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# On the interpersonal regulation of emotions: Emotional reliance across gender, relationships, and cultures

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## Abstract

Three studies examine people's willingness to rely on others for emotional support. We propose that emotional reliance (ER) is typically beneficial to well-being. However, due to differing socialization and norms, ER is also expected to differ across gender and cultures. Further, following a self-determination theory perspective, we hypothesize that ER is facilitated by social partners who support one's psychological needs for autonomy, competence, and relatedness. Results from the studies supported the view that ER is generally associated with greater well-being and that it varies significantly across different relationships, cultural groups, and gender. Within-person variations in ER were systematically related to levels of need satisfaction within specific relationships, over and above between-person differences. The discussion focuses on the adaptive value and dynamics of ER.

When emotionally significant events occur, some individuals readily turn to others for support. Yet for others the act of sharing emotional concerns can be threatening or even viewed as a sign of weakness or inadequacy. Further, even for those who are willing to rely on others, there are some social partners with whom they would be reluctant to share feelings and others whom they might readily seek out for emotional support.

In this research, we investigate people's willingness to rely on others for emotional support, both as an individual difference and in terms of the factors leading to selective reliance on particular partners. We term this willingness to turn to others in emotionally salient situations *emotional reliance* (ER). Despite some charac-

terizations of ER as a sign of negative dependency (e.g., Hirschfeld et al., 1977), we predict that ER will on average be positively associated with well-being. We also expect that tendencies toward ER are influenced by both gender and culture, resulting in mean differences. Finally, based on self-determination theory (SDT) (Deci & Ryan, 2000; Ryan & Deci, 2000), we predict that ER is selective and that people are more willing to emotionally rely on those who they experience as supporting their basic psychological needs for autonomy, competence, and relatedness.

## ER and Social Support

*Social support* is a broad concept that refers to the help and care that others can provide and the effects of that care on coping, health, and psychological well-being. Social support can be manifest in many forms, such as providing information, instrumental help, or

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companionship, among other ways of caring (Cohen & Wills, 1985; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Thus, many distinct interpersonal processes fall under the rubric of social support, each of which may have its own unique dynamics and associations with outcomes (Goldsmith & Fitch, 1997).

*Emotional support* is one specific type of social support, representing the expression of concern, compassion, and comfort for an individual during emotional experiences (Burlinson & Kunkel, 1996; Reis & Collins, 2000; Wills & Shiner, 2000). Emotional support, in fact, appears to be one of the most critical types of social support, facilitating both coping with specific stressors and contributing to sustained well-being throughout the life span (Carstensen, Isaacowitz, & Charles, 1999; Rook, 1987; Ryan & La Guardia, 2000).

Various literatures suggest that merely having others available who can provide emotional support is positive for well-being (Cohen, Sherrod, & Clark, 1986; Pierce, Sarason, & Sarason, 1991; Ryan, Stiller, & Lynch, 1994; Windle, 1992) and health (e.g., Emmons & Colby, 1995). Yet, as Goldsmith and Fitch (1997) highlight, simply knowing the availability of potential emotional supports overlooks the reactions that recipients have to these available supports and what features of interpersonal relationships conduce to the supports are being utilized.

ER is not a measure of emotional support per se but rather of a person's readiness to enter into interactions where emotional supports may be available. We suggest that ER represents an individual difference variable in the sense that people differ in their overall willingness to turn to others for support. Yet, ER also varies within individuals from relationship to relationship as a function of the qualities of these specific relationships.

### **ER, Psychological Needs, and Well-being**

ER is a complex issue that is tied to the dynamics of psychological needs within specific relationships. In particular, we suggest that people's choices about whether to seek emotional support from specific others

depend on the functional significance of such support with respect to the recipient's basic psychological needs (Butzel & Ryan, 1997; Ryan & Solky, 1996). The concept of functional significance is derived from SDT and refers to the meaning of an event with respect to whether it facilitates or threatens the satisfaction of psychological needs, specifically, autonomy, competence, and relatedness (Deci & Ryan, 1985, 2000). According to SDT, emotionally sensitive partners are those who provide timely and appropriate responses to each of these three needs (La Guardia, Ryan, Couchman, & Deci, 2000), and we predict that need-supportive partners are those who most facilitate ER.

Particularly crucial in facilitating ER is the degree to which a social partner is perceived as supportive of autonomy. Within SDT, autonomy concerns volition, the experience of one's actions as self-endorsed (Ryan & Deci, 2000). The opposite of autonomy is heteronomy, which concerns feeling coerced, compelled, or controlled by forces alien to the self. A person who is supportive of autonomy does not attempt to control the partner's behavior, reactions, or feelings but rather is attentive to and interested in the partner's perspective and frame of reference (Ryan, 1993). Although in some literatures autonomy is equated with independence, SDT differentiates these constructs by defining dependence strictly in terms of reliance: One is dependent when relying on another for resources or supports (Ryan & Lynch, 1989). The opposite of dependence is thus not autonomy but non-reliance, or independence. Therefore, according to SDT, one can be autonomously dependent or reliant, as when one willingly turns to others for support, or autonomously independent, as when one reflectively decides not to rely on others (V. Chirkov, Ryan, Kim, & Kaplan, 2003; Ryan, 1993).

Because the issues of autonomy and independence are often not differentiated, one can find quite disparate theoretical views on the meaning and likely effects of ER. Some authors suggest that ER or dependency is problematic, and others laud it as natural and beneficial. In our view, studies that have shown negative effects of emotional dependence are

often those that conflate such dependence with heteronomy and/or fears of separateness. For example, Hirschfeld et al. (1977) introduced a widely used measure of *interpersonal dependency* that includes subscales concerning “emotional reliance” and “assertion of autonomy.” However, from an SDT view, Hirschfeld et al.’s ER construct concerns more than simply relying on others for emotional support. It taps strong fears of aloneness (“I tend to imagine the worst if a loved one doesn’t arrive when expected”), needs for approval (“Disapproval by someone I care about is very painful to me”), and vulnerability (“I think that most people don’t realize how easily they can hurt me”). Similarly, the subscale “assertion of autonomy” focuses on interpersonal detachment (“I don’t need anyone”), separateness (“I prefer to be by myself”), and extreme self-focus (“I am the only person I want to please”), rather than volition. Notably, Hirschfeld et al. have shown that dependence as they assess it relates to psychopathology, an outcome one would not expect from either ER or autonomy, at least as SDT defines them.

Similarly, some of the negative results associated with emotional autonomy (EA) are due to that construct being construed as a desire for separateness, detachment, and/or fears about relying on others, rather than being focused on volition. Steinberg and Silverberg (1986) introduced a construct called *emotional autonomy* that they originally conceptualized as an aspect of healthy individuation from parents. However, Ryan and Lynch (1989) suggested that EA as measured by Steinberg and Silverberg reflects emotional detachment from parents rather than autonomy. Many EA items describe an unwillingness to seek, rely on, or trust parental guidance. Ryan and Lynch accordingly demonstrated that greater EA was associated with adolescents perceiving parents as less loving and more rejecting and that those high in EA were less willing to utilize parents for support. In contrast, lower EA was related to lower perceived parental control and rejection and, on average, with better overall adjustment. Subsequent studies have shown that EA is higher when parents are nonnurturing and that teens high in EA are more likely to conform with peers, engage in risky behaviors, and achieve

less in school (e.g., McBride-Chang & Chang, 1998; McQueen, Getz, & Bray, 2003; Turner, Irwin, & Millstein, 1991).

In addition to the need to feel autonomous, SDT also suggests that ER is connected with the basic psychological needs for competence and relatedness. *Competence* concerns feeling effective within one’s environment (Deci, 1975; White, 1963). In some contexts, emotionally relying on others may be treated as incompetence, whereas in others it may be treated as mature and appropriate, and actually could facilitate perceived competence (Goldsmith & Fitch, 1997; Ryan & Solky, 1996). *Relatedness* concerns the feeling of belonging and connectedness (Baumeister & Leary, 1995; Deci & Ryan, 1985). We assume that ER can enhance feelings of relatedness and thus well-being (La Guardia et al., 2000; Reis & Collins, 2000; Reis & Franks, 1994; Russell, Peplau, & Cutrona, 1980).

We expect three findings. First, people will indicate more willingness to rely on those they perceive to support their autonomy. People will prefer to turn to others who are able to listen to and understand their internal frame of reference without needing to control them. Second, because we view ER as a resource in garnering emotional support rather than as opposed to autonomy or as a problematic form of dependency, higher levels of ER will be associated with greater well-being. Finally, the association between ER and well-being will be mediated by the fulfillment of psychological needs. That is, one benefits from emotionally relying on another to the extent that feelings of relatedness, competence, and autonomy are enhanced.

## ER and Gender

According to many theorists, boys are socialized to be agentic and independent, whereas girls are socialized to be communal and interdependent (Helgeson, 1994). As a result of these different emphases in socialization, the interpersonal expression of emotions is purported to be more salient (Shields, 1995) and frequent (Wills, 1998) for women than for men. Across cultures, women perceive comforting skills, intimate communication, and

interdependence to be more important than do men (Kashima, Yamaguchi, Choi, Gelfand, & Yuki, 1995; Samter, Whaley, Mortenson, & Burlison, 1997; Shields, 1995; Ting-Toomey, 1991). Emotional sharing is also considered to be a more common strategy for women than men to facilitate intimacy (Caldwell & Peplau, 1982) and well-being (Jordan, Kaplan, Miller, Stiver, & Surrey, 1991).

Consistent with these formulations, Ryan et al. (1994) found that by early adolescence, girls were less likely than boys to report turning to “no one” when coping with emotional events. Despite this mean difference, the effects on well-being were consistent across gender: ER on “no one” predicted poorer mental health equally for boys and girls. In light of such findings, we expect women to evidence greater overall ER. Yet, we also expect ER to afford similar benefits to males and females in most circumstances.

### The Present Studies

In Study 1, we assess college students' ER, or willingness to turn to a variety of target figures during emotionally salient events, and relate this assessment of ER to measures of attachment and unhealthy interpersonal dependence. Additionally, we test for gender effects, predicting women will report higher levels of ER. Despite mean differences, we expect ER to be positively associated with well-being for both males and females. In line with SDT, we also predict that students will be more willing to emotionally rely on the parent who most supports their autonomy and less on the parent whom they regard as relatively more controlling. Finally, we predict that the more students report relying on “no one” when emotional events occur, the poorer their adjustment. In Study 2, we extend our examination of variability in ER, hypothesizing that within-person variations in ER on particular others are related to relationship-specific supports for autonomy, competence, and relatedness. Study 3 tests the generalizability of the presumed positive associations between ER and well-being in samples from Korea, Russia, Turkey, and the United States.

## Study 1

### Method

#### *Participants and procedure*

One hundred ninety-five undergraduates (119 female, 76 male) completed assessment packets in small groups ( $n < 15$ ) and received extra course credit for their participation. These participants ranged in age from 17 to 28 years, with a mean age of 20.03 years.

#### *Measures*

*Emotional reliance.* We assessed ER using 10 items, each rated on a 5-point Likert-type scale for mother, father, best friend, roommate, and “no one,” resulting in a total of 50 items. Five of the item stems were adapted from the utilization subscale of the Inventory of Adolescent Attachments (Greenberg, Siegel, & Leitch, 1983) by Ryan et al. (1994). Five new item stems were added to enhance the range of situations. Table 1 presents all 10 items. Participants were instructed that if they did not currently have a particular relationship (e.g., a roommate), they should leave those items blank. If they had a non-traditional mother or father figure (e.g., a step-father), they were instructed to refer to that figure for items pertaining to mother or father.

A principal components factor analysis of the 10 ER items was performed for each target figure (mother, father, best friend, roommate, and “no one”). Data from each target supported a one-factor model, accounting for at least 58% of the variance, with each item loading above .60. To explore whether positively and negatively valenced items could form separate factors, a “forced” two-factor solution was attempted for each target. In no case did eigenvalues for a second factor exceed 1.0. As a result, ER scores for each target were formed by calculating the mean of all 10 items, and an overall ER score was calculated by taking the mean of the scores across targets, excluding “no one.” Alphas were .93, .95, .91, and .97 for mother, father, best friend, and roommate, respectively.

**Table 1.** *Emotional reliance questionnaire*

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1. When I am alone or depressed, I would turn to (my) \_\_\_\_\_.
  2. When I am anxious or scared about something, I would turn to (my) \_\_\_\_\_.
  3. When I am feeling very bad about myself and need a boost, I would turn to (my) \_\_\_\_\_.
  4. When I am feeling happy or have good news, I would turn to (my) \_\_\_\_\_.
  5. When I have just experienced a tragedy (e.g., the death of a family member or friend), I would turn to (my) \_\_\_\_\_.
  6. When I am feeling overwhelmed by responsibilities and commitments I would turn to (my) \_\_\_\_\_.
  7. When I am frustrated or angry I would turn to (my) \_\_\_\_\_.
  8. When I am feeling disappointed I would turn to (my) \_\_\_\_\_.
  9. When I am proud of my accomplishments I would turn to (my) \_\_\_\_\_.
  10. When I am confused or indecisive I would turn to (my) \_\_\_\_\_.
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*Note.* Items 1–5 adapted from Greenberg et al.'s (1983) Inventory of Adolescent Attachment.

*Interpersonal dependency inventory.* The 48-item Interpersonal Dependency Inventory (IDI; Hirschfeld, et al., 1977) consists of three subscales labeled (a) emotional reliance on others, (b) lack of social self-confidence, and (c) assertion of autonomy. Their ER subscale represents wishes for contact, approval and support from others, and dread at loss of the other. The lack of social self-confidence subscale reflects wishes for help in social decision making, while assertion of autonomy reflects preferences for being alone and independent and not having one's self-esteem be contingent on others' approval. Sample items from each of the subscales are (a) "Disapproval by someone I care about is very painful to me," (b) "I am quick to agree with the opinions of others," and (c) "I prefer to be by myself." Each subscale score represents the mean of the items, and an overall IDI score is calculated by taking the mean of all 48 items. Alphas were .87, .86, and .83 for each of the subscales, respectively.

*Attachment.* We created a 15-item measure consisting of 13 items from the Adult Attachment Styles inventory (Simpson, 1990), 1 item from Hazan and Shaver's (1987) avoidant prototype ("I find it difficult to allow myself to depend on others") and 1 item adapted from their ambivalent prototype ("I often want to merge completely with

another person").<sup>1</sup> Scores were calculated by taking the average of items for each style, yielding indexes of attachment security, avoidance, and enmeshment ( $\alpha = .67, .82,$  and  $.81$ , respectively).

*Perception of parents scale.* The Perception of Parents Scale (Robbins, 1994) assesses participants' perceptions of parents on dimensions of autonomy support versus control. Participants rate 14 items each for mother and father on 5-point Likert scales, yielding a total of 28 items. Sample items include "My mother listens to my opinion or perspective when I've got a problem" (autonomy support) and "My mother tries to tell me how to run my life" (control). The mean of the 14 items for each target constitutes the

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1. Simpson's (1990) measure was originally constructed by having participants rate 13 of 15 sentences contained in Hazan and Shaver's (1987) paragraph-form prototype measure of secure, avoidant, and anxious prototypes on Likert-type scales as described in Study 1, Methods. Simpson's technique allows for greater individual difference variability within each category. However, whereas Simpson's adaptation included 13 distinct items, at the suggestion of a prominent adult attachment researcher, we included 15 because (a) Simpson did not include one of the avoidant phrases and (b) one of his anxious items combined two distinct phrases from the anxious prototype that we separated into two independent items. This resulted in our 15 total items. Accordingly, our means cannot be directly compared with Simpson's.

scale score. Alphas were .92, .84, .92, and .83 for the separate factors of perceived maternal autonomy support, maternal control, paternal autonomy support, and paternal control, respectively.

*Well-being.* Symptoms of depression were assessed using the Center for Epidemiological Studies Depression scale (CES-D; Radloff, 1977), a 20-item, well-validated measure. Anxiety was measured by the widely used Taylor Manifest Anxiety Scale (TMAS; Taylor, 1953), which consists of 28 items rated on 7-point Likert scales. Finally, vitality was measured using the Subjective Vitality Scale (SVS; Ryan & Frederick, 1997), a 7-item measure of personal energy, characterized by feelings of vigor and aliveness. Alphas for the CES-D, TMAS, and SVS were .92, .90, and .86, respectively, for this sample. Vitality has particular interest within SDT as a marker of organismic integrity (Nix, Ryan, Manly, & Deci, 1999), and our interest is ultimately studying how congruent affective expression maintains and enhances vitality. Thus, we included the SVS among our central indicators of well-being.

A principal components factor analysis of the well-being constructs yielded a single factor accounting for 70% of the variance. A unit-weighted composite score was created using the mean of the standardized scores. Both overall and individual scores are used in analyses.

**Results**

Paired sample *t* tests with Bonferroni corrections for family-wise error ( $p < .005$ ) were conducted to compare ER on different relational partners. Sample means revealed that ER was significantly highest for best friend ( $M = 4.36, SD = .74$ ), followed by mother ( $M = 3.81, SD = 1.0$ ), roommate ( $M = 3.45, SD = 1.23$ ), and father ( $M = 3.24, SD = 1.19$ ), with roommate and father targets not significantly different from each other. Significantly lower than all other targets was the endorsement of “no one” ( $M = 2.15, SD = 1.02$ ). Table 2 presents the relations among the total, target-specific, and “no one” ER

**Table 2.** Intercorrelations and paired *t* tests among emotional reliance (ER) total, target, and “no one” scores (Study 1)

	ER total	ER best friend	ER roommate	ER mother	ER father
ER best friend	.53**	—			
ER roommate	.61**	.22**, $t(192) = 9.88$ ***	—		
ER mother	.73**	.21**, $t(194) = -6.93$ ***	.14*, $t(192) = 3.36$ **	—	
ER father	.75**	.20**, $t(193) = -12.33$ ***	.13, $t(191) = -1.91$	.58**, $t(193) = 7.83$ ***	—
ER no one	-.40**	-.35**, $t(194) = 21.35$ ***	-.20**, $t(192) = 10.32$ ***	-.29**, $t(194) = 14.37$ ***	-.26**, $t(193) = 8.66$ ***

Note. For paired *t* tests, values are Bonferroni corrected at  $p < .005$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

scores, showing that while total ER relates to each target, the targets are modestly associated with one another, suggesting considerable within-person variance. To examine gender effects, a *t* test for overall ER score showed that women reported higher overall ER than men,  $t(193) = 2.23, p < .05$ : men = 3.80, women = 3.57. Further, women were higher than men in their ER on best friends,  $t(193) = 3.27, p < .01$ : women = 4.50, men = 4.15, and men reported higher levels of ER on “no one” than women,  $t(193) = -2.88, p < .01$ : men = 2.41, women = 1.98.

Correlations of ER with Hirschfeld et al.’s (1977) IDI subscales, attachment indexes, and well-being measures appear in Table 3. As predicted, overall ER was negatively associated with assertion of autonomy, which we construed as “detached independence” ( $r = -.23, p < .01$ ). ER on “no one” was positively correlated with these scales ( $r = .43, p < .001$ , assertion of autonomy;  $r = .20, p < .01$ , lack of social self-confidence). These results suggest that overall willingness to rely on others is negatively associated with both an insistence on interpersonal independence and an excessive reliance on others for esteem. Only one gender difference emerged on the IDI. Assertion of autonomy was higher for men than for women ( $M_s = 2.29$  vs  $1.97$ ),  $t(193) = -4.46, p < .001$ .

Overall, ER was positively correlated with attachment security ( $r = .31, p < .001$ ) and negatively with attachment avoidance ( $r = -.31, p < .001$ ). Conversely, ER on “no one” was correlated positively with avoidance ( $r = .32, p < .001$ ).

Also as predicted, overall ER was positively related to the well-being composite ( $r = .29, p < .001$ ). To determine whether ER was associated with well-being similarly for males and females, we examined the Gender  $\times$  ER interaction predicting the well-being composite with a multiple regression analysis in which gender and ER total scores were entered in Step 1 and their interaction in Step 2. The interaction term was nonsignificant.

To test our hypothesis that support for autonomy facilitates ER, and controlling

**Table 3.** Intercorrelations of ER, total, and target scores with IDI, attachment, and well-being scales (Study 1)

	IDI AA	IDI SS	IDI ER	Security	Avoidance	Enmeshment	WB	CES-D	VIT	ANX
ER total	-.23**	-.18	-.03	.31***	-.31***	-.01	.29***	-.25***	.29***	-.19**
ER mother	-.16*	-.12	-.07	.14	-.14	.02	.14	-.13	.12	-.11
ER father	-.09	-.13	-.04	.29***	-.20**	-.01	.23**	-.18	.24**	-.15
ER best friend	-.32***	-.22**	-.01	.31***	-.31***	.03	.26***	-.25**	.26***	-.13
ER roommate	-.12	-.05	.03	.12	-.21**	-.03	.15	-.13	.15*	-.10
ER no one	.43***	.20**	.14	-.18	.33***	.05	.22**	.19**	-.25**	.11

*Note.* Given the number of correlations conducted, more conservative test of significance ( $p < .01$ ) was selected. ER = emotional reliance; IDI = interpersonal dependency inventory; AA = assertion of autonomy; SS = social self confidence; CES-D = Center for Epidemiological Studies Depression scale; VIT = subaortic vitality scale; ANX = Taylor Manifest Anxiety Scale; WB = Well-being composite. \*\* $p < .01$ . \*\*\* $p < .001$ .

orientations undermine it, we explored the associations between ER and relative differences in perceived parental autonomy support and control. Using a statistical method employed by Kasser and Ryan (1996), we first created a residual score for each parent separately, in which each parent's ER score was regressed onto the overall ER score. Hence, the remaining residual represents the degree to which participants were willing to emotionally rely on each parent relative to their overall willingness to turn to all targets. Then, we tested the relation between this relative ER on a given parent and perceived autonomy support and control by that parent, predicting a pattern of target-specific covariance. Maternal autonomy support was positively related to one's relative ER on mother ( $r = .57, p < .01$ ) but not on father ( $r = .04, ns$ ). Similarly, paternal autonomy support strongly predicted relative ER on father ( $r = .50, p < .01$ ) but not on mother ( $r = .02, ns$ ). Analogous correlations showed that maternal control was negatively associated with relative ER on mother ( $r = -.29, p < .01$ ) but was unrelated to ER on father ( $r = -.07, ns$ ), and paternal control was associated with less relative ER on father ( $r = -.23, p < .01$ ) but unrelated to ER on mother ( $r = -.05, ns$ ). The effects were not moderated by gender.

### Brief Discussion

Study 1 revealed that ER is positively related to attachment security and negatively related to both morbid dependency and extreme independence or separateness. ER was highest for best friends (often considered the most intimate relationship of college students; see La Guardia et al., 2000), followed by mother, father, and roommate. Gender differences also emerged as predicted, with ER generally higher in women. Also as expected, overall ER was associated with greater well-being. In contrast, ER on "no one" was associated with more detached independence from others and was negatively associated with well-being. Finally, students reported greater willingness to rely on the parent who they perceived to be more autonomy supportive and less controlling. These findings support

our primary hypotheses concerning the positive effects of ER, gender differences, and selectivity. Moreover, they suggest the conceptual importance of distinguishing between concepts of dependence, autonomy, and separateness as our theoretical review suggested.

### Study 2

Because most people have multiple relationship partners on whom they could potentially rely for emotional support, our aim in Study 2 was to demonstrate variability of ER across relationships and to account for this variability by demonstrating links to psychological need fulfillment within relationships. Additionally, we wanted to further explore the relations of ER and need satisfaction with well-being. We used multilevel modeling (hierarchical linear modeling [HLM]; Bryk & Raudenbush, 1992) to simultaneously attend to between- and within-person variance. We expected ER, like other aspects of support (Davis, Morris, & Krause, 1998), to significantly vary across relationships and that relationships characterized by higher need satisfaction would conduce toward greater ER. Finally, we examined whether need satisfaction mediated the relation between ER and well-being in general and within each specific target relationship.

### Method

#### *Participants and procedure*

One hundred sixty undergraduates (105 women, 55 men) were recruited and earned extra course credit for their participation. These participants ranged in age from 18 to 29 years, with a mean of 20.28 years. They completed assessments in small group sessions.

#### *Measures*

*Emotional reliance.* The same 10-item ER assessment was used. However, in an effort to remove any ambiguity about ER being a willingness to turn to others, item stems were altered slightly to read, "If I were feeling



alone or depressed, I would be willing to turn to....” All 10 items were rated for each target figure, with the mean of items representing the target score. As in Study 1, factor analyses similarly supported a one-factor solution for each target. Alphas were .92, .93, .89, and .88 for mother, father, romantic partner, and best friend, respectively.

*Need satisfaction scale.* Need satisfaction scale (La Guardia et al., 2000) assesses the presence of supports for the basic psychological needs of autonomy, competence, and relatedness. Participants rated how well their basic needs were met within each target relationship on 5-point Likert scales. The constructs of autonomy, competence, and relatedness are measured in parcels of 3 items each, yielding a total of 9 items per target, or 36 items in total. Alphas for the nine-item target scales were .91, .90, .90, and .84 for mother, father, romantic partner, and best friend, respectively.

*Well-being.* Symptoms of depression were assessed using the CES-D ( $\alpha = .91$ ), and vitality was assessed using the SVS ( $\alpha = .86$ ) as in Study 1. Life satisfaction was measured with the widely used five-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) ( $\alpha = .88$ ). Items were rated on a 9-point scale, with the mean constituting the total score. Symptoms of anxiety were measured using the 20-item State-Trait Anxiety Scale (Spielberger, Gorsuch, & Lushene, 1971) ( $\alpha = .93$ ). Self-esteem was measured using the 10-item general self-esteem scale of the Multidimensional Self-Esteem Inventory (O'Brien & Epstein, 1988) ( $\alpha = .91$ ). Items were rated on 7-point scales, with the mean of all items indexing self-esteem [e.g., “I sometimes have a poor opinion of myself” (reversed)].

A principal components factor analysis was performed on measures of well-being. One factor was extracted, accounting for 71% of the variance, with each factor loading greater than .72. A unit-weighted composite well-being score was computed by taking the mean of standardized scores on the variables loading on the factor, and this was used to index overall well-being.

## Results

### *Variability of ER*

To establish that significant variability in ER exists across relationships, multilevel modeling (HLM; Bryk & Raudenbush, 1992) was utilized to simultaneously analyze the between- and within-person levels. Results suggested that 29% of the variance was contained at the between-person level, while 71% of the variance was within-subjects variance (variability in ER across partners) or error.

Paired samples *t* tests with Bonferroni corrections ( $p < .01$ ) were conducted to test the ER and need satisfaction mean differences by target (Table 4). ER was highest on best friend ( $M = 6.16$ ,  $SD = .93$ ), followed by romantic partner ( $M = 6.00$ ,  $SD = 1.03$ ), mother ( $M = 5.79$ ,  $SD = 1.36$ ), and father ( $M = 5.27$ ,  $SD = 1.48$ ). For need satisfaction, participants reported being most satisfied in relationships with best friend ( $M = 6.23$ ,  $SD = .73$ ), followed by romantic partner ( $M = 5.92$ ,  $SD = 1.10$ ) and mother ( $M = 5.90$ ,  $SD = 1.10$ ), and least with father ( $M = 5.56$ ,  $SD = 1.11$ ). Further, gender differences were examined using *t* tests (Bonferroni corrected at  $p < .008$ ) for ER and need satisfaction scales. Women were significantly higher than men on overall ER,  $t(156) = 3.19$ ,  $p < .01$ : women = 5.95, men = 5.49, and best friends,  $t(155) = 2.71$ ,  $p < .01$ : women = 6.30, men = 5.89. No significant gender differences emerged for need satisfaction.

To understand whether the within-person variance was systematic, we constructed a hierarchical linear model to predict ER from need satisfaction at the level of the relationship, with need satisfaction centered on the person's own mean need satisfaction across relationships. Further, in each equation, we controlled for the effects of relationship type with dummy codes [e.g.,  $ER = \beta_{0j} + \beta_{1j}(\text{need satisfaction}_{ij}) + \beta_{2j}(D1) + \beta_{3j}(D2) + \beta_{4j}(D3) + r_{ij}$ ]. Each participant had a maximum of four relationships, with some having fewer, yielding a total of 604 relationships nested within 160 people. At the person level, we assessed whether gender moderated the intercept and the need satisfaction to ER slope. Thus, two person-level equations were constructed to test these effects [ $\beta_{0j} = Y_{00} +$

**Table 4.** Correlations and paired *t* tests comparing targets for emotional reliance (ER) and need satisfaction (NS) (Study 2)

	ER mother	ER father	ER best friend	ER romantic partner
ER mother	—	—	—	—
ER father	.67**, <i>t</i> (149) = 5.96**	—	—	—
ER best friend	.20, <i>t</i> (154) = -2.82**	.13, <i>t</i> (148) = -6.54***	—	—
ER romantic partner	.21, <i>t</i> (122) = -1.19	.27*, <i>t</i> (118) = -4.85***	.40**, <i>t</i> (121) = 1.49	—
	NS mother	NS father	NS best friend	NS romantic partner
NS mother	—	—	—	—
NS father	.59**, <i>t</i> (150) = 4.37**	—	—	—
NS best friend	.32**, <i>t</i> (156) = -3.54**	.26*, <i>t</i> (149) = -6.97**	—	—
NS romantic partner	.25*, <i>t</i> (133) = -.45	.40**, <i>t</i> (128) = -3.63**	.50**, <i>t</i> (132) = -4.58**	—

Note. For paired *t* tests, values are Bonferroni corrected at  $p < .01$ .

\* $p < .01$ . \*\* $p < .001$ .

$Y_{01}(\text{gender}) + u_{0j}$ ;  $\beta_{1j} = Y_{10} + Y_{11}(\text{gender}) + u_{1j}$ ]. The intercept and need satisfaction effects in the person-level equations were treated as random ( $u_{nj}$ ), and dummy coded effects were fixed. Thus, the random difference between persons ( $u_{nj}$ ) was included for the estimates of both the intercept and the need satisfaction slope.

Results indicated that, on average, women reported greater overall ER, replicating findings from Study 1. Regardless of gender, the effect of need satisfaction on ER was significant, such that on average, greater need satisfaction was associated with greater willingness to rely in relationships (coefficients for men and women, .86 and .71, respectively,  $p < .001$ ).

We then explored whether level of need satisfaction was predictive of ER within specific relationships. Using multiple linear regression, residualized scores of ER and need satisfaction for each target were created using the Kasser and Ryan (1996) method described in Study 1. Then, for each relationship and controlling for gender, the residual ER score

was regressed onto the residual need satisfaction score. This procedure yielded significant results for relationships to mother,  $F(1, 153) = 189.31$ ,  $\beta = .74$ ,  $p < .001$ ; father,  $F(1, 149) = 106.43$ ,  $\beta = .64$ ,  $p < .001$ ; romantic partner,  $F(1, 122) = 111.50$ ,  $\beta = .69$ ,  $p < .001$ ; and best friend,  $F(1, 152) = 213.28$ ,  $\beta = .76$ ,  $p < .001$ , indicating that greater need satisfaction is robustly associated with greater ER within relationships, regardless of relationship type.

#### *Relations of ER, need satisfaction, and well-being*

Overall, need satisfaction was positively correlated with vitality ( $r = .28$ ,  $p < .001$ ), self-esteem ( $r = .41$ ,  $p < .001$ ), and life satisfaction ( $r = .48$ ,  $p < .001$ ) and negatively correlated with symptoms of depression ( $r = -.43$ ,  $p < .001$ ) and anxiety ( $r = -.35$ ,  $p < .001$ ). ER also related to the same five well-being outcomes similarly ( $r_s = .26, .22, .47,$

-.30, -.25, all  $ps < .001$ ). Using the well-being composite as the dependent measure, we tested whether gender moderated the impact of ER or need satisfaction on well-being. As in Study 1, regressions testing these moderation effects were not significant. Controlling for the main effects of gender, betas for the main effects of ER for mother, father, romantic partner, and best friend were .39, .18, .19, .45, and .39, and for need satisfaction were .47, .20, .29, .53, and .50, respectively (all  $ps < .05$ ).

Following methods outlined by Kenny, Kashy, and Bolger (1998), mediation by need satisfaction of the overall ER to well-being relationship was then tested. ER significantly predicted well-being,  $F(1, 156) = 22.84$ ,  $\beta = .36$ ,  $p < .001$ , and overall need satisfaction,  $F(1, 156) = 134.54$ ,  $\beta = .68$ ,  $p < .001$ . When well-being was regressed onto need satisfaction, controlling for ER, the effect was significant,  $F(1, 155) = 18.21$ ,  $\beta = .41$ ,  $p < .001$ . However, the path from ER to well-being was no longer significant with overall need satisfaction in the equation. The Sobel test revealed that the decrease in the beta coefficient from .33 to .08 was significant ( $z = 3.47$ ,  $n = 155$ ,  $p < .001$ ), and because the coefficient .08 was itself not significant,  $F(1, 155) = .62$ ,  $ns$ , these results suggest full mediation.

Analysis of mediation at the level of individual relationships supported a similar model for relationships to father, romantic partner, and best friend. However, for mother, mediation by need satisfaction was not significant. Because of this deviation from the general pattern for mothers, we explored the interaction of maternal need satisfaction and ER on mother in predicting well-being. This analysis revealed a significant result,  $F(1, 154) = 5.31$ ,  $\beta = .23$ ,  $p < .05$ , indicating that those who were highly need fulfilled and highly emotionally reliant and those with low need fulfillment and low ER had relatively higher levels of well-being than all others. Those who were low on need fulfillment yet highly emotionally reliant on their mothers showed the lowest level of well-being. This pattern indicates that congruency—matching one's level of reliance on mother to level of need satisfaction—is better for mental health, while having little of one's psychological needs met by one's

mother, yet still being willing to rely highly on her, bodes badly for well-being. Having examined this interaction with mothers as the target, we further examined the same interaction for each of the remaining targets (three additional tests), but no significant effects emerged.

### Brief Discussion

Results confirmed that there is substantial within-person variability in ER across relationships. They also suggest that ER is positively related to need satisfaction, such that the more people experience fulfillment of needs for autonomy, competence, and relatedness in a relationship, the more they are willing to rely on that person for emotional support.

This study also demonstrated that need satisfaction mediated the relationship between ER and well-being. It appears that ER yields benefits to well-being as a function of engendering greater feelings of relatedness, competence, and autonomy at the general level and in specific relationships to father, romantic partner, and best friend.

Interestingly, ER on mothers did not fit this mediational pattern. In post hoc analyses, we found instead a significant interaction between ER and need satisfaction on well-being for mothers. The best psychological adjustment was found for individuals who are willing to rely on mothers who are responsive to their psychological needs and for those who are not willing to rely on mothers who are not. Why does this moderation pattern only emerge for mothers? We suspect that this finding is related to the critical role mothers play in the lives of many students. Whereas students may have greater discretion about whether to rely on other targets who are not need supportive, some students may feel compelled to turn to their mother for support regardless of her actual responsiveness. These data suggest that such reliance can be problematic. Because it was not predicted, this finding warrants replication in future research.

### Study 3

Many researchers have begun to investigate interpersonal relationships in individualistic

and collectivistic cultures. This interest has been spurred by some characterizations of western cultures, such as those of the United States and Western Europe, as placing less emphasis on relational ties and more on independence and self-focus (Markus & Kitayama, 1991). Conversely, collectivistic cultures, particularly those from East Asia, are often described as emphasizing group cohesion and interpersonal harmony (Hofstede, 1980; U. Kim, 1994; Triandis, 1989).

Although one might assume that the emphasis on interpersonal connection and cohesion in collectivistic cultures would beget more ER on others, we suggest that cross-cultural patterns and forms of reliance are not monolithic. In fact, many western cultures are characterized by an openness of emotional expression between intimates. By contrast, the norm in some East Asian cultures (themselves hardly homogenous) is to restrict the expression of personal emotions (Suh, Diener, Shigehiro, & Triandis, 1998). In fact, too much attention to one's own thoughts and feelings, irrespective of their impact on others, may be regarded as selfish or immature (Y. Kim, Deci, & Zuckerman, 2002; Suh et al., 1998). Thus, it could be argued that a strong concern for the welfare of the group and subordination of personal needs (Kwan, Bond, & Singelis, 1997; Matsumoto, Kudoh, Scherer, & Wallbott, 1988) may actually lead to lower ER. Some researchers further suggest that collectivists are more likely than individualists to assume that disclosure is not necessary for one to cope with emotional events. Markus and Kitayama (1991) state that in individualistic cultures "it is the individual's responsibility to 'say what's on one's mind' if one expects to be attended to or understood" while in collectivistic cultures providers of support have "the willingness and ability to feel and think what others are feeling and thinking ... without being told" (p. 229). These assumptions suggest that ER may not be as salient or helpful in collectivistic cultures, but this is a largely untested hypothesis.

A recent review by Burleson (2003) suggested, in fact, that some of these characterizations of cultural differences in the value

and form of emotional support may need to be revisited. He reported data from two studies comparing Chinese and U.S. participants, finding that members of both samples placed high value on emotional support. He concluded that these findings call into question whether cultural values like individualism and collectivism truly foster differences in what people desire from close relationships. At the same time, he suggested that the way in which emotional support may be conveyed may differ across cultures.

As these viewpoints underscore, we expect that ER may be valued differently across cultures, as well as expressed differently. However, because emotional sharing is a form of intimacy and promotes awareness and integration, we suggest that ER will be associated with greater well-being across cultures. Thus, we predict that although mean levels of ER may differ, ER will yield positive outcomes across cultures and, as in Studies 1 and 2, across gender.

We examine samples from four cultures selected to vary in their relative emphasis on individualistic versus collectivistic practices. We recruited student samples from Russia, South Korea, Turkey, and the United States. Existing literatures (e.g., V. Chirkov et al., 2003; Triandis, 1989) suggest that U.S. participants are the most individualistic of the four; South Koreans are the most collectivistic, with Turkish and Russian participants between the other two.

## Method

### *Participants and procedure*

Participants<sup>2</sup> were 557 students drawn from four nations: 195 from a northeastern U.S. university (52 men, 143 women; mean age = 19.6 years); 159 from two universities in north central Russia (42 men, 117 women; mean age = 20.7 years); 94 from a midsize university in southwestern Turkey (54 men,

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2. The data collection for this Study 3 was also the basis of an article by V. Chirkov et al. (2003) concerning cross-cultural aspects of autonomy for specific behaviors.

40 women; mean age = 21.7 years), and 109 from a South Korean university (79 men, 30 women; mean age = 20.2 years). All of the universities were in urban areas and enrolled economically diverse students. Eligible participants were those who were born in and whose native language was that of the country being studied. Demographic variables such as marital status and family income (adjusted to the national currency and level of wealth) were comparable across samples, with the exception of a somewhat lower income level among Turkish participants. A trained assistant administered surveys in small groups, and participants all received either course credit or a small monetary compensation.

### Measures

Persons highly fluent in both English and the language of the country translated instruments that appeared originally in English, and back translations were performed to test the fidelity of the measures.

*Emotional reliance.* We used a brief four-item measure of ER (items 1–4 in Table 1). On a 5-point Likert-type scale, participants rated each of the 4 items for their relationships to family and friends. Alpha coefficients for Korea, Russia, Turkey, and the United States were .76, .79, .76, and .85 for family, and .75, .79, .85, and .80 for friends, respectively.

*Well-being.* Four indicators were chosen to assess both hedonic and eudaimonic well-being (Ryan & Deci, 2001). Each has previously shown cross-cultural comparability using Means and Covariance Structure (MACS) analysis in U.S./Russian and U.S./Korean comparisons (e.g., Y. Kim et al., 2002; Ryan et al., 1999), criteria to be retested, below. The first indicator was the SWLS (Diener et al., 1985). Alpha coefficients for Korea, Russia, Turkey, and the United States were .83, .75, .76, and .85, respectively. The second measure was the Short Index of Self-Actualization (Jones & Crandall, 1986), a 15-item scale consisting of varied indicators of growth and self-realiza-

tion. Alphas for Korean, Russian, Turkish, and U.S. samples were .40, .40, .50, and .64, respectively. Low alphas are typical for this measure, which aggregates across facets from a longer multidimensional measure. It has nonetheless stood up in prior studies to cross-cultural comparability criteria (e.g., Ryan et al., 1999). A third measure was the 10-item Self-Esteem Scale (Rosenberg, 1965) assessing global self-worth. Alphas for Korean, Russian, Turkish, and U.S. samples were .85, .77, .83, and .85, respectively. Finally, we used six items from the Center for Epidemiological Studies Depression Inventory (Radloff, 1977) to assess depressive symptoms. Alphas for Korea, Russia, Turkey, and the United States were .86, .79, .77, and .89, respectively.

## Results

### Gender and cultural differences

Omnibus ANOVAs tested effects of gender, country, and their interaction on ER for family and friends. Means and standard deviations are shown in Table 5 for ER on family and friends. ER family results revealed main effects for gender,  $F(1, 556) = 13.76, p < .001$ ; country,  $F(3, 556) = 10.57, p < .001$ ; and a marginally significant interaction,  $F(3, 556) = 2.18, p < .09$ . Overall, ER on family was significantly higher for women ( $M = 3.73$ ) than for men ( $M = 3.40$ ). Further, ER on family was significantly higher for the U.S. ( $M = 3.79$ ) and Russian ( $M = 4.03$ ) samples than for Turkish ( $M = 3.16$ ) and Korean ( $M = 3.52$ ) samples. Koreans were significantly lower than all other samples on ER on family. The  $t$  tests comparing gender differences within country (Bonferroni correction  $p < .0025$ ) showed that ER on family was higher for Russian women than for Russian men,  $t(157) = -3.34, p < .01$ : women = 4.18, men = 3.60, and for U.S. women than for U.S. men,  $t(193) = -3.40, p < .01$ : women = 3.94, men = 3.40. Korean men did not differ significantly from Korean women and Turkish men did not differ from Turkish women in ER on family.

Similarly, ER on friends revealed main effects for gender,  $F(1, 556) = 16.98, p < .001$ .

**Table 5.** Means and standard deviations of emotional reliance (ER) on family and friends

	ER family			ER friends		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
United States (total)	194	3.79 <sub>a</sub>	0.98	194	3.98 <sub>ef</sub>	0.80
Men	52	3.40	1.01	52	3.63	0.99
Women	142	3.94	0.93	142	4.10	0.68
Russia (total)	159	4.03 <sub>bc</sub>	0.97	159	3.90 <sub>gh</sub>	0.94
Men	42	3.60	0.98	42	3.56	1.05
Women	117	4.18	0.92	117	4.02	0.92
Korea (total)	109	3.16 <sub>abd</sub>	0.87	109	3.61 <sub>cgi</sub>	0.77
Men	79	3.16	0.85	79	3.55	0.73
Women	30	3.18	0.92	30	3.79	0.86
Turkey (total)	94	3.52 <sub>cd</sub>	0.96	94	3.30 <sub>fhi</sub>	0.84
Men	54	3.44	1.02	54	3.31	0.68
Women	40	3.63	0.89	40	3.27	1.02

Note. Subscripts within columns indicate means that differ from each other, at least  $p < .05$ .

.001; country,  $F(3, 556) = 10.28, p < .001$ ; and a marginally significant interaction,  $F(3, 556) = 2.51, p < .06$ . Overall, ER on friends was significantly higher for women ( $M = 3.84$ ) than for men ( $M = 3.52$ ). Further, ER on friends was similar in the United States ( $M = 3.98$ ) and Russia ( $M = 3.90$ ), while both groups were higher than Koreans ( $M = 3.61$ ) and Turks ( $M = 3.30$ ), with Turks significantly lower than all groups. The  $t$  tests comparing the gender differences within country of ER on friends (Bonferroni correction  $p < .0025$ ) showed that Russian women reported greater ER on friends than Russian men,  $t(157) = -2.54, p < .01$ : women = 4.02, men = 3.56, and U.S. women reported greater ER on friends than U.S. men,  $t(193) = -3.16, p < .01$ : women = 4.10, men = 3.63. No gender differences were found within the Korean and Turkish samples.

#### MACS analyses and model testing

To ensure measurement equivalence and comparability of constructs, we employed MACS analyses (Little, 1997, 2000). MACS procedures test the factorial invariance of measurement models across samples by placing equality constraints on both intercepts and factor loadings but not on the unique parameters and correlations between con-

structs. The goodness-of-fit index (GFI), the root mean square error of approximation (RMSEA), the incremental fit index (IFI), and the comparative fit index (CFI) were used to assess the model fit.<sup>3</sup>

For ER, two latent constructs were created from two observed indicators pertaining to family and friends, with each indicator consisting of two items. These two scales were invariant across samples,  $\chi^2(22, N = 553) = 56.5, p < .001$ , RMSEA = .10 (90% CI = .07 to .14, CFI = .94; IFI = .94), indicating that ER measures were comparable across cultures.

*ER and well-being.* For well-being, three observed indicators for each of the depression and self-actualization variables and two indicators for each of the self-esteem and life satisfaction variables were used to test models

3. For the indexes GFI, IFI, and CFI, values of .90 or higher were considered acceptable, and for the invariance test, we used a difference-in-fit criterion of  $< .05$  (Little, 1997). For RMSEA, we used the conventional decision rule:  $< .05$  represents a small error of approximation and a very good fit of the model,  $.10 > RMSEA > .05$  suggests a reasonable error of approximation, and  $> .10$  indicates poor fit. Because of its high sensitivity to the trivial discrepancies between covariance matrices, the likelihood ratio chi-square statistic was not used in the decision making about the model acceptability.

of cross-cultural comparability. The factorial invariance fit for the measurement models across four countries was acceptable (RMSEA = .063; CFI = .96, IFI = .96). However, the model based on strong factorial invariance fell just below the optimal levels, RMSEA = .11 (90% CI = .095 to .012), CFI = .89, IFI = .89. Despite this, we decided to treat the well-being constructs as comparable because the measurement model yielded relatively high factorial invariance (Ghorpade, Hatrup, & Lackritz, 1999), and prior research using MACS with these scales revealed comparability across three of these cultures (e.g., V. I. Chirkov & Ryan, 2002; Y. Kim et al., 2002; Ryan et al., 1999).

To test the relations of ER to well-being, two multiple regressions were performed. In each, we used the composite well-being index as the dependent variable and friend or family ER, country contrast codes (used to test comparisons of constructs by country membership), and interactions of ER by country code as the independent variables. Contrast 1 compared U.S. to Russian, Korean, and Turkish participants taken together; Contrast 2 compared Russians to Koreans and Turks, and Contrast 3 evaluated Koreans in relation to Turks. Thus, collectively, these contrasts capture all the possible variance due to between-country differences.

Regression results revealed main effects for Contrast 1 (comparing the United States vs. all others) and Contrast 2 (comparing Russians to Koreans and Turks) on well-being. Well-being was greater,  $F(3, 540) = 64.84$ ,  $\beta = .32$ ,  $p < .01$ , among U.S. participants (latent composite mean set at 0.00) compared with Russian (latent mean =  $-.24$ ), Turkish (latent mean =  $-.57$ ), or Korean (latent mean =  $-.50$ ) participants. Also, Russians had higher composite well-being than either Turks or Koreans,  $F(3, 540) = 20.90$ ,  $\beta = .19$ ,  $p < .01$ .

For ER on family, a main effect emerged such that greater ER with family was associated with greater well-being,  $F(1, 543) = 21.69$ ,  $\beta = .19$ ,  $p < .01$ . A main effect also emerged for ER on friends, with greater ER associated with greater well-being,  $F(1, 543) = 15.25$ ,  $\beta = .16$ ,  $p < .01$ . Of the six poten-

tial contrast codes by ER interactions only one emerged as significant, namely ER on Friends  $\times$  Contrast 1 ( $\beta = .38$ ,  $p < .01$ ), indicating that ER on friends was more associated with well-being in the U.S. than in the other three samples.

Subsequently, within-country regression analyses were conducted separately for each indicator of ER with gender and its interaction with ER variables as predictors of well-being. Consistent with the descriptive analyses previously reported, a significant main effect for gender emerged only in the Russian sample,  $F(1, 158) = 4.81$ ,  $\beta = .17$ ,  $p < .05$ , showing that men ( $M = 8.42$ ) reported greater well-being than women ( $M = 7.84$ ). The effect of ER on well-being was moderated by gender in only one case. In the Russian sample, a significant interaction of ER with family by gender on well-being indicated that the effect was more pronounced for women than for men,  $F(1, 159) = 4.43$ ,  $\beta = -.63$ ,  $p < .05$ .

### Brief Discussion

Using MACS analyses, we found that the construct of ER as measured was psychometrically comparable across cultures. As expected, means on ER differed by country and gender. ER on friends was highest in the United States and lowest in Turkey, whereas ER on family was highest among Russians and lowest among Koreans. Where gender differences emerged, women were higher than men. However, the relations of ER on family and friends to well-being were similar across cultures: the more emotionally reliant, the greater the benefits for well-being. Gender also did not generally moderate the effects of ER on well-being. An exception was that reliance on family was associated with greater well-being outcomes for Russian women than for men, whereas the reverse was true in the United States. The observed mean-level variations suggest that cultural context and gender may impact upon both the level of ER and to whom ER is directed. Yet, the findings also suggest that ER on family and friends is associated similarly with well-being across these cultural settings despite variations in collectivism versus individualism.

## General Discussion

Emotional support has been identified as one of the most critical types of support for adaptation to stress and sustained well-being (Burlleson, 2003; Reis & Collins, 2000; Wills & Shinar, 2000). However, the receipt of emotional support is undoubtedly influenced by one's willingness to rely on others during emotionally laden events. Although it would seem that a willingness to turn to others might be beneficial, theories and measures of ER have often infused the construct of reliance with other attributes such as neediness, insecurity, or detachment, thus making it a negative construct. In this research, we investigated people's self-reported willingness to turn to others during emotionally salient times, which we termed emotional reliance. ER is viewed as both an individual difference and an attribute that varies across a person's different relationships as a function of their quality. Our interest was to explore the association of ER with psychological well-being, and the qualities of interpersonal relationships within which ER is more likely to occur.

In accord with our major hypothesis, ER was positively associated with well-being. This relation was replicated in all three studies. Having distinguished ER from earlier constructs entailing more problematic forms of emotional dependence, it appears that being willing to seek out interpersonal support during emotional events may be neither harmful nor indicative of psychological problems. The findings also underscore the importance of keeping constructs such as autonomy, detachment, and insecurity distinct in measurement and theory concerning support and dependence. Autonomy and dependence are not inherently antithetical and, indeed, people often solicit care from others by choice and with positive effects.

Results across studies also demonstrated that gender and culture can affect levels of ER. Gender theories have suggested differences between men and women in the function of emotional support and the resultant effects of emotional support on well-being, with women being more apt to seek emotional support than men, and perhaps benefit more from it. Although we did not invariantly find

gender differences in level of ER, when we did, they showed greater ER for women, as past theories have suggested. However, the beneficial effects of ER on well-being were similar across gender, despite mean differences.

Cross-cultural theories have also suggested that the mode and functional impact of ER may differ based on cultural orientation. In much of this work, it is suggested that collectivist cultures promote more concern with others' emotions but less willingness to turn to others explicitly for emotional support. Four samples drawn from countries that varied along the collectivism versus individualism dimension showed some differences in ER for family and friends. South Koreans, as these theories would predict, indicated they would be less likely than Russians, Turks, or Americans to emotionally rely on family members. Also as these theories would suggest, Americans reported more ER on friends than did other samples. However, there were no monolithic trends; gender differences tended to outstrip cultural ones, and ER appeared to be both comparably measurable and meaningful within each culture. Indeed, our findings fit with those of Burlleson (2003), who suggested that emotional support is desirable in close relationships across the spectrum of individualism and collectivism.

These results highlight the potential importance of socialization for ER. Women may typically be encouraged to be emotionally engaging, oriented to relationships, and disclose more than men and thus, as demonstrated, report greater willingness to turn to others when emotional events occur. Norms about ER have also been claimed to vary across cultures, and some have argued that there is less emphasis on such personal forms of reliance among collectivists (Suh *et al.*, 1998). Nonetheless, despite mean differences in the endorsement of ER, greater levels of ER were reliably associated with greater mental health.

Within-person variations in ER were evident across the studies. We demonstrated important links between ER and need satisfaction, such that greater need support within a given relationship is associated with greater ER with that person. Need satisfaction was also shown to mediate, or in the case of rela-



tionships to mothers moderate, the relation of ER to well-being. Future research is needed to further test these results in cross-age and cross-cultural samples. However, these mediation and moderation effects are intriguing. In general, the mediation models suggested that ER may work by fostering feelings of relatedness, competence, and autonomy and thus diminishing feelings of depression, loneliness, and insecurity and raising life satisfaction and self-esteem. These results fit with the theoretical benefits outlined by Reis and Franks (1994) and Wills and Shinar (2000), among others. However, our one moderation result, found only with mothers, suggests that if one must rely emotionally on someone who is not supportive of basic needs, reliance may indeed not yield benefits. This intriguing but unexpected result warrants replication.

Future directions for research include the study of ER in different age-groups and developmental epochs. At this point, we have prior related work with adolescents that suggests that ER on parents, teachers, and friends may be important for different outcomes (Ryan et al., 1994). We also have pilot work with adults suggesting the benefits of ER on well-being and the importance of spouses or partners in adults' patterns of ER. Studies with varied ages will be important to understanding how both developmental changes and changes in social support constellations affect both ER and emotional support more generally. Other methods, such as longitudinal or diary methods, may also further illuminate the nature of variability in ER and need satisfaction (as evidenced in Study 2) by predicting well-being outcomes across time in both ER and need satisfaction. The present findings also speak to the need for future research on emotional support to focus on within-person variation, which in the case of ER, outstripped the variance between persons.

In sum, our results suggest that although levels of ER may differ across gender and culture, individuals who report more willingness to turn to others when emotional events occur also report greater well-being. ER appears, however, to be used selectively with others who are perceived as supporting needs for autonomy, competence, and relatedness.

Because emotions play such an important role in health and self-regulation, understanding the willingness to share and express them has implications for a variety of relational and clinical contexts and supplies an interesting agenda for future research.

## References

- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models*. Newbury Park, CA: Sage.
- Burleson, B. R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion and interpersonal communication. *Personal Relationships*, *10*, 1–24.
- Burleson, B. R., & Kunkel, A. W. (1996). The socialization of emotional support skills in childhood. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of social support and the family* (pp. 105–140). New York: Plenum Press.
- Butzel, J. S., & Ryan, R. M. (1997). The dynamics of volitional reliance: A motivational perspective on dependence, independence, and social support. In G. R. Pierce, B. Lakey, I. G. Sarason, & B. R. Sarason (Eds.), *Sourcebook of social support and personality* (pp. 49–67). New York: Plenum Press.
- Caldwell, M., & Peplau, L. (1982). Sex differences in same-sex friendships. *Sex Roles*, *8*, 721–732.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, *54*, 165–181.
- Chirkov, V. I., & Ryan, R. M. (2002). Parent and teacher autonomy support in Russian and U.S. adolescents: Common effects on well-being and academic motivation. *Journal of Cross Cultural Psychology*, *32*, 618–635.
- Chirkov, V., Ryan, R. M., Kim, Y., & Kaplan, U. (2003). Differentiating autonomy from individualism and independence: A self-determination theory perspective on internalization of cultural orientations and well-being. *Journal of Personality and Social Psychology*, *84*, 97–110.
- Cohen, S., Sherrod, D. R., & Clark, M. S. (1986). Social skills and the stress-protective role of social support. *Journal of Personality and Social Psychology*, *50*, 963–973.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310–357.
- Davis, M. H., Morris, M. M., & Krause, L. A. (1998). Relationship-specific and global perceptions of social support: Associations with well-being and attachment. *Journal of Personality and Social Psychology*, *74*, 468–481.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum Press.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.

- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227–268.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.
- Emmons, R. A., & Colby, P. M. (1995). Emotional conflict and well-being: Relation to perceived availability, daily utilization, and observer reports of social support. *Journal of Personality and Social Psychology, 68*, 947–959.
- Ghorpade, J., Hattrup, K., & Lackritz, J. R. (1999). The use of personality measures in cross-cultural research: A test of three personality scale across two countries. *Journal of Applied Psychology, 84*, 670–679.
- Goldsmith, D. J., & Fitch, K. (1997). The normative context of advice as social support. *Human Communication Research, 23*, 454–476.
- Greenberg, M. T., Siegel, J. M., & Leitch, C. L. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. *Journal of Youth and Adolescence, 12*, 373–386.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511–524.
- Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological Bulletin, 116*, 412–428.
- Hirschfeld, R. M., Klerman, G. L., Gough, H. G., Barrett, J., Korchin, S. J., & Chodoff, P. (1977). A measure of interpersonal dependency. *Journal of Personality Assessment, 41*, 610–621.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Jones, A., & Crandall, R. (1986). Validation of a short index of self-actualization. *Personality and Social Psychology Bulletin, 12*, 63–73.
- Jordan, J. V., Kaplan, A. G., Miller, J. B., Stiver, I. P., & Surrey, J. L. (1991). *Women's growth in connection: Writings from the Stone Center*. New York: Guilford.
- Kashima, Y., Yamaguchi, S. U., Choi, S. C., Gelfand, M. J., & Yuki, M. (1995). Culture, gender, and self: A perspective from individualism collectivism research. *Journal of Personality and Social Psychology, 69*, 925–937.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*, 80–87.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology: Vol. 1*. (4th ed., pp. 233–265). New York: McGraw-Hill.
- Kim, U. (1994). Individualism and collectivism: Conceptual clarification and elaboration. In K. Uichol, H. C. Triandis, C. Kagitcibasi, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method and applications* (pp. 19–40). Thousand Oaks, CA: Sage.
- Kim, Y., Deci, E. L., & Zuckerman, M. (2002). The development of the Self-Regulation of Withholding Negative Emotions Questionnaire. *Educational and Psychological Measurement, 62*, 316–336.
- Kwan, V. S. Y., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*, 1038–1051.
- La Guardia, J. G., Ryan, R. M., Couchman, C., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology, 79*, 367–384.
- Little, T. D. (1997). Mean and covariance structure (MACS) analysis of cross-cultural data: Practical and theoretical issues. *Multivariate Behavioral Research, 32*, 53–76.
- Little, T. D. (2000). On the comparability of constructs in cross-cultural research: A critique of Cheung and Rensvold. *Journal of Cross Cultural Psychology, 31*, 213–219.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.
- Matsumoto, D., Kudoh, T., Scherer, K., & Wallbott, H. (1988). Antecedents of and reactions to emotions in the United States and Japan. *Journal of Cross Cultural Psychology, 19*, 267–286.
- McBride-Chang, C., & Chang, I. (1998). Adolescent-parent relations in Hong Kong: Parenting styles, emotional autonomy, and school achievement. *Journal of Genetic Psychology, 159*, 421–436.
- McQueen, A., Getz, J. G., & Bray, J. H. (2003). Acculturation, substance use and deviant behavior: Examining separation and family conflict as mediators. *Child Development, 74*, 1737–1750.
- Nix, G., Ryan, R. M., Manly, J. B., & Deci, E. L. (1999). Revitalization through self-regulation: The effects of autonomous versus controlled motivation on happiness and vitality. *Journal of Experimental Social Psychology, 35*, 266–284.
- O'Brien, E., & Epstein, S. (1988). *The Multidimensional Self-Esteem Inventory: Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Pierce, G. R., Sarason, I. G., & Sarason, B. R. (1991). General and relationship-based perceptions of social support: Are two constructs better than one? *Journal of Personality and Social Psychology, 61*, 1028–1039.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401.
- Reis, H. T., & Collins, N. (2000). Measuring relationship properties and interactions relevant to social support. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention* (pp. 136–192). New York: Oxford University Press.
- Reis, H. T., & Franks, P. (1994). The role of intimacy and social support in health outcomes: Two processes or one? *Parental Relationships, 2*, 185–197.
- Robbins, R. J. (1994). *An assessment of perceived parental autonomy—support and control*. Unpublished doctoral dissertation, University of Rochester, Rochester, NY.
- Rook, K. S. (1987). Social support versus companionship: Effects on life stress, loneliness, and evaluations by others. *Journal of Personality and Social Psychology, 52*, 1132–1147.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness scale: Concurrent and dis-

- criminant validity evidence. *Journal of Personality and Social Psychology*, 39, 472–480.
- Ryan, R. M. (1993). Agency and organization: Intrinsic motivation, autonomy, and the self in psychological development. In J. Jacobs (Ed.), *Nebraska symposium on motivation: Developmental perspectives on motivation*, Vol. 40 (pp. 1–56). Lincoln: University of Nebraska Press.
- Ryan, R. M., Chirkov, V. I., Little, T. D., Sheldon, K. M., Timoshina, E., & Deci, E. L. (1999). The American dream in Russia: Extrinsic aspirations and well-being in two cultures. *Personality and Social Psychology Bulletin*, 25, 1509–1524.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166.
- Ryan, R. M., & Frederick, C. M. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65, 529–565.
- Ryan, R. M., & La Guardia, J. G. (2000). What is being optimized?: Self-determination theory and basic psychological needs. In S. Qualls & R. Abeles (Eds.), *Psychology and the aging revolution: How we adapt to longer life* (pp. 145–172). Washington, DC: APA Books.
- Ryan, R. M., & Lynch, J. (1989). Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development*, 60, 340–356.
- Ryan, R. M., & Solky, J. A. (1996). What is supportive about social support? On the psychological needs for autonomy and relatedness. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of social support and the family* (pp. 249–267). New York: Plenum Press.
- Ryan, R. M., Stiller, J. D., & Lynch, J. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *Journal of Early Adolescence*, 14, 226–249.
- Samter, W., Whaley, B. B., Mortenson, S. T., & Burlison, B. R. (1997). Ethnicity and emotional support in same-sex friendship: A comparison of Asian-Americans, African-Americans, and Euro-Americans. *Personal Relationships*, 4, 413–430.
- Shields, S. A. (1995). The role of emotion beliefs and values in gender development. In N. Eisenberg (Ed.), *Review of personality and social psychology*: Vol. 15. *Social development* (pp. 212–232). Thousand Oaks, CA: Sage.
- Simpson, J. A. (1990). The influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 62, 434–446.
- Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1971). *The State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Steinberg, L., & Silverberg, S. (1986). The vicissitudes of autonomy in adolescence. *Child Development*, 57, 841–851.
- Suh, I., Diener, E., Shigehiro, O., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, 74, 482–493.
- Taylor, J. A. (1953). A personality scale of manifest anxiety. *Journal of Abnormal and Social Psychology*, 48, 285–290.
- Ting-Toomey, S. (1991). Intimacy expressions in three cultures: France, Japan, and the United States. *International Journal of Intercultural Relations*, 15, 29–46.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Turner, R. A., Irwin, C. E., & Millstein, S. G. (1991). Family structure, family processes and experimenting with substances during adolescence. *Journal of Research on Adolescence*, 1, 83–106.
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin*, 119, 488–531.
- White, R. W. (1963). *Ego and reality in psychoanalytic theory*. New York: International Universities Press.
- Wills, T. A. (1998). Social support and health in women. In E. Blechman & K. Brownell (Eds.), *Behavioral medicine and women* (pp. 118–123). New York: Guilford.
- Wills, T. A., & Shinar, O. (2000). Measuring perceived and received social support. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention* (pp. 66–135). New York: Oxford University Press.
- Windle, M. (1992). Temperament and social support in adolescence: Relations with depressive symptoms and delinquent behaviors. *Journal of Youth and Adolescence*, 21, 1–21.