *Personality and Social Psychology Bulletin*, *32*, 1402-1413.

Jackson, L., & Esses, V. (2000). Effects of perceived economic competition on people's

      willingness to help empower immigrants. *Group Processes and Intergroup Relations, 3,*

      419–435.

Kim, J., & Mueller, C. W. (1988). *Factor analysis: Statistical methods and practical issues*.

      Beverly Hills, CA: Sage.

Komissarouk, S., & Nadler, A. (2014). "I" seek autonomy, "we" rely on each other: Self-

      contstrual and regulatory focus as determinants of autonomy- and dependency-oriented

      help-seeking behavior. *Personality and Social Psychology Bulletin*, *40*, 726-738.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and

      determination of sample size for covariance structure modeling. *Psychological Methods*,

      1, 130-149.

Maner, J. K., & Gailliot, M. T. (2007). Altruism and egoism: Prosocial motivations for helping

      depend on relationship context. *European Journal of Social Psychology*, *37*, 347-358.

McCrae, R. R., & Costa, P. T. (1999). A five-factor theory of personality. In L.Pervin & O. John

      (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 139-153). New York:

      Guilford Press.

Nadler, A. (1987). Determinants of help seeking behaviour: The effects of helper's similarity,

      task centrality and recipient's self-esteem. *European Journal of Social Psychology*, *17*,

      57-67.

Nadler, A. (1997). Autonomous and dependent help seeking: Personality characteristics and the

      seeking of help, In Sarason, B., Sarason, I., & Pierce, R.G. (Eds.) *Handbook of*

      Personality and Social Support, New York: Plenum.

Nadler, A. (2002). Inter-group helping relations as power relations: Maintaining or challenging

social dominance between groups through helping. *Journal of Social Issues*, *58*, 487-502.

Nadler, A., & Chernyak-Hai, L. (2014). Helping them stay where they are: Status effects on

dependency/autonomy-oriented helping. *Journal of Personality and Social Psychology*,

106, 58-72.

Nadler, A., & Halabi, S. (2006). Intergroup helping as status relations: Effects of status stability,

identification, and type of help on receptivity to high-status group's help. *Journal of

Personality and Social Psychology*, *91*, 97-110.

Nadler, A., Harpaz-Gorodeisky, G., & Ben-David, Y. (2009). Defensive helping: Threat to group

identity, intergroup identification, status stability, and common group identity as

determinants of intergroup help-giving. *Journal of Personality and Social Psychology*,

97, 823-834.

Oarga, C., Stavrova, O., & Fetchenhauer, D. (2015). When and why is helping others good for

well-being? The role of belief in reciprocity and conformity to society's expectations.

European Journal of Social Psychology, *45*, 242-254.

Osborne, J. W.. & Costello, A. B. (2009). Best practices in exploratory factor analysis: Four

recommendations for getting the most from your analysis. *Pan-Pacific Management

Review*, *12*, 131-146.

Paolacci, G., & Chandler, J. (2014). Inside the Turk: Understanding Mechanical Turk as a

participant pool. *Current Directions in Psychological Science*, *23*, 184-188.

Pavey, L., Greitemeyer, T., & Sparks, P. (2012). "I help because I want to, not because you tell

me to": Empathy increases autonomously motivated helping. *Personality and Social

Psychology Bulletin*, *38*, 681-689.

Penner, L. A., Fritzsche, B. A., Craiger, J. P., & Frefield, T. R. (1995). Measuring the prosocial
    personality. In J. Butcher & C. D. Spielberger (Eds.), *Advances in personality assessment*
    (Vol. 10). Hillsdale, NJ: Lawrence Erlbaum.

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A
    personality variable predicting social and political attitudes. *Journal of Personality and
    Social Psychology, 67*, 741-763.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton
    University Press.

Rudolph, U., Roesch, S., Greitemeyer, T., & Weiner, B. (2004). A meta-analytic review of help
    giving and aggression from an attributional perspective: Contributions to a general theory
    of motivation. *Cognition and Emotion*, *18*, 815-848.

Rydell, R. J., Hugenberg, K., Ray, D., & Mackie, D. M. (2007). Implicit theories about groups
    and stereotyping: The role of group entitativity. *Personality and Social Psychology
    Bulletin*, *33*, 549-588.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural
    equation modeling and confirmatory factor analysis results: A review. *The Journal of
    Educational Research*, *99*, 323-338.

Schwarz, G. E. (1978). Estimating the dimensions of a model. *Annals of Statistics*, *6*, 461-464.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S.
    Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and
    control beliefs* (pp. 35-37). Windsor, England: NFER-NELSON.

Snyder, M. (2009). In the footsteps of Kurt Lewin: Practical theorizing, action research, and the
    psychology of social action. *Journal of Social Issues*, *65*, 225-245.

Snyder, M., & Dwyer, P. C. (2013). Altruism and prosocial behavior. In I. Weiner, H. A. Tennen, & J. M. Suls (Eds.), *Handbook of Psychology, Volume 5: Personality and Social Psychology* (pp. 467-485). Hoboken, New Jersey: Wiley.

Snyder, M. & Omoto, A. M. (2008). Volunteerism: Social issues perspectives and social policy implications. *Social Issues and Policy Review, 2*, 1-36.

Stenner, K. (2005). *The authoritarian dynamic.* New York: Cambridge University Press.

Stocks, E. L., Lishner, D. A., & Decker, S. K. (2009). Altruism or psychological escape: Why does empathy promote prosocial behavior? *European Journal of Social Psychology*, *39*, 649-665.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics*. Boston: Allyn and Bacon.

Täuber, S., & van Zomeren, M. (2012). Refusing intergroup help from the morally superior: How one group's moral superiority leads to another group's reluctance to seek their help. *Journal of Experimental Social Psychology*, *48*, 420-423.

Tscharaktschiew, N., & Rudolph, U. (2015). The who and whom of help giving: An attributional model integrating the help giver and the help recipient. *European Journal of Social Psychology*. doi: 10.1002/ejsp.2135

van Leeuwen, E., & Täuber, S. (2011). Demonstrating knowledge: The effects of group status on outgroup helping. *Journal of Experimental Social Psychology*, *47*, 147–156.

Wakefield, J. R. H., Hopkins, N., & Greenwood, R. M. (2013). Meta-stereotypes, social image, and help seeking: Dependency-related meta-stereotypes reduce help-seeking behaviour. *Journal of Community and Applied Social Psychology*, *23*, 363-372.

Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of reactions to

stigmas. *Journal of Personality and Social Psychology*, *55*, 738-748.

Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial

behavior and its influence on well-being for the helper and recipient. *Journal of

Personality and Social Psychology*, *98*, 222-244.

HELPING ORIENTATIONS INVENTORY

Table 1

Factor pattern matrix (principal-axis factor analysis, oblique rotation, three forced factors) for HOI items, Sample 1a

HOI scales and items	Factor		
	1	2	3
Autonomy orientation			
2. Teaching people to take care of themselves is good for society because it makes them independent		.59	
5. The goal of helping should be to make sure people can eventually take care of their own needs		.77	
10. Helping others now makes them better able to solve their own problems in the future	-.33	.54	
16. I help others so that they can learn to solve their own problems		.69	
17. Helping is all about making people better able to fix their own problems		.70	
24. I like to help individuals develop the skills and knowledge to help themselves		.68	
29. Helping others makes them better able to solve their own problems		.64	
30. When helping people, equipping them with knowledge and skill is the most important thing		.76	
Dependency orientation			
8. I help other because I like solving other people's problems			.63
11. The goal of helping should be to make sure that people have their immediate needs met			.39
19. In general, solving other people's problems for them is good for society because it helps meet immediate needs			.63
21. I like to try to help people even if the issue might come up again		.36	.34
22. I help others because they are unable to help themselves			.38
23. All people deserve help equally regardless of their personality and life circumstances			.42
25. I help others because I like taking care of people's problems			.73
32. Helping is all about fixing people's problems for them			.67
Opposition to helping			
4. Helping other people only makes them more needy in the future	.76		
6. Helping creates a weaker society because people will come to depend on others in times of hardship	.79		
7. In general, solving other people's problems for them is bad for society because they come to expect it in the future	.69		

HELPING ORIENTATIONS INVENTORY

9. Teaching people to take care of themselves is bad for society because it makes them dependent   .68

13. Helping others now will only make them dependent on others to solve their problems in the future   .79

20. Helping can weaken society because it divides society into those who can help and those who need help   .74

26. Helping others makes them less able to solve their own problems   .76

27. Solving other people's problems for them makes their situation worse in the long run   .75

Note. Only factor loadings greater than ±.30 are shown. $N = 289$. HOI = Helping Orientations Inventory.

Table 2

Correlations between the three HOI scales and constructs of relevance to intergroup helping, Sample 1d

	1	2	3	4	5	6	7
1. Autonomy orientation	--						
2. Dependency orientation	.66**	--					
3. Opposition	-.04	.23**	--				
4. Authoritarianism	.00	.17**	.18**	--			
5. SDO	-.37**	.04	.60**	.22**	--		
6. Group malleability	.30**	.04	-.35**	-.04	-.44**	--	
7. Negative feelings	-.28**	-.12*	.41**	.00	.43**	-.32**	--

Note: *p < .05. **p < .01. SDO = social dominance orientation.

Table 3

Correlations between the three HOI scales and constructs of relevance to interpersonal helping, Sample 1d

	1	2	3	4	5	6	7	8	9
1. Autonomy orientation	--								
2. Dependency orientation	.66**	--							
3. Opposition	-.04	.23**	--						
4. Empathic concern	.32**	.01	-.60**	--					
5. Perspective-taking	.26**	.11*	-.39**	.53**	--				
6. Social responsibility	.00	-.22**	-.55**	.49**	.36**	--			
7. Moral reasoning	.45**	.49**	.04	.19**	.28**	-.12*	--		
8. Personal distress	-.06	.21**	.39**	-.31**	-.12**	-.42**	.10	--	
9. SRA	.22**	.34**	.21**	-.08	.06	-.18**	.34**	.18**	--

*Note: *p* < .05. **p* < .01. SRA = self-reported altruism.

Table 4

Correlations between the three HOI scales, Big-Five personality traits, and self-relevant belief items, Sample 1e

|	1	2	3	4	5	6	7	8	9	10
1. Autonomy orientation	--									
2. Dependency orientation	.31**	--								
3. Opposition	-.16**	-.11*	--							
4. Agreeableness	.14**	.17**	-.20**	--						
5. Conscientiousness	.14**	-.05	-.11*	.11*	--					
6. Extraversion	.01	-.03	.02	-.01	.02	--				
7. Neuroticism	-.04	-.07	.01	-.17**	-.18**	-.14**	--			
8. Openness	.13**	.06	-.26**	-.14**	.04	.18**	.00	--		
9. Self-efficacy	.28**	.13**	-.03	.01	.41**	.22**	-.34**	.20**	--	
10. Self-esteem	.12**	-.01	-.13**	.10*	.36**	.35**	-.49**	.12**	.53**	--

Note: *p* < .05. ***p* < .01.

HELPING ORIENTATIONS INVENTORY

Figure 1

Confirmatory factor analysis model, with three scales, eight items per scale, and standardized parameters, Sample 2
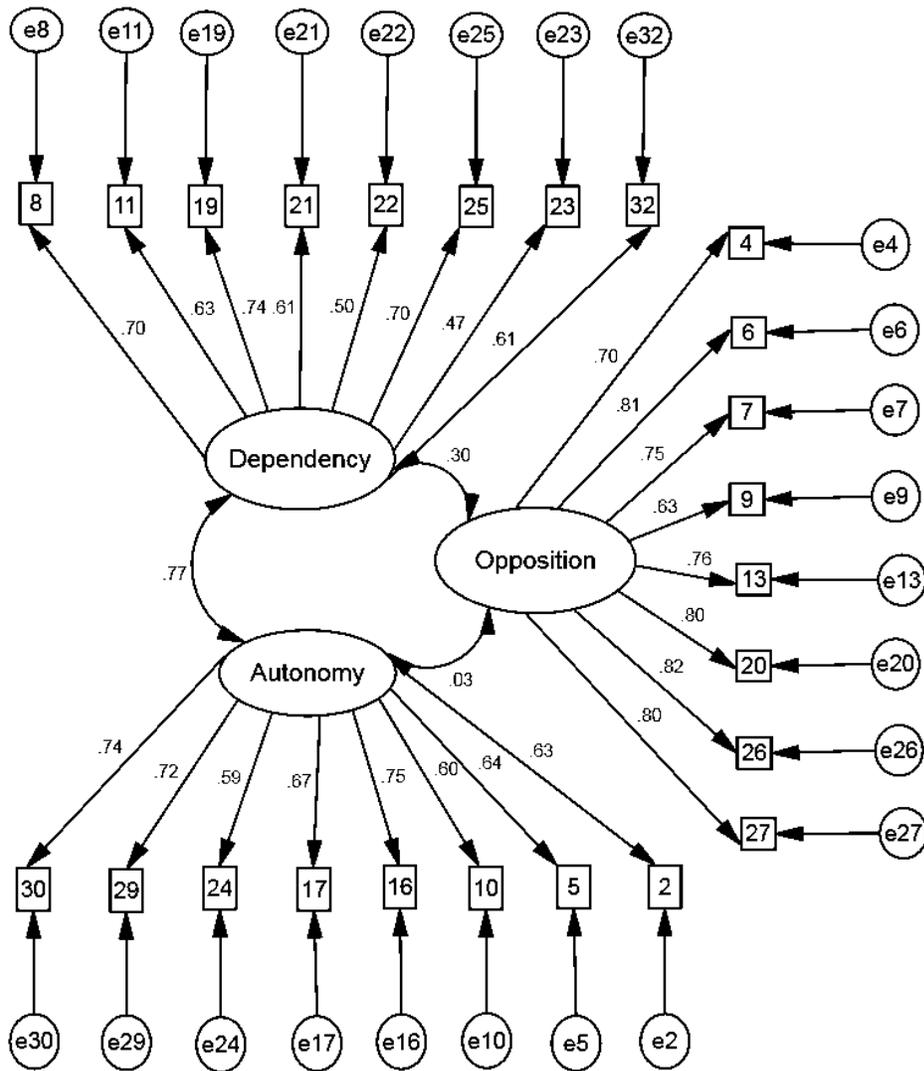
Note: All three scales were allowed to correlate with one another.