TILBURG UNIVERSITY

# Cash & care: When monetary gifts elicit gratitude


| | |
|---|---|
| Authors | Peng,Cong; Nelissen,Rob M.A.; Zeelenberg,Marcel |
| Published in | The Journal of Positive Psychology |
| DOI | 10.1080/17439760.2024.2387354 |
| Publication Date | 2025-05 |
| Document Version | publishersversion |
| Link | https://research.tilburguniversity.edu/en/publications/801217d4-09a5-424e-b7ef-c8ecc1ae9532 |
| Citation | Peng, C, Nelissen, R M A & Zeelenberg, M 2025, 'Cash & care : When monetary gifts elicit gratitude', The Journal of Positive Psychology, vol. 20, no. 3, pp. 475-484. https://doi.org/10.1080/17439760.2024.2387354 |
| Download Date | 2026-01-17 12:51:54 |
| Rights | General rights<br>Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.<br>- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.<br>- You may not further distribute the material or use it for any profit-making activity or commercial gain<br>- You may freely distribute the URL identifying the publication in the public portal"<br>Take down policy<br>If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim. |

THE JOURNAL OF POSITIVE PSYCHOLOGY
2025, VOL. 20, NO. 3, 475–484
https://doi.org/10.1080/17439760.2024.2387354

Routledge
Taylor & Francis Group

Check for updates

# Cash & care: When monetary gifts elicit gratitude

Cong Peng [a], Rob M. A. Nelissen [b] and Marcel Zeelenberg [b,c]

[a]Division of Arts and Sciences, New York University Shanghai, Shanghai, China; [b]Department of Social Psychology, Tilburg University, Tilburg, Netherlands; [c]Department of Marketing, Vrije Universiteit, Amsterdam, Netherlands

**ABSTRACT**

Money is often, but not always, considered an inappropriate gift. By considering recent insights in the social function of gratitude, we argue that the acceptability of money relies upon its capacity to evoke gratitude through conveying relational concerns. Study 1 ($N = 240$, US participants) revealed that monetary gifts are generally perceived as less acceptable and evoke less gratitude than non-monetary gifts of equivalent value. Furthermore, when monetary gifts were designated as specific gift coupons, they evoked more gratitude and were more acceptable. Study 2 ($N = 471$, Chinese participants) revealed that 520 RMB cash, symbolizing love in China, elicits increased gratitude and was therefore considered a favorable gift compared to similar amounts without such connotations. Taken together, we identify gratitude as the psychological mechanism underlying the acceptability of money and advocate for the recognition of monetary gifts with broader social, cultural, and psychological implications.

**ARTICLE HISTORY**
Received 6 June 2024
Accepted 8 July 2024

**KEYWORDS**
Money; gift; acceptability; gratitude; indebtedness

Money serves as a powerful and effective motivator (Lea & Webley, 2006), and it functions as a universal medium of exchange (Kiyotaki & Wright, 1989). It is no surprise then, that people like having money. However, giving money as a gift is often perceived as socially unacceptable, particularly within close relationships (Camerer, 1988; Pieters & Robben, 1999; Prendergast & Stole, 2001; Ruth et al., 1999; Webley & Wilson, 1989; Webley et al., 1983). Exceptions to this perception exist, such as when money is given for a specific purpose, like establishing a new household after a wedding, or when it is presented in a creatively symbolic manner (Zelizer, 1989, 1994). The specific factors determining the acceptability of money as a gift remain unclear. In this paper, we explore the psychological processes that mediate people's reactions to money as a gift. We argue that money generally lacks the essential elements that are crucial for effective gift exchange and as a result it does not convey relational concerns and does not evoke gratitude in the receiver. By extension, we propose and find that that money can elicit gratitude and consequently become more acceptable as a gift.

So far, the explanation proposed as to why money is often considered unacceptable relates the exchange of money to different relational frames. Money has commonly been associated with economic exchanges, which are fundamentally distinct from social exchanges. Researchers argue that money exchange is primarily reserved for market-based transactions within market pricing relationships (Cropanzano & Mitchell, 2005; Fiske, 1992; McGraw & Tetlock, 2005). From this viewpoint, money is perceived as incompatible with social exchange, including gift-giving, as its involvement may potentially transform a social relationship into one governed by market-based principles.

However, an account of the unacceptability of money as a gift based on relational frames is purely descriptive, offering limited insights into the psychological processes from the recipient's perspective. While it is evident that money can influence social relationships, the specific ways in which it shapes and transforms interpersonal dynamics remain unclear. Without understanding these mechanisms, it is challenging to discern the circumstances and situations in which money facilitates or impedes the formation of social bonds.

Researchers have increasingly emphasized the pivotal role of gratitude in shaping meaningful social relationships (Bartlett et al., 2012; Ng et al., 2017; Williams & Bartlett, 2015). While gratitude can be present in economic exchanges (DeSteno et al., 2010), it may not be as central or explicit as in social exchanges. Social exchanges often have a symbolic purpose (Camerer, 1988; Mauss, 2000; Molm et al., 2007; Zelizer, 1989), such as nuanced forms of reciprocity and mutual support, and gratitude can play a significant role in reinforcing social bonds and fostering trust within social

**CONTACT** Cong Peng cp3728@nyu.edu Division of Arts and Sciences, New York University Shanghai, N832, 567 West Yangsi Road, Pudong New District, Shanghai 200124, China

© 2024 Informa UK Limited, trading as Taylor & Francis Group

networks (Peng et al., 2018). Specifically, the 'find-remind-bind' theory of gratitude suggests that gratitude serves as a social glue to establish, sustain, and nurture social connections, extending beyond mere economic exchange (Algoe, 2012; Algoe et al., 2013). Also, experiencing and expressing gratitude are crucial for maintaining and fostering intimate bonds (Gordon et al., 2012; Kubacka et al., 2011; Lambert et al., 2010).

In line with the relational function of gratitude, previous studies have also extensively underscored relational concerns as a cognitive appraisal in eliciting gratitude. This suggests that gifts should be perceived as genuinely benevolent and caring to trigger gratitude and further foster social connections (Algoe et al., 2010; Fredrickson, 2004; Peng et al., 2018; Tsang, 2006; Watkins et al., 2006). When the giver aims to cultivate social bonds through gift-giving, the gift should go beyond mere instrumental value and effectively demonstrates an understanding and appreciation of the interests, needs, and preferences of the receiver. Essentially, it is the thought behind the gift that truly matters for the receiver (Zhang & Epley, 2012).

The significant role of gratitude in social exchange prompted us to explore the acceptability of money based on its ability to evoke gratitude. According to resource theory (Foa & Foa, 1980, 2012), the type of the resource utilized in social exchanges greatly influences the outcome. Money, as a resource, possesses unique characteristics within social interactions. It stands out due to its low 'particularity', possessing a clear, objective value not contingent on the individuals engaged. However, this lack of particularity may limit its ability to express personalized relational concerns, making it seem as though the relationship is being assigned a monetary value. As a result, money might evoke less gratitude and could be considered unacceptable. This exploration is significant, particularly considering that prior studies have primarily concentrated on evaluating the perceived costs and benefits of gifts, often neglecting the underlying resources involved (Flynn & Adams, 2009; Shen et al., 2011; Tsang, 2007; Zhang & Epley, 2009).

The reasoning above not only explains why money is often unacceptable in social exchange but also provides insights into circumstances under which money could become acceptable. If lacking relational concerns contributes to the unacceptability of money, then in contexts where money can indeed express relational concerns, it could evoke more gratitude and be accepted as a gift. Across diverse social and cultural contexts, individuals attribute relational concerns to money in various ways. In the Western world, there is a growing prevalence of gift cards and coupons (Offenberg, 2007), attributing financial gifts with a designated purpose that resonates with the receiver's preference, thereby conveying relational concerns. There are additional ways in which monetary gifts can express relational concerns. For instance, in Chinese culture, specific amounts of money (e.g. 520 RMB) hold symbolic meanings (e.g. love) because of their phonetical resemblance. Similarly, in Indian culture, cash is often given as a wedding gift when the amounts end with one rupee, reflecting a belief that such monetary gifts can bring prosperity to the recipient.

In two studies, we investigated the acceptability of different types of monetary gifts and their capacity to evoke gratitude. Gratitude is intricately linked with indebtedness, which often arises simultaneously upon receiving gifts. While gratitude is relation-oriented, indebtedness is associated with instrumental value and concerns about reciprocity in social exchange (Adams & Miller, 2022; Goyal et al., 2022; Naito & Sakata, 2010; Peng et al., 2018). Given this close connection, we measured both emotions, following established research practice (Goyal et al., 2022; Peng et al., 2020, 2024; Tsang, 2006; Watkins et al., 2006). This approach is advantageous because examining gratitude and indebtedness together facilitates a nuanced understanding of their distinct contributions to the social exchange process.

In Study 1, our aim was to initially explore the acceptability of monetary, non-monetary, and mixed-monetary gifts, as well as their capacity to evoke gratitude. Study 2 took place in China, where the number 520 (Wu-Er-Ling) symbolizes love due to its phonetic resemblance to I Love You (Wo-Ai-Ni) in Mandarin. Our goal was to investigate whether a specific amount of money (i.e. 520), symbolizing relational concerns (i.e. love), would elicit more gratitude and be perceived as more acceptable compared to similar amounts without relational concerns. For all studies, we ensure transparency by reporting all measures, conditions, data exclusions (if any), and how we determined our sample sizes. All experiments were approved by the ethics review board of the School of Social and Behavioral Science at Tilburg University #EC-2017.EX99t, and informed consent was obtained from all participants. Data for all studies are available on the OSF page (https://osf.io/hcj26/).

## Study 1: gift, gift card, or money as a welcome present

Study 1 was designed as an initial test of the prediction that monetary gifts would be perceived as less acceptable than non-monetary gifts, possibly due to differences in the feeling of gratitude evoked by these gifts. We created three conditions: non-monetary gifts (a box of

chocolates), monetary gifts (cash), and mixed-monetary gifts (a coupon for chocolates), all possessing equal economic value. Furthermore, we hypothesized that when money was designated for specific purposes aimed at conveying relational concerns, such as a coupon, it would evoke greater feelings of gratitude and thus become acceptable. Data collection took place in May 2017. The study was not pre-registered, as we started doing that only later.

## Method

### Participants and procedure

We aimed for 240 participants (80 per condition), which would give us 95% power to have a medium effect size ($f = 0.25$, $\alpha = .05$). A total of 241 participants were recruited from Amazon Mechanical Turk (Mturk) (Buhrmester et al., 2011), one of which was removed from further analysis because of failing to answer the emotion questions. We ended up with 240 valid participants (125 males, 115 females, aged 19 to 81, $M_{age} = 35.40$, $SD = 10.94$, USA residents). They received $0.50 as a compensation. Participants were randomly assigned to one of the three conditions: Chocolate ($N = 79$), Coupon ($N = 80$), or Cash ($N = 81$). We only reported here the part of survey that is relevant to our present research question. The remaining part of this survey and the full dataset can be found at https://osf.io/hcj26/.

### Materials

Participants were asked to read a scenario involving a neighbor's visit, with variations based on the gift condition. Participants in the *Chocolate condition* read the following:

> You have just moved to a new neighborhood. Your new neighbor Alex drops by to welcome you in the neighborhood. She brings you a nice box of chocolates from a local chocolate store as a gift, which you happen to know that the price is 20 dollars.

In the *Coupon condition*, the scenario ended as follows: 'She brings you a 20-dollar coupon from a local chocolate store as a gift. She says that with the coupon you could pick up a nice box of chocolate there'. In the *Cash condition*, the scenario ended as follows: 'She brings you 20-dollar cash as a welcome gift. She says that with the money you could buy yourself something nice'.

We measured how acceptable the gift was perceived with three items ($\alpha = .89$): *In general, how acceptable or unacceptable do you think is Alex's gift* (1 = *definitely unacceptable;* 7 = *definitely acceptable); How likely or unlikely is it that you would take Alex's gift* (1 = *very unlikely;* 7 = *very likely); How comfortable or uncomfortable would you feel if you take Alex's gift* (1 = *very uncomfortable;* 7 = *very comfortable*).

Next, participants were asked to indicate the extent to which they would experience specific emotions (all on 0 = *not at all*, 10 = *extremely)*. Following Peng et al. (2018), we measured gratitude with the words Grateful and Thankful ($r = .82$, $p < .001$) and indebtedness with Indebted and Obligated ($r = .63$, $p < .001$). These emotions were presented in a random order along with four fillers: Happy, Distressed, Proud, and Frustrated. Finally, as a manipulation check, participants were asked to indicate the extent to which they thought the gift was financial (1 = *not at all financial*, 7 = *completely financial*).

## Results

The results are shown in Table 1. The manipulation was successful. Participants in the Cash condition rated the gift to be more financial than participants in the other two conditions, $t$'s >10, $p$'s < .001, $d$'s >1.60. Similarly, the coupon was rated to be more financial than the chocolate, $t(157) = 5.94$, $p < .001$, $d = 0.94$.

Next, we analyzed the ratings for acceptability, and for gratitude and indebtedness. The results of one-way ANOVAs indicated significant effects of gift conditions on acceptability, $F(2, 237) = 93.28$, $p < .001$, $\eta^2 = .44$, gratitude, $F(2, 237) = 13.86$, $p < .001$, $\eta^2 = .10$, and indebtedness, $F(2, 237) = 9.61$, $p < .001$, $\eta^2 = .07$. We subsequently conducted post-hoc analyses using Bonferroni corrections, to analyze the pattern of means between conditions.

Cash was significantly less acceptable than chocolates, $p_{bonf} < .001$, $d = -1.92$, and also evoked less gratitude than chocolate, $p_{bonf} < .001$, $d = -0.82$, but resulted in a similar degree of indebtedness, $p_{bonf} = .12$, $d = 0.33$, in line with the anticipated pattern. Similarly, a coupon was significantly more acceptable than cash, $p_{bonf} < .001$, $d = -1.81$, evoked more gratitude, $p_{bonf} = .002$, $d = 0.54$, and resulted in less indebtedness, $p_{bonf} < .001$, $d = -0.69$. Meanwhile, a coupon was perceived as equally acceptable as the chocolates, $p_{bonf} = 1.00$, $d = 0.11$, evoked similar degrees of gratitude, $p_{bonf} = .23$, $d = -0.28$, and resulted in similar levels of indebtedness, $p_{bonf} = .07$, $d = -0.36$.

Finally, we conducted multi-categorical mediation analyses with the PROCESS procedure (Preacher & Hayes, 2008). To do so, we created two dummy variables to represent the three conditions, with the Cash condition serving as the reference point. Acceptability was designated as the dependent variable, while both gratitude and indebtedness were incorporated as mediators to partial out the explained variance attributed to indebtedness. The indirect effect of gratitude was

**Table 1.** Descriptive statistics for all measures in all conditions across studies 1 & 2.

| | | Measured Variables | | |
|---|---|---|---|---|
| Studies<br>Conditions | Acceptability<br>(1–7) | Gratitude<br>(0–10) | Indebtedness<br>(0–10) | Manipulation check<br>(1–7) |
| **Study 1 (*N* = 240)** | | | | |
| Chocolate | $6.14_{a}$ (0.74) | $8.32_{a}$ (2.11) | $4.26_{a,b}$ (2.54) | $2.38_{c}$ (1.58) |
| Coupon | $6.01_{a}$ (0.90) | $7.63_{a}$ (2.28) | $3.28_{b}$ (2.67) | $3.94_{b}$ (1.72) |
| Cash | $3.81_{b}$ (1.75) | $6.33_{b}$ (2.84) | $5.14_{a}$ (2.83) | $6.46_{a}$ (1.14) |
| **Study 2: Participants with 520-love belief (*N* = 365)** | | | | |
| 510 | $4.39_{b}$ (1.45) | $4.53_{b}$ (2.59) | $4.26_{a}$ (2.56) | |
| 520 | $4.77_{a}$ (1.49) | $5.40_{a}$ (2.87) | $3.80_{a}$ (2.53) | |
| 530 | $4.31_{b}$ (1.44) | $4.52_{b}$ (2.89) | $4.07_{a}$ (2.61) | |
| **Study 2: Participants without 520-love belief (*N* = 83)** | | | | |
| 510 | $4.31_{a}$ (1.51) | $4.40_{a}$ (2.80) | $4.87_{a}$ (2.71) | |
| 520 | $4.05_{a}$ (1.32) | $4.78_{a}$ (2.74) | $4.33_{a}$ (2.58) | |
| 530 | $4.27_{a}$ (1.93) | $3.89_{a}$ (3.26) | $3.93_{a}$ (2.94) | |

Entries are means, with standard deviations within parenthesis. Acceptability is assessed on a 7-point scale, with endpoints 1 = *definitely unacceptable*, 7 = *definitely acceptable*. Gratitude and indebtedness are assessed on 11-point scales with endpoints 0 = *not at all*, 10 = *extremely*. Within each column, means with different subscripts are significantly different by $p < .05$ in post-hoc pairwise comparisons.

significant for both the Chocolate condition ($b = 0.52$, $SE = 0.11$, 95% *CI* [0.30, 0.75]), and the Coupon condition ($b = 0.34$, $SE = 0.11$, 95% *CI* [0.14, 0.55]). In contrast the indirect effect of indebtedness was only significant for the Coupon condition ($b = 0.21$, $SE = 0.07$, 95% *CI* [0.08, 0.33]), but not for the Chocolate condition ($b = 0.10$, $SE = 0.05$, 95% *CI* [−0.01, 0.20]) (see Figure 1).

### *Discussion*

These results provide initial support for the idea that the acceptability of gifts is linked to feelings of gratitude, with money demonstrating a comparatively lower capacity to evoke gratitude. Furthermore, our findings suggest that monetary gifts may gain acceptability when designated for specific purposes, such as through coupons and gift cards. In this manner, money becomes to effectively convey relational concerns, thereby prompting feelings of gratitude in the receiver. Additionally, our results suggest that the differentiation between monetary and non-monetary gifts is not strictly dichotomous and not qualitatively distinct. Rather, the unacceptability of money, akin to other poor gift choices, often stem from their inability to convey relational concerns.

Supposedly, all conditions should have elicited similar levels of indebtedness due to the equal economic value of the gift. However, unexpectedly, the coupon condition resulted in less indebtedness compared to the cash condition. Indebtedness is often associated with the perceived cost and equity concerns (Peng et al., 2018). It is reasonable to suggest that coupon redemption may be perceived as less costly than paying with cash, as supported by prior research (Argo & Main, 2008; Ashworth et al., 2005). Overall, the results suggest that a coupon works more like a non-monetary gift rather than a monetary one.

## Study 2: 510, 520, or 530 RMB as a Valentine's Day gift

In Study 2, we aimed to examine further how monetary gifts can express relational concerns within specific cultural contexts, while the underlying mechanism remains consistent. We selected a specific cultural case involving the association of the number 520 with love in China. Building on this cultural significance, we predicted that a monetary gift of 520 RMB (approximately $70) would be perceived more favorably as a Valentine's Day gift by Chinese participants compared to similar amounts of 510 RMB or 530 RMB. Notably, even though 530 RMB represents a higher monetary value, we anticipated that 520 RMB would elicit more gratitude due to its association with the concept of love.

Furthermore, we believed that this effect would only manifest among participants who were aware of and believed in the cultural association of 520 with love. For individuals lacking belief or awareness in this association, we expected that the acceptance of 520 RMB would not differ significantly from other monetary amounts, as the number 520 would not communicate relational concerns anymore.

### *Method*

#### *Participants and procedure*

We aimed for 468 participants based on a G*Power calculation ($d = 0.28$, $\alpha = .05$, $1\text{-}\beta = .80$, pre-registered via Aspredicted.org #13980). The effect size was derived from insights gained from a pilot study. Ultimately, we

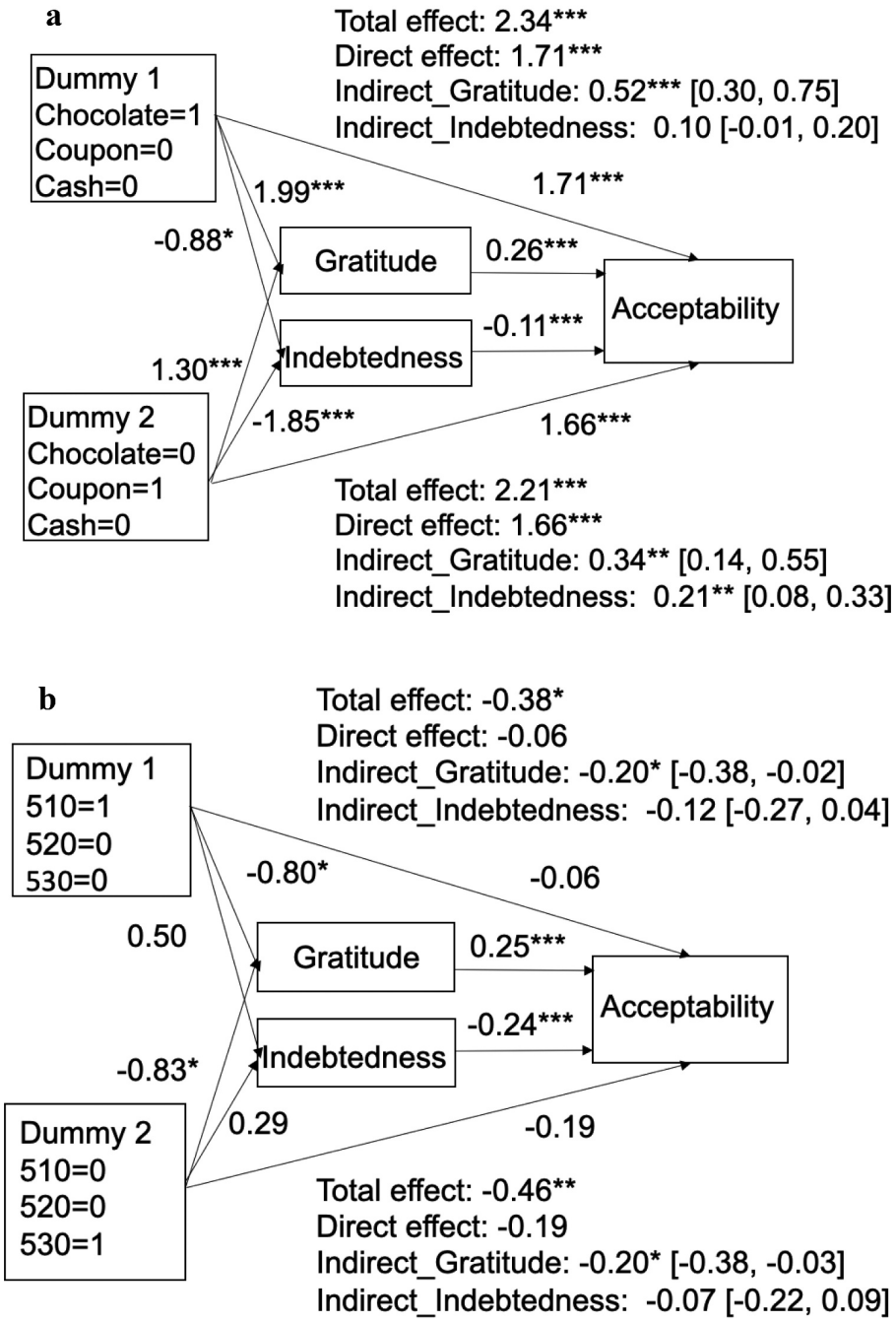


**Figure 1.** Testing for the mediating effects of gratitude in studies 1 (panel A) and 2 (panel B). After controlling for the influence from indebtedness, gratitude mediates the effect on the acceptability of the monetary gifts in Study 1 and Study 2. Numbers are unstandardized coefficients in the mediation models. Numbers in brackets represents 95% confidence intervals. ***$p < .001$; **$p < .01$*$p < .05$.

recruited a total of 471 participants from Zhejiang University in China (171 males, 297 females, 3 missing gender information, 17 to 52, $M_{age} = 20.58$, $SD = 3.04$, Chinese residents). Participants were randomly assigned to the 510 condition ($N = 156$), 520 condition ($N = 162$), or the 530 condition ($N = 153$). Data collection took place in September 2018. Participants received 2 RMB as a compensation.

### Materials and measures

All participants read the following scenario:

> It is Valentine's Day today. Your boyfriend/girlfriend decides to give you some money as a Valentine's Day gift. To express his/her feeling to you, s/he gives you [510/520/530] RMB. S/he says that with the money you could buy yourself something nice.

The measures in Study 2 mirrored those used in Study 1. We measured acceptability and emotional reactions using the same items and labels as in the previous study. Finally, to assess participants' awareness and belief in the association between the number 520 and love, the final question, presented after the dependent measures, required participants to identify which number among the options (510, 520, 530, or none of them) symbolized love.

### Results

The results are shown in Table 1. On the assessment of the 520-love association, 365 participants (77.5%) selected 520, which affirms a substantial recognition of the cultural significance attached to the number 520 among these participants. Those who selected 510 ($N = 9$) and 530 ($N = 14$) were excluded from further analysis. Additionally, 83 participants (17.6%) indicated that none of these numbers held any meaningful association with love, suggesting a lack of belief or awareness regarding the 520-love association among these participants.

We first analyzed data from the 365 participants who identified 520 as representing love. A one-way ANOVA revealed that gift conditions exerted an effect on acceptability, $F(2, 362) = 3.53$, $p = .030$, $\eta^2 = .02$, as well as an effect on gratitude, $F(2, 338) = 3.89$, $p = .021$, $\eta^2 = .02$. However, there was no significant effect on indebtedness, $F(2, 326) = 0.94$, $p = .39$, $\eta^2 = .00$. We then conducted several planned contrasts, with contrast weights of (0.5, −1, 0.5) to correspond to the three conditions. In line with our predictions, participants in the 520 condition perceived the cash gift as more acceptable than those in the 510 and the 530 conditions, $t(362) = 2.63$, $p = .009$, $d = 0.28$. Furthermore, we observed the anticipated results for gratitude and indebtedness. The same planned contrast indicated that participants in the 520 condition reported more gratitude than those in the 510 and the 530 conditions, $t(338) = 2.79$, $p = .006$, $d = 0.30$. The 510, 520, and 530 conditions all triggered a similar level of indebtedness, $t(326) = -1.26$, $p = .21$, $d = 0.14$.

Next, we conducted multi-categorical mediation analyses similar to Study 1 with PROCESS procedure, including both gratitude and indebtedness as the mediators. Two dummy variables were created to represent the three conditions, with the 520 condition serving as the reference. Consistently, the indirect effect of gratitude was significant for both the 510 condition ($b = -0.20$, $SE = 0.09$, 95% $CI$ [−0.38, −0.02]), and the 530 condition, ($b = -0.20$, $SE = 0.09$, 95% $CI$ [−0.38, −0.03]). Whereas the indirect effect of indebtedness was neither significant for the 510 condition ($b = -0.12$, $SE = 0.08$, 95% $CI$ [−0.27, 0.04]), nor for the 530 condition ($b = -0.07$, $SE = 0.08$, 95% $CI$ [-0.22, 0.09]) (see Figure 1).

We then analyzed data from the 83 participants who indicated not believing the association between 520 and love (i.e. those who selected 'none of them is meaningful'). Intriguingly, the 520-effect vanished. The 520 condition was not perceived as more acceptable than the 510 condition and the 530 condition, $F(2, 80) = 0.18$, $p = .83$, $\eta^2 = .01$. Additionally, there were no observed effects from the conditions on gratitude, $F(2, 72) = 0.58$, $p = .56$, $\eta^2 = .01$, and indebtedness, $F(2, 75) = 0.78$, $p = .46$, $\eta^2 = .01$.

### Discussion

These results underscore the importance individuals place on the cultural association between 520 and love. When money conveys relational concerns, such as the case of 520 and love, the receiver is likely to feel greater gratitude. Consequently, such gifts become more acceptable, even surpassing the monetary gifts with higher economic values. Interestingly, these findings indicate that the impact of the 520-love association on gift perceptions depends on the receiver's belief or awareness of this cultural connection. When individuals do not subscribe to the notion of love associated with money, the effect disappears, as money in this context fails to convey relational concerns. This evidence, albeit based on a small sample ($N = 83$), further bolsters the notion that the acceptability of money relies on its expression of relational concerns.

## General discussion

Despite its utilitarian nature from an economic perspective, money is often regarded as an inappropriate gift choice, set apart from non-monetary alternatives. We proposed that this evaluation arises from money's limited capacity to elicit the same level of gratitude as equivalent non-monetary gifts. Furthermore, we hypothesized that money could become more acceptable if it could convey relational concerns across diverse social and cultural contexts, thereby eliciting gratitude. Across two studies, we found evidence supporting these

hypotheses. The results indicated that monetary gifts are typically perceived as unacceptable and evoke less gratitude. However, money can gain acceptance when designated for specific purposes (Study 1) or when it has a symbolic connotation (Study 2). Such monetary gifts can effectively convey relational concerns and evoke gratitude. Combining these findings, we conclude that the acceptability of money depends on its capacity to evoke feelings of gratitude.

The current findings offer valuable insights that complement a relational frame account of the unacceptability of money. According to the relational frame perspective, the nature of exchange (social exchange vs. economic exchange) should align with the type of relationship (social relationship vs. economic relationship) (Clark & Mills, 1979, 1993; Fiske, 1992; McGraw & Tetlock, 2005). In this framework, money is regarded as the epitome of economic exchange and thus considered inappropriate in social exchange. While we concur with the normative account outlined by the relational framework model, we find it limited in uncovering the psychological mechanisms underlying those social norms regarding monetary gifts.

Instead, the current findings complement this perspective by highlighting the emotional reactions of gratitude and the corresponding relational concerns that contribute to the norm against using money within social relationships. Essentially, gratitude plays a pivotal role in the process of nurturing social connections through gift-giving (Algoe, 2012). However, money falls short in addressing the relational concerns intrinsic to gift exchanges. Consequently, it tends to elicit less gratitude and diminishes the potential for meaningful social bonding.

In addition, the relational frame perspective overlooks instances where money is considered acceptable across various social and cultural contexts. This oversight may stem from the contemporary focus on the economic aspect of money within industrialized capitalist societies, where money is often seen as an abstract entity, homogenizing all qualitative distinctions (Zelizer, 1989, 1994). Conversely, the social and cultural dimensions of money have often been disregarded. In alignment with Zelizer's central notion regarding the social meanings of money, our explanation accommodates situations when monetary gifts are acceptable when they convey relational concerns, an inference not readily deducible from the relational frame perspective. Our perspective offers guidance on how to make monetary gifts thoughtful in today' world: by personalizing your monetary gifts to convey relational concerns. For instance, shaping cash into the form of a rose or incorporating a heartfelt cover story about the intended use of the money can effectively enhance its acceptability as a gift. We've shown how monetary gifts can have relational significance in both American and Chinese cultures. We think these findings could extend to other social and cultural contexts, depending on their specific cultural interpretations. Ultimately, while people express care in diverse ways or languages, the experience of feeling cared for remains universal.

The present results align with prior research on the cognitive antecedents of gratitude and its social affiliative function. Specifically, researchers concur that gratitude and indebtedness stem from distinct cognitive antecedents and serve different social functions. Gratitude typically arises from a sense of appreciation for relational concerns (Peng et al., 2018; Smith et al., 2017; Tsang, 2006; Watkins et al., 2006), whereas indebtedness is often associated with concerns about equity and reciprocity (Adams & Miller, 2022; Goyal et al., 2022; Naito & Sakata, 2010; Peng et al., 2018). Throughout our research, we manipulated relational concerns conveyed by monetary gifts and consistently observed their association with gratitude, rather than indebtedness. Specifically, in Study 2, we demonstrated that the receiver's gratitude is influenced by the relational concerns derived from the symbolic value of the amount, rather than its economic value. This finding is consistent with Flynn and Adams' (2009) research, which revealed no linear association between gift price and the receiver's feelings of gratitude.

The present research may also shed light on resource theory, by illustrating the impact of resource type on the social exchange process. According to Foa and Foa (1980, 2012), resources utilized in social exchange can be classified into six categories: information, status, money, love, goods, and services. In our study, we compared receiving money with receiving goods, yet this line of research can expand to encompass other types of resource. For instance, unlike money, love is predominantly exchanged within social relationships and is often considered a taboo in economic exchange. Foa and Foa suggest that the value of love to the receiver largely depends on the specific benefactors providing it. This unique particularity allows love to convey the strongest relational concerns, resulting in enhanced gratitude from the receiver – but notably only when received from certain individuals. In contemporary consumer-oriented societies, love has been commodified, leading to its exchange within commercial contexts, an idea referred to as the 'purchase of intimacy' by Zelizer (2005). Today, individuals have the option to obtain services such as empathy or companionship, which were traditionally only available within social relationships.

Exploring these emerging phenomena could yield intriguing insights into the evolving dynamics of social exchange in modern societies.

It's crucial to acknowledge that our perspective, which emphasized the relational function of gratitude, is not the sole mechanism explaining the acceptability or unacceptability of money. Given the complexity of this phenomenon, it's likely that multiple mechanisms or processes are at play simultaneously. We recognize the existence of alternative explanations and do not intend to disregard them. For example, factors such as power dynamics and hierarchical relationships may also influence perceptions of money, which we did not specifically address in our research. Receiving money can sometimes be perceived as insulting and may threaten one's self-esteem (Nadler et al., 1976), as it could signify a lack of power and status in the receiver (Burgoyne & Routh, 1991; Lea & Webley, 2006; Wernimont & Fitzpatrick, 1972). Meanwhile, our study focused on relationships characterized by equality and did not explore authority ranking relationships. It's worth noting that in many cultures, monetary gifts from parents to children, or from males to females, are widely accepted and even expected as a customary practice. But just like other perspectives, we believe our studies provide a unique perspective to interpret the exchange of money within social relationships. While our findings contribute to a more comprehensive understanding, they represent only a part of the broader picture.

In conclusion, this research confirmed that monetary gifts generally lead to lower levels of gratitude in the receiver, rendering them relatively unacceptable. However, our findings suggest that monetary gifts can become acceptable when they convey relational concerns, consequently eliciting gratitude. This underscores the importance of considering money beyond its economic utility, recognizing its broader social, cultural, and psychological implications.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## ORCID

Cong Peng http://orcid.org/0000-0001-7485-973X
Rob M. A. Nelissen http://orcid.org/0000-0001-5839-9438
Marcel Zeelenberg http://orcid.org/0000-0002-7100-4223

## Open Scholarship

This article has earned the Center for Open Science badges for Open Data, Open Materials and Preregistered. The data and materials are openly accessible at https://osf.io/hcj26/

## References

Adams, M. M., & Miller, J. G. (2022). The flexible nature of everyday reciprocity: Reciprocity, helping, and relationship closeness. *Motivation and Emotion*, *46*(4), 461–475. https://doi.org/10.1007/s11031-022-09949-y

Algoe, S. B. (2012). Find, remind, and bind: The functions of gratitude in everyday relationships. *Social and Personality Psychology Compass*, *6*(6), 455–469. https://doi.org/10.1111/j.1751-9004.2012.00439.x

Algoe, S. B., Fredrickson, B. L., & Gable, S. L. (2013). The social functions of the emotion of gratitude via expression. *Emotion*, *13*(4), 605–609. https://doi.org/10.1037/a0032701

Algoe, S. B., Gable, S. L., & Maisel, N. C. (2010). It's the little things: Everyday gratitude as a booster shot for romantic relationships. *Personal Relationships*, *17*(2), 217–233. https://doi.org/10.1111/j.1475-6811.2010.01273.x

Argo, J. J., & Main, K. J. (2008). Stigma by association in coupon redemption: Looking cheap because of others. *The Journal of Consumer Research*, *35*(4), 559–572. https://doi.org/10.1086/591102

Ashworth, L., Darke, P. R., & Schaller, M. (2005). No one wants to look cheap: Trade-offs between social disincentives and the economic and psychological incentives to redeem coupons. *Journal of Consumer Psychology*, *15*(4), 295–306. https://doi.org/10.1207/s15327663jcp1504_4

Bartlett, M. Y., Condon, P., Cruz, J., Baumann, J., & DeSteno, D. (2012). Gratitude: Prompting behaviours that build relationships. *Cognition & Emotion*, *26*(1), 2–13. https://doi.org/10.1080/02699931.2011.561297

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical Turk a new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, *6*(1), 3–5. https://doi.org/10.1177/1745691610393980

Burgoyne, C. B., & Routh, D. A. (1991). Constraints on the use of money as a gift at Christmas: The role of status and intimacy. *Journal of Economic Psychology*, *12*(1), 47–69. https://doi.org/10.1016/0167-4870(91)90043-S

Camerer, C. (1988). Gifts as economic signals and social symbols. *The American Journal of Sociology*, *94*(Suppl), 180–214. https://doi.org/10.1086/228946

Clark, M. S., & Mills, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality & Social Psychology*, *37*(1), 12–24. https://doi.org/10.1037/0022-3514.37.1.12

Clark, M. S., & Mills, J. R. (1993). The difference between communal and exchange relationships: What it is and is not. *Personality & Social Psychology Bulletin*, *19*(6), 684–691. https://doi.org/10.1177/0146167293196003

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, *31*(6), 874–900. https://doi.org/10.1177/0149206305279602

DeSteno, D., Bartlett, M. Y., Baumann, J., Williams, L. A., & Dickens, L. (2010). Gratitude as moral sentiment: Emotion-guided cooperation in economic exchange. *Emotion*, *10*(2), 289–293. https://doi.org/10.1037/a0017883

Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, *99*(4), 689–723. https://doi.org/10.1037/0033-295X.99.4.689

Flynn, F. J., & Adams, G. S. (2009). Money can't buy love: Asymmetric beliefs about gift price and feelings of appreciation. *Journal of Experimental Social Psychology*, *45*(2), 404–409. https://doi.org/10.1016/j.jesp.2008.11.003

Foa, E. B., & Foa, U. G. (1980). Resource theory. In K. S. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 77–94). Plenum Press.

Foa, E. B., & Foa, U. G. (2012). Resource theory of social exchange. In K. Törnblom, A. Kazemi, K. Törnblom, & A. Kazemi (Eds.), *Handbook of social resource theory: Theoretical extensions, empirical insights, and social applications* (pp. 15–32). Springer.

Fredrickson, B. L. (2004). Gratitude, like other positive emotions, broadens and builds. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 145–166). Oxford University Press.

Gordon, A. M., Impett, E. A., Kogan, A., Oveis, C., & Keltner, D. (2012). To have and to hold: Gratitude promotes relationship maintenance in intimate bonds. *Journal of Personality & Social Psychology*, *103*(2), 257–274. https://doi.org/10.1037/a0028723

Goyal, N., Adams, M. M., Wice, M., Sullivan, S., & Miller, J. G. (2022). Gratitude endures while indebtedness persuades: Investigating the unique influences of gratitude and indebtedness in helping. *Cognition & Emotion*, *36*(7), 1361–1373. https://doi.org/10.1080/02699931.2022.2118237

Kiyotaki, N., & Wright, R. (1989). On money as a medium of exchange. *Journal of Political Economy*, *97*(4), 927–954. https://doi.org/10.1086/261634

Kubacka, K. E., Finkenauer, C., Rusbult, C. E., & Keijsers, L. (2011). Maintaining close relationships: Gratitude as a motivator and a detector of maintenance behavior. *Personality & Social Psychology Bulletin*, *37*(10), 1362–1375. https://doi.org/10.1177/0146167211412196

Lambert, N. M., Clark, M. S., Durtschi, J., Fincham, F. D., & Graham, S. M. (2010). Benefits of expressing gratitude: Expressing gratitude to a partner changes one's view of the relationship. *Psychological Science*, *21*(4), 574–580. https://doi.org/10.1177/0956797610364003

Lea, S. E. G., & Webley, P. (2006). Money as tool, money as drug: The biological psychology of a strong incentive. *Behavioral and Brain Sciences*, *29*(2), 161–176. https://doi.org/10.1017/S0140525X06009046

Mauss, M. (2000). *The gift: The form and reason for exchange in archaic societies*. WW Norton & Company.

McGraw, A. P., & Tetlock, P. E. (2005). Taboo trade-offs, relational framing, and the acceptability of exchanges. *Journal of Consumer Psychology*, *15*(1), 2–15. https://doi.org/10.1207/s15327663jcp1501_2

Molm, L. D., Collett, J. L., & Schaefer, D. R. (2007). Building solidarity through generalized exchange: A theory of reciprocity. *The American Journal of Sociology*, *113*(1), 205–242. https://doi.org/10.1086/517900

Nadler, A., Fisher, J. D., & Streufert, S. (1976). When helping hurts: Effects of donor-recipient similarity and recipient self-esteem on reactions to aid. *Journal of Personality*, *44*(3), 392–409. https://doi.org/10.1111/j.1467-6494.1976.tb00129.x

Naito, T., & Sakata, Y. (2010). Gratitude, indebtedness, and regret on receiving a friend's favor in Japan. *Psychologia: An International Journal of Psychological Sciences*, *53*(3), 179–194. https://doi.org/10.2117/psysoc.2010.179

Ng, J. W. X., Tong, E. M. W., Sim, D. L. Y., Teo, S. W. Y., Loy, X., & Giesbrecht, T. (2017). Gratitude facilitates private conformity: A test of the social alignment hypothesis. *Emotion*, *17*(2), 379–387. https://doi.org/10.1037/emo0000249

Offenberg, J. P. (2007). Markets: Gift cards. *Journal of Economic Perspectives*, *21*(2), 227–238. https://doi.org/10.1257/jep.21.2.227

Peng, C., Malafosse, C., Nelissen, R. M. A., & Zeelenberg, M. (2020). Gratitude, indebtedness, and reciprocity: An extended replication of Bartlett & DeSteno (2006). *Social Influence*, *15*(1), 4–16. https://doi.org/10.1080/15534510.2019.1710248

Peng, C., Nelissen, R. M. A., & Zeelenberg, M. (2018). Reconsidering the roles of gratitude and indebtedness in social exchange. *Cognition & Emotion*, *32*(4), 760–772. https://doi.org/10.1080/02699931.2017.1353484

Peng, C., Nelissen, R. M. A., & Zeelenberg, M. (2024). Emotional consequences of social debt sharing in communal relationships. *Emotion*, *24*(1), 225–233. https://doi.org/10.1037/emo0001271

Pieters, R., & Robben, H. S. J. (1999). Consumer evaluation of money as a gift: A two-utility model and an empirical test. *Kyklos*, *52*(2), 173–200. https://doi.org/10.1111/j.1467-6435.1999.tb01441.x

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Prendergast, C., & Stole, L. (2001). The non-monetary nature of gifts. *European Economic Review*, *45*(10), 1793–1810. https://doi.org/10.1016/S0014-2921(00)00102-1

Ruth, J. A., Otnes, C. C., & Brunel, F. F. (1999). Gift receipt and the reformulation of interpersonal relationships. *The Journal of Consumer Research*, *25*(4), 385–402. https://doi.org/10.1086/209546

Shen, H., Wan, F., & Wyer, R. S., Jr. (2011). Cross-cultural differences in the refusal to accept a small gift: The differential influence of reciprocity norms on Asians and North americans. *Journal of Personality & Social Psychology*, *100*(2), 271–281. https://doi.org/10.1037/a0021201

Smith, A., Pedersen, E. J., Forster, D. E., McCullough, M. E., & Lieberman, D. (2017). Cooperation: The roles of interpersonal value and gratitude. *Evolution and Human Behavior*, *38*(6), 695–703. https://doi.org/10.1016/j.evolhumbehav.2017.08.003

Tsang, J. A. (2006). The effects of helper intention on gratitude and indebtedness. *Motivation and Emotion*, *30*(3), 198–204. https://doi.org/10.1007/s11031-006-9031-z

Tsang, J. A. (2007). Gratitude for small and large favors: A behavioral test. *The Journal of Positive Psychology*, *2*(3), 157–167. https://doi.org/10.1080/17439760701229019

Watkins, P., Scheer, J., Ovnicek, M., & Kolts, R. (2006). The debt of gratitude: Dissociating gratitude and indebtedness.

*Cognition & Emotion*, *20*(2), 217–241. https://doi.org/10.1080/02699930500172291

Webley, P., Lea, S. E. G., & Portalska, R. (1983). The unacceptability of money as a gift. *Journal of Economic Psychology*, *4*(3), 223–238. https://doi.org/10.1016/0167-4870(83)90028-4

Webley, P., & Wilson, R. (1989). Social relationships and the unacceptability of money as a gift. *The Journal of Social Psychology*, *129*(1), 85–91. https://doi.org/10.1080/00224545.1989.9711702

Wernimont, P. F., & Fitzpatrick, S. (1972). The meaning of money. *Journal of Applied Psychology*, *56*(3), 218–226. https://doi.org/10.1037/h0033107

Williams, L. A., & Bartlett, M. Y. (2015). Warm thanks: Gratitude expression facilitates social affiliation in new relationships via perceived warmth. *Emotion*, *15*(1), 1–5. https://doi.org/10.1037/emo0000017

Zelizer, V. A. (1989). The social meaning of money: "special monies". *The American Journal of Sociology*, *95*(2), 342–377. https://doi.org/10.1086/229272

Zelizer, V. A. (1994). *The social meaning of money*. Princeton University Press.

Zelizer, V. A. (2005). *The purchase of intimacy*. Princeton University Press.

Zhang, Y., & Epley, N. (2009). Self-centered social exchange: Differential use of costs versus benefits in prosocial reciprocity. *Journal of Personality & Social Psychology*, *97*(5), 796–810. https://doi.org/10.1037/a0016233

Zhang, Y., & Epley, N. (2012). Exaggerated, mispredicted, and misplaced: When "it's the thought that counts" in gift exchanges. *Journal of Experimental Psychology, General*, *141*(4), 667–681. https://doi.org/10.1037/a0029223