"Want" versus "Need": How Linguistic Framing Influences Responses to Crowdfunding Appeals

LEI SU
JAIDEEP SENGUPTA
YIWEI LI
FANGYUAN CHEN

This research uses a crowdfunding context to examine when and why a simple difference in frame—using "want" versus "need" in the request—affects funders' compliance with an appeal for contributions. Building on the semantic framing and psycholinguistics literature, we propose that using "want" (vs. "need") signals that the fundraiser is a relatively less (vs. more) dependent person. This perception difference then exerts opposing effects on the two major forms of crowdfunding appeals. For reward-based appeals, in which fundraisers promise a return on contribution, funders have a for-profit (i.e., incentive-seeking) goal and are more willing to contribute to a less dependent fundraiser. In contrast, for donation-based appeals, in which no incentives are promised by the fundraisers, funders are primarily motivated by a nonprofit (i.e., helping) goal and are more willing to contribute to a fundraiser who is seen as more dependent on help. Therefore, we predict that a "want" (vs. "need") frame is more effective in reward-based (vs. donation-based) crowdfunding. Results from two large-scale observational studies and four experiments support our predictions and also illuminate the underlying mechanisms. Collectively, the findings contribute to the literature on semantic framing and crowdfunding and also offer practical implications for fundraisers, marketers, and policymakers.

Keywords: semantic framing, crowdfunding, want versus need, dependency

Imagine that someone asks you for financial help. Will your response change depending on whether the request is framed as "I want your help" versus "I need your help"? Though both the terms "want" and "need" are often used in making a request, the two can evoke very different inferences (Glausser 2020). This premise lies at the heart of a theoretical framework developed and tested in this research, which systematically predicts when and why a "want" frame is superior to a "need" frame in terms of inducing compliance, and when the reverse is true.

We examine our ideas in the context of a type of financial appeal that is of particular relevance given the current prevalence of digital media: crowdfunding. Referring to the use of online platforms by individuals and entrepreneurs to raise money, crowdfunding has become increasingly popular during the ongoing pandemic (Ivanova 2021). The global crowdfunding market size reached a value of US$17.51 billion in 2021, and it is expected to reach $42.93 billion by 2028 (SkyQuest Technology Consulting Pvt. Ltd. 2022). However, while having their projects successfully funded is crucial to fundraisers, the success rate remains low, with a majority of posted projects not reaching their stated financial goals (Ivanova 2021).

Identifying antecedents that influence funders' contribution intention is thus of great applied value (Desai, Gupta, and Truong 2015; Mitra and Gilbert 2014; Mollick 2014). In addition, the crowdfunding context is of theoretical interest because the two different types of appeals that are primarily used in this context can evoke very different psychological processes: reward-based appeals in which funders contribute in exchange for rewards promised by the fundraisers (e.g., finished products, shares, monetary rewards) and donation-based appeals in which no reward is promised; rather, fundraisers primarily rely on contributors' generosity (Belleflamme, Omrani, and Peitz 2015; García and Estellés-Arolas 2015).

Given the potential theoretical and applied value of advancing knowledge in this domain, the current inquiry examines how a seemingly subtle but important aspect of the crowdfunding appeal can influence funding contributions. In particular, we examine how the two different message frames discussed above—a "want" versus "need" frame—may prove differentially efficacious for reward-based versus donation-based appeals. Building on a growing stream of literature on semantic reframing (Cheema and Patrick 2008; Jia, Wyer, and Shen 2021; Packard, Moore, and McFerran 2018; Patrick and Hagtvedt 2012), we propose that using a "want" versus "need" frame implies that the fundraiser is at different points along a continuum of dependency, with a "want" frame signaling that the fundraiser is relatively less dependent on others (or more independent, in terms of the continuum) and a "need" frame signaling greater dependence (or equivalently, lower

independence). This difference in perceptions is relevant because greater dependence is associated, on the one hand, with greater vulnerability and desperation and, on the other hand, with lower confidence and competence (Kim, Haleblian, and Finkelstein 2011; Lykkegaard and Delmar 2013; Nadler and Chernyak-Hai 2014; Nadler and Halabi 2006). We argue that, consequently, the use of a "want" frame as compared to a "need" frame will enhance contributions when the funder is expecting tangible rewards (i.e., reward-based appeals); in contrast, a "need" frame will be more effective than a "want" frame when the funder is motivated primarily by the desire to help (i.e., donation-based appeals).

This research advances knowledge in several directions. First and most fundamentally, it contributes to the semantic framing literature by revealing how and why two broadly used words—"want" and "need"—are associated with different meanings, with particular regard to the dependence perceptions they create. Second, building on this difference, we show how the suitable use of this "want" versus "need" semantic frame can influence the effectiveness of crowdfunding appeals, offering integrated insights for both major types of crowdfunding appeals: reward based and donation based. Third, as discussed later, by viewing the difference between reward appeals and donation appeals in terms of funders' underlying goals, we are also able to provide (and test) implications for how our framework generalizes to other funding contexts that similarly differ with regard to funder goals, such as pure financial investments versus charitable donations. Finally, our findings contain straightforward implications for fundraisers interested in designing more compelling messages.

CONCEPTUAL FRAMEWORK

Crowdfunding Campaigns

Crowdfunding appeals are of two primary types: reward-based appeals and donation-based appeals (Burtch, Ghose, and Wattal 2013). In reward-based crowdfunding, the appeal makes it clear that funders will receive a non-trivial reward—whether monetary or non-monetary (e.g., products, perks, and gifts)—in return for their contributions. Importantly, the reward is contingent on the fundraiser being able to successfully complete the project; also, the magnitude of the reward is a function of the amount contributed. For donation-based appeals, no such return is promised or expected. Therefore, donation-based crowdfunding is similar to traditional offline charitable appeals, with the funder receiving zero or at best trivial tangible incentives (Belleflamme et al. 2015) and being motivated primarily by generosity. Reward-based crowdfunding, in contrast, is motivated at least partly by the thought of

possible financial incentives and a return on one's investment (Anglin et al. 2018).

The rapid development of crowdfunding has drawn marketing scholars to this phenomenon, with one important area of inquiry examining how linguistic features of crowdfunding descriptions influence funding success (Desai et al. 2015; Gorbatai and Nelson 2015; Mitra and Gilbert 2014). These include lexical features (e.g., length and readability, Kuppuswamy and Bayus 2018), syntactic features (e.g., the use of function words, Kim, Buffart, and Croidieu 2016), and semantic features (e.g., phrases expressing confidence, Anglin et al. 2018; phrases expressing thankfulness, Desai et al. 2015; Mitra and Gilbert 2014). For example, Anglin et al. (2018) demonstrated that a phrase expressing confidence (e.g., "We are so confident in our jeans that we also have a one-year guarantee") leads to increased crowdfunding.

Adding to this line of research, the current study investigates how a subtle difference in the semantic framing of crowdfunding messages can influence the efficacy of reward-based versus donation-based appeals. Specifically, we focus on the differential efficacy of two words that are likely to feature in any type of appeal—"want" and "need." Testifying to their frequent use, among the 237,817 campaigns that we collected from three leading crowdfunding websites (Kickstarter, GoFundMe, and Indiegogo) in February 2021, "want" was used in 106,541 (44%) campaigns (e.g., "We want your help to produce watches that are affordable with a luxury feel"), whereas "need" was used in 144,864 (60%[1]) campaigns (e.g., "We need your help to save our boys, Ben (17 months old) and Josh (4 months old)").

We now draw on theories of semantic framing to propose that although the "want" and "need" frames both indicate a request for help, they can yield a substantial difference in funders' perceptions of the fundraiser, subsequently impacting their compliance with the request.

Semantic Framing of "Want" versus "Need"

In recent years, a growing stream of consumer research has examined the effects of "semantic framing" or "reframing," in which two words or phrases, which are similar but not equivalent, can have profoundly different influences because of subtle variations in semantic meanings or connotations associated with them (e.g., "I recommend it" vs. "I like it" in Packard and Berger 2017; "will you" vs. "can you" in Jia et al. 2021). In one insightful illustration of this possibility, Patrick and Hagtvedt (2012) demonstrated that the refusal frame "I don't" is more persuasive than the refusal frame "I can't" (e.g., "I don't vs. can't spend money without checking my budget first.")

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1   Note that 32% (vs. 28%) of campaigns used both (vs. no) "want" and "need" in their narratives.

because the former connotes a greater degree of conviction and determination.

In addition to influencing one's own behavior, research on psycholinguistics suggests that the language we use can influence others' perceptions of who we are. Thus, the language a speaker or writer uses has been found to influence perceptions of their socio-demographic characteristics, such as gender, age, and psychological traits. For example, frequent use of the first-person singular has been shown to indicate neuroticism (Pennebaker, Mehl, and Niederhoffer 2003), while unscripted (vs. scripted) communication indicates authenticity (Guo, Sengul, and Yu 2021).

Building on findings in the semantic framing literature, our research proposes that a crowdfunding request framed as a "want" versus a "need" influences the extent to which the requester is judged to be a dependent person—namely, it elicits differing perceptions of the requester's dependency (Lykkegaard and Delmar 2013; Nadler and Chernyak-Hai 2014). We further argue that because of these different dependency perceptions, the "want" versus "need" frame is differentially effective for reward versus donation-based appeals.

Merriam-Webster (2021) defines a "want" as something that a person desires or craves and a "need" as "something that a person must have—something that is needed to live, or be happy." In consumption, needs are simply whatever consumers require or *must* have to maintain their current way of life (e.g., food, clothing, shelter). In contrast, typical wants are non-basic luxuries or semi-luxuries (e.g., fitness, leisure activities) and "can be synthesized by advertising, catalyzed by salesmanship, and shaped by the discreet manipulations of the persuaders' shows that they are not very urgent" (Boddewyn 1961, 14; also Raiklin and Uyar 1996; Vieites, Goldszmidt, and Andrade 2022).

This *must-have* versus *nice-to-have* distinction between needs and wants has important implications for the perceptions created by the two different usages. Because needs are more basic, fundamental, and something people must have, stating a need implies a restricted and reduced ability to attain minimal requirements. This view is also reflected by the fact that words such as "requirement," "lack of," and "deficiency" are used as synonyms for "need" (Glausser 2020; Mackenzie, Rogers, and Dodds 2014). These converging perspectives are summarized in Glausser's (2020) view of "need" as an unpleasant and stressful state, which reflects the limitations and constraints imposed by important deficiencies.

Compared to the implications of inadequacy and restriction conveyed by "needs," "wants" carries a connotation of greater freedom from constraint, because it typically refers to aspirations that go beyond basic necessities (Campbell 1998). Thus, both the philosophical (Campbell 1998; Thomson 1987) and social theory perspectives of rhetoric (McKendrick, Brewer, and Plumb 1982; Raiklin and Uyar 1996) converge on the premise that wants are placed higher

on the hierarchy of wishes than needs—whether viewed in terms of pleasures to be indulged after utilitarian requirements have been addressed (Campbell 1998) or as being more indicative of societies that have climbed the ladder of economic advancement (McKendrick et al. 1982).

A corollary of this hierarchical account is that expressing a want implicitly signals the ability to secure more fundamental requirements (i.e., needs). Thus, the statement that one wants luxurious accommodations implies that one has already acquired the more fundamental resource of basic shelter. Indeed, economists argue that the more economically advanced a society is, the more "wants" it develops—accordingly, wants have been seen as something that only the rich can afford (Heilbroner 1962). This view holds at the individual level as well, as evinced in the proposition that "wants make us superior to our fellows" (Keynes 1932).

We build on these views to propose a central premise of the current research: using "want" ("need") in a help request will yield differential perceptions of the requestor's dependency. Dependency is identified as a characteristic of "having restricted ability to do without, relying on someone for support" (Boggatz et al. 2007, 563), and its contrasting state is independence or self-sufficiency (Merriam-Webster 2021). As the foregoing discussion postulates, a "want" request carries implications of greater sufficiency and a higher ability to act without constraints, as compared to the relative inadequacy and constraint implied by a "need" request. We thus argue that the use of "need" versus "want" in a request will yield heightened inferences of the requester's dependency (or equivalently, lowered perceptions of independence).

This prediction has never (to our knowledge) been directly tested. However, some indicative evidence does exist. For example, Nadler et al. (2010) found that needing someone's help is viewed as an indication of dependence and relative inferiority. Similarly, in research on depression, Emery (1980, 266) observed that when one patient had trouble going to work by himself and had to depend on others' help, the thought he wrote down was "I *need* someone to go with me"; however, after he engaged in self-reliance training and felt independent, the thought he wrote down was "I am capable of driving to work on my own. I just *want* it."

The current research directly tests the proposed distinction between the dependency perceptions produced by articulating needs versus wants, which we argue carries important implications for crowdfunding contexts, given the funders' differing goals for reward-based versus donation-based appeals. It is important to reiterate that consistent with past research, the dependency distinction should be viewed not as a dichotomy but as a continuum, with dependence and independence being the two ends of that continuum of perceived dependency (Berman et al. 1999; Tóth et al. 2022). Accordingly, it is not the case that

"need" signals absolute dependence whereas "want" signals absolute independence; rather, our thesis is that the former signals relatively higher dependence (or lower independence) than the latter.

Reward-Based versus Donation-Based Crowdfunding: Funder Goals

The key distinction between reward- and donation-based crowdfunding is that the former involves a tangible return for the funder's contribution that is contingent on project completion, but the latter does not. This distinction, when viewed from the funder's perspective, argues that the funder has different goals in these two types of crowdfunding (Gerber, Hui, and Kuo 2012). For reward-based appeals, the funder is at least partly motivated by a for-profit goal—the goal of receiving a tangible return (indeed, funders of reward-based appeals have been likened to investors; Anglin et al. 2018). With donation-based appeals, in contrast, the funder is motivated primarily by the nonprofit goal of being altruistic and helping out the fundraiser (Belleflamme et al. 2015).

The literature on goals and persuasion has reliably shown that stimuli that appear capable of satisfying active goals tend to be evaluated more favorably than those that do not (Chitturi, Raghunathan, and Mahajan 2008; Ferguson and Bargh 2004). For example, consumers with active hedonic goals are more likely to be persuaded by advertising messages that highlight a product's hedonic benefits (e.g., a candle's relaxing effects), whereas those with active utilitarian goals are more likely to be persuaded by messages highlighting the same product's functional benefits (e.g., the candle's bug repellent features; Chitturi et al. 2008).

The same principle of goal satisfaction should apply in the current context. Specifically, because funders of reward-based appeals are motivated by the for-profit goal of receiving a return that is contingent on the fundraiser's successful delivery of the products, they should be more likely to fund projects that they believe will indeed provide them with a return. On the other hand, because funders of donation-based appeals are motivated largely by the desire to help, the more the fundraiser appears to require help, the more likely such funders should be to contribute. This distinction, when combined with the dependency implications of "want" versus "need" frames, leads to the following predictions regarding the efficacy of each frame.

Reward-Based Appeals: Want **>** *Need.* Consider reward-based appeals first. Driven by the for-profit goals evoked by such appeals, funders hope to receive rewards for their contributions (e.g., a free copy of a game and a finished book). However, this is by no means guaranteed—funders are not eligible for rewards, or even their money back, if the project fails to produce results (Gorbatai and

Nelson 2015). Thus, funders are more likely to contribute to a project when they perceive it to be capable of satisfying their for-profit or returns-seeking goal: namely, they believe that the fundraiser can successfully deliver the project, and the business will thus make a profit (Liang, Wu, and Huang 2019).

We propose that funders are more (less) likely to form positive beliefs about the fundraiser's ability to successfully deliver the project when they view the latter as being relatively more independent (less dependent), because of the positive inferences that arise from perceptions of greater independence. In particular, research in many scholarly traditions—including sociology (Fraser and Gordon 1994), health and well-being (Lykkegaard and Delmar 2013), helping behavior (Nadler et al. 2010), and job performance (Mollaret and Miraucourt 2016)—has viewed independence or self-reliance as being a marker of two important and related dimensions: competence and confidence. Regarding the former, research in the field of occupational therapy has treated independence as equivalent to competence (Tamaru, McColl, and Yamasaki 2007; see also Möller-Leimkühler 2002). This parallel exists at the group level as well, such that being dependent on an out-group is seen as a signal of the in-group's lower competence (Nadler and Halabi 2006). Regarding the link between independence and confidence, those who are more independent in the workplace are perceived as being more confident (Kartika and Pramuka 2019; Martin and Phillips 2017). Similarly, in close relationships, women who are financially independent are perceived to be more self-confident (Asghari, Sadeghi, and Aslani 2013; Epstein 1973).

These dependence-related inferences are relevant to the current context because positive beliefs about the fundraiser's competence and confidence have been shown to increase funding for reward-based projects (McGee et al. 2009; Oo, Creek, and Sheppard 2022). As stated by Oo et al. (2022, 2), in the context of product-development crowdfunding (which typically features reward-based appeals), "competence conveys the skills and knowledge required to transform early-stage prototypes into final products"; thus, "funders must believe that the entrepreneur is sufficiently competent" for successful project funding. Similarly, perceived confidence has been found to positively influence crowdfunding success, with entrepreneurs on Kickstarter (a reward-based crowdfunding platform) being more successful at raising funds when they communicated more confidence in their abilities (Anglin et al. 2018; see also McGee et al. 2009).

Integrating the arguments above, we predict that a "want" frame will be more effective at eliciting contributions than a "need" frame for reward-based appeals in which the funders have a for-profit goal; this effect should be driven by lowered dependence (heightened independence) perceptions for the former. Specifically, improved perceptions of a fundraiser's (relative) independence should increase funders' belief in the competence and confidence the fundraiser has to succeed at the project, a contingency that is aligned with the funder's for-profit goal of receiving the promised reward.

Donation-Based Appeals: Need > Want. In donation-based crowdfunding, funders are not seeking rewards; rather, they are simply motivated by a wish to help (Belleflamme et al. 2015). Accordingly, contribution intentions are likely driven by perceptions of how badly the fundraiser requires help—funders will not deem a helping goal to be as important if the fundraiser is perceived to not require help as much (MacAskill 2015). We propose, therefore, that donation-based funding should be a positive function of the perceived dependency of the fundraiser—again, because of the inferences that arise from perceptions of greater dependence.

In particular, a diverse body of research suggests that greater dependency is associated with greater vulnerability (Fisher and Ma 2014) and desperation (Kim et al. 2011). Regarding the former inference, research on social groups has shown that being dependent on assistance from other groups is seen as a signal of the help-seekers' vulnerability (Nadler and Chernyak-Hai 2014; Nadler and Halabi 2006). Similarly, dependent patients are perceived as being vulnerable because they cannot meet their own needs (Lykkegaard and Delmar 2013). Regarding the latter inference, women who are highly dependent on microfinance are perceived as desperate (with such desperation liable to exploitation by others; Boehe and Cruz 2013). A similar association exists at the societal level as well, with economically dependent indigenous territories perceived as desperate for external aid and resources (Koehne, Woodward, and Honig 2022; Terjesen 2007).

These dependence-related inferences are relevant to the current context because beliefs about the requester's vulnerability and desperation have been shown to increase altruistic helping (which is conceptually similar to funding donation appeals). For instance, in the context of pro-social behavior, the more vulnerable a help-seeker is, the more that person evokes compassion—accordingly, the greater the motivation to act altruistically to help the person (Lazarus 1991). Similarly, Cryder, Botti, and Simonyan (2017) suggest that helping the most desperate people is one of the highest priorities when making donation decisions. Indeed, including pictures of needy faces with suffering, desperate facial expressions in charity advertisements has been found to enhance donations (Small and Verrochi 2009).

Integrating the arguments above, we predict that a "need" frame will be more effective at eliciting contributions than a "want" frame for donation-based appeals. This effect will be driven by heightened dependence (lowered independence) perceptions for the former, which should

increase funders' beliefs in the vulnerability and desperation of the fundraiser, a contingency that is aligned with the funder's altruistic, nonprofit goal of helping the fundraiser (see figure 1 for conceptual framework). Stated formally,

> **H1:** For reward-based crowdfunding, funders will have a higher intention to contribute to a crowdfunding appeal that uses a want (vs. a need) frame; the reverse is true for donation-based crowdfunding.
>
> **H2:** Different levels of perceived dependency of the fundraiser elicited by a want (vs. need) frame mediate both of these effects.

We test these predictions across a series of studies, using a mix of secondary-data studies that use data scraped from actual crowdfunding platforms (studies 1 and 5) and lab experiments that provide more fine-grained insights into the underlying processes (studies 2–4). This multi-method approach provides a reassuring evidence base for our key findings.

STUDY 1

We first test the basic effect in an observational study using secondary data scraped from two large-scale crowdfunding platforms, Kickstarter and GoFundMe. The two websites have unique institutional aspects that facilitate the testing of our proposed effects. First, Kickstarter is specifically designed for reward campaigns (all of its campaigns offer rewards), whereas GoFundMe is designed for donation campaigns (none of its campaigns offer rewards). Therefore, the comparison between campaigns across these two platforms serves as a natural proxy for reward- versus donation-based campaigns. We predict that a "want" frame rather than a "need" frame will generate greater compliance for crowdfunding projects on Kickstarter, whereas the reverse should hold for those crowdfunding projects on GoFundMe.

Second, the two platforms have three overlapping campaign categories—"Art," "Music," and "Film." Comparisons within these common categories help to minimize the possibility that the difference in funded amounts is simply a function of the funding category (as might be the case, for instance, if comparing funds being raised in heterogenous categories—such as saving animals vs. technological innovations).

Data Description

Our dataset comprised 137,806 campaigns that concluded[2] on or before September 24, 2020, with 82,903

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2   Data collection started on September 24, 2020, and ended on December 12, 2020. Note that since campaigns on GoFundMe do not have an explicit end date, the date of the most recent contribution was used to approximate the conclusion date of a funding request.

(54,903) campaigns collected from Kickstarter (GoFundMe). This represents 70% of all historical records, and is, to the best of our knowledge, the largest-ever dataset analyzed for crowdfunding campaigns (see web appendix A for data collection procedure and web appendix B for a summary of the key descriptive characteristics of the dataset).

Overall, the secondary data featured all four possible combinations resulting from the 2 (appeal type: donation vs. reward) × 2 (frame type: want vs. need) framework. Slightly more than half (58%) of the campaign creators used "need" more than "want" in their campaign narratives (65% in GoFundMe and 54% in Kickstarter). Empirically, we coded a campaign as using a "want" ("need") frame when it used the word "want" ("need") more often. However, as noted later, our results stayed the same if we defined a "want"-frame appeal as one that exclusively used "want" and a "need"-frame appeal as one that exclusively used "need."

Results

Funded Amount. To examine our prediction that the use of a "want" or "need" frame influences the funded amount of reward- versus donation-based crowdfunding differently, we first looked at raw funded amounts (model-free evidence). As predicted, donation-based campaigns indeed raised more money when using a "need" frame ($M = 2{,}650.94$, SE $= 98.88$) than a "want" frame ($M = 1{,}840.95$, SE $= 49.74$, $F(1, 78089) = 6.28$, $p = .012$). Furthermore, the reverse held for reward-based campaigns ($M_{want} = 7{,}385.63$, SE $= 265.64$, $M_{need} = 6{,}307.23$, SE $= 143.77$; $F(1, 78089) = 20.50$, $p < .001$) (figure 2). We also present the summary statistics separately for donation- and reward-based campaigns in web appendix C. Note that while there are noticeable differences between each type of appeal, for example, a median reward- rather than donation-based campaign tends to target a larger funding goal, our later analysis controlled for all such potential confounding factors. In our additional robustness checks, we provide further evidence of the validity of proposed effects by also controlling for the interactive effects between potential confounding factors and the frame type.

To formally examine the proposed effect, we next specified our benchmark model:

$$\text{Funded\_Amount}_j = \beta_0 + \beta_1 \text{Semantic\_frame}_j + \beta_2 \text{Appeal\_type}_j$$
$$+ \beta_3 \text{Semantic\_frame}_j \times \text{Appeal\_type}_j + \beta_4 C_j$$
$$+ \eta_j + \delta_j + \theta_j + \varepsilon_j$$

$$(1)$$

where j denotes campaign j. Funded_Amount$_j$ is the dependent variable, the funded amount of a campaign (or, alternatively, the total number of backers).
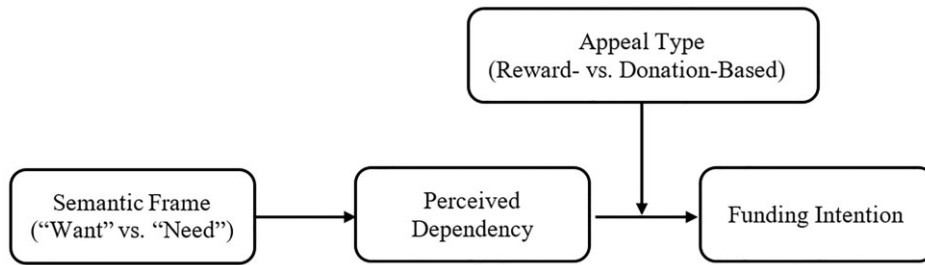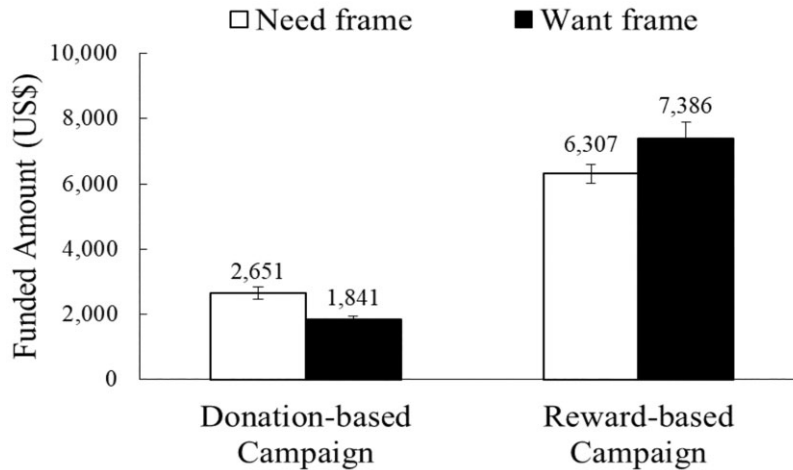
FIGURE 1

CONCEPTUAL FRAMEWORK

FIGURE 2

FUNDED AMOUNT AS A FUNCTION OF SEMANTIC FRAME AND APPEAL TYPE IN STUDY 1

Semantic_frame$_j$ is a dummy variable capturing whether a campaign uses a "need" frame in its narratives (yes=1 or 0 if a "want" frame is used). Appeal_type$_j$ is also a dummy variable indicating whether the campaign is donation-based (yes=1 or 0 if the campaign is reward based). C_j is a matrix of meaningful control variables that can be collected from both Kickstarter and GoFundMe, including a campaign's target amount (Dai and Zhang 2019), funding duration (Zheng et al. 2014), title length (Wang et al. 2020), story length (Majumdar and Bose 2018), number of images (Mahmood, Luffarelli, and Mukesh 2019), number of videos (Yang et al. 2020), fundraiser gender (Gorbatai and Nelson 2015),[3] and number of projects a fundraiser

had previously created (Siering, Koch, and Deokar 2016). η_j controls for the fixed effects of campaign categories (Fan, Gao, and Steinhart 2020), namely, the specific "Art," "Music," and "Film" subcategories on Kickstarter and GoFundMe—for example, "Music" can be subcategorized by genres such as "Pop," "Country and Folk," "Hip-Hop," and "Jazz." δ_j denotes the year and month fixed effects (Chung, Li, and Jia 2021), θ_j further controls for the country of origin shown on a fundraiser's profile (Jancenelle, Javalgi, and Cavusgil 2019), and ε_j is a random error.

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[3] The gender of a name was inferred based on probabilities derived from the Social Security Administration (SSA) database on name popularity by newborn gender (Gorbatai and Nelson 2015). For names that are not included in the SSA database, we used an additional database created by Geoff Peters (available at http://www.gpeters.com/names/baby-names.php) to probabilistically determine gender (Flory, Leibbrandt, and List 2015); the gender of the first member was identified in the case of a campaign was created by a team.

Based on our hypothesis, a "want" frame better facilitates reward-based fundraising; we, therefore, expect the simple main effect β_1 to be negative. In addition, because the "need" frame should yield more funding for donation-based campaigns, β_3, which depicts the relative superiority of the "need" frame in donation-based versus reward-based campaigns, is expected to be positive.

The table in web appendix D presents the estimation results of our benchmark model and several alternative model specifications. Column 1 of that table depicts the results when only the key variables were included in the model. The simple main effect of the semantic frame was significantly negative ($b = -1,078.39$, $t = -4.53$, $p < .001$), indicating that a "want" frame is more effective in soliciting funding for reward-based campaigns than a need frame. The coefficient of the semantic frame × appeal type interaction was significantly positive ($b = 1,888.38$, $t = 4.71$, $p < .001$), providing initial evidence that a need frame facilitates donation-based fundraising. The magnitude and significance of these coefficients remained consistent when the control variables and the fixed effects were added to the benchmark model (column 2). Specifically, consistent with our expectation, in addition to a significantly negative simple main effect of the semantic frame ($b = -1,353.99$, $t = -5.82$, $p < .001$), there is a significantly positive interaction between semantic frame and appeal type ($b = 2,005.15$, $t = 5.14$, $p < .001$).

Columns 3–6 of the same table present several robustness checks to provide further evidence of the validity of the current effect. Details are presented in web appendix D, but to summarize, these analyses revealed that the simple main effects of the semantic frame and positive semantic frame × appeal type interactions remained significant when using any of these methods of classifying an appeal as using a "want" or a "need" frame: (a) when this classification was based on a continuous measure of the word count difference between "want" and "need" in each campaign (rather than dichotomously classifying a campaign as belonging to one or the other frame depending on whether "want" or "need" was used more often); (b) when the classification was restricted to appeals that exclusively used either "want" or "need"; (c) when the skewness of the dependent variable Funded_Amount$_j$ was corrected using log transformation; and (d) when the classification allowed synonyms of the two focal words rather than restricting to the two words themselves. Thus, the key effect was robust under these alternative model specifications.[4]

Finally, in column 7, we further added a "baseline" group where neither "want" nor "need" was used in campaign narratives and re-estimated the model by comparing campaigns that exclusively used a want or need frame[5] against such a generic "baseline" group (appeals that did not use either "want" or "need" at all). Note that we did not have a priori predictions for comparisons between a want/need frame with a baseline that uses neither, because our theorizing draws on the idea of dependence/independence as a continuum, such that a "want" frame invokes perceptions of greater independence than a "need" frame, and a "need" frame evokes perceptions of greater dependence than a "want" frame. It is for this reason that we predict greater funding compliance for a "want" (vs. "need") frame with reward appeals, and vice-versa for donation appeals. This account does not inform the issue of whether a "want" ("need") frame will also increase funding compliance for a reward (donation) appeal as compared to a baseline condition that does not use either frame, but it is worthwhile to explore this issue (as we also do in study 2).

The findings were instructive. For reward-based campaigns, exclusively using a "want" frame raised more funding than the "baseline" group ($b = 6,660.49$, $t = 5.00$, $p < .001$), which itself did not differ from appeals that exclusively used a "need" frame ($b = -1,310.60$, $t = -0.94$, $p = .348$). Also, consistent with predictions, a positive interaction was obtained between the "exclusively using 'need' condition" and the appeal type ($b = 5,699.21$, $t = 2.41$, $p = .016$), indicating that the "need" frame facilitates donation-based fundraising. Taken together, these results indicate that the effects on funding amount are driven by both the "want" frame and the "need" frame (both of which differed from the baseline), rather than being driven by only one of the frames—as we confirm later in study 3. We also conducted additional robustness checks to further account for possible confounding effects related to the characteristics of the two platforms (web appendix E).

Exploratory Evidence for the Proposed Mechanism. While the key objective of study 1 was to test our basic effects as outlined above, we also used it to provide initial exploratory insight into the underlying mechanism. Our theorizing holds that "want" ("need") framing decreases (increases) the perceived dependency of the fundraiser, which subsequently results in diametrically opposed effects for reward- versus donation-based appeals. We leveraged topic modeling methods (Netzer, Lemaire,

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4   Note also that our theorizing suggests that the use of "want" in general has different connotations than the use of "need" (the greater use of "want" than "need" indicates a person with lower dependence). Accordingly, all of our semantic frame classifications included the use of these focal words regardless of whether they featured in the specific context of the financial request (e.g., we need your support) or otherwise (e.g., their voice needs to be heard). At the same time, we found that the pattern of results stayed the same if we classified campaigns

as belonging to the "want" versus "need" categories only when those focal words were used exclusively in the context of the financial request ($b = -8890.18$, $t = -10.24$, $p < .001$; for the interaction $b = 3929.88$, $t = 4.04$, $p < .001$; under the setting of column 1 in the table in web appendix D). In our subsequent lab studies, the use of want/need frames was made specific to the financial request.

5   We excluded campaigns occasionally using "want" or "need" (i.e., once or twice) in their narratives to provide a "clean" treatment group that exclusively used a want or need frame.

and Herzenstein 2019) to examine latent connotations of dependency in campaigns using the "need" frame versus the "want" frame.

Topic modeling is a statistical model for uncovering the abstract "topics" or connotations in a document (Humphreys and Wang 2018), with each topic representing a certain connotation of the document. The topic modeling output indicates the number of topics contained in the document (e.g., based on the optimization results on AIC value) and a list of words that can describe each topic. We thus performed topic modeling analysis, specifically the Latent Dirichlet Allocation (LDA) model (Netzer et al. 2019) on campaign narratives in our dataset to explore potential latent topics. The results from the LDA model revealed five latent topics in total and suggested the listed words associated with each topic (see details in web appendix F). We first observed a topic identified with a "need" frame (i.e., the words most associated with the topic conjure up a "need" to "help" the "people" and "community"). Then, we inspected the extensive list of words that are associated with each topic, and it turned out that the previously identified topic had the highest association with the fundraiser's dependency—the words associated with this topic were largely related to the concept of dependency[6] (e.g., "dependency" itself, "rely," and "restriction"). We, therefore, utilized this latent topic to operationalize dependency. Following past research (Hansen and McMahon 2016; Netzer et al. 2019), the perceived dependency of the fundraiser was then approximated by a "dependency topic index," which was calculated by the total number of words associated with the dependency topic minus that associated with the other four topics in each campaign.

This dependency index was used as the mediator in the context of our benchmark model, to examine whether the effects of semantic framing on contributions for each of the two appeal types (reward vs. donation) were indeed driven by perceptions of the fundraiser's dependency (Baron and Kenny 1986). Consistent with our theorizing, the use of a "need" (vs. "want") frame was associated with a higher dependency topic index ($b = 40.75$, $t = 21.01$, $p <$ .001). Furthermore, the added interaction between the dependency topic index and appeal type was significant ($b = 4.84$, $t = 9.05$, $p <$ .001), and the significance of the semantic frame $\times$ appeal type interaction ($b = 1,718.97$, $t = 4.39$, $p <$ .001) moderately decreased (from $t = 5.14$ to 4.39, see web appendix G for detailed results). These results are thus consistent with our process account.

We acknowledge that these mediation results are exploratory, as the latent dependency index was endogenously

mined from the fundraiser's narrative, instead of exogenously measured as funders' actual perceptions of such dependency. This initial support, however, motivated us to implement a more confirmatory follow-up analysis in which we leveraged funders' posted reviews to directly measure their perceptions of the fundraiser's dependency, at least for the GoFundMe donation-based platform. Results from this confirmatory analysis were also reassuringly supportive of the crucial role of dependency perceptions (see web appendix H for details). Importantly, a later lab study (study 3) obtained more conclusive mediation evidence confirming the role of dependency for both reward-based and donation-based appeals.

Discussion

Using secondary data collected from two top crowdfunding platforms, Kickstarter (a reward-based crowdfunding website) and GoFundMe (a donation-based crowdfunding website), study 1 verified our basic predictions: reward-(donation-) based campaigns raised more money when a "want" ("need") frame was used. The size of the dataset increases confidence in the robustness and generalizability of the obtained results. Comparisons with a "baseline" condition also suggest that the effects are driven by both the "want" frame and the "need" frame, rather than just one or the other. Finally, study 1 also provided initial exploratory evidence for the proposed underlying mechanism, involving the fundraiser's perceived dependency.

Despite the promising nature of these results, the study also has obvious limitations, of a nature common to observational studies—especially in terms of the limited extent to which causality can be inferred from correlational data. Other limitations include the lack of a clean separation of the two semantic frames (many of the appeals featured a mix of "needs" and "wants"—although, reassuringly, the effects held when pure "need" and "want" appeals were examined against pure control appeals using no "want" and "need" at all) and the lack of an exogenous measure of perceived dependency.

Study 2 addressed these limitations by testing the proposed effects and underlying mechanism in a more controlled experimental setting, manipulating semantic framing and appeal type, and directly measuring perceived dependency. Finally, as noted earlier, study 2 restricted the use of the focal words ("need" and "want") exclusively to the financial request itself.

STUDY 2

Study 2 used a lab setting to test the consequences of framing a crowdfunding appeal as a want or a need on the effectiveness of funding requests. A control condition was also added to ascertain the distinctive effects of a "want" frame and a "need" frame, respectively. Our core

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6   Note that we built a dependency dictionary, following the standard procedures for the dictionary creation, dictionary validation, and post-measurement (Humphreys and Wang 2018; Leung et al. 2022; see web appendix F3 for more coding details).

predictions continued to focus on comparing the use of "want" versus "need" frames on funding amounts for reward and donation appeals, but the use of the control condition enabled us to investigate how these two frames compared to a baseline condition for each appeal type. As noted earlier, we treat this as an exploratory question, although the results of study 1 suggest that a "want" ("need") frame might be more effective than even this control condition for a reward (donation) appeal.

Method

This study was preregistered on AsPredicted.org with clear exclusion criteria and an analysis plan (https://aspre-dicted.org/blind.php?x=13K_1KT). We preselected student participants who were familiar with crowdfunding and fluent in English (Fan et al. 2020). To control the influence of available funding resources on funding amount (Cecere, Le Guel, and Rochelandet 2017), we also preselected participants whose monthly living cost (except for housing) was not less than 1,000HKD (equivalent to $128.62) and not higher than 9,999HKD (equivalent to $1,286.07).[7] Finally, because the picture of the campaign narrative used in the experiment could not be seen clearly on a small screen, we also preselected participants who used desktop or laptop computers instead of mobile devices (Cornil, Gomez, and Vasiljevic 2020). At the end of the study, we had participants indicate whether they engaged in any distracting activities while taking the survey; those who acknowledged doing so were screened out (Fan, Li, and Jiang 2019).

In this and subsequent experiments, we used G*Power to determine sample size and targeted a sample size (i.e., at least 120 participants per cell) with 80% power to detect a noticeable effect. The study followed a 3 (semantic frame: want vs. need vs. generic form) × 2 (appeal type: reward vs. donation-based) between-subjects design. A total of 726 undergraduates were recruited from two large universities in the same Asian city, in exchange for a monetary incentive (232 male, M_{age} = 20.65). At the beginning of the study, to make sure that the effect demonstrated in this study would be consequential, we informed all participants that they would be entered into a lucky draw for four prizes of 50HKD (around $6.4) each. To ensure that all participants had a basic knowledge of crowdfunding, a brief introduction was provided (i.e., "Crowdfunding is the practice of funding a project or venture by monetary contribution from a large number of people, typically via the Internet").

Next, all participants were presented with a crowdfunding webpage that was ostensibly real but actually was prepared by the authors based on commonly used designs on crowdfunding sites. The appeal featured a group of film-makers dedicated to making a documentary film of natural scenery on the Antarctic Islands. Six versions of the crowdfunding webpage were prepared, corresponding to each of the conditions in our 3 × 2 design (web appendix I). Specifically, to manipulate the semantic frame, the call-to-action statements included either "want" and its synonyms in the *want* conditions (e.g., "Financing *wanted* for a documentary film" and "We *desire* your financing for this breakthrough documentary film on the Antarctic") or "need" and its synonyms in the *need* conditions (e.g., "Financing *needed* for a documentary film" and "We *require* your financing for this breakthrough documentary film on the Antarctic"). Thus, either "want" or "need" and their corresponding synonyms were used several times in the appeal and highlighted for emphasis. The particular synonyms chosen were selected from the dictionary used in study 1 and validated in a separate pretest (web appendix J1). The *generic form* conditions used generic words to replace "want" or "need" (e.g., "Asking for financing for a documentary film" and "We ask for your financing for this breakthrough documentary film on the Antarctic"). Another pretest was conducted to demonstrate that the words used in the generic form conditions were equally unrelated to "want" and "need" (web appendix J2).

The type of appeal—reward based versus donation based—was also indicated in the campaign narratives, as on real crowdfunding websites: "We offer perks for your financing; these perks will be provided once our documentary film is completed" and "pledge 10HKD/20HKD/30HKD/40HKD/50HKD for one/two/three/four/five episode(s)" in the reward conditions; or "donate 10HKD/20HKD/30HKD/40HKD/50HKD" in the donation conditions. A third pretest conducted among a separate group from the same pool ($N = 291$) verified that this appeal type manipulation did indeed activate different goals, as we argue, with-profit (nonprofit) goals being activated by reward (donation) appeals (web appendix J3).

After reading the crowdfunding request, following prior research (Goenka and Van Osselaer 2019; Simpson et al. 2021), a consequential funding measure was taken by asking participants to write down how much of the 50HKD they would be willing to contribute if they won the lucky draw (i.e., "Assume that you get 50HKD from this lottery. Please indicate how much money you would like to contribute to the crowdfunding project on the next page from the 50HKD you get; choose from 0/10HKD/20HKD/30HKD/40HKD/50HKD"). The participants were further told that if they won the 50HKD lottery, the amount they indicated here would be deducted from that 50HKD.

Next, participants completed demographic measures (e.g., age, gender, income, previous funding activities) and indicated how distracted they were when completing the survey. Note that this last question served as part of our filtering criteria (i.e., those answering the highest distraction

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7   The cutoff was set based on a pretest conducted among a separate group of student participants from the same pool ($N = 150$). Less than 10% of participants had a monthly living cost less than 1,000HKD or higher than 9,999HKD.

level of 7 out of a 1–7 scale were screened out) and was included in all experiments. In the interests of space, we have not restated it (or the demographic questions) in the remaining studies. Finally, we conducted the lucky draw and granted four participants the promised reward.

Results and Discussion

Funding Amount. A 3 (semantic frame: want vs. need vs. generic form) × 2 (appeal type: reward vs. donation) ANOVA revealed only a significant frame × appeal interaction ($F(2, 720) = 9.00$, $p < .001$, $\eta^2 = 0.02$). Main effects of both frame ($F(2, 720) = 1.88$, $p = .154$) and appeal ($F(1, 720) = 0.89$, $p = .347$) were non-significant. Consistent with our hypotheses, planned comparisons showed that for the reward appeal, the funding amount was higher when the project used a "want" frame ($M = 14.02$, $SD = 14.68$) rather than a "need" frame ($M = 9.77$, $SD = 11.47$; $F(1, 720) = 7.07$, $p = .008$, $\eta^2 = 0.01$) or a generic frame ($M = 10.17$, $SD = 12.09$; $F(1, 720) = 5.51$, $p = .019$, $\eta^2 = 0.01$). No difference was found between a "need" frame and a generic frame ($F (1, 720) = 0.06$, $p = .800$). In contrast, when the crowdfunding project was donation based, the pattern was reversed, with higher funding intention for the "need" frame ($M = 13.81$, $SD = 14.78$) versus the "want" frame ($M = 8.39$, $SD = 10.31$; $F(1, 720) = 11.11$, $p < .001$, $\eta^2 = 0.02$) as well as the generic frame ($M = 9.14$, $SD = 11.37$; $F(1, 720) = 8.36$, $p = .004$, $\eta^2 = 0.01$). The "want" frame and the general frame did not differ ($F (1, 720) = 0.23$, $p = .632$).[8] These effects persisted after controlling for the funder's gender, age, income, and previous funding activities (web appendix L). Because results so far revealed that neither the gender of the fundraiser (study 1) nor of the funder (study 2) influenced the interaction effect of semantic frame and appeal type on funding amount, gender is not discussed in our later studies. Similarly, age, income, and previous donation activities were also not further discussed.

Discussion. Study 2 yielded good support for our key predictions in a controlled experimental setting: a reward-based funding request was more effective when it used a "want" frame versus a "need" frame, with the reverse being true for donation-based appeals. Interestingly, and aligned with study 1, the superior effectiveness of a "want" frame ("need" frame) for a reward (donation) appeal held even when compared with a control condition that did not use either form. As noted earlier, however, while this is a useful finding, we treat it as an exploratory one since our theorizing is restricted to the "want" versus "need" comparison, which remains our focal question (and one that involves relative differences along the dependence-

independence continuum). Accordingly, later studies do not feature a generic control condition.

It is worth noting that, with generalizability considerations in mind, the stimuli used in study 2 featured only one use of each of the two focal frame words ("want" and "need"), with synonyms being used thereafter. In a separate study, we used the same crowdfunding scenario but used only the words "want" or "need" in the semantic frame manipulation. The results indicated that our proposed interaction effect of semantic frame and appeal type on contribution amount were robust, indicating that these effects held even with a "clean" manipulation that used only the two focal words (web appendix M). Considering the possible confounds and the instability of effect size when using different sets of synonyms to manipulate a "want" versus a "need" frame, we retained this simpler and better-controlled manipulation of using "want" or "need" only in our subsequent lab studies, such as study 3.

STUDY 3

While study 1 provided initial evidence for the crucial role of dependency perceptions in driving our key effects in the context of secondary data, study 3 sought to bolster the evidence for this mechanism via a lab study. Our theorizing holds that dependency perceptions underlie the influence of "want" versus "need" frames in the context of both reward and donation appeals, such that a "want" ("need") frame enhances funding amounts for reward (donation) appeals because of the enhanced perceptions it creates of the fundraiser's relative independence (dependence). Study 3 examines this vital mediating role of dependency perceptions.

Because this dependency-based mechanism provides a parsimonious account of our predicted effects for both reward and donation appeals, the process evidence we seek focuses primarily on the dependency variable. In addition, however, study 3 also provides an initial investigation of the more granular processes by which dependency-related inferences exert their effects on the two kinds of appeals. Specifically, as articulated in our theorizing, dependency-related perceptions of competence and confidence are posited to affect funders' donation behavior under reward appeals, with lower dependence producing higher scores on these measures. For donation appeals, it is the increased perceptions of a fundraiser's vulnerability and desperation that are held to increase donation behavior toward fundraisers who are perceived to be more dependent. Accordingly, we measure inferences along these specific dimensions, along with two other exploratory dimensions mentioned subsequently.

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8   We also checked the results on percentage of funders and average amount among funders across studies. See web appendix K for details.

Method

A total of 491 undergraduates from two large universities in an Asian city (139 male, $M_{age} = 22.12$) participated in this study for a small monetary incentive. They were randomly assigned to one of four conditions in a 2 (semantic frame: want vs. need) × 2 (appeal type: reward vs. donation) between-subjects design. We used the same screening criteria as in study 2.

As in study 2, all participants were first informed that they would be enrolled in a lottery with the winners awarded 50HKD. They were further informed that they would be presented with a crowdfunding post about an Inter-Island Festival, an arts and culture festival that would take place on several outer islands of the city. Next, participants were presented with one of four crowdfunding posts (i.e., frame × appeal type) about the Inter-Island Festival (see web appendix N for the crowdfunding scenario used and the full questionnaire). As in study 2, the project description manipulated semantic frame by highlighting either the fundraiser's need or want (repeatedly using the focal word in each case) and appeal type by either including the rewards (i.e., cultural venue visits ticket and documentary film) associated with the pledge or not. Afterward, participants indicated the amount they would give to the project, using the same consequential measure as in study 2.

Finally, participants were instructed to rate their perceptions of the fundraiser along various dimensions, starting with the key measure of perceived dependency (i.e., "tends to depend on others," "is inclined to rely on others"; $r = 0.64$, $p < .001$; Fraser and Gordon 1994; Tyrer, Morgan, and Cicchetti 2004). The four dependency-related inferences discussed earlier were measured as well: competence (i.e., "competent," "effective"; $r = 0.75$, $p < .001$; Lee, Bolton, and Winterich 2017), confidence (i.e., "confident," "optimistic"; $r = 0.71$, $p < .001$; Achar, Agrawal, and Hsieh 2020), vulnerability (i.e., "vulnerable," "weak"; $r = 0.61$, $p < .001$; Kulow and Kramer 2016), and desperation (i.e., "desperate," "eager"; $r = 0.63$, $p < .001$; Li and Hsee 2021).

In addition to these four key inference dimensions, we also measured two other relevant inferences (power and determination) on an exploratory basis to assess whether these dimensions might also play a role in explaining the effects of dependence on funding compliance. Powerlessness has been regarded as linked with dependency (Lee 1997; Nadler et al. 2010), and it might be that a funder is more likely to comply with a powerless fundraiser for donation-based appeals while being less persuaded by such a fundraiser for reward appeals (Wang and Zhang 2020). Conversely, a more determined fundraiser might invoke greater compliance in general, since determination itself can be persuasive (Patrick and Hagtvedt 2012; see also Cardon, Sudek, and Mitteness 2009). Thus, we

also measured the fundraiser's perceived powerfulness (i.e., "powerful," "having things in control"; $r = 0.73$, $p < .001$; Dubois, Rucker, and Galinsky 2016) and determination (i.e., "determined," "committed"; $r = 0.71$, $p < .001$; Patrick and Hagtvedt 2012). All the above scales used 1–7 items anchoring at $1 = not\ at\ all$ and $7 = very\ much$.

Results

Funding Amount. A 2 (semantic frame: want vs. need) × 2 (appeal type: reward vs. donation) ANOVA revealed only a significant frame × appeal interaction ($F(1, 487) = 12.97$, $p < .001$, $\eta^2 = 0.03$). Consistent with our hypotheses, planned comparisons showed that for the reward appeal, funding amount was higher when the project used a "want" frame ($M = 12.80$, $SD = 12.74$) rather than a "need" frame ($M = 9.02$, $SD = 10.48$; $F(1, 487) = 6.55$, $p = .011$, $\eta^2 = 0.01$). In contrast, when the crowdfunding project was donation based, the pattern was reversed, with higher funding for the "need" frame ($M = 11.95$, $SD = 12.52$) versus the "want" frame ($M = 8.18$, $SD = 10.49$; $F(1, 487) = 6.42$, $p = .012$, $\eta^2 = 0.01$).

Dependency and Other Inferences. A series of 2 × 2 ANOVAs were performed on each fundraiser inference, comprising perceived dependency, competence, confidence, vulnerability, desperation, powerfulness, and determination. The results revealed no interaction effects across variables, but only main effects of frame on all variables except for determination (main and interaction effects for determination: $ps > .137$), and a main effect of appeal type on vulnerability. Of particular importance, and in keeping with expectations, a fundraiser using a "need" frame was perceived as more dependent than one using a "want" frame ($M_{want} = 4.30$, $SD = 1.21$ vs. $M_{need} = 4.72$, $SD = 1.11$; $F(1, 487) = 16.06$, $p < .001$, $\eta^2 = 0.03$). The four key dependency-related inferences also yielded anticipated results. Specifically, the use of the "need" frame created inferences of less competence ($M_{want} = 3.69$, $SD = 1.31$ vs. $M_{need} = 3.43$, $SD = 1.20$; $F(1, 487) = 5.45$, $p = .020$, $\eta^2 = 0.01$), less confidence ($M_{want} = 4.08$, $SD = 1.26$ vs. $M_{need} = 3.79$, $SD = 1.38$; $F(1, 487) = 6.20$, $p = .013$, $\eta^2 = 0.01$), more vulnerability ($M_{want} = 3.46$, $SD = 1.19$ vs. $M_{need} = 3.77$, $SD = 1.30$; $F(1, 487) = 7.73$, $p = .006$, $\eta^2 = 0.02$), and more desperation ($M_{want} = 3.85$, $SD = 1.17$ vs. $M_{need} = 4.16$, $SD = 1.29$; $F(1, 487) = 7.54$, $p = .006$, $\eta^2 = 0.02$) than the "want" frame.

In terms of exploratory dimensions, the use of the "need" frame also yielded perceptions of lower fundraiser power ($M_{want} = 3.98$, $SD = 1.16$ vs. $M_{need} = 3.73$, $SD = 1.08$; $F(1, 487) = 6.11$, $p = .014$, $\eta^2 = 0.01$). Finally, the sole effect of appeal type involved the reward appeal creating perceptions of lower vulnerability than the donation appeal ($M_{reward} = 3.50$, $SD = 1.25$ vs. $M_{donation} = 3.73$, $SD = 1.26$; $F(1, 487) = 4.06$, $p = .044$, $\eta^2 = 0.01$).

While this effect was not predicted, it makes sense that those promising a reward are seen as being less vulnerable than those who are relying purely on the funder's altruism. However, this effect is tangential to our key results involving frame type, and we do not pursue it further.

Returning to the effects of frame type, because semantic frame influenced not only our favored mediator of perceived dependency but also several other inferences, we next conducted a multiple-mediator moderated mediation analysis (Longoni, Bonezzi, and Morewedge 2019) with frame as the independent variable, appeal type as the moderator, and funding amount as the dependent variable, while *simultaneously* including all of the six possible dimensions mentioned above as mediators (PROCESS model 15, 5,000 samples; Hayes 2017)—"determination" was the only dimension not included, because semantic frame did not influence determination perceptions.

The multiple-mediator moderated mediation analysis revealed that only the overall dependency dimension significantly mediates the interaction effect of semantic frame and appeal type on funding amount ($b = -1.36$, SE = 0.59, 95% CI: [-2.6194, -0.3455]). As predicted, there was a significant and positive indirect effect of semantic frame on funding amount through perceived dependency in the reward-based crowdfunding condition ($b = 0.67$, SE = 0.37, 95% CI: [0.0806, 1.5011]), but a significant and negative indirect effect through perceived dependency in the donation-based crowdfunding condition ($b = -0.69$, SE = 0.36, 95% CI: [-1.4488, -0.0190]). The interaction of frame and appeal type on funding amount was not mediated by any of the more specific dependency-related inference dimensions, with 95% CIs including zero in each case.[9]

Ancillary Analyses. The analyses above support our position that the fundraiser's perceived dependency provides a parsimonious account of the influence of "need" versus "want" frames on funding for both reward and donation appeals; none of the other inferences about the fundraiser were able to fully explain the interaction effect of frame and appeal. However, these specific inferences might still have a role to play in explaining how exactly dependency perceptions differentially influence funding amount separately for reward appeals and donation appeals. We examined this possibility by conducting a series of multiple-step mediation analyses (PROCESS model 6, 5,000 bootstrapping samples; Hayes 2017) within reward and donation appeal conditions, respectively. For reward appeals ($N = 247$), we found significant indirect effects for the mediation path through dependency and competence (i.e., "frame → dependency → competence → amount"; $b = 0.38$, SE = 0.22; 95% CI: [0.0548, 0.9187])

and the mediation path through dependency and confidence ($b = 0.24$, SE = 0.17; 95% CI: [0.0106, 0.6541]). For donation appeals ($N = 244$), we found significant indirect effects for the mediation path through dependency and vulnerability ($b = -0.32$, SE = 0.19; 95% CI: [-0.7853, -0.0406]), and the mediation path through dependency and desperation ($b = -0.15$, SE = 0.11; 95% CI: [-0.4199, -0.0132]).

Discussion

Study 3 replicated the interaction effect of semantic frame and appeal type, with a simpler and better-controlled manipulation of semantic frame that featured only the focal words of "want" or "need." Study 3 also examined the view that these effects arose because of the different inferences produced by the two semantic frames—the fundraiser was perceived as being a more dependent person when emphasizing needs rather than wants. Consistent with this account, support was obtained for the mediating role of perceived dependency on funding amounts for both appeal types (donation based and reward based). Note that we replicated this crucial mediating role of dependency in the supplementary study reported in web appendix M.

Although our primary focus was on obtaining support for this dependency-based account, study 3 also provided an initial look at how exactly dependency inferences might affect funding separately for reward appeals and donation appeals. Our results suggest that, for reward appeals, the inference of lower dependence produced by a "want" (vs. "need") frame enhances perceptions of the fundraiser's competence and confidence, thus increasing funders' compliance. For donation appeals, on the other hand, the inference of heightened dependence produced by a "need" (vs. "want") frame creates perceptions of the fundraiser's greater vulnerability and desperation—which has a persuasive impact for this type of appeal.[10]

While this exploratory examination of the specific, fine-grained routes by which semantic frame exerts an impact for each type of appeal adds process insight, dependency itself remains the central explanatory construct in our research, for several reasons. First, as noted earlier, none of these specific inferences (competence, confidence,

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9   95% CIs: competence [-1.0652, 0.6321]; confidence [-0.4845, 0.8646]; powerfulness [-0.9020, 0.5420]; vulnerability [-1.0732, 0.2036]; and desperation [-0.8913, 0.3319].

10   Two related inferences—of powerfulness and determination—were also examined but seemed to have less of a role to play. Furthermore, besides the various inferences explored in this study, one may wonder whether a "want" versus a "need" frame might trigger other inferences that play a role as well. For example, a "need" frame is more urgent and thus emphasizes the fundraiser's perspective. Alternately, a "want" versus a "need" frame may be seen as being more assertive (Wang and Zhang 2020), which could then create perceptions of a fundraiser's greediness and/or induce psychological reactance among funders. To assess these possibilities, we conducted a post-test among a separate group of participants from the same pool. Greediness, perspective taking, and psychological reactance did not differ across the four semantic frame × appeal type experimental conditions (see web appendix O for details).

desperation, and vulnerability) were able in themselves to account for the pattern of funding across *both* appeal types—unlike dependency, which itself was a sufficient mediator to explain funding amounts under both reward-based and donation-based appeals. Second, while it could be argued that the role of dependency could be replaced by an index of confidence and competence perceptions for reward-based appeals, on the one hand, and by vulnerability and desperation perceptions for donation-based appeals, on the other hand, the overarching construct of dependency offers a far more parsimonious account. That is, this single construct captures all of the more specific inferences and does so in a way that accounts for the impact of semantic frame on funding contribution under both appeal types, as demonstrated in our ancillary analyses.[11] Finally, because dependency provides a parsimonious account of the entire pattern of findings, this also allows us to identify how the effects of semantic frame on funding amounts might be attenuated for both reward and donation appeals, by simply varying perceptions of dependency. Study 4 examines this issue.

STUDY 4

Complementing the mediation-based evidence from study 3, study 4 sought to offer convergent insight into the role of perceived dependency via a moderation-based approach. If external information explicitly indicating fundraisers' dependency were to be made available, this should reduce funders' reliance on linguistic elements ("want" vs. "need" frame) to infer perceived dependency (Chang and Wildt 1994). And since the fundraiser's perceived dependency is the key driver of funding for both reward- and donation-based appeals, the availability of such explicit information highlighting the fundraiser's dependency should attenuate the difference in funding evoked by the "want" versus "need" frame, for both appeal types.

In addition to seeking moderation-based process support, study 4 also examined whether the observed interaction effect between semantic frame and appeal type can be explained by processing fluency or related constructs (e.g.,

relevancy, involvement) that have been explored in prior research on semantic framing (Kim, Moore, and Murray 2021; Mayer and Tormala 2010).

Method

A total of 1,037 undergraduates in four large universities located in the same Asian city (332 male, $M_{age} = 20.93$) participated in this study in exchange for a small monetary incentive. They were randomly assigned to one of eight conditions in a 2 (semantic frame: want vs. need) × 2 (appeal type: reward vs. donation) × 2 (dependency information: baseline vs. high dependency) between-subjects design. We used the same screening criteria as in study 2.

As in previous studies, all participants were first informed that they would be enrolled in a lottery, with the winners awarded 50HKD. They were also told that they would be presented with a crowdfunding post about an e-Career app, a phone application connecting university students with career counselors. In the high-dependency condition, participants were informed that the crowdfunding requesters were highly dependent on the crowdfunding campaign ("the fundraisers for this crowdfunding campaign have not managed to obtain any funding through other sources. Thus, they are highly dependent on this crowdfunding campaign for their project"). In contrast, the baseline condition featured only general statements about the campaign ("the crowdfunding campaign is from a group of entrepreneurs aiming to launch an e-Career app. The e-Career app can be used to connect university students with career counselors").

Note that because it is unrealistic for a typical fundraising appeal to provide information about the fundraiser's personality, our manipulation of dependency does not involve directly describing personal traits; instead, we operationalize it in terms of the fundraiser's dependency on the crowdfunding campaign. This manipulation aligns with the view of dependency as a generalized characteristic, which manifests across different states and situations (Boggatz et al. 2007; Lykkegaard and Delmar 2013). Equally, therefore, manipulating the fundraiser's dependency in a particular context (in this case, on the funding) should affect perceptions of fundraiser dependency in general. Reassuringly, a pretest conducted among a separate group of participants from the same pool ($N = 106$) verified the effectiveness of the dependency manipulation on perceptions of the fundraiser's dependency (web appendix P).

Next, participants read one of four crowdfunding posts about the e-Career app (web appendix Q). As in study 2, the project description manipulated semantic frame by highlighting either the fundraiser's need or want and appeal type by either including the rewards (i.e., access to e-Career app) associated with the pledge or not. Afterward, participants indicated the amount they would give to the project, using the same consequential measure as in study

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11   To confirm the greater parsimoniousness of the dependency construct, we also performed a factor analysis of all eight items used to measure confidence, competence, dependency, and vulnerability, so as to assess whether they all load onto a single factor—if so, this single factor could then conceivably replace the dependency construct. This was not the case. The factor analysis with varimax rotation of all eight items revealed two dimensions, with four items measuring competence and confidence loading onto the first dimension (33.10% of the variance), and the four items measuring desperation and vulnerability loading onto the second dimension (28.61% of the variance). Thus, using these specific inferences to account for the influence of semantic frame under reward appeals and donation appeals would require two separate explanatory constructs, as opposed to the single-construct explanation offered by dependency.

2. Participants then rated the perceived fluency of the crowdfunding post (1 = *it was effortful/difficult to read*, 7 = *it was effortless/easy to read*; $r = 0.63$, $p < .001$), its relevancy ("the crowdfunding post is relevant to me," "the crowdfunding post is related to me"; 1 = *not at all*, 7 = *very much*; $r = 0.84$, $p < .001$), and their level of involvement ("I was involved in reading this crowdfunding," "I expended efforts in reading this crowdfunding"; 1 = *not at all*, 7 = *very much*; $r = 0.68$, $p < .001$). Finally, demographic information was measured and the lucky draw was conducted.

Results and Discussion

Funding Amount. We expected to replicate our usual findings in the baseline conditions—namely, greater (lower) funding for a "want" frame than a "need" frame, given a reward (donation) appeal—but for this difference to attenuate when participants were explicitly informed about the fundraiser's high dependency. In accordance, a 2 (semantic frame) × 2 (appeal type) × 2 (dependency information) ANOVA obtained a significant 2 (semantic frame) × 2 (appeal type) interaction ($F (1, 1029) = 5.41$, $p = .020$, $\eta^2 = 0.01$), a significant 2 (appeal type) × 2 (dependency information) interaction ($F (1, 1029) = 13.31$, $p < .001$, $\eta^2 = 0.01$), and a significant 3-way interaction ($F (1, 1029) = 8.84$, $p = .003$, $\eta^2 = 0.01$). Decomposing this interaction revealed that baseline conditions replicated past results: the "want" (vs. "need") frame led to higher contribution for reward-based crowdfunding ($M_{want} = 12.71$, SD = 11.41 vs. $M_{need} = 9.22$, SD = 10.23; $F(1, 1029) = 6.61$, $p = .010$, $\eta^2 = 0.01$), with the reverse being true for donation-based crowdfunding ($M_{want} = 7.72$, SD = 8.63 vs. $M_{need} = 11.57$, SD = 12.75; $F (1, 1029) = 7.87$, $p = .005$, $\eta^2 = 0.01$). In high-dependency conditions, no difference was found between the "want" frame and the "need" frame for either reward-based crowdfunding ($M_{want} = 8.53$, SD = 10.95 vs. $M_{need} = 8.93$, SD = 10.23; $F(1, 1029) = 0.08$, $p = .771$) or donation-based crowdfunding ($M_{want} = 12.70$, SD = 12.20 vs. $M_{need} = 12.20$, SD = 11.97; $F(1, 1029) = 0.12$, $p = .730$; figure 3).

Processing Fluency, Relevancy, and Involvement. No difference was found across conditions for these three variables (processing fluency: $ps > .323$, for main and interaction effects; relevancy: $ps > .098$, for all main and interaction effects; involvement: $ps > .151$, for all main and interaction effects). These variables thus did not seem to serve as viable alternative explanations for the obtained effects.

Discussion. By explicitly providing information relating to the fundraiser's dependency, study 4 provided further support for our theorizing. For reward appeals, if the greater effectiveness of "want" versus "need" frames is due to "want" frames producing inferences of lower dependency, this effect should attenuate if the fundraiser's high dependency is explicitly highlighted—both "want" and "need" frames should yield relatively low contributions. Conversely, for donation appeals, an explicit statement of dependency should increase funding contributions—regardless of semantic frame. Results were consistent with this account. Notably, in the baseline conditions, where no dependency information was provided—leaving room for the inferences associated with "want" versus "need" frames to exert their usual effects—our previous findings were replicated. The "want" ("need") frame induced greater funding for reward-based (donation-based) appeals. Thus, by systematically switching on and switching off the effects of the semantic frame on funding intention, study 4 provided reassuring support for our conceptualization.

STUDY 5

Studies 1–4 jointly demonstrated that the effect of the want versus need frame on eliciting funding depends on whether the campaign is reward based or donation based. To reiterate, our theorizing posits that the underlying reason for this difference involves funders' differential goals for these two types of campaigns. For reward-based campaigns, funders are motivated at least in part by the desire to obtain a return on their funding; this for-profit goal of obtaining returns does not exist for funders of donation-based campaigns, who are motivated primarily by a nonprofit goal of desiring to help. Because lower fundraiser dependency, with its associated inferences of greater competence and confidence, is more likely to be seen as satisfying the profit goal of obtaining rewards, the "want" frame should be more effective for reward appeals. Conversely, higher fundraiser dependency, with its associated inferences of vulnerability and desperation, is more likely to satisfy the nonprofit goal of wishing to help, and the "need" frame is therefore more effective in donation appeals.

Our final study uses secondary data (as in study 1) to obtain evidence for this posited role of funders' underlying goals, by demonstrating the funding impact of "want" versus "need" framing when the crowdfunding appeal itself is on behalf of profit-oriented versus nonprofit companies—for instance, when the campaign is raising money for a profit-driven business versus a social cause (Belleflamme et al. 2015). Prior research on consumer-firm goal sharing suggests that consumers adopt the same goals that they see being espoused by the firm they are interacting with (Wang, Krishna, and McFerran 2017). Thus, when the firm engages in nonprofit endeavors such as supporting social causes, consumers also adopt a nonprofit goal and contribute to these causes. Similarly, perceiving the firm as being environmentally friendly prompts consumers to conduct

FIGURE 3

MEAN FUNDING AMOUNT AS A FUNCTION OF SEMANTIC FRAME, APPEAL TYPE, AND DEPENDENCY INFORMATION—STUDY 4
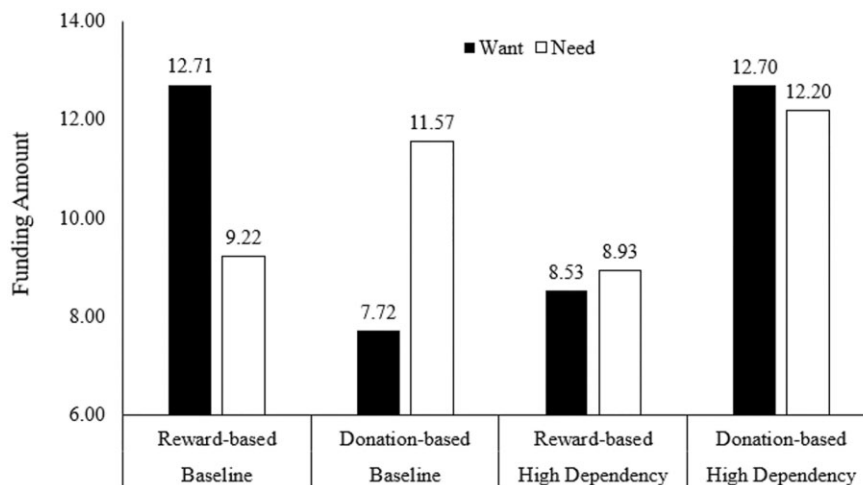
conservation behavior in product consumption (Wang et al. 2017).

Applying these findings to the current research, we conjecture that funders are more likely to activate a for-profit (nonprofit) funding goal when making contribution decisions for a profit-oriented (nonprofit-oriented) firm. That is, the firm's orientation will prime funders' funding goals—an assumption we test. If so, then our theorizing suggests that a "want" ("need") frame will be more effective for a crowdfunding appeal by a for-profit (nonprofit) company. Study 5 investigates this thesis using a large-scale secondary dataset scraped from *Indiegogo*. This is a global crowdfunding website that, relevant for our purposes, is clearly segmented by for-profit (i.e., the segment of "Tech & Innovation"; Mollick 2014) and nonprofit (i.e., the segment of "Community Projects"; Burtch et al. 2013) crowdfunding. Details are provided below.

Data Description

All campaigns on Indiegogo are classified by the platform with one of three labels: "Tech & Innovation," "Creative Works," and "Community Projects," with the first and last categories providing us with natural proxies for profit-oriented and nonprofit-oriented campaigns (https://www.indiegogo.com; retrieved September 5, 2021). Specifically, campaigns belonging to "Tech & Innovation" (e.g., subsegments of "Phones and Accessories," "Fashion and Wearables," and "Food and Beverage") are typically for-profit (Mollick 2014), and those belonging to "Community Projects" (e.g., subsegments of "Environment," "Human Rights," and "Animal Rights") are nonprofit-oriented campaigns (Burtch et al.

2013). We took advantage of the publicly available Indiegogo campaign information crawled by Web Robots (https://webrobots.io/indiegogo-dataset/) and obtained 258,103 distinct campaign URLs, within which we conducted further data crawling to collect the narratives of these campaigns. This resulted in a total of 242,487 concluded English-language campaigns. After excluding the "Creative Works" category,[12] the final dataset featured 100,011 campaigns (62,055 for-profit-oriented and 37,956 nonprofit-oriented campaigns) for the current analysis. It is worth noting that in practice, a company's goal orientation (i.e., profit oriented vs. nonprofit oriented) is independent of the appeal type factor (i.e., reward based vs. donation based) examined in our earlier studies (i.e., studies 1–3)—that is, a company might choose to utilize either a reward appeal or a donation appeal regardless of their profit orientation. In the current Indiegogo dataset, 55% of the profit-oriented crowdfunding campaigns were reward based, and 35% of the nonprofit-oriented campaigns were donation based. We controlled for appeal type in our data analysis.

Results

We examined the 2 (semantic frame: need vs. want) × 2 (firm orientation: nonprofit vs. for-profit) model on this secondary data, with the focal variable "semantic frame"

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12   The category of "Creative Works" includes projects that can be either profit oriented or nonprofit oriented (similar to the categories of "Art," "Music," and "Film" on the platforms investigated in study 1). For instance, a fundraiser may either sell her/his documentary film online for profits or craft the film only for nonprofit purposes such as inspiring people to protect the environment. This category was therefore not included in our dataset.

and all other controlling variables defined in the same way as in the benchmark model (model 1) in study 1. The other focal variable, "firm's crowdfunding orientation," is a dummy variable indicating whether the firm seeking crowdfunding belongs to a profit-oriented category or a nonprofit cause (1 = nonprofit, 0 = for-profit). Results from the estimation model revealed that the simple main effect of using a "need" (as compared to a "want") frame with for-profit crowdfunding is significantly negative ($b = -10,825.30$, $t = -3.39$, $p < .001$), indicating that a "want" frame is more effective than a "need" frame in eliciting crowdfunded contributions for such firms (see web appendix S for detailed estimation results). Also, consistent with predictions, the significantly positive interaction between semantic frame and firm orientation ($b = 18,045.56$, $t = 3.86$, $p < .001$) shows that a "need" frame is more effective in eliciting contributions for nonprofit rather than for-profit causes.[13]

In addition to testing our key effects, we also used this dataset to conduct a post-test, which validated our assumption that profit-oriented versus non-profit companies elicit different goals for funders. For space reasons, this post-test is described in detail in web appendix U; results verified that crowdfunding appeals from profit-oriented firms were correspondingly more likely to activate a profit motive for funders, compared with appeals from nonprofit firms.

Discussion

Our final study showed that the effects of semantic framing, which we had earlier observed for appeal type (reward vs. donation; studies 1–4), hold for the conceptually parallel variable of a firm's profit orientation. Building on the assumption (which we verified) that a firm's profit versus nonprofit orientation would activate the corresponding goal in funders, study 5 demonstrated the greater efficacy of the want frame over the need frame in eliciting crowd-funded contributions for profit-oriented companies (e.g., high-tech projects), with the reverse being observed for nonprofit-oriented firms (e.g., human rights organizations). Not only do these results illustrate the generalizability and real-world applicability of our semantic frame distinction, but they also provide further support for a key aspect of our conceptualization. Namely, the differential effects of want versus need frames derive from the different goals held by funders (returns focus vs. helping focus)—regardless of whether these different goals are activated by appeal type (reward vs. donation; studies 1–4) or the fundraising firm's orientation (profit vs. nonprofit; study 5).

Because funder goals in study 5 were only indirectly assessed based on a firm's profit orientation, we also ran a supplementary lab study that provided a conceptual replication of study 5 by directly activating funder goals (see web appendix R for the full details of this supplementary study). Briefly, participants in this study were explicitly asked to approach a crowdfunding appeal with either a for-profit purpose or a nonprofit purpose. They then read a crowdfunding appeal that varied only in semantic frame: "want" versus "need." Replicating the results of study 5, we found that the "want" frame increased funding with a for-profit goal, whereas the "need" frame was more effective with a nonprofit goal. These results provided further evidence for the role played by funder goals in driving our effects.

GENERAL DISCUSSION

This research uses a crowdfunding context to examine when and why a simple difference in semantic frame—using "want" versus "need" in the request—can exert diametrically opposing effects on contributions, depending on funders' underlying goals (i.e., the relative salience of the goal of seeking returns vs. the goal of wishing to help). Results from three controlled experiments, in addition to those from two observational studies involving large-scale real-world datasets, scraped from three of the world's top crowdfunding websites, provide a holistic understanding of the issue. Studies 1–4 focused on the two major forms of crowdfunding, demonstrating that a "want" appeal elicits greater funder compliance than a "need" appeal for reward-based crowdfunding, whereas a "need" appeal is more effective than a "want" appeal for donation-based crowdfunding. Furthermore, both mediation-based (studies 1 and 3) and moderation-based (study 4) approaches provided evidence for the posited mechanism: the use of "want" (vs. "need") frame evokes lowered (heightened) perceptions of the fundraiser's dependence, which subsequently exerts opposing influences on the two types of crowdfunding. Generalizing these findings, and supporting the underlying role of funding goals, study 5 obtained similar findings by indirectly activating funders' goals via the fundraising firm's orientation (for-profit vs. nonprofit), a result replicated in a lab study that directly manipulated funder goals (web appendix R). Collectively, our findings offer novel insights into how and why the subtle linguistic elements of "want" versus "need" claims influence compliance with funding requests.

Theoretical Contributions

This research advances knowledge relating to three different realms of inquiry. Most directly, our findings add to the growing literature on semantic framing in at least two directions. At the broadest level, we add to the repertoire

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13   In addition, as would be expected, when focusing on the appeal type itself (reward vs. donation), we replicated our earlier results, with the "want" (vs. "need") frame eliciting more funding for reward-based (vs. donation-based) appeals; for reasons of space, these results are provided in web appendix T.

of behavioral consequences of semantic framing in the consumer domain, such as goal commitment (Patrick and Hagtvedt 2012), message persuasiveness (Mayer and Tormala 2010), and consumer response toward waiting (Jia et al. 2021). This research documents a new consequence of semantic framing: its influence on funding behavior. More specifically, the particular type of language framing studied here illuminates a key semantic difference between the words "want" and "need," which are both often used to frame a request. As discussed earlier, philosophers and social theorists have long suggested a difference between these two rhetorical approaches, but the current investigation is the first (to our knowledge) to offer a systematic, empirical examination of this difference. In so doing, we add to the past work in the semantic framing literature that has observed differences for word pairs that are similar without being equivalent, such as "can't" versus "don't" (Patrick and Hagtvedt 2012), "we" versus "you and I" (Packard et al. 2018), "will you" versus "can you" (Jia et al. 2021), and "I think" versus "I feel" (Mayer and Tormala 2010). We find that the requester is seen as a relatively less (more) dependent person when using a "want" frame than a "need" frame, and this difference then impacts consumers' funding intention and behavior. Thus, we uncover a semantic distinction that is new to the consumer literature.

Second, our inquiry also contributes to research on crowdfunding, an increasingly popular fundraising technique. We find support for the perspective that because campaign narratives are a primary source of information in crowdfunding decisions, the way these narratives are constructed can exert a major influence on contributions. In particular, this research shows how a simple difference in the campaign's semantic frame—the use of "want" vs. "need" (two frequently used words in crowdfunding requests) has substantial implications for the success of the crowdfunding appeal. In addition, to our knowledge, this investigation is the first to offer an integrated perspective into both of the major types of crowdfunding campaigns: reward based and donation based. Notably, we find that the same message frame does not work equally well for these two campaign types: rather, the "want" vs. "need" frames exert diametrically opposing effects for reward-based versus donation-based appeals.

Finally, although this research's major focus is on the two most frequently used types of crowdfunding appeals (reward-based and donation-based appeals), we also leverage the goals-based distinction between the two to extend our findings to instances where funders are likely to hold profit versus nonprofit goals for reasons other than appeal type, whether because of the orientation of the firm making the appeal (study 5), or direct goal activation (supplementary study in web appendix R). Prior research that has looked at these two consumer goals has typically examined only one or the other—for example, there is considerable research on how consumers make for-profit investment decisions (Liang et al. 2019) and also on funding nonprofit charities (Duclos and Barasch 2014). The current work takes a step toward integrating these two streams of research, showing how different semantic frames might work more effectively when consumers have profit versus nonprofit goals.

This research also advances our knowledge regarding the concept of dependency. According to Henriksen and Vetlesen (2000, 1), "Dependency determines what it means to be a human being." As an important construct describing a person's relationship with other people or entities, much existing research has examined the consequences of different types of dependency, whether it be a dependency on healthcare (Boggatz et al. 2007), emotional dependency (Bornstein 2006), or brand dependency (Aaker, Fournier, and Brasel 2004). The current work examines the consequences of perceived dependency in a new domain, documenting its effects on funding contributions as well as exploring possible psychological mechanisms underlying those effects. Furthermore, it finds evidence for a crucial (and malleable) antecedent of the dependency construct: those using a "need" frame when making a request are seen as being more dependent than those using a "want" frame for the same request.

Managerial Implications

With the increased popularity of crowdfunding, the current results contain clear managerial implications. Our findings show the need for fundraisers to word their requests carefully, with a "need" frame ("want" frame) being more effective for donation (reward) appeals. This finding takes on particular importance since fundraisers do not seem to have an intuitive awareness of it—thus, the secondary dataset in study 1 found that a larger number of reward-based crowdfunding projects actually used a "need" frame (34.11%) rather than a "want" frame (28.78%). Clearly, these fundraisers might benefit from considering the implications of this research.

Of note, although our focus was on the crowdfunding context, all these implications appear equally relevant in traditional offline fundraising scenarios as well. For instance, study 5 results suggest that fundraisers should also consider the funding goals that are likely to motivate contributors. In particular, it is advisable to use a "want" claim when a for-profit funding goal is likely to be active among target contributors—for instance, when fundraising happens in a large shopping mall and the economic exchange norm is temporarily salient. In contrast, the "need" claim may be more effective when the nonprofit funding goal is active among contributors—such as when targeting one's local community. Additional applied implications of our findings are discussed in the next section.

Future Research

The current findings also suggest several lines of further research. As noted earlier, extending the current findings to other funding contexts (including offline ones) could have considerable applied value. Another investigative route with significant potential value lies in exploring the potential impact of managerially relevant crowdfunding variables through the dependency lens identified in the current research. Consider, for instance, the possible influence of a campaign's goal achievement progress (i.e., when the funding goal is near vs. far)—speculatively, it might be argued that the further the goal is at present, the more dependent the fundraiser will be perceived as being, and therefore the greater efficacy of a "need" frame compared to a "want" frame. Similarly, another factor that can potentially influence perceived dependency involves fundraisers' financial resources. Individuals possessing greater financial resources are likely to be deemed less dependent on others (Nadler et al. 2010)—accordingly, future research can investigate whether profile information about the fundraiser's social class influences funders' contribution intentions for reward-based and donation-based crowdfunding, respectively. Relatedly, because a lone fundraiser is typically perceived as more dependent than a campaign creator representing multiple people or an organization (Dai and Zhang 2019), our theorizing would argue that the former is more effective in raising funds for a donation-based appeal, and the latter for a reward-based appeal—a possibility worth examining.

Finally, and more generally, the current research represents a first step toward informing the substantive domain of request compliance by marrying perspectives from the literature on semantic framing with that on crowdfunding. We believe that this cross-fertilization has generative potential, and we hope that our work sparks other investigations along these lines.

DATA COLLECTION INFORMATION

The third author collected and analyzed the secondary data used in study 1 on Kickstarter and GoFundMe in the summer of 2020 and collected and analyzed the secondary data used in study 5 on Indiegogo in the spring of 2021. The first and third authors jointly collected and analyzed the data for studies 2–4. The last author checked the data analyses for studies 2–4. Study 2 was conducted in March 2022, using the subject pools at the Hong Kong University of Science and Technology and the Hong Kong Baptist University. Study 3 was conducted in May 2022, using the subject pools at the Hong Kong University of Science and Technology and the University of Hong Kong. Study 4 was conducted in February 2021, using the subject pools at Hong Kong Baptist University, Hong Kong University of Science and Technology, the Chinese University of Hong

Kong, and the University of Hong Kong. Note that our studies 1 and 5 involve large-scale secondary datasets, which are usually not provided to the public (e.g., due to proprietary and large sample size restrictions). Supplementary study in web appendix M was conducted in August 2021, using the subject pools at the Hong Kong University of Science and Technology and the University of Hong Kong. Supplementary study in web appendix R was conducted in May 2022, using the subject pools at Hong Kong Polytechnic University and Hong Kong University of Science and Technology. The data and analysis code are currently archived in a project directory on the Open Science Framework.

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