

## SPECIAL ISSUE



# Recipients' happiness in prosocial spending: The role of social ties

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**Abstract**

In the past decade, a growing body of studies has explored spenders' happiness in prosocial spending (i.e., spending money on others). However, the happiness of recipients has been frequently ignored. Considering that most prosocial spending behaviors can be seen as a particular form of social interactions and emotional outcomes of social interactions depend on whom people interact with, the current study attempts to explore the influence of the social ties between spenders and recipients (strong vs. weak social ties) on recipients' happiness. More specifically, the present study also attempts to explain this influence from the aspect of basic psychological needs (i.e., relatedness, competence, and autonomy) satisfaction. Results of two studies reveal that gifts from strong social ties lead to recipients' greater happiness than those from weak social ties. Notably, relatedness satisfaction and competence satisfaction, but not autonomy satisfaction, explain this happiness effect of social ties.

## 1 | INTRODUCTION

In the last decade, a growing body of studies has explored the positive relationship between prosocial spending (i.e., spending one's money on someone else) and spenders' happiness (Dunn *et al.*, 2008, 2014; Aknin *et al.*, 2011, 2013a, 2013b; Yamaguchi *et al.*, 2016). However, recipients' happiness in prosocial spending has been frequently ignored in previous studies. In

real life, people frequently spend their money to let recipients get gifts and even favors, generally with the purpose of getting recipients happy. If prosocial spending does not have a positive effect on recipients' happiness, spenders' emotional benefits in prosocial spending seem to be not unleashed (Zhang *et al.*, 2017). From this point, recipients' happiness is closely associated with spenders' happiness and interests in prosocial spending and should be further studied.

Unlike traditional prosocial behaviors (e.g., donation), prosocial spending behaviors like purchasing gifts for others (e.g., family members, coworkers, friends) seem to widely exist in people's daily social life, and most of them can be seen as a particular form of social interactions. Considering that emotional outcomes of social interactions depend on who people interact with (Sandstrom and Dunn, 2014b), the current study attempts to investigate whether receiving gifts from different social ties will lead to recipients' different happiness.

As a primary and explorative study on recipients' happiness in prosocial spending, the current study attempts to use a simple and well-accepted way to classify the social ties between spenders and recipients, which focuses on the level of intimacy (VanLear *et al.*, 2006; Aknin *et al.*, 2011). In more detail, previous studies label social ties that involve less frequent contact, lower emotional intensity, and limited intimacy as weak social ties (Granovetter, 1973; Krackhardt *et al.*, 2003). These social ties are often considered in contrast to strong social ties with close friends, romantic partners and family members (Granovetter, 1973; Krackhardt *et al.*, 2003). Additionally, the same classifying way of social ties (i.e., strong vs. weak social ties) has also been accepted and used by previous happiness studies (Aknin *et al.*, 2011; Sandstrom and Dunn, 2014b; Venaglia and Lemay, 2017). For example, a former study on prosocial spending has found that spending money on strong social ties leads to spenders' greater happiness than spending on weak ones (Aknin *et al.*, 2011). Another study has also classified social ties into strong vs. weak social ties, and further explored the effect of interactions with weak social ties on people's happiness (Sandstrom and Dunn, 2014b).

Extending previous prosocial spending studies from the recipient perspective, the current study aims to explore the effect of social ties between spenders and recipients on recipients' happiness in daily prosocial spending. In order to better understand the effect of social ties on recipients' happiness, the present study further aims to explore this effect from the aspect of basic psychological needs (i.e., relatedness, competence and autonomy) satisfaction (Deci and Ryan, 2000), which has been found to be some of the most consistently supported mediators between people's activities and happiness (Ryan and Deci, 2000, 2001; Guevarra and Howell, 2015; Yamaguchi *et al.*, 2016).

## 1.1 | Literature review and hypotheses

### 1.1.1 | The concept of prosocial spending

The concept of prosocial spending, to the best of our knowledge, was first proposed in 2008 (Dunn *et al.*, 2008) and it referred to all behaviors that spending one's money on someone else (Dunn *et al.*, 2008). The authors proposed this concept to differentiate behaviors that spending money on others (i.e., prosocial spending) from behaviors that spending money on one's self (i.e., personal spending). And then they found that prosocial spending had a larger positive effect on people's happiness than personal spending (Dunn *et al.*, 2008). In the past decade, researchers have explored many different types of prosocial spending to study its positive effect on spenders' happiness, such as buying gifts for others (Dunn *et al.*, 2008), donations to charity

(Dunn *et al.*, 2008; Aknin *et al.*, 2013a), funding poor students (Zhang *et al.*, 2017) and even buying a coffee for a friend or an acquaintance (Aknin *et al.*, 2013a). To sum up, almost all behaviors that spending money on others can be seen as prosocial spending.

### 1.1.2 | Theoretical framework

Autonomy, relatedness, and competence are seen as basic psychological needs that are cross-culturally required for psychological well-being within Basic Psychological Needs Theory (BPNT) (Deci and Ryan, 2000). In reality, the satisfaction of these basic psychological needs has been found to enhance people's happiness, regardless of cultural background and interpersonal differences (Chen *et al.*, 2015). Meanwhile, numerous studies have found that the satisfaction of these three psychological needs is some of the most consistently supported mediators between people's activities and happiness (Ryan and Deci, 2000, 2001; Guevarra and Howell, 2015; Yamaguchi *et al.*, 2016). People's happiness will be enhanced if their interactions satisfy their basic psychological needs (Weinstein and Ryan, 2010; Deci and Ryan, 2012; Guevarra and Howell, 2015; Yamaguchi *et al.*, 2016). Thus, BPNT, with a focus on psychological needs as mediators, provides a helpful framework to develop hypotheses regarding the effect of social ties on recipients' happiness in prosocial spending.

### 1.1.3 | Hypotheses

Relatedness satisfaction refers to the experience of intimacy and genuine connection with others (Baumeister and Leary, 1995), and the satisfaction of relatedness is considered as one of the most robust and reliable predictors of people's happiness (Chen *et al.*, 2015). Moreover, interactions with either strong or weak social ties have both been found to contribute to people's sense of relatedness and happiness (Reis *et al.*, 2000; Mehl *et al.*, 2010; Aknin *et al.*, 2011; Sandstrom and Dunn, 2014a, 2014b; Bayer *et al.*, 2016). As there are direct and/or potential interactions between spenders and recipients in prosocial spending, receiving gifts from either strong or weak social ties are both likely to satisfy recipients' relatedness need and further contribute to recipients' happiness. However, both theoretical and empirical evidences suggest that interactions with strong social ties should bring greater rewards than that with weak social ties (Wheeler *et al.*, 1983; Baumeister and Leary, 1995; Reis *et al.*, 2000; Mehl *et al.*, 2010; Aknin *et al.*, 2011). Theoretically speaking, researchers have suggested that if humans lack frequent interactions with close others, they will suffer poor satisfaction of relatedness need and negative consequences to happiness (Baumeister and Leary, 1995; Venaglia and Lemay, 2017). Empirically speaking, previous studies have found that people report a greater satisfaction of relatedness need and more positive affect when they have interactions with more familiar and intimate partners (Wheeler *et al.*, 1983, Reis *et al.*, 2000, Mehl *et al.*, 2010, Aknin *et al.*, 2011). Thus, we assume that receiving gifts from close persons, rather than distant ones, will better satisfy recipients' relatedness need and result in recipients' greater happiness.

Competence satisfaction refers to the experience of feeling capable (Ryan and Deci, 2000), and the positive effect of competence satisfaction on people's happiness has been found in diverse life domains (Broeck *et al.*, 2010; Mouratidis *et al.*, 2011; Chen *et al.*, 2015). Although few studies have directly examined the influence of social ties between spenders and recipients on recipients' competence sense and happiness, we believe social ties may predict recipients'

competence satisfaction and happiness with the following reason. Accepting gifts from others seems to create an inequitable relationship with the givers and promote feelings of indebtedness (Gross and Latane, 1974; Alvarez and van Leeuwen, 2015). This inequitable relationship is likely to challenge recipients' competence sense and lead to a negative influence on happiness (Gleason *et al.*, 2003; Maisel and Gable, 2009). But if gifts are from strong social ties, these negative influences seem to be reduced or even reversed. This is because that there seem to be more reciprocal gift-giving behaviors between close persons than between distant ones (Hu *et al.*, 2012). That is, the identity of a giver or a recipient is more interchangeable in the social interactions of close people rather than distant ones. Previous studies have found that the reciprocation of gifts can restore or even improve recipients' competence sense (Gleason *et al.*, 2003; Alvarez and van Leeuwen, 2015). Therefore, we assume that receiving gifts from close persons, rather than distant ones, will better satisfy recipients' competence need and result in recipients' greater happiness.

Autonomy (volition) is satisfied through engaging in behaviors that can express one's true identity and facilitate a feeling of freedom (Ryan and Deci, 2000). Like the other two basic psychological needs, the satisfaction of autonomy has also been found to be one of the most important predictors of people's happiness across most of the world (Weinstein and Ryan, 2010; Chen *et al.*, 2015; Martela and Ryan, 2016). Relative to distant spenders, recipients seem to better and more freely express their true identities when gifts are from close spenders with the following reason. Close partners (rather than distant ones) are likely to have more knowledge of one another's values, beliefs and traits (Connelly and Ones, 2010; Fletcher and Kerr, 2010). When receiving gifts from close others, recipients can freely express many authentic thoughts, evaluations and opinions about gifts and even close others without the worry of being misunderstood or offending spenders. Inversely, people seem to have more shy and inauthentic behaviors with distant relative to close partners (Williams *et al.*, 2000; Chaudoir and Fisher, 2010; Gillath *et al.*, 2010). When receiving gifts from distant others, recipients seem to suppress the expression of their true thoughts and identities with worries of being misunderstood and offending spenders. Therefore, we assume that receiving gifts from close persons, rather than distant ones, will better satisfy recipients' autonomy need and result in recipients' greater happiness.

Based on previous findings discussed above, we expect that social ties between spenders and recipients (i.e., strong social ties vs. weak social ties) will affect recipients' happiness in prosocial spending. More particularly, this effect will be explained by differences in the satisfaction of basic psychological needs (i.e., relatedness, competence, and autonomy). Therefore, the following hypotheses are proposed:

**H1** : *Gifts from strong social ties will result in recipients' greater happiness than that from weak social ties.*

**H2** : *The impact of social ties on recipients' happiness will be mediated by the satisfaction of basic psychological needs.*

## 1.2 | Overview of the research

The primary goal of the present study is to examine the effect of social ties between spenders and recipients on recipients' happiness in prosocial spending. Further, the present study attempts to explain this effect from the aspect of basic psychological needs satisfaction. To test the above

hypotheses, two studies were conducted in China. Study 1 used a quasi-experimental design to provide preliminary support for H1 with a relatively large sample. Study 2 experimentally replicated the support for H1 and further examined H2. Notably, considering that prosocial spending includes many different types (e.g., donation to charity, occasional gifts for close friends and family members, and funding poor students), the current study focuses on the prosocial spending behavior that happen in people's daily social network (e.g., gifts for close friends or just acquaintances), as this kind of prosocial spending is so common and almost everyone has ever participated in it.

## 2 | STUDY 1

The goal of Study 1 is to use a quasi-experimental design to provide a preliminary test for H1 that whether gifts from strong social ties will result in recipients' greater happiness than that from weak social ties with a relatively large-scale population.

### 2.1 | Method

#### 2.1.1 | Participants and procedure

Eight hundred and fifty-eight Chinese participants completed an online survey on Survey STAR ([www.wjx.cn](http://www.wjx.cn)), which is one of the biggest and most popular online survey companies in China. So far, it has provided online survey services for more than 90% Chinese universities (data from [www.wjx.cn](http://www.wjx.cn)). Every participant that finished the online survey could get a random bonus ranging from 5 to 10 RMB (about 0.72 to 1.43 USD). Fifty-six cases were removed because they almost gave same scores to all measure items. Finally, 802 valid cases (341 males, 461 females) were used, and the participants' ages ranged from 18 to 58 years old ( $M_{\text{age}} = 30.82$ ,  $SD = 9.41$  years).

Before collecting data, participants were informed that any personal information and answers would be kept confidential, and then they completed the survey on a voluntary basis. This survey consisted of three main sections. First, they reported their personal information (e.g., age, sex, education, and income level). Then, they were instructed to recall the latest experience in which somebody else spent some money and bought some gift for them. After briefly writing, participants selected the category which best described their relationship with spenders: (a) strong social ties with frequent contacts, high emotional intensity and intimacy (e.g., close family members, close friends, and a romantic partner), (b) weak social ties characterized by infrequent contacts, low emotional intensity, and limited intimacy (e.g., coworkers and a friend of a friend). In this section, participants also reported the price of the received gift on a one-item scale from 1 (50 RMB and below; 50 RMB is about 7.14 USD) to 5 (more than 500 RMB; 500 RMB is about 71.38 USD), as well as recency on a one-item scale from 1 (*within a week*) to 5 (*more than 2 months*). Finally, participants reported their postrecalling happiness basing on their current feelings.

#### 2.1.2 | Measures

The postrecalling happiness was measured by cognitive and affective measures. Cognitive evaluation of life was measured by the Satisfaction with Life Scale (SWLS) (Diener *et al.*, 1985). The

SWLS assesses life satisfaction using five items rated on a 7-point Likert scale (e.g., “the conditions of my life are excellent”;  $\alpha = 0.93$ ). Meanwhile, current positive affect was measured by Positive and Negative Affect Schedule (PANAS) (Watson *et al.*, 1988). Since happiness was of primary interest to the current study, the adjective “happy” was added as an extra item on the PANAS inventory and the 11 positive affect items were averaged to form a measure of post-recalling positive affect ( $\alpha = 0.96$ ). The same way has also been used in previous prosocial spending studies (Aknin *et al.*, 2013a, 2013b). In order to keep in line with these previous studies, means on the two scales were standardized respectively and combined to create a broad measure of postrecalling happiness.

## 2.2 | Results

We predicted that gifts from strong social ties would result in recipients' greater happiness than that from weak social ties (H1). To test this hypothesis, a one-way analysis of covariance (ANCOVA) was conducted (163 cases in the weak condition, and 639 cases in the strong condition). Meanwhile, in order to exclude the influence from price and recency, these two variables were controlled as covariates in the analysis. The results demonstrated that, controlling for price,  $F(1, 798) = 6.55, p = .01, \eta_p^2 = .01$ , and recency,  $F(1, 798) = 7.74, p < .01, \eta_p^2 = .01$ , there were significant differences in recipients' happiness,  $F(1, 798) = 29.27, p < .001, \eta_p^2 = .04$ : participants who recalled gifts from strong social ties reported greater happiness than those who recalled gifts from weak social ties (Table 1 for the significant difference in the covariate adjusted means by Sidak adjustment). Thus, H1 was supported.

## 2.3 | Brief discussion

Study 1 provided preliminary support for H1 that gifts from strong social ties resulted in recipients' greater happiness than that from weak social ties. However, Study 1 had a major limitation. The quasi-experimental design, which was necessary to test H1 in a relatively large sample, may have introduced self-selection bias. Therefore, in Study 2, an experimental design was used to replicate support for H1 and further test H2.

**TABLE 1** Covariate adjusted means, standard errors and confidence intervals (95%) for dependent variables across strong and weak social ties conditions in Study 1 and Study 2

Dependent variables	Weak social ties condition			Strong social ties condition		
	<i>M</i>	<i>SE</i>	<i>CI</i>	<i>M</i>	<i>SE</i>	<i>CI</i>
<i>Study 1</i>						
Happiness	−0.33	0.07	[−0.46, −0.19]	0.08	0.03	[0.02, 0.15]
<i>Study 2</i>						
Happiness	−0.21	0.07	[−0.36, −0.06]	0.17	0.07	[0.04, 0.30]
Relatedness satisfaction	5.30	0.08	[5.15, 5.46]	6.10	0.07	[6.00, 6.24]
Competence satisfaction	3.87	0.11	[3.65, 4.10]	4.40	0.10	[4.16, 4.57]
Autonomy satisfaction	5.15	0.09	[5.16, 5.53]	5.95	0.09	[5.78, 6.12]

### 3 | STUDY 2

Study 2 had two major goals. The first one was to replicate the results of Study 1 with an experimental design. The second one was to test support for H2: The impact of social ties on recipients' happiness will be mediated by the satisfaction of basic psychological needs.

#### 3.1 | Method

##### 3.1.1 | Participants and procedure

Three hundred and twenty Chinese people were recruited from Survey STAR ([www.wjx.cn](http://www.wjx.cn)) to complete our experiment in exchange for a random bonus ranging from 5 to 20 RMB (about 0.72 to 2.87 USD). After removing those individuals who almost gave same scores to all measure items and who did not properly follow the instruction (see the instruction check below), 301 participants (102 males, 199 females; 145 cases in the weak condition, 156 cases in the strong condition) were used and their ages ranged from 15 to 54 years old ( $M_{age} = 25.83$ ,  $SD = 7.13$  years).

Before experiment, participants were informed that any personal information and answer would be kept confidential, and then they completed the experiment on a voluntary basis. This experiment consisted of three main parts. First, participants were randomly assigned to one of two recalling conditions. They were asked to recall and write down in as much detail as possible the last time they had received gifts from someone they were close to (e.g., close family members, close friends, and a romantic partner) or someone they were not very close to (e.g., coworkers, classmates, and a friend of a friend). In this section, participants also reported the price of the received gift on a one-item scale from 1 (50 RMB and below; 50 RMB is about 7.14 USD) to 5 (more than 500RMB; 500RMB is about 71.38 USD), as well as recency on a one-item scale from 1 (*within a week*) to 5 (*more than 2 months*). Meanwhile, they reported intimacy level and contacting frequency with spenders, which served as an instruction check, and a total of 15 people were dropped because their rating did not match their assigned condition. Then, participants rated the degree to which this prosocial spending satisfied their needs for relatedness, competence, and autonomy. In the second section, participants reported their postrecalling happiness basing on their current feelings. Finally, they reported their personal information. More details can be seen in APPENDIX.

##### 3.1.2 | Measures

###### *Happiness*

The same cognitive and affective measures (PANAS and SWLS) from Study 1 were used to measure participants' postrecalling positive affect and overall cognitive evaluation of life respectively. These items were reliable for postrecalling positive affect ( $\alpha = .96$ ) and overall cognitive evaluation of life ( $\alpha = .90$ ). In order to keep in line with previous studies (Aknin *et al.*, 2013a, 2013b) and Study 1, means of the two scales were standardized respectively and combined to create a broad measure of postrecalling happiness.

###### *Relatedness satisfaction*

To measure the satisfaction of the basic psychological need for relatedness, four items about relatedness from the Basic Need Satisfaction Scale (Chen *et al.*, 2015) were slightly modified



and used (e.g., I experienced a warm feeling with the giver;  $\alpha = .81$ ). The participants were asked to “Think about how you felt about this prosocial spending” and rate these items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

### *Competence satisfaction*

Four items about competence were selected from the Basic Need Satisfaction Scale (Chen *et al.*, 2015) and were slightly modified to measure the satisfaction of competence (e.g., This gift let me feel capable;  $\alpha = .81$ ). The participants were asked to “Think about how you felt about this prosocial spending” and rate these items on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*).

### *Autonomy satisfaction*

For the satisfaction of autonomy need, items about autonomy were selected from the Basic Need Satisfaction Scale (Chen *et al.*, 2015). After a slight modification, a four-item scale was used (e.g., I felt a sense of freedom in receiving the gift;  $\alpha = .80$ ). The participants were asked to “Think about how you felt about this prosocial spending” and rate these items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

## 3.2 | Results

Like previous studies (Aknin *et al.*, 2011; Guevarra and Howell, 2015) and Study1 in this study, price and recency were controlled as covariates in the following analyses.

### 3.2.1 | Happiness and psychological needs satisfaction

#### *Happiness*

The one-way ANCOVA, controlling for price,  $F(1, 297) = .94, p = .33, \eta_p^2 = .003$ , and recency,  $F(1, 297) = 3.34, p = .07, \eta_p^2 = .011$ , demonstrated that there were significant differences in recipients' happiness across two conditions,  $F(1, 297) = 13.59, p < .001, \eta_p^2 = .044$ . Participants who recalled gifts from strong social ties reported greater happiness than that who recalled gifts from weak social ties (Table 1 for the significant differences in the covariate adjusted means by Sidak adjustment). These results replicated our findings in Study 1 and supported H1 again.

#### *Relatedness satisfaction*

The one-way ANCOVA, controlling for price,  $F(1, 297) = .01, p = .94, \eta_p^2 < .001$ , and recency,  $F(1, 297) = 2.62, p = .11, \eta_p^2 = .009$ , demonstrated that there were significant differences in relatedness satisfaction across two conditions,  $F(1, 297) = 52.05, p < .001, \eta_p^2 = .149$ . More particularly, participants who recalled gifts from strong social ties reported greater relatedness satisfaction than that who recalled gifts from weak social ties (Table 1 for the significant differences in the covariate adjusted means by Sidak adjustment).

#### *Competence satisfaction*

The one-way ANCOVA, controlling for price,  $F(1, 297) = 1.26, p = .26, \eta_p^2 = .004$ , and recency,  $F(1, 297) = .19, p = .66, \eta_p^2 = .001$ , demonstrated that there were significant differences in competence satisfaction across two conditions,  $F(1, 297) = 9.84, p < .01, \eta_p^2 = .032$ . More



particularly, participants who recalled gifts from strong social ties reported greater competence satisfaction than that who recalled gifts from weak social ties (Table 1 for the significant differences in the covariate adjusted means by Sidak adjustment).

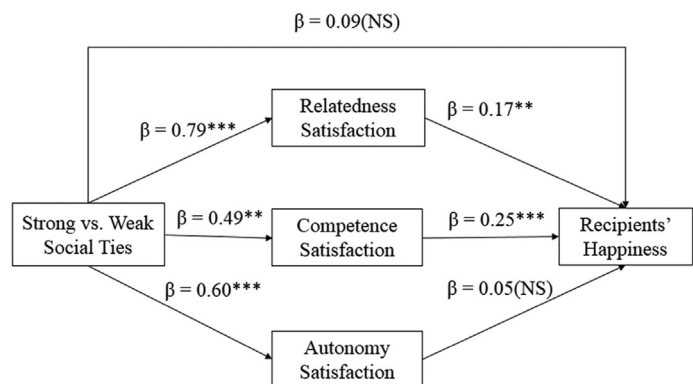
### Autonomy satisfaction

The one-way ANCOVA, controlling for price,  $F(1, 297) = 1.04$ ,  $p = .31$ ,  $\eta_p^2 = .003$ , and recency,  $F(1, 297) = 5.51$ ,  $p = .02$ ,  $\eta_p^2 = .018$ , demonstrated that there were significant differences in autonomy satisfaction across two conditions,  $F(1, 297) = 21.61$ ,  $p < .001$ ,  $\eta_p^2 = .068$ . More particularly, participants who recalled gifts from strong social ties reported greater autonomy satisfaction than that who recalled gifts from weak social ties (Table 1 for the significant differences in the covariate adjusted means by Sidak adjustment).

## 3.2.2 | The mediation effect of psychological needs satisfaction

As the results showed that gifts from strong social ties (rather than weak ones) resulted in recipients' greater happiness and psychological needs satisfaction, we further wanted to see if the satisfaction of the three needs would mediate the relationship between social ties condition and recipients' happiness. For this purpose, we used PROCESS macro Model 4, which conducts a mediation analysis for multiple mediators (Hayes, 2013). The model (Figure 1), in which price and recency were controlled, showed that the paths from social ties condition to relatedness satisfaction ( $\beta = .79$ ,  $SE = .11$ ,  $p < .001$ , 95% CI [0.58, 1.00]), competence satisfaction ( $\beta = .49$ ,  $SE = .16$ ,  $p < .01$ , 95% CI [0.18, 0.80]), and autonomy satisfaction ( $\beta = .60$ ,  $SE = .13$ ,  $p < .001$ , 95% CI [0.35, 0.86]) were all significant. Also, the paths from relatedness satisfaction ( $\beta = .17$ ,  $SE = .07$ ,  $p < .01$ , 95% CI [0.02, 0.31]) and competence satisfaction ( $\beta = .25$ ,  $SE = .04$ ,  $p < .001$ , 95% CI [0.18, 0.32]) to recipients' happiness were significant. However, the path from autonomy satisfaction to recipients' happiness was not significant ( $\beta = 0.05$ ,  $SE = 0.06$ ,  $p = 0.45$ , 95% CI [-0.07, 0.17]) and the same as the direct path from social ties condition to recipients' happiness ( $\beta = 0.09$ ,  $SE = 0.10$ ,  $p = 0.32$ , 95% CI [-0.09, 0.28]). The bootstrapping results (with  $n = 5,000$  bootstrap resamples) for indirect effects showed that the total indirect effect (0.28, 95% CI [0.16, 0.42]), as well as the indirect effects through relatedness satisfaction (0.13, 95% CI [0.02, 0.26]) and competence satisfaction (0.12, 95% CI [0.05, 0.22]) were significant, while the indirect effect through autonomy satisfaction (0.54, 95% CI [-0.40, 1.67]) was not significant. These results

**FIGURE 1** Mediation model with relatedness satisfaction, competence satisfaction and autonomy satisfaction mediating the relationship between social ties condition and recipients' happiness in prosocial spending. *Note:* NS =  $p > .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$



showed that relatedness and competence satisfactions mediate the relationship between social ties condition and recipients' happiness. Thus, H2 is partially supported.

### 3.3 | Brief discussion

The major goals of Study 2 were to replicate the results of Study 1 (i.e., H1) with an experimental design, and meanwhile test support for H2. Consistent with H1, gifts from strong social ties resulted in recipients' greater happiness than that from weak social ties. Meanwhile, Study 2 showed that gifts from strong social ties (rather than weak social ties) resulted in recipients' higher levels of basic psychological needs satisfaction. Further analysis also provided partial support for H2: Relatedness satisfaction and competence satisfaction, but not autonomy satisfaction, mediated the relationship between social ties and recipients' happiness.

## 4 | GENERAL DISCUSSION

The general objective of the current study is to explore the social ties between spenders and recipients on recipients' happiness in prosocial spending. Meanwhile, the present study also attempts to explain this effect from the aspect of basic psychological needs satisfaction. Results of the quasi-experimental (Study 1) and experimental (Study 2) studies reveal that gifts from strong social ties will result in recipients' greater happiness than that from weak social ties, and that relatedness satisfaction and competence satisfaction, but not autonomy satisfaction, mediate the relationship between social ties and recipients' happiness.

### 4.1 | The happiness effect of social ties

Across studies, the current research provides converging evidence that social ties between spenders and recipients have an effect on recipients' happiness. In more detail, gifts from strong social ties, rather than weak ones, result in recipients' greater happiness. But why? The results of Study 2 demonstrate that this effect is likely to be explained by the different satisfaction of relatedness and competence needs.

Both theoretical and empirical evidence suggests that interactions with close others (compared with distant ones) should bring greater relatedness need satisfaction and further result in greater happiness (Wheeler *et al.*, 1983; Baumeister and Leary, 1995; Reis *et al.*, 2000; Mehl *et al.*, 2010; Aknin *et al.*, 2011). In prosocial spending, receiving gifts from different spenders in itself is a contact with different intimate others. Thus, receiving gifts from strong social ties can better satisfy recipients' relatedness need and result in their greater happiness than receiving gifts from distant ones. Additionally, recipients seem to have more intimate interactions with close relative to distant spenders during prosocial spending. As more intimate interactions lead to a greater satisfaction of relatedness need (Mehl *et al.*, 2010; Aknin *et al.*, 2011), receiving gifts from strong social ties, rather than weak ones, should also better satisfy the need of relatedness and therefore result in recipients' greater happiness. Moreover, considering that close partners have more knowledge of one another's needs and interests than distant others (Connelly and Ones, 2010; Fletcher and Kerr, 2010), gifts from close spenders are likely to better match recipients' needs and interests than that from distant ones. As partners' responsiveness to one's needs

and interests can elevate people's perceptions of social acceptance and further contribute to people's belonging sense and happiness (Venaglia and Lemay, 2017), gifts from strong social ties should also result in recipients' greater relatedness satisfaction and happiness than that from weak social ties.

Competence satisfaction involves a feeling of being capable (Ryan and Deci, 2000). The finding in the current study that receiving gifts from close spenders leads to a better satisfaction of competence need is likely to be explained from the following aspects. First, although accepting gifts will challenge recipients' competence sense and happiness (Gross and Latane, 1974; Gleason *et al.*, 2003; Maisel and Gable, 2009; Alvarez and van Leeuwen, 2015), recipients' reciprocation can restore and even improve their competence sense (Gleason *et al.*, 2003; Alvarez and van Leeuwen, 2015). Considering that there seem to be more reciprocal gift-giving behaviors between close persons than distant ones (Hu *et al.*, 2012), the current study thus found that receiving gifts from close partners, rather than distant spenders, led to recipients' greater competence satisfaction and happiness. Second, in Chinese culture, close others (e.g., family members and good friends) should offer gifts for each other with unselfish intentions, while there is no such expectation for weak social ties (Hofstede, 1984; Hu *et al.*, 2012). If distant others do so, people are likely to see their gifts with some neutral or even negative intentions (e.g., out of pity) (Hofstede, 1984; Hu *et al.*, 2012). In this situation, recipients' competence satisfaction and happiness seem to be hurt (Gross and Latane, 1974, Gleason *et al.*, 2003, Maisel and Gable, 2009, Alvarez and van Leeuwen, 2015). Since the current research takes place in China, we infer that recipients will also have greater competence satisfaction and happiness when receiving gifts from close relative to distant spenders.

## 4.2 | The insignificant mediate effect of autonomy satisfaction

The results from Study 2 show that there is a significant effect of social ties on the satisfaction of autonomy, but the relationship between autonomy satisfaction and recipients' happiness is not significant. Just as discussed in the previous section (see Theoretical Framework and Hypotheses), recipients are likely to express their evaluation and real thoughts about a gift more freely and with less scruple about offending spenders, when this gift is from strong social ties rather than weak ones. Meanwhile, recipients are also supposed to better and more freely express their true identities, thoughts and interests with spenders, if they have close social ties (rather than weak social ties) with spenders. After all, compared with close family members and friends, people usually seem to be much more self-contained and have more inauthentic behaviors (e.g., reduced self-disclosure and suppression of emotions) when they are with less familiar persons (Omarzu, 2000; Kashdan and Steger, 2006; Chaudoir and Fisher, 2010; Gillath *et al.*, 2010). Thus, there is no doubt that gifts from strong social ties lead to a better satisfaction of autonomy need, compared with that from weak ones.

Notably and interestingly, although a number of studies have found the positive relationship between basic psychological needs satisfaction and people's happiness (Deci and Ryan, 2000, 2012; Ryan and Deci, 2000, 2001; Weinstein and Ryan, 2010; Guevarra and Howell, 2015; Yamaguchi *et al.*, 2016), the relationship between autonomy satisfaction and recipients' happiness is not significant in the current study. This finding is likely be explained as follows. The positive relationship between autonomy satisfaction and happiness has been found to be moderated by the implicit disposition toward autonomy (Schuler *et al.*, 2016). People who need autonomy more will benefit more happiness from autonomy satisfaction than

those who need autonomy less (Schuler *et al.*, 2016). Meanwhile, compared with individualistic people, collectivistic people have been found to focus more on relatedness satisfaction rather than autonomy satisfaction (Hong and Park, 2017). And the relationship between autonomy satisfaction and happiness has also been found to be insignificant in collectivistic people (Hong and Park, 2017). Unlike the individualistic culture in western countries, Chinese culture is obviously more collectivistic-oriented (Baldwin and Mussweiler, 2018). Considering the Chinese nationality of participants in the current study, we infer that participants in the current study seem to focus on relatedness satisfaction and competence satisfaction, but not autonomy satisfaction. Thus, the relationship between autonomy satisfaction and recipients' happiness is not significant in the current study.

### 4.3 | Implications

The present study has a few implications to research on prosocial spending. First, unlike most previous related studies (Aknin *et al.*, 2013b, 2015; Dunn *et al.*, 2014; Martela and Ryan, 2016; Yamaguchi *et al.*, 2016), which focus on the effect of prosocial spending on spenders' happiness and (future) prosocial behavior, the current study explores the happiness effect of prosocial spending from the aspect of recipients. Considering that the purpose of prosocial spending is to benefit both spenders and recipients, exploring recipients' happiness and related factors contributes to completing the research framework of prosocial spending.

Second, the present study finds the effect of social ties between spenders and recipients on recipients' happiness, and thus indicates that recipients' happiness benefit from prosocial spending seems to be variational. This inference proposes an implication for future research that the influence of recipients' happiness benefit on spenders' happiness should be further explored, as spenders' emotional benefits in prosocial spending seem to be unleashed only when there are positive impacts on recipients (Aknin *et al.*, 2013b; Zhang *et al.*, 2017). Moreover, since people's happiness level has a significant influence on their prosocial spending and prosocial behaviors (Aknin *et al.*, 2012), whether the variation of recipients' happiness benefit from prosocial spending will influence their subsequent prosocial behaviors? This issue should also be further explored.

Third, the current study finds that the relationship between autonomy satisfaction and recipients' happiness is not significant. As collectivistic people have been found to focus less on autonomy satisfaction than individualistic ones, and the relationship between autonomy satisfaction and happiness has been found to be insignificant in collectivistic people (Hong and Park, 2017), the current study thus infers that the insignificant relationship seems to be the result of the collectivism culture of China. This inference proposes an open question that although prosocial spending is likely to influence spenders and recipients' happiness, whether the related psychological mechanism is the same in Eastern and Western societies? Further cross-cultural studies are needed to answer this question in the future. Meanwhile, as most previous studies on prosocial spending were conducted in Western, educated, industrialized, rich, and democratic ("WEIRD") societies (Aknin *et al.*, 2015; Dunn and Weidman, 2015), future studies should be conducted more in to other societies, which may provide unique insights like the present study.

As spenders' emotional benefits in prosocial spending seem to partly depend on recipients' benefits (Zhang *et al.*, 2017), our findings that recipients' happiness benefit from prosocial spending seems to be variational and is positively related with their basic psychological needs

satisfaction also have some implications for practice. First, people should be careful in their daily prosocial spending and pay attention to the basic psychological needs of recipients. After all, accepting gifts from others seems to create an inequitable relationship with the givers and may bring various negative influences on recipients' basic psychological needs (Alvarez and van Leeuwen, 2015). If recipients' basic psychological needs are well satisfied, their happiness benefit from prosocial spending will be guaranteed and then spenders' emotional benefits will also be unleashed. In this way, spenders are psychologically rewarded for their spent money.

Second, charities should also pay attention to the basic psychological needs of recipients, get them better helped, and then feedback their benefits to givers timely. Just as mentioned, the positive impact of prosocial spending on recipients can increase the emotional rewards of giving (Aknin *et al.*, 2013b). Thus, charities should let givers know how their donations are used and more importantly let them know how their donations have positively influenced recipients' life and whether get recipients happy. In this way, givers will be better emotionally rewarded and then will be more willing to donate in the future. For givers, recipients and charities, this is a win-win-win approach.

Notably, although receiving gifts from strong social ties (compared with weak social ties) will result in recipients' greater psychological needs satisfaction and happiness in prosocial spending, these findings should not be taken to suggest that people should avoid receiving gifts from weak social ties (e.g., a dinner invitation from yoga acquaintance). After all, interactions with either strong or weak social ties can both increase people's sense of belonging and happiness (Reis *et al.*, 2000; Mehl *et al.*, 2010; Aknin *et al.*, 2011; Sandstrom and Dunn, 2014a, 2014b; Bayer *et al.*, 2016) and the other persons that people contact are not all close ones.

#### 4.4 | Limitations

There are some limitations of this study. First, participants were asked to recall a previous prosocial spending experience. Although this reminiscence-based methodology has been widely accepted (Van Boven and Gilovich, 2003; Aknin *et al.*, 2011; Yamaguchi *et al.*, 2016) and remembered utility is one of the most important components of the overall utility of experiences (Kahneman *et al.*, 1997; Dunn and Weidman, 2015), it still leaves a question that how recipients feel immediately after the receipt of a gift. If possible, further research can attempt to answer this question.

The second limitation is the way this study applied to classify social relationships (i.e., strong social ties and weak social ties). Although this classifying way is well-accepted (Van Lear *et al.*, 2006; Aknin *et al.*, 2011; Sandstrom and Dunn, 2014b) and a simple classifying way contributes to conducting a primary and explorative study successfully, it also leaves some open questions that can be explored in the future. For example, whether there are happiness differences when recipients receive gifts from different close family members (e.g., sons, brothers and parents).

Third, considering that all participants recruited in the current study were Chinese, the application of our research findings in other countries (e.g., western countries) should be cautious. As demographic characteristics and culture have significant influences on people's happiness (Dunn and Weidman, 2015; Baldwin and Mussweiler, 2018) and are very likely to vary across countries, the generalizability of our findings should be further examined in other countries. Moreover, it will also be very significant and interesting to conduct a cross-culture study within a nation in the future, as culture is also likely to vary across states in a big nation (Baldwin and Mussweiler, 2018).

## 5 | CONCLUSION

In the last decade, a growing body of studies has explored the effect of prosocial spending on people's happiness and future prosocial behavior. However, investigations have mostly focused on spenders, while recipients' happiness are frequently ignored. The present study contributes to this line of research through exploring the effect of interpersonal relationship on recipients' happiness. In more detail, the current study finds that gifts from strong social ties will result in recipients' greater happiness than that from weak social ties. Besides, relatedness satisfaction and competence satisfaction, but not autonomy satisfaction, can explain this happiness effect of social ties.

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APPENDIX A

Dear participant,

Very thanks for your participation in this survey. All your answers are valuable and please answer seriously and truthfully in this survey. Any personal information and answer will be kept confidential and will not be used for any other purpose. Thanks for your participation again.

Section 1

In this section, please recall as much detail as possible the latest time you received a gift from someone you were close to (e.g., close family members, close friends, and a romantic partner) and answer the following questions. *The version for the strong social tie condition.*

In this section, please recall as much detail as possible the latest time you received a gift from someone you were not very close to (e.g., coworkers, classmates, and a friend of a friend) and answer the following questions. *The version for the weak social tie condition.*

1. How long ago did this gift-receiving experience occur?  
A. Within a week B. 1–2 weeks C. 3–4 weeks D. 1–2 months E. 2 months ago.
2. How about the weather then?  
A. Sunny B. Cloudy, may with some rain C. Rainy almost the day.
3. The gift was.
4. Who gave the gift to you.
5. How much do you think the gift cost?  
A. 50RMB and below B. 51–100 RMB C. 101–200 RMB D. 201–500 RMB E. More than 500 RMB.
6. Do you think which category can best describe the relationship between you and the gift giver?  
A. Strong social ties with frequent contacts, high emotional intensity and intimacy (e.g., close family members, close friends, and a romantic partner).  
B. Weak social ties characterized by infrequent contacts, low emotional intensity, and limited intimacy (e.g., coworkers and a friend of a friend).
7. Basing on your feelings in the recalled gift-receiving experience, please choose the extent of agreement for each item

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
I experienced a warm feeling with the giver							
I felt close with the giver							
I felt that the giver cared about me							
I felt connected with the giver							
This gift let me feel capable							
Accepting this gift let me feel stressful							
This gift let me feel like a person of ability							

(Continues)



	Strongly disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Strongly agree
This gift allowed me to utilize a skill					
I felt a sense of freedom in receiving the gift					
I had no objection to this gift					
I accepted the gift with pleasure					
I felt forced to accept this gift					

*Ps, the former four items are for relatedness satisfaction, the middle four items are for competence satisfaction, and the last four items are for autonomy satisfaction. In the presenting of these items by the Survey Star, the sequence was randomized.*

Section 2

	Strongly disagree	Slightly disagree	Neitheragree nor disagree	Slightly agree	Strongly Agree agree
In most ways my life is close to my ideal					
The conditions of my life are excellent					
I am satisfied with my life					
So far I have gotten the important things I want in life					
If I could live my life over, I would change almost nothing					

8. Basing on your current feelings, please choose the extent of agreement for each item
9. There is a number of words that describe different emotions in the following scale. Basing on your current feelings, please choose the extent of agreement for each item.



	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
Interested							
Excited							
Strong							
Enthusiastic							
Proud							
Inspired							
Determined							
Attentive							
Active							
Alert							
Happy							

Section 3

10. Sex:

11. Age: \_\_\_\_\_.

12. Education.

A. Junior high or below B. High school/technical school C. *junior* college or bachelor  
D. Master or above.

13. Family per capita monthly income.

A. 3,000 RMB and below B.3001–5,000 RMB C. 5,001–8,000 RMB D. 8,001-10000RMB  
E.10001 RMB and more.