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How Scarcity and Thinking Styles Boost Referral Effectiveness

Abstract

Referral reward programs (RRPs) are a widely used tool to stimulate word-of-mouth. However, marketers still face a dilemma—while incentivization encourages senders to make referrals, recipients often react negatively towards such incentives. We propose a solution—referral scarcity—to improve referral effectiveness depending on thinking style. Three experiments show that limiting the number of referral rewards makes holistic-thinking recipients feel more special, boosting their referral acceptance and RRP evaluations. We replicate these effects across various contexts and in the relationship norm most common for referrals—exchange norm. Our findings theoretically contribute to the research on incentivized word-of-mouth, scarcity appeals, and thinking styles. We also demonstrate how marketers can adopt sender-benefiting referral rewards to maximize its dissemination and acceptance while identifying the consumer segment where it would be most effective.

Keywords Referral; referral reward programs; scarcity; analytic—holistic thinking; relationship norms

1 | INTRODUCTION

While consumers' trust in traditional advertising is declining, word-of-mouth (WOM) based marketing approaches, such as "refer a friend" campaigns are gaining popularity (Wylie, 2018). Brands are seeking innovative ways to incentivize consumers to spread the word about their products and services (Gerrath & Usrey, 2020; Van den Bulte et al., 2018). One increasingly common way to drive WOM and acquire new customers is referral reward programs (RRPs), which incentivize consumers with rewards to refer new customers (Kornish & Li, 2010; Ryu & Feick, 2007; Shi & Wojnicki, 2014). A recent Google search on "refer a friend" programs yielded 126 million results, with brands such as PayPal offering \$10 for each new customer referral (PayPal, 2020). RRPs owe their popularity to their effectiveness in customer acquisition and retention. In addition to acquiring customers with 16–25% higher customer lifetime value (Van den Bulte et al., 2018), RRPs reduce defection rates of existing customers from 19% to 7% (Garnefeld et al., 2013).

Given these benefits, previous research has tried to optimize RRP design, focusing on the conditions that encourage consumers to make referrals (Kornish & Li, 2010; Wirtz et al., 2019; Wolters et al., 2020). For instance, rewarding the sender increases the likelihood of referrals, particularly among weak ties. Thus, sender-benefitting RRPs effectively stimulate WOM beyond close friends and family (Ryu & Feick, 2007). However, RRPs need a high likelihood of referral and acceptance to be effective. While sender-benefitting RRPs encourage senders to make referrals, they can be detrimental to recipient acceptance. Recipients often assume that incentivized senders are driven by the desire to attain rewards rather than an honest recommendation. Hence, recipients often think that incentivized senders are less sincere (Tuk et al., 2009), have ulterior motives, reducing their compliance with these referrals (Verlegh et al., 2013). Incentivization may also negatively impact message credibility, brand attitudes, and evaluations (Eisend et al., 2020). Given that incentives could make senders look bad to recipients, sender-benefitting RRPs could even reduce referral likelihood in some instances (Wirtz et al., 2013). Consequently, referral rewards come with social costs, which could backfire for firms by reducing their brand evaluations and referral acceptance (Verlegh et al., 2013). In sum, while the existing research recommends sender-benefitting RRPs to increase referral likelihood, managers of RRPs still face a dilemma as such incentives could simultaneously reduce

recipients' referral acceptance. Thus, our current research attempts to solve this dilemma by addressing the following research questions: How should firms design their RRP to maximize uptake while minimizing social costs to the senders? Furthermore, would certain customer segments respond more positively to RPPs? If these differences emerge, how can marketers alter RRP to suit different customer segments and maximize RRP effectiveness?

To address these questions, we investigate whether making referrals scarce would mitigate social costs attached to rewards and boost RRP effectiveness. Moreover, we examine if consumer responses towards referral scarcity would differ by thinking style. On the one hand, holistic thinkers are more likely to incorporate contextual factors (e.g., scarcity cues) into their overall evaluations. On the other hand, analytic thinkers detach objects from their context when evaluating them (Nisbett et al., 2001, p. 293). Thus, we suggest that holistic thinkers are more heavily influenced by a referral's scarcity cues than analytic thinkers. As people strive to feel unique and stand out from the masses (Ruvio, 2008; Snyder, 1992), they may derive pleasure from receiving a supply-limited (i.e., scarce) referral from others—even if the sender is incentivized for the referral. Therefore, we posit that the sense of exclusivity denoted by limited-supply referral scarcity would make holistic-thinking recipients feel special upon receiving an incentivized referral. Study 1 shows that referral scarcity makes holistic-thinking individuals feel special, increasing their likelihood to try the recommended meal-box service. This effect occurs even when controlling for the social costs commonly attached to sender-benefitting RRP. Study 2 replicates these effects in a different context – internet providers and compares the impact of referral scarcity across sender, recipient, and both-benefitting RRP. We demonstrate that reward scarcity allows firms to adopt sender-benefitting referral rewards by attenuating the social costs attached to referral rewards, especially for holistic thinkers. Amongst consumers that scored highly on holistic thinking, referral scarcity makes recipients feel special, boosting RRP evaluation. Thus, even if the sender was the only rewarded party, scarce sender-benefitting RRP result in just as favorable recipient responses as recipient-benefitting. By making it scarce, sending-benefitting RRP can still enjoy the advantages of encouraging senders to make referrals while mitigating social costs to increase recipient acceptance. Study 3 highlights the generalizability of our findings by replicating the effects of referral scarcity under exchange norms,

the relationship norms that are most prevalent for referrals. Past research has shown that sender-benefiting RRP incur social costs as they violate exchange norms that govern social interactions in referrals (Tuk et al., 2009). Study 3 shows that referral scarcity still makes recipients feel special and boost RRP evaluations even when exchange norms are evoked. Put differently, making referrals scarce does not violate relationship norms that are most prevalent for referrals, minimizing the social costs commonly associated with sender-benefiting RRPs.

We believe that our work offers sound guidance to firms who may wish to use RRPs. Specifically, making referral rewards scarce allows firms to enjoy the increased likelihood of referrals that sender-benefiting RRPs bring while still making recipients feel special. We also show that holistic-thinking consumers respond more positively to referral scarcity than analytical-thinking counterparts, suggesting that limiting referrals would be more effective for brands targeting holistic-thinkers, boosting acceptance likelihood and RRP evaluation. Theoretically, we contribute to the burgeoning WOM literature. While prior research has established that incentives for encouraging WOM are often regarded with suspicion by recipients, our work identifies a novel way of designing RRPs that circumvents such social cost issues. Referral scarcity can make holistic-thinking recipients feeling special. Compared to previous work that focused on social costs (Jin & Huang, 2014; Wirtz et al., 2019), we identify an alternative underlying process in which referrals can boost RPP effectiveness. Moreover, we contribute to the literature on scarcity appeals and thinking styles. Three experiments show that scarcity appeals in referrals work more effectively for holistic (compared to analytic) thinking consumers.

2 | THEORETICAL BACKGROUND

2.1 | Referral Programs

Incentivized WOM such as “refer a friend” campaigns are an increasingly popular way to stimulate consumers to recommend products and services to others (Stumpf & Baum, 2016; Van den Bulte et al., 2018). Incentivizing customers to make referrals is an effective way of improving customer acquisition rates, boosting customer lifetime values, and reducing defection rates (Gorlier & Michel, 2020; Kornish & Li, 2010; Ryu & Feick, 2007; Van den Bulte et al., 2018). However,

providing rewards for senders could also be detrimental. When recipients are aware of these incentives, they infer ulterior motives (Verlegh et al., 2013), doubting the senders' sincerity, which reduces brand evaluations and referral acceptance (Tuk et al., 2009). Concerned with their reputation, senders are also less likely to make incentivized referrals (Wirtz et al., 2013), especially when rewards are monetary (vs. in-kind; Jin & Huang, 2014).

Prior research has sought to address these adverse effects by changing reward targets to minimize the adverse effects of rewards. Nevertheless, they still have several limitations. For instance, while recipient-benefiting referral incentives generated more leads by increasing reputational benefits for the sender and reducing action costs for the recipient (Gershon et al., 2020), they only work with strong social ties (Ryu & Feick, 2007) or when it was easy for senders to make such referrals (Gershon et al., 2020). Similarly, rewarding both the sender and recipient reduced inferences of ulterior motives, especially amongst weak social ties (Verlegh et al., 2013). Yet, firms offering such referrals would have to incur the additional costs of incentivizing two parties instead of one. We propose that adding a novel element—scarcity appeals could boost reputational benefits—translating into better RRP evaluations. Consequently, firms could still take advantage of sender-benefiting referrals without incurring social and monetary costs. We build on this stream of research by proposing that combining scarcity appeals with referral rewards can attenuate the social costs associated with rewards.

2.2 | Scarcity Appeals

Scarcity appeals highlighting the limited availability of advertised promotions are commonplace in marketing (Aggarwal et al., 2011; Shi et al., 2020), from discounts applicable “while stocks last” to referral programs limited to five referrals (e.g., PayPal, 2020). There are two main types of scarcity appeals. Scarcity could be due to high demand (e.g., “nearly sold out”).

Alternatively, scarcity could result from a restricted supply (e.g., “limited stock only”; Aguirre-Rodriguez, 2013; Cialdini, 2008; Gierl & Hüttel, 2010). While prior research found that demand-based scarcity cues may increase consumers’ propensity to send out referrals (Koch & Benlian, 2015), the effects of supply-based scarcity on the recipients’ perceptions of incentivized referrals remain to be understood. Thus, our current research aims to close this research gap by examining how limited-

supply-scarcity—restricting the supply of referrals—affects perceptions of incentivized referrals often associated with ulterior motives. Limited supply-scarcity increases desirability in goods as early as age six (John et al., 2018). As marketers control promotion decisions and are better-informed of manufacturing shortages and distribution disruptions, consumers perceive limited-supply scarcity appeals as more informative and less deceptive than demand-based scarcity (Aguirre-Rodriguez, 2013). Compared to coupons that are limited due to high demand, coupons of limited supply elicit less persuasion knowledge and deception. Correspondingly, limited-supply scarcity appeals are deemed as more credible and more likely to be used by recipients (Aguirre-Rodriguez, 2013)

In addition to allaying suspicions, making rewards scarce could also signal that the offer is unique. Restricting promotional rewards pitches consumers in competition with one another (Aggarwal et al., 2011). Thus, attaining a scarce product signals exclusivity and uniqueness, increasing the product's utility independent of its intrinsic attributes (Tian et al., 2001; Van Herpen et al., 2009). Similarly, individuals use limited supply products to feel special and signal their uniqueness to others (Jang et al., 2015; Roy & Sharma, 2015; Van Herpen et al., 2009). In addition to deriving satisfaction from feeling unique and special (Snyder, 1992), consuming scarce products may also help consumers to gain social status (Gierl & Hüttel, 2010) and appeal to their desire for exclusivity and power (Kim, 2018). Scarcity also elicits a fear of missing out (FOMO) – an uneasy feeling associated with being socially excluded from desired experiences (Zhang et al., 2020). Missing out on consumption experiences can therefore become a threat to the self-concept (Zhang et al., 2020). Correspondingly, being one of few people to receive a limited-supply referral could abate FOMO by socially included in an exclusive in-group, enhancing consumers' self-concept. These findings suggest that restricting the supply of referral rewards will make the recipients feel more special (John et al., 2018) in two ways (1) by denoting exclusivity, which increases the desirability of the referral, and (2) by being the “chosen one” to receive such a rare referral, which enhances one's self-concept.

As an outcome, feeling special can also translate into better evaluations. Prior research has demonstrated that scarcity appeals signal quality and premium, accentuating the deal value and purchases (Bozzolo & Brock, 1992; Inman et al., 1997). For instance, imposing quantity limits

increased sales of a large grocery chain (Inman et al., 1997). Drawing from these findings, we posit that incorporating scarcity appeals into RRP makes recipients feel special. These positive feelings translate into more positive RRP evaluations.

However, scarcity appeals may not always elicit favorable consumer responses. When consumers fail to attain products associated with scarcity appeal, they are more likely to switch to competitor brands (Biraglia et al., 2021). Furthermore, consumers' susceptibility towards scarcity appeals could differ depending on their traits. For instance, limited-supply scarcity appeals had a greater impact on individuals with a high need-for-uniqueness, boosting their brand attitude and purchase intentions for conspicuous products (Jang et al., 2015). Other traits like regulatory focus also moderate the effects of scarcity appeals. Prevention-focused consumers were more inclined to purchase a product when it was demand-scarce than supply-scarce. In contrast, promotion-focused consumers responded more favorably toward limited-supply scarcity appeals (Ku et al., 2012). These findings suggest that individual differences could moderate the effects of scarcity on consumer responses in RRP.

2.3 | Thinking Style & Relationship Norms

We posit that thinking styles may influence the extent to which scarcity appeals are incorporated into RRP evaluation. Specifically, we predict that the effects of referral scarcity on feeling special and RRP evaluation are stronger among holistic than analytic thinkers. A large body of research has established differences in how individuals view themselves in relation to others (Hossain, 2018; Markus & Kitayama, 1991; Nisbett et al., 2001). Holistic-thinkers emphasize the connectedness between themselves and others (Chiu & Hong, 2007), promoting "an orientation to the context or field as a whole, including attention to relationships between a focal object and the field and a preference for explaining and predicting events on the basis of such relationships" (Nisbett et al., 2001, p. 293). By contrast, analytic thinkers tend to evaluate themselves as independent from others, involving "a detachment of the object from its context, a tendency to focus on attributes of the object to assign it to categories, and preference for using rules about the categories to explain and predict the object's behavior" (Nisbett et al., 2001, p. 293).

Empirical research supports this view that holistic thinkers focus more on the relationships between an object and its environment while their analytical counterparts are less likely to consider contextual factors, focusing on rule-based tendencies to evaluate objects (Hossain, 2018; Nisbett et al., 2001). For example, when presented with underwater scenes, holistic-thinking participants made more statements about the context and relationships between objects than analytical-thinking participants (Masuda & Nisbett, 2001). When asked to pick two objects that were more similar from a set of three, holistic-thinking children group objects on their functional or thematic relationships (e.g., table and chair grouped together as you sit on the chair to eat at the table) while analytic-thinking children grouped objects based on category attributes (e.g., a jeep and boat grouped together as both have motors; Chiu, 1972). These differences in thinking styles also translate into consumer behavior. By emphasizing relationships across categories, holistic thinkers also have more flexible mental accounts. Holistic thinkers are more willing to spend in similar and dissimilar categories, while their analytical counterparts limit their spending to similar categories (Hossain, 2018). Similarly, this focus on the relationships between the object and its context also causes holistic-thinking consumers to perceive higher brand extension fit and evaluate brand extensions more favorably than analytical-thinking consumers (Monga & John, 2007, 2008). Moreover, Yoon (2013) found that holistic thinkers hold more people to account following a service failure than analytic thinkers. Therefore, we expect holistic thinkers to focus on relationships, incorporating contextual information regarding scarcity into their evaluations of the focal object—the RRP. In contrast, we expect analytic thinkers to focus less on contextual cues (i.e., scarcity) when evaluating the RRP, as they evaluate objects detached from their context and focus more on an objects' attributes when making evaluations. As scarce products denote uniqueness and exclusivity (Roy & Sharma, 2015; Van Herpen et al., 2009), we hypothesize that:

H1: Referral scarcity to make holistic thinkers feel special, boosting (a) RRP acceptance and (b) evaluation.

Past research has revealed that the ulterior motives and insincerity attached to sender-benefiting RRP result from violating relationship norms. Referrals between friends and acquaintances are usually governed by exchange norms, where individuals try to keep a balance of favors given and

received. However, the presence of rewards elicits market-pricing relationship norms where “people use [as] a single value or utility metric (usually money) to make ratio comparisons of costs and benefits of exchanges” (Tuk et al., 2009, p. 39). Thus, referral rewards are seen as inappropriate in an exchange norm interaction, making the sender appear biased and insincere (Tuk et al., 2009), reducing the recipient’s likelihood of using the referral (Verlegh et al., 2013; Wirtz et al., 2019). We propose that scarcity makes referral rewards more appropriate under exchange norms. Prior research has shown that scarcity increases reliance on exchange norms. When scarcity was paired with reciprocity appeals, individuals felt more appreciative and were more willing to comply with requests (Morales et al., 2014). Furthermore, by being exclusive and unique, a scarce reward could be perceived as a gift and more befitting of exchange norms rather than market-pricing norms. Specifically, we hypothesize that:

H2: When exchange norms are elicited, referral scarcity would also make recipients feel special and boost RRP evaluations.

The connected versus discrete nature of cognition adopted by holistic and analytic thinkers also corresponds to different relationship norms in RRP. Given their disposition to see themselves as connected with others (Markus & Kitayama, 1991), holistic thinkers are commonly associated with a reliance on communal norms (Oyserman et al., 2002; Triandis, 1989). In communal relationships, individuals take care of other’s needs and have a genuine concern for other’s well-being. When communal norms govern interactions, there is less emphasis on self-interest, and individuals keep track of their partner’s needs. Given their reliance on communal norms, receiving a scarce referral could make holistic thinkers believe that senders have a genuine concern for their well-being and thus feel special. To rule out this alternative explanation, Study 3 compares communal and exchange norms. We show that referral scarcity makes recipients feel special, boosting RRP evaluation only under exchange (rather than communal) norms.

Three experiments test our propositions. In support of Hypothesis 1a, Study 1 shows that referral scarcity increases feelings of specialness, boosting referral acceptance among holistic thinkers. Study 2 replicates the hypothesized effects in a different context and compares them across different reward targets. Supporting Hypothesis 1b, Study 2 demonstrates that highlighting reward

scarcity allows firms to adopt sender-benefiting referral rewards, especially for holistic thinkers.

Study 3 shows the generalizability of the effects while ruling out alternative explanations. Namely,

Study 3 confirms Hypothesis 2 by revealing that referral scarcity making recipients feel special,

boosting RRP evaluation only under exchange norms, not communal norms.

3 | STUDY 1: REFERRAL SCARCITY BOOSTS REFERRAL ACCEPTANCE AMONG HOLISTIC THINKERS

Study 1 aims to test that holistic thinkers would incorporate scarcity appeals into their RRP evaluations. Thus, scarce (vs. nonscarce) referral rewards would make recipients feel special, boosting their intentions to try the recommended service.

3.1 | Method

In total, 213 American participants took part in a single factor (referral scarcity: no scarcity vs. referral scarcity) between-subjects design experiment ($M_{\text{age}} = 39.72$, $SD = 11.19$, 84 females, American) on the data collection platform *Amazon Mechanical Turk*. All participants read the content of a mock-up screenshot from a fictitious brand, *Tasty Box*, providing meal kits service, followed by a scenario of an acquaintance sending a referral code about Tasty Box. In the no-scarcity (vs. referral-scarcity) condition, the sender had an *unlimited* (vs. *four*) amount of referral codes (Appendix). Next, participants indicate their intention to try the service on 7-point scales (“How much would you like to try/use try the meal kit service provided by Tasty Box”; 1 = Not at all, 7 = Very much). For the mediator “feeling special”, participants indicated how “special,” “valued,” and “honored” they felt in receiving the referral (1 = *strongly disagree*, 7 = *strongly agree*; Drèze & Nunes, 2009; $\alpha = .97$). Participants also reported the perceived social costs associated with the referral rewards on a five-item scale adapted from Jin and Huang (2014) (“I think Kim is helping me”, “I feel uncomfortable”, “I think that Kim is taking advantage of me”, “I think that Kim is betraying me for her own benefit”, “I will become estranged with Kim after receiving this email”, 1 = strongly disagree, 7 = strongly agree; $\alpha = .90$). Next, participants completed an analytic-holistic thinking style scale adapted from Choi et al. (2003) (“Paying attention to the field is more important than paying attention to its elements”, “It is not possible to understand the pieces without looking at the whole picture”, “The whole, rather than

its parts, should be considered in order to understand a phenomenon”, “It is more important to pay attention to the whole than its parts”, “Everything in the universe is somehow related to each other”, “Any phenomenon has a numerous number of causes although some of the causes are not known”, “Nothing is unrelated”, “Even a small change in any element in the universe can lead to substantial alterations in others”, “A marker of good architecture is how harmoniously it blends with other buildings around it”, and “Sometimes, the empty space in a painting is just as important as the object”; 1 = strongly disagree, 7 = strongly agree; $\alpha = .82$). Finally, we collected demographic data and added manipulation check questions related to the manipulated factor—referral scarcity (“Kim had a lot of referrals to give out”, and “Kim could refer a lot of people”; $r = .96$).

3.2 | Results

3.2.1 | Manipulation check

Regarding referral scarcity, our manipulation checks showed that participants in the no scarcity condition thought that the sender had more referrals to give out ($M_{no-scarcity} = 6.20$, $SD_{no-scarcity} = 1.10$) than participants in the referral scarcity condition ($M_{referral-scarcity} = 2.14$, $SD_{referral-scarcity} = 1.15$), $t(211) = 26.38$, $p = .000$). The result indicates that our manipulation had the intended effect.

3.2.2 | Referral acceptance

Next, we tested if feeling special mediates the effect of referral scarcity and thinking style on intention to try the referred service, despite social costs associated with referral rewards. A moderated mediation analysis (PROCESS Model 7; Hayes, 2017) with social costs as a covariate revealed that feeling special mediated the effect of referral scarcity on intention to try the service depending on thinking style ($B = .27$, $SE = .14$, $CI_{95} (0.02, 0.56)$). Specifically, for people high in holistic thinking (e.g., 5.84/+1SD), feeling special mediates the effect of scarcity on intention ($B = 0.64$, $SE = .19$, $CI_{95} (0.31, 1.06)$). For people lower in holistic thinking (e.g., 4.03/-1SD), feeling special does not mediate the effect of scarcity on intention to use ($B = 0.15$, $SE = .16$, $CI_{95} (-0.16, 0.48)$) (See details in Figure 1).

Despite social costs dampening intentions to try the referred service ($B = -0.53$, $SE = 0.07$, $CI_{95} (-0.68, -0.39)$), making referrals scarce could still boost intentions to try the service by making recipients feel special.

-----Insert Figure 1 about here-----

3.3 | Discussion

Using American participants and measuring analytic-holistic thinking styles as an individual difference, Study 1 shows that holistic thinkers incorporate scarcity appeals into their evaluations of referral rewards. We also provide insight into the processes underlying this relationship. Recipients of scarce referral rewards felt more special, which in turn boosting their intention to try the recommended service (Hypothesis 1a). Such an underlying process occurs for holistic thinkers rather than analytic thinkers. Moreover, we show these effects are robust against the social costs associated with referral rewards. Even when social costs are accounted for in the model, holistic thinkers still feel special upon receiving scarce referrals and are more likely to try it.

4 | STUDY 2: REPLICATION IN DIFFERENT CONTEXT AND COMPARING VARIOUS REWARD TARGETS

Study 1 shows that referral scarcity (vs. no-scarcity) made recipients feel special, boosting RRP effectiveness among those high in holistic thinking. In Study 2, we aim to replicate these effects in a different context – an internet provider, with a different measure of RRP effectiveness - RRP evaluation). Furthermore, we examine the effects of referral scarcity and thinking style across three reward targets (i.e., reward-sender, reward-recipient, reward-both). Since sender-benefiting RRPs are associated with inferences of ulterior motives (Tuk et al., 2009; Verlegh et al., 2013) and often arouse suspicion (Wirtz et al., 2013), we posit that referral scarcity and holistic thinking would boost evaluations for sender-benefiting RRPs. In contrast, as RRPs that benefit recipients or both senders and recipients attenuate these detrimental effects (Ryu & Feick, 2007; Verlegh et al., 2013), referral scarcity should have little effect on these reward targets even among individuals high in holistic thinking.

4.1 | Method

In total, 653 participants ($M_{age} = 39$, $SD_{age} = 11$; 298 women, American, MTurk) were randomly assigned to one of six conditions in a 2 (referral scarcity: no-scarcity vs. referral-scarcity) \times 3 (reward target: sender, recipient, both) between-subjects design. The scenario focused on a referral for an Internet provider by an acquaintance and the referral-scarcity manipulation was identical to that in Study 1. We manipulated the reward target by changing who received the discount for a successful referral by getting \$20 off their next bill (sender vs. recipient vs. both sender and recipient).

Next, all participants indicated how special they felt upon receiving the referral ($\alpha = .97$) and evaluated the RRP ($\alpha = .95$). They also completed the analytical–holistic scale, the predicted moderator ($\alpha = .84$; Choi et al., 2003). Finally, the participants answered manipulation check questions and indicated demographic data (see Appendix for a full overview of manipulations and measures).

4.2 | Results

4.2.1 | Manipulation checks

Regarding *referral scarcity*, our manipulation checks showed that participants in the no-scarcity condition believed that the sender had more referrals to give out ($M_{no_scarcity} = 6.11$, $SD_{no_scarcity} = 1.25$) than participants in the referral-scarcity condition ($M_{scarcity} = 2.78$, $SD_{scarcity} = 1.77$; $t(588.329) = 27.77$, $p = .000$).

To check the *reward target* manipulation, we ran two analysis of variance models. The first model compared the reward amounts (in USD) that participants reported that the sender received. As intended, the analysis showed that perceptions of how much money the sender would receive as a referral reward differed between conditions ($M_{both} = 19.41$, $SD_{both} = 2.77$; $M_{sender} = 19.28$, $SD_{sender} = 2.99$; $M_{recipient} = 4.49$, $SD_{recipient} = 8.11$; $F(2, 650) = 582.46$, $p = .000$). A Fisher's least significant difference (LSD) post hoc test revealed no significant difference between the reward-both and reward-sender conditions. Thus, as intended by the manipulation, the reward amount (in USD) that the sender would receive did not differ between the two conditions ($p = .81$). Furthermore, all other comparisons in the LSD post hoc test were significant. The second model compared the reward amounts (in USD) that participants reported that they would receive (i.e., the recipients in the scenario). We found a

significant difference between the reward type conditions in terms of the amount of money (in USD) that the recipients (i.e., themselves) perceived to receive ($M_{both} = 19.48$, $SD_{both} = 2.38$; $M_{sender} = 1.03$, $SD_{sender} = 3.81$; $M_{recipient} = 19.39$, $SD_{recipient} = 3.16$; $F(2, 650) = 2439.11$, $p = .000$). A Fisher's LSD post hoc test revealed significant differences between all conditions, except for the comparison between the reward-both and reward-recipient conditions ($p = .76$). Again, the results indicate that our manipulations had the intended effect.

4.2.2 | Underlying process of feeling special on RRP evaluation

As predicted, the ANOVA result shows a significant effect of the interaction among referral scarcity, reward target, and analytic-holistic on feeling special ($F(2, 641) = 2.642$, $p = .07$). We further conducted a moderated mediation analysis with referral scarcity as the independent variable (X); RRP evaluation as the dependent variable (Y); and feeling special (M), reward target (W1 and W2), and analytical–holistic thinking (Z) as moderators (Model 12; Hayes, 2017). As we had three conditions for reward target, we created two dummy variables. We assigned the first dummy variable (W1) a value of 1 for reward-sender and 0 otherwise and the second dummy variable (W2) a value of 1 for reward-recipient and 0 otherwise. In other words, reward-both was the reference group in our coding scheme.

There were significant interactions between referral scarcity, reward target, and analytical-holistic thinking on feeling special and referral evaluation (Table 1). Specifically, analytical–holistic thinking interacted significantly with referral scarcity and reward target (W1) on feeling special (three-way interaction: $b = .74$, $SE = .34$, $CI_{95} (0.07, 1.41)$). Spotlight analysis identified the areas of significance on the interaction effects of referral scarcity and reward target across different levels of analytical–holistic thinking (1 SD above/below the mean). As predicted, participants high in holistic thinking felt more special when they received scarce (vs. nonscarce) sender-benefiting referral rewards (5.92 on the 7-point scale; $b = 1.25$, $SE = .31$, $t = 4.05$, $p = .000$). Participants low in holistic thinking felt no difference when they received scarce (vs. nonscarce) sender-benefiting referral rewards (4.06 on the 7-point scale; $b = .19$, $SE = .31$, $t = .60$, $p = .55$). The more holistic participants' thinking style, the more special they felt when receiving scarce (vs. nonscarce) sender-benefiting referral rewards. Confirming our predictions, feeling special mediated the effects of referral scarcity

on sender-benefiting RRP evaluations for participants high in holistic thinking (5.92 on the 7-point scale; $b = .57$, $SE = .16$, $CI_{95} (.27, .89)$) but not for those low in holistic thinking (4.06 on the 7-point scale; $b = .09$, $SE = .14$, $CI_{95} (-.21, .35)$; see Table 2 and Figure 1).

-----Insert Tables 1 and 2 about here-----

-----Insert Figure 2 about here-----

4.3 | Discussion

The results suggest that analytical–holistic thinking underlies the effect of referral scarcity on RRP evaluation. Consumers scoring high on holistic-thinking felt more special upon receiving a scarce referral reward, which boosted their RRP evaluations (Hypothesis 1b). This effect is particularly pronounced for sender-benefiting rewards corroborating with prior research (Tuk et al., 2009), indicating that rewarding senders may arouse suspicion and lead to inferences of ulterior motives. Thus, even if the sender was the only rewarded party, scarce sender-benefiting RRPs result in just as favorable recipient responses as recipient-benefiting. By making it scarce, sending-benefiting RRPs can still enjoy the advantages of encouraging senders to make referrals without incurring the social costs and reduced recipient acceptance. In addition, scarce sending-benefiting RRPs also negates the need to reward both the sender and the recipient, reducing costs for the firm while still maintaining RRP effectiveness.

5 | STUDY 3: EXCHANGE NORMS

In support of Hypothesis 1a and b, Studies 1 and 2 showed that feeling special mediates the effect of referral scarcity on RRP effectiveness among holistic thinkers. Study 3 aims to replicate these effects under exchange norms (the common relationship for referrals, Tuk et al., 2009). Moreover, as holistic thinkers are commonly associated with a reliance on communal norms (Oyserman et al., 2002; Triandis, 1989), another purpose of Study 3 was to rule out communal norms as an alternative explanation for our effects. Specifically, we test if referral scarcity makes recipients feel special, boosting RRP evaluation only under exchange norms, not communal norms (Hypothesis 2).

5.1 | Method

In total, 402 participants ($M_{age} = 42$, $SD_{age} = 12$; 223 women, American, MTurk) were randomly assigned to one of four conditions in a 2 (referral scarcity: no scarcity vs. referral-scarcity) \times 2 (relationship norms: communal vs. exchange) between-subjects design. In the communal condition, participants read a scenario containing phrases such as “whenever they need you,” “show them that you care,” “attentive to their needs,” “express genuine concern,” and “without expecting anything in return.” The scenario in the exchange condition comprised phrases such as “keep things as even as possible,” “aware of the exchange between you,” “return the favor as early as possible,” “make a mental note,” and “reciprocate in kind.” (Aggarwal & Law, 2005). To strengthen the manipulation, participants were also asked to recall a personal experience in which they acted according to communal or exchange norms (Aggarwal & Law, 2005).

Participants then completed an ostensibly unrelated study in which they read a scenario of an acquaintance referring them to a new Internet provider offering rewards to the sender. In the no-scarcity (vs. scarcity) condition, the sender had *unlimited* (vs. *two*) referral codes. All participants reported how special they felt ($\alpha = .97$) and evaluated the RRP as in Study 1 ($\alpha = .94$). Participants then completed manipulation check questions about relationship norms adapted from Clark (1986) and Aggarwal and Law (2005). Four of the scale items tapped into communal norms and were combined into a Net Communal score ($\alpha = .76$) (“I enjoy responding to others’ needs”, “I like doing things just to please others”, “I want to do things for others”, and “I like others to respond to my needs”). An additional four items tapped into exchange norms and were combined into a Net Exchange score ($\alpha = .76$) (“I like to keep things even”, “I feel the need to pay back immediately”, “I return something comparable if receiving something”, and “I expect others to return things soon”). As in the previous study, we then collected responses related to demographics and a manipulation check.

5.2 | Results

5.2.1 | Manipulation checks

As predicted, a manipulation check revealed that participants believed that the sender had more referrals to give out in the no-scarcity condition ($M_{no_scarcity} = 5.96$, $SD_{no_scarcity} = 1.23$) than in the referral-scarcity condition ($M_{scarcity} = 2.70$, $SD_{scarcity} = 1.60$; $t(374.810) = 22.85$, $p = .000$).

Participants in the communal condition had a significantly higher Net Communal score ($M_{communal} = 5.43$, $SD_{communal} = .94$) than those in the exchange condition ($M_{exchange} = 5.22$, $SD_{exchange} = .91$; $t(400) = 2.28$, $p = .023$). Participants in the exchange condition ($M_{exchange} = 4.99$, $SD_{exchange} = 1.06$) had a significantly higher score on the four-item Net Exchange score than participants in the communal condition ($M_{communal} = 4.78$, $SD_{communal} = 1.16$; $t(400) = 1.97$, $p = .050$).

5.2.1 | Feeling special

ANOVA result showed a significant effect of referral scarcity on feeling special ($F(1, 398) = 7.44$, $p = .01$), but a non-significant interaction between referral scarcity and relationships norms ($F(1, 398) = 1.016$, $p = .31$). As predicted, planned contrasts revealed that referral scarcity ($M_{scarcity} = 4.56$, $SD_{scarcity} = 1.67$) made recipients feel more special than nonscarce referrals ($M_{no_scarcity} = 3.94$, $SD_{no_scarcity} = 1.67$; $F(1, 193) = 9.03$, $p = .003$) when exchange norms were activated. By contrast, there were no significant differences between referral scarcity in the communal norm conditions ($M_{scarcity} = 4.19$, $SD_{scarcity} = 1.68$; $M_{no_scarcity} = 3.90$, $SD_{no_scarcity} = 1.74$; $F(1, 205) = 1.50$, $p = .223$; see Figure 2 for details).

-----Insert Figure 3 about here-----

5.2.2 | Underlying process

A moderated mediation analysis (Hayes, 2017; Model 8) revealed that feeling special mediated the effect of scarcity on referral evaluation when participants were primed in exchange relationship norms ($b = .35$, $SE = .13$, $CI_{95}(0.09, 0.61)$) but not in communal relationship norms ($b = .16$, $SE = .143$, $CI_{95}(-0.10, 0.42)$). Thus, referral scarcity made recipients feel special, boosting RRP evaluations when exchange norms were activated.

5.3 | Discussion

Study 3 showed that the effects of referral scarcity were not driven by communal norms (commonly associated with individuals from holistic-thinking cultures). Instead, activating exchange norms made recipients feel special upon receiving scarce referral rewards, boosting their evaluations of RRP (Hypothesis 2). In other words, referral scarcity works

6 | GENERAL DISCUSSION AND CONCLUSION

Managers of RRP face a dilemma: While incentives increase the likelihood of consumers making referrals (Ryu & Feick, 2007), they also decrease referral acceptance (Tuk et al., 2009). Incentivization often drives recipients to perceive ulterior motives (Verlegh et al., 2013)—a suspicion that the referral sender acts out of self-interest instead of conviction (Wirtz et al., 2013). Consequently, offering rewards in return for referrals may incur social costs for the sender and reduce the likelihood of recipients accepting the referral (Tuk et al., 2009).

Our research explores how firms could design sender-benefitting RRP to reduce social costs to the sender while making them more appealing to recipients. Moreover, we identify the types of consumers for which those RRP designs are most effective. Three studies demonstrated that referral scarcity increases feelings of specialness, boosting RRP effectiveness. By incorporating scarcity cues into their overall evaluation of RRP, these effects of referral scarcity are more effective for holistic thinkers. Study 1 shows holistic-thinking recipients felt more special receiving scarce (vs. nonscarce) referral rewards, increasing their referral acceptance (H1a). Study 2 replicates the effects of referral scarcity among holistic-thinkers on RRP evaluation in a different context and compares these effects across different reward targets (e.g., sender-benefitting, recipient-benefitting, both-benefiting). We show that referral scarcity makes holistic-thinking recipients feel special, boosting their RRP evaluations (H1b). These findings suggest that managers can still enjoy the benefits of sender-benefitting RRP while still making their holistic-thinking recipients feel special as long as the rewards are scarce. Finally, Study 3 confirms Hypothesis 2 by revealing that referral scarcity making recipients feel special, boosting RRP evaluation only under exchange norms, not communal norms. Thus, Study 3 demonstrates that the effects of referral scarcity are generalizable to the relationship norm most prevalent in referrals while ruling out alternative explanations.

6.1 | Theoretical Contributions

We contribute to the existing literature in three main ways: First, while most WOM research established a negative link between incentivization and WOM effectiveness (e.g., Eisend et al., 2020), few articles explored boundary conditions under which such negative associations (e.g., assumed ulterior motives) may be overcome (e.g., Gerrath & Usrey, 2020; Van den Bulte et al., 2018). With our current research, we expand the existing WOM knowledge by identifying boundary conditions

under which consumers react more positively towards incentivized product recommendations in the form of referrals. Specifically, our research proposes that RRP design (e.g., referral scarcity) and individual differences of consumers (e.g., holistic thinkers) may alter such negative feelings into positive feelings of specialness.

Second, our work contributes to the understanding of scarcity appeals in marketing (e.g., Aggarwal et al., 2011; Gierl & Hüttl, 2010; Jang et al., 2015). We demonstrate that thinking styles may determine whether consumers include scarcity appeals in their evaluation of referrals. Specifically, our findings show that holistic (compared to analytic) thinkers react more positively to scarcity appeals. We argue that holistic thinkers are more likely to incorporate contextual information—such as scarcity cues—when evaluating information conveyed in a referral. Specifically, as scarcity denotes exclusivity, we find that scarcity makes holistic thinkers feel more special upon receiving a scarce referral.

Finally, our work extends prior research RRP and social costs elicited by incentivized referrals (e.g., Tuk et al., 2009; Verlegh et al., 2013; Wirtz et al., 2013). We build on prior research (Jin & Huang, 2014; Koch & Benlian, 2015; Wirtz et al., 2019) by identifying an alternative underlying process through which referrals can increase RPP effectiveness. In particular, we demonstrate that incorporating supply-sided scarcity into an RRP's design may drive certain recipients to feel special and thus reduce the potential social cost associated with rewarding senders. Moreover, we extend the existing RRP research by showing that referral scarcity has varying effects on analytical and holistic thinkers. Moreover, our findings suggest that these effects are not driven by communal norms, which are common in Asian cultures.

6.2 | Managerial Implications

Managers of RRPs are often unsure whether their program should reward the senders of referrals. While this may increase the likelihood of consumers referring others, it may jeopardize the trustworthiness of the referral, as recipients of such incentivized referrals may assume ulterior motives. We believe that our research helps RRP managers solve this dilemma as it identified an RRP design tweak under which the negative consequences of rewarding referral senders are mitigated.

Moreover, we identified a specific consumer segment for which such RRP designs are particularly effective.

We suggest that managers of RRPs would be well-advised to incorporate supply-sided scarcity appeals in their RRP design—for example, by limiting the number of referral codes that consumers can send. While such RRP designs are already used in practice (e.g., PayPal, 2020), their effectiveness is often unknown to managers. We advise managers of RRPs to be aware of the fact that holistic (compared to analytic) thinkers are more likely to respond positively to such scarcity appeals. Holistic thinking is more common in Asian cultures such as India, Japan, South Korea, and China. In contrast, analytic thinking is more common in markets like the USA (Chiu & Hong, 2007; Masuda & Nisbett, 2001; Monga & John, 2007, 2008). Thus, while scarcity appeals may be a useful tool in Asian countries like China, they might not be as effective in the USA. Our findings provide tangible implications for international marketers who are contemplating whether restricting the number of referrals would be an effective tool to improve RRP effectiveness. Alternatively, RRP managers could also directly measure their consumers' thinking styles in consumer surveys and tailor their program accordingly (Yoon, 2013).

Finally, managers of RRPs who operate in certain Asian markets (or target a holistic market segment) may reconsider whether rewarding both recipient and sender is worth the cost. In fact, according to our findings, managers would be well advised to design their RRPs in a way that would only benefit the sender—especially if the referral includes scarcity cues.

6.3 | Limitations & Further Research

Our current research investigates the factors that reduce the social cost caused by incentivizing referrals. Specifically, our work focused on examining the impact of thinking styles on the evaluation of RRPs that included scarcity appeals. Thus, future research may elucidate additional factors other than scarcity and analytic–holistic thinking styles that may drive more positive social outcomes for incentivized referrals. Although previous research has shown that the adverse effects of referral rewards are minimized by changing the reward target from the sender to the recipient or both the sender and recipient (Ryu & Feick, 2007; Verlegh et al., 2013), whether these effects are universal across cultures is unclear. To our knowledge, we are the first to demonstrate differences in reactions

towards RRP designs based on analytical–holistic thinking styles. Our results suggest that the effectiveness of referral programs can differ across cultures from variations in thinking styles. When designing referral rewards to maximize uptake while minimizing social costs to the senders and additional costs to the firm, managers could make rewards scarce, especially when their target consumers are holistic thinkers.

Secondly, our paper explores the effects of referral scarcity in the context of weak ties (i.e., acquaintances). We believe that this context allows for the most robust testing of our effects. The social costs attached to referral rewards are higher among weak ties (i.e., acquaintances) than strong ties (i.e., friends and family). Wirtz et al., (2013) found that incentivized referrals did not affect perceptions of the sender for strong ties. Conversely, incentives (vs. no incentive) negatively affect perceptions of the sender for weak ties. Moreover, relationships between friends and family are usually governed by communal norms- where individuals have a genuine concern for each other's needs (Aggarwal & Law, 2005). Put differently, individuals are usually less suspicious and more trusting of friends and family, and incentives would elicit minimal social costs in such relationships. Nevertheless, future research may attempt to test the robustness of our findings in the context of strong-tie relationships. Finally, our work focused on the recipients, demonstrating that supply-sided referral scarcity made them feel special. Future research may also examine additional mechanisms that drive the adoption of referrals that are scarce due to demand-sided scarcity—such as FOMO or power states.

Table 1
Regression Results of Moderated Mediation Effect (Study 2)

	Dependent variables	
	Feeling special	Referral evaluation
Intercept	1.95 (0.84)*	2.55 (0.64)***
Scarcity	1.32 (1.25)	-0.79 (0.95)
W1	-0.63 (1.22)	0.03 (0.92)
W2	-1.33 (1.19)	- 1.25 (0.90)
Scarcity × W1	-3.46 (1.74)*	0.48 (1.32)
Scarcity × W2	0.30 (1.71)	3.09 (1.30) *
AH	0.46 (0.17)*	0.17 (0.13)
Scarcity × AH	-0.16 (0.25)	0.13 (0.19)
AH × W1	-0.05 (0.24)	-0.09 (0.19)
AH × W2	0.21 (0.24)	0.25 (0.18)
Scarcity × AH × W1	0.74 (0.34)*	- 0.01 (0.26)
Scarcity × AH × W2	-0.04 (0.34)	- 0.67 (0.26) **
Feeling special	-	.46 (0.03)***
	R ² = .17	R ² = .35
	F(11, 641) = 11.72***	F(12, 640) = 29.15***

Note. n = 653. OLS regressions with standard errors in parentheses. AH = analytical–holistic thinking style. Reward-type coding: reward-both: W1 = 0, W2 = 0; reward-sender: W1 = 1, W2 = 0; reward-recipient: W1 = 0, W2 = 1.

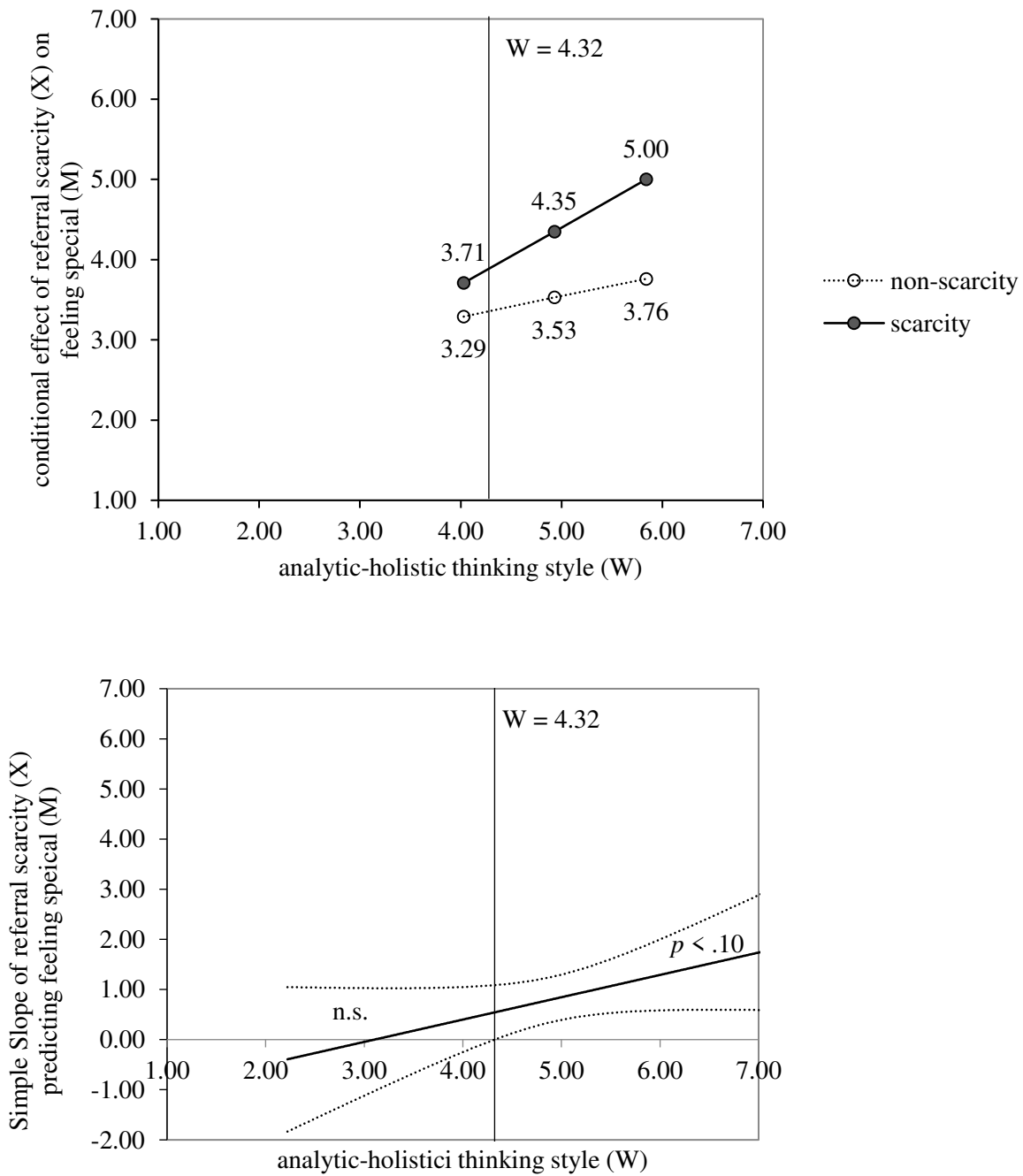
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2
 Conditional Indirect Effects of Scarcity on Referral Evaluation via Feeling Special (Study 2)

Conditions	Effect of scarcity via feeling special	Confidence interval
Analytical thinking		
Reward-both	.30 (.14)	[.02, .55]
Reward-sender	.09 (.14)	[-.21, .35]
Reward-recipient	.37 (.10)	[.13, .65]
Holistic thinking		
Reward-both	.16 (.15)	[-.13, .48]
Reward-sender	.57 (.16)	[.27, .89]
Reward-recipient	.20 (.15)	[-.10, .50]

Note. Standard errors in parentheses. Analytical thinking style: one SD below mean (at 4.06); holistic thinking style: one SD above mean (at 5.92).

Figure 1. Comparison of feeling special for participants with an analytic (vs. a holistic) thinking style. The analytic (holistic) category included participants whose thinking style measure was 1 SD below (1 SD above) the mean (Study 1).



Note: Values of feeling special at different levels of analytic-holistic thinking style (-1SD = 4.03, M = 4.93, +1SD = 5.84). Johnson-Neyman value = 4.32.

Figure 2. Comparison of feeling special for participants with an analytic (vs. a holistic) thinking style. The analytic (holistic) category included participants whose thinking style measure was 1 SD below (1 SD above) the mean (Study 2).

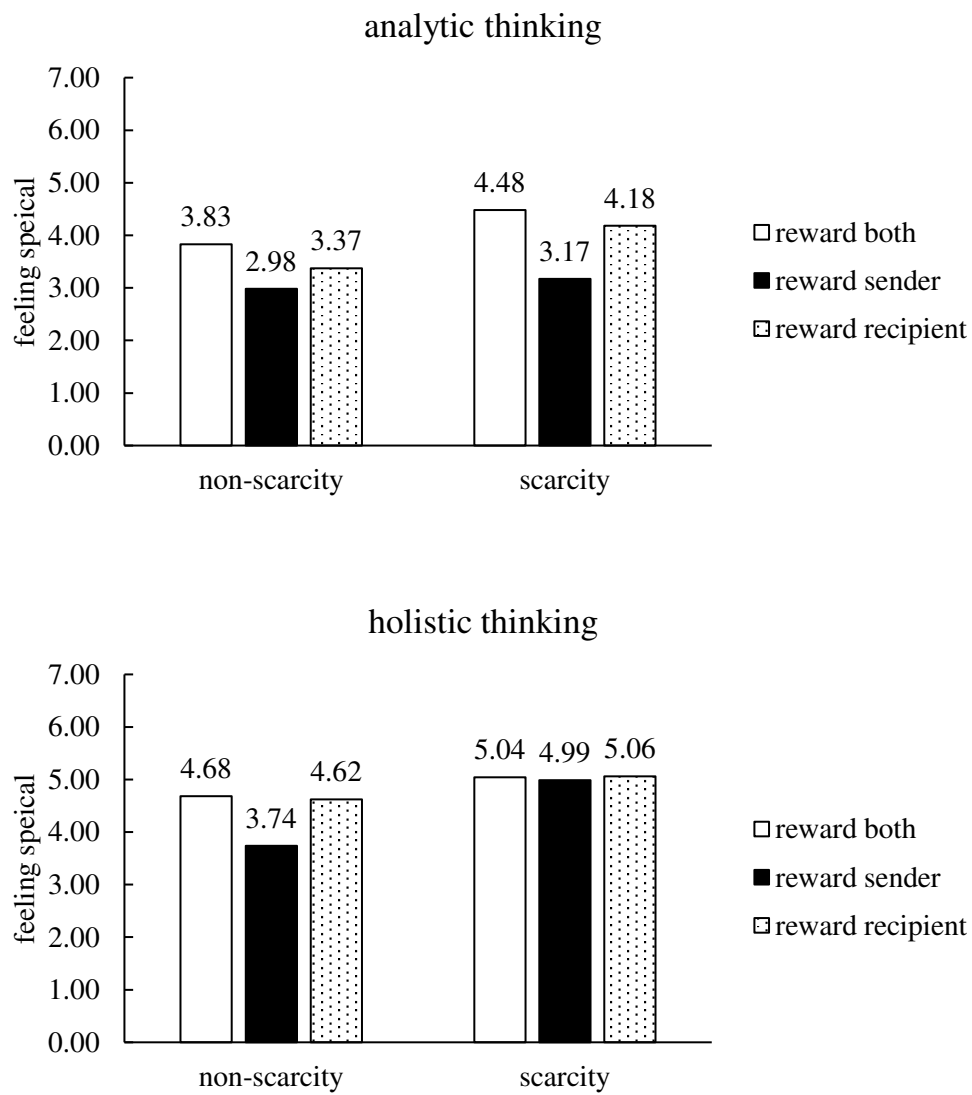
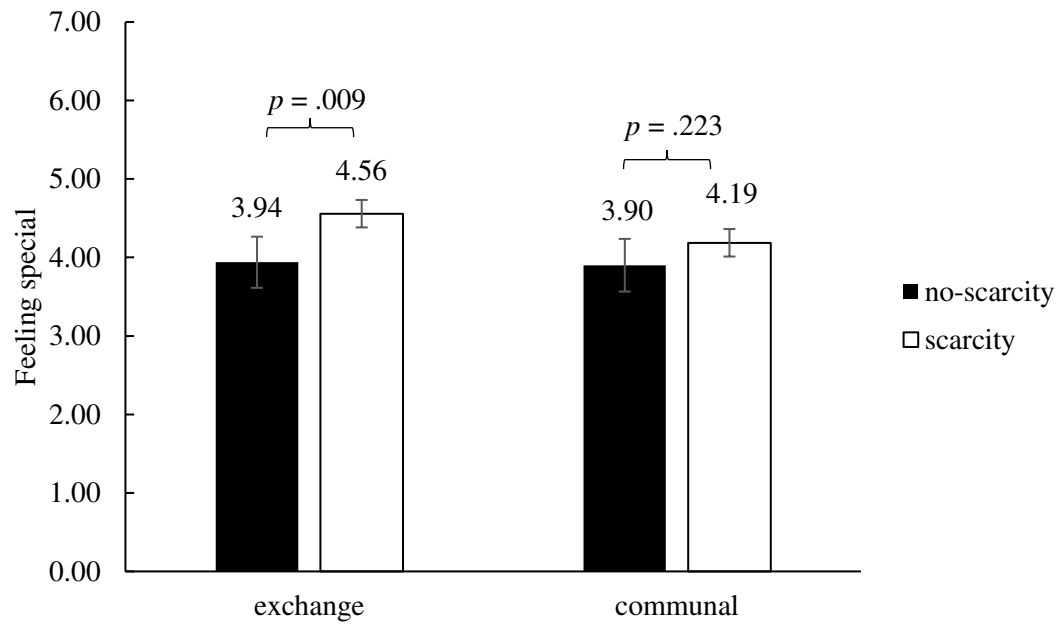


Figure 3. Effect of scarcity × relationship norms on feeling special (Study 3).



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