

A New Flow of Money Toward Social Issues: From an Analysis of Japanese Social Crowdfunding Platform

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INTRODUCTION

As a supplementary mechanism that goes beyond the limits of conventional financial systems, crowdfunding platforms, such as Kickstarter and Indiegogo, have become important funding sources. Crowdfunding enables the generation of funds for business ventures that find traditional profit-based means difficult (Bruton *et al.*, 2015; Davis *et al.*, 2017; Moss *et al.*, 2015). Typical examples are social businesses that address public issues. In crowdfunding, even traditionally hard-to-fund projects such as environmental protection, heritage preservation, welfare for the disabled, and disaster recovery, can be funded by people who agree with their activities. On crowdfunding platforms, money is moved according to a logic that differs from conventional financial systems. Previous studies have revealed the differences between conventional investment and crowdfunding (Allison *et al.*, 2015; Belleflamme *et al.*, 2014; Cholakova & Clarysse, 2015; Mollick, 2014).

A notable feature of crowdfunding platforms is that projects with prosocial orientations are likely to be supported (Allison *et al.*, 2013; Gorbatai & Nelson, 2015; Pietraszkiewicz *et al.*, 2017). The prosocial orientation of a business refers to its attempt to solve issues related to social welfare through commercial activities (Yunus, 2009). The prosocial orientation of projects in crowdfunding is preferred because the investment motive in crowdfunding is based on altruism, whereas the conventional investment motive is based on self-interest (Allison *et al.*, 2015; Belleflamme *et al.*, 2014; Cholakova & Clarysse, 2015). In line with this thought, previous studies have pointed out that linguistic expressions of prosocial orientation in campaigns have a significant impact on the success of funding. For example, words indicating virtuous orientation (Moss *et al.*, 2015), altruism (Pietraszkiewicz *et al.*, 2017), and political rhetoric such as accomplishment rhetoric and blame rhetoric (Allison *et al.*, 2013), have been reported to foster the success of fundraising.

However, two gaps in the existing research need to be filled. First, although the effectiveness of the linguistic styles that express prosocial orientation has been clarified, only a few studies have analyzed the influence of the social issues dealt with in a campaign on its successful funding. People evaluate a prosocial orientation not only using prosocial language but also by the types of social issues that are addressed (Amel-Zadeh & Serafeim, 2018; Eccles & Viviers, 2011; Hillman & Keim, 2001). Moreover, a prosocial orientation can include different types of social issues such as poverty reduction, medical care, cultural property protection, and support for artists. As previous studies have suggested, crowdfunding is a setting in which prosocial orientations matter; however, not all prosocial orientations are equal. Not only the degree of prosocial orientation expressed in rhetoric and narratives in campaigns but also the types of social issues addressed in campaigns are determinants of the success of fundraising in prosocial crowdfunding. Second, although past research has suggested that funds are invested in a subject that is perceived to be highly prosocial, what makes people perceive that an issue has a prosocial orientation that is high enough to induce investment behavior has not yet been clarified. That is, we need to explore the logic that explains the social issues in which people invest.

LITERATURE REVIEW

Crowdfunding as a Supplemental Financial Market

Collecting funds for new business ventures has been a long-standing problem for entrepreneurs (Kotha & George, 2012). Crowdfunding, which involves raising small amounts of money from a large group of people, has attracted a great deal of attention as an alternative and additional fundraising method for startups. In 2018, about US\$90 billion was invested in crowdfunding platforms around the world (Technavio, 2018). While crowdfunding makes it possible to invest in projects that could not be funded through conventional investment schemes, different strategies are required to achieve success; moreover, the nature of funding is different in crowdfunding compared with conventional methods (Short *et al.*, 2017).

Previous studies have found some key success factors in crowdfunding such as the founder's characteristics (Courtney *et al.*, 2017; Gorbatai & Nelson, 2015; Greenberg & Mollick, 2017; Heller & Badding, 2012; Johnson *et al.*, 2018), the campaign's innovativeness (Chan & Parhankangas, 2017; Davis, *et al.*, 2017; Moss *et al.*, 2015; Stanko & Henard, 2017), the founder's social capital (Belleflamme *et al.*, 2014; Buttice *et al.*, 2017; Mollick, 2014; Roma *et al.*, 2017), and the rhetorical or linguistic style of the campaign (Allison *et al.*, 2013; Courtney *et al.*, 2017; Gorbatai & Nelson, 2015; Parhankangas & Renko, 2017).

Prosocial Orientations Addressed in Crowdfunding Campaigns

Among the success factors in crowdfunding, scholars have recognized the significant power of prosocial orientation. Successful campaigns do not emphasize the profitability of the project (Jancenelle & Javalgi, 2018); instead, they focus on its social values and moral concerns (Calic & Mosakowski, 2016; Gleasure & Feller, 2016; Jancenelle & Javalgi, 2018; Meyskens & Bird, 2015). Allison *et al.* (2015) showed that campaigns involving social aspects were likely to achieve their funding goals earlier, while campaigns involving commercial aspects were less successful. Calic and Mosakowski (2016) argued that campaigns oriented to sustainable and environmental causes were more likely to succeed, as they perceived to be legitimate and creative.

Previous studies have revealed why campaigns with prosocial orientations are more likely to succeed in fundraising. In crowdfunding investment, campaign backers help and support entrepreneurial challenges. However, campaign backers are driven not by extrinsic motivations but by intrinsic motivations and altruism (Allison *et al.*, 2015; Belleflamme *et al.*, 2014; Cholakova & Clarysse, 2015), which applies to incentive-based crowdfunding platforms. Although backers may be self-interested in helping to fund incentive-based crowdfunding, they also may be motivated by altruism or the desire to express the feeling that he or she likes someone or an organization (Bretschneider & Leimeister, 2017). Their investment decisions are also influenced by subjective norms as well as desirable social norms (Shneor & Munim, 2019). A backer's intrinsic motivation and altruism often outweigh economically rational reasons, and they are more likely to invest in campaigns under the uncertain condition of whether a campaign is likely to succeed than under a certain condition (Dai & Zhang, 2019). Therefore, backers prefer prosocial campaigns that are in the public interest over those that are in private interests.

In parallel with the search for the reasons for the positive effects of altruism and prosocial orientation on crowdfunding, previous studies have examined the effects of rhetorical tactics that appeal to the prosocial orientations of campaigns. Allison *et al.* (2015) showed that campaigns whose language was framed as an opportunity to help others were more likely to collect funds. Pietraszkiewicz *et al.* (2017) also showed that the use of words related to prosocial behavior in campaign texts led to successful fundraising. Jancenelle and Javalgi (2018) investigated founders' profile descriptions, and their results suggested that founders who cued moral foundations such as fairness and reciprocity, collected funds quickly. In summary, entrepreneurial narratives and rhetorical tactics that appealed to the prosocial orientation of their projects were positively associated with success in crowdfunding.

The question that arises here concerns whether both the rhetorical expression of prosocial orientation and the social issue the campaign addresses affect decisions to invest. The focus of previous studies has been primarily on the effects of prosocial

word usage in campaigns. Words indicating virtuous orientation (Moss *et al.*, 2015), altruism (Pietraszkiewicz *et al.*, 2017), and the use of political rhetoric such as accomplishment rhetoric and blame rhetoric (Allison *et al.*, 2013), have been reported to foster the success of crowdfunding campaigns. Although linguistic choices and tactics have the power to evoke the willingness to support a campaign, people also decide which project to invest is based on the genre of the social action of the project (Amel-Zadeh & Serafeim, 2018; Eccles & Viviers, 2011; Luke *et al.*, 2013). In fact, crowdfunding campaigns address a range of social issues such as poverty reduction, medical care, cultural property protection, and support for artists. It is possible that differences exist in the degrees to which those issues attract backers. However, the types of issues that are perceived as prosocial and worthy of investment have not yet been investigated. To address this question, in this chapter, we apply the theory of empathy to hypothesize the kinds of issues that are recognized as prosocial and those that are not.

THEORY AND HYPOTHESIS

Social Issues as Determinants of Campaign Success

First, we introduce the hypothesis that the type of social issue matters in determining investments in campaigns. Previous studies have found that the amount of investment in social enterprise is affected by the area of interest (e.g., Amel-Zadah & Serafeim, 2018; Luke *et al.*, 2013; Ryan & Lyne, 2008). Research on crowdfunding also showed that campaign categorization provided by the platform influenced funding success (Moss *et al.*, 2018; Sitruk *et al.*, 2020). Studies have also shown that fundraising success varies depending on the type of prosocial orientation such as environmental orientation and sustainable orientation (Calic & Mosakowski, 2016). Although our main concern is to identify the logic that determines which issue is more likely to attract funding, it is necessary to verify that fundraising on prosocial crowdfunding platforms depends on the social issues addressed by campaigns. Therefore, we formulate the following hypothesis:

H₁: On prosocial crowdfunding platforms, the success of campaigns in obtaining funding varies depending on the issue being addressed.

Empathy as an Antecedent of Altruism

Because people invest in prosocial campaigns and the success of funding differs according to issue, we applied a theory that explains people's commitment to prosocial behaviors without the economically rational maximization of self-interest: the empathy-altruism hypothesis (Cialdini *et al.*, 1997). It is known that even if a transaction involves personal financial gains and losses, a person behaves altruistically

toward the counterpart in such transactions (Fehr & Gächter, 2000; Jones *et al.*, 2007). The reason is that people feel happy when they perceive others' joy, and they have a strong biological need to feel sad when they perceived others' distress (Dunn *et al.*, 2014; Harbaugh *et al.*, 2007). This human biological characteristic is called empathy, and the empathy-altruism hypothesis states that people act altruistically when they are driven by empathy (Brief & Motowidlo, 1986; Davis, 2018; De Waal, 2008; Eisenberg *et al.*, 2007).

Empathy refers to the ability to reproduce someone's experience in one's own brain and understand their thoughts and feelings even without firsthand experience (Decety & Jackson, 2004). Empathy is a product of social learning. Indeed, the crucial difference between humans and apes is in the level of social learning. There is no significant difference between the brains of human infants and apes in terms of space, quantity, and causality, but there is a difference in the function of social learning (Herrmann *et al.*, 2007). A human infant's social learning takes place in an environment with others, including family members, friends, and even strangers. Social learning can occur through the observation or mimicry of others' behaviors, through which the infant can obtain the skill of empathy (Bandura, 1963). Thus, based on an inherent characteristic of their brains, humans not only act rationally based on self-interest but also are altruistically driven by empathy for others.

When do we act selfishly and when do we act altruistically? Previous studies have shown that altruistic behaviors such as helping and sharing, are widely observed in our usual lives, even in infants (Decety & Jackson, 2004). Economists have found that even when people are motivated to act selfishly, they choose actions to share benefits with their counterparts (Fehr & Gächter, 2000). Studies have shown that in an ultimatum game in which only the winner could gain all benefits, the participants in the experiment exhibited gain-sharing behavior (Forsythe *et al.*, 1994).

In prosocial crowdfunding platforms, on campaigns deal with social issues and backers willing to invest in them, altruism is common and self-interest motives are not likely to work (Allison *et al.*, 2015; Bretschneider & Leimeister, 2017). Because investing in activities that address social issues is a prosocial behavior, investors' motivations are assumed to be derived from empathy for that activity (Pedwell, 2012). Existing studies have examined backers of crowdfunding who are likely to avoid investing in prosocial campaigns that signal commercial profit, risk taking, and market orientation (Allison *et al.*, 2015; Jancenelle *et al.*, 2018). The findings showed that when people perceived issues of prosocial campaigns that had economic potential, those issues were not likely to be subject to altruistic behavior, and they would not receive funding. We therefore present the following hypothesis:

H₂: On prosocial crowdfunding platforms, when the issues addressed in the campaign are perceived to have higher economic potential, fundraising is more likely to fail.

Different Effects of Emotional Empathy and Cognitive Empathy

Next, we examine the issues that trigger human empathy associated with the desire to help. For this purpose, we further examined the empathy-altruism hypothesis in line with developments in psychology and brain science.

The research on human empathy has identified two types of empathy: emotional empathy, which occurs instinctively and unconsciously, and cognitive empathy, which is based on a conscious judgment regarding whether empathizing with an individual is morally appropriate (Decety & Lamm, 2006; Reniers *et al.*, 2011; Smith, 2006).

Emotional empathy and cognitive empathy work differently; indeed, the two types of empathy are derived from different regions of the human brain (Cuff *et al.*, 2016). Emotional empathy is evoked when an individual recognizes the distress of others. Hoffman (2001) referred to this recognition as rudimentary empathic responding, as these unconscious emotions have been in place since early childhood when ethics and morals have not yet been learned or understood. Various experiments have shown that even infants exhibit prosocial behavior when they see others in distress (Hoffman, 2008; Pavey *et al.*, 2012; Tomasello, 2009). Emotional empathy occurs unconsciously as a reaction when a person is faced with another person's distress. Even if the cause of that distress is the person's behavior, we unconsciously empathize with them (Goubert *et al.*, 2005; Yamada & Decety, 2009).

In contrast, cognitive empathy, which has a more developed psychological structure, judges whether a person should receive empathy (Decety & Jackson, 2004). This process involves an individual's logical thinking process, which is obtained throughout life and study, to understand whether the person's trouble is due to compelling reasons or to conduct (Decety & Yodar, 2016). In this mechanism, even if a person is suffering, adults with a well-developed psychological structure can avoid feeling empathy when the cause of suffering is the person's conduct. Instead, cognitive empathy evokes the willingness to help others who suffer for compelling reasons (Bloom, 2017; Decety & Yodar, 2017). In conscious thought, we selectively empathize with those who are in a difficult situation for unavoidable reasons such as disaster victims, persons with disabilities or chronic illnesses, and people experiencing discrimination.

Drawing on these psychological mechanisms, we assume that cognitive empathy, but not emotional empathy, is associated with the willingness to invest in the campaign, based on two reasons. First, cognitive empathy is directly linked to actions that involve decision making, while emotional empathy is not. Cognitive empathy is conscious and involves selective perspectives on others, and it includes the judgment of whether to support others. In contrast, emotional empathy is unconscious and involves automatic affect sharing; it does not induce strong feelings that lead to decision making (Declerck & Bogaert, 2008). According to Declerck & Bogaert

(2008, p. 713), “whereas affect sharing is responsible for feeling the distress of another person, cognitive perspective-taking allows one to not become distressed and instead take the extra step to engage in helping the other person.” Artinger *et al.* (2014) and Li *et al.* (2019) empirically measured participants’ levels of emotional empathy, cognitive empathy, and prosocial behaviors in an economic game tested in laboratories. They found that participants’ affective empathic concern did not predict their altruistic sharing behaviors in games, but cognitive perspective-taking played a significant role in altruistic sharing behavior.

Second, although emotional empathy is a feeling for people, even those do not really need help, cognitive empathy arises from a rational and logical understanding of whether the target is to be helped or not (Bloom, 2017; Decety & Yodar, 2017). Emotional empathy occurs automatically when a subject shows distress, regardless of whether it is helped (Goubert *et al.*, 2005; Yamada & Decety, 2009). For example, even if a person has been punished for unethical behavior, people feel emotional empathy when they see him or her grieving over that punishment. In contrast, we are not likely to feel cognitive empathy in facing such situations. Instead, in cognitive empathy, we can understand people’s difficulty when we perceive that they face structural inequality or injustice, even if they do not express their grief. For example, when we see someone who tries to launch a local music festival to aid disaster recovery, cognitive empathy is induced based on a logical consideration, while emotional empathy does not occur because we do not perceive distressed persons.

In applying this discussion to the setting of prosocial crowdfunding, we assumed that people’s feeling of emotional empathy toward campaigns issues would not invoke prosocial investment. Instead, we assumed that cognitive empathy toward campaign issues would lead to prosocial investment by backers. Thus, we present the following two hypotheses:

H₃: On prosocial crowdfunding platforms, the degree to which an issue evokes emotional empathy is not associated with the success of the fundraising of the campaign.

H₄: On prosocial crowdfunding platforms, the degree to which an issue evokes cognitive empathy is positively associated with the success of the fundraising of the campaign.

METHOD AND ANALYSIS

Procedure of Empirical Study

The objectives of this study are the following:

- To identify the differences in the success of prosocial campaigns depending on the issues they address.

- To show that issues that lead to successful fundraising are altruistic and evoke cognitive empathy.

Based on these two objectives, we conducted a two-step empirical study. In Step 1, using LDA topic modeling, we identified the topic composition probabilities of the selected campaigns and examined their influence on campaign success. Next, in Step 2, based on the data collected in a questionnaire survey, we measured people's empathy for those issues, and we compared the results with those obtained in Step 1 to determine the relationship between the empathy the issue evoked and its success in crowdfunding.

Our study was focused on prosocial campaigns conducted on Readyfor, one of the largest crowdfunding platforms in Japan. This platform was founded in 2011, and focuses exclusively on social issues. Other platforms, such as Kickstarter in the US and Campfires in Japan, focus mainly on commercial campaigns. Therefore, we assumed that backers on the Readyfor platform had mainly prosocial motivations. Another feature of Readyfor is that the campaigns are not donation-based. All campaigns must have returns of commercial goods and/or services, and thus, backers assess the feasibility of the project, whether the presenter is capable, and the attractiveness of the returns. Hence, on the Readyfor platform, backers evaluate the merit of campaigns according to their potential to provide returns. Because of these characteristics, we considered Readyfor an appropriate platform for examining the behavior of those who invest in social businesses.

Identifying Issues of Campaigns and their Effects on Fundraising Success

Step 1-1: Natural Language Processing

The subsequent sampling process was conducted in a Python 3.6.5 environment. Regarding the data collection, we obtained the HTML files of campaigns by using our custom program to examine the Readyfor site. This process began on August 1, 2018 and continued daily until December 1, 2019. In this study, we analyzed the data in every All-or-Nothing campaign that started after August 1, 2018 and ended before August 31, 2019. We identified 2,296 projects that match these criteria, which then became the study sample. An overview of the sample is shown in Table 9.1.

In the machine-learning stage of topic modeling, we set the chunk size to 300 and executed the learning process 100 times, creating the 24 topics listed in Table 9.2. Based on lists of words consisting of each topic, we gave each topic a title (Table 9.2). The probability of these 24 topics was obtained for each campaign, which was used as the independent variable.

Table 9.1: Overview of the Sample

| | <i>All Samples</i> <i>n = 2296</i> | | <i>Success Subsample</i> <i>n = 1282 (55.8%)</i> | | <i>Failure Subsample</i> <i>n = 1014</i> <i>(44.2%)</i> | |
|-----------------------------|---------------------------------------|-----------|---|-----------|---|-----------|
| | <i>Mean</i> | <i>SD</i> | <i>Mean</i> | <i>SD</i> | <i>Mean</i> | <i>SD</i> |
| Project duration (days) | 43.9 | 18.4 | 44.38 | 17.4 | 43.4 | 19.5 |
| Target amount (K JPY) | 1184 | 1907 | 1150 | 1930 | 1230 | 1880 |
| Amount pledged (K JPY) | 985 | 1972 | 1523 | 2457 | 304 | 586 |
| Number of pledged backers | 67 | 107 | 104 | 128 | 21 | 36 |
| Campaign founder's gender | | (ratio) | | (ratio) | | (ratio) |
| <i>Male</i> | 1237 | 53.6% | 641 | 50.0% | 596 | 58.8% |
| <i>Female</i> | 657 | 28.5% | 404 | 31.5% | 253 | 25.0% |
| <i>Unidentified</i> | 402 | 17.8% | 237 | 18.5% | 165 | 16.2% |
| <i>Campaign proposed by</i> | | | | | | |
| <i>Corporation</i> | 315 | 26.7% | 172 | 13.4% | 143 | 14.1% |
| <i>NPO</i> | 431 | 20.4% | 287 | 22.4% | 144 | 14.2% |
| <i>School</i> | 88 | 10.0% | 74 | 5.7% | 14 | 1.4% |

Note: SD = Standard deviation; NPO = Non-profit organization.

Source: Authors.

Table 9.2: Topic Models for Each Campaign Category

| <i>Topic Titles</i> | <i>Pictures</i> | <i>Beauty</i> | <i>New Product</i> | <i>Dance and Act</i> | <i>Website</i> |
|-----------------------------------|--|---|--|---|--|
| Top 10 words related to the topic | Video Photograph Taking pictures Journey Starry sky Camera Tours Edit Equipment Interview | Beauty Original Set Limited Ingredient Skin Tea Make up Price Plan | Product Design Craft Craftsman Material Brand Type Size Factory Color | Dance Training Stage Studio Body Dancer Student Yoga Lesson Teaching | Website Publication Site Member Advertisement Report Fee Corporation Release Consultation |
| <i>Topic Titles</i> | <i>Music</i> | <i>Competition</i> | <i>Food</i> | <i>Drink</i> | <i>Regional</i> |
| Top 10 words related to the topic | Music Composition Performance Festival | Baseball Race Horse Stadium | Eating & drinking Coffee Open Store | Sake Wine Liquor Brewing | Town Sightseeing Architecture Building |

| | | | | | |
|-----------------------------------|--|--|---|--|--|
| | Venue Art Stage Appearance Song Concert | Championship Ranch Bike All Japan Entry Road | Customer Café Cuisine Bread Meal Foodstuff | Fermentation Mountain God Grape Patent France | Construction Ceremony Refurbishment Kyoto Place Hot spring |
| <i>Topic Titles</i> | <i>Agriculture</i> | <i>Childcare</i> | <i>Sports</i> | <i>International Affairs</i> | <i>Animal</i> |
| Top 10 words related to the topic | Production Food Farmer Cultivation Vegetable Agriculture Rice Harvest Farm Taste | Picture book Book Childcare Nursing Mother Parent Adult Mama Household Family | Championship Team Player Sports Soccer Entry Practice Game Rank Match | International Overseas Japanese Foreign Local English Vietnam Domestic America Asia | Cat Rescue Dog Animal Treatment Foster parents Happiness Life Pet Owner |
| <i>Topic Titles</i> | <i>Education</i> | <i>Nature</i> | <i>Art</i> | <i>Medical</i> | <i>Welfare</i> |
| Top 10 words related to the topic | Education Learning Teacher Exercise Student Class Child High school Program Gaming | Sea Island Wood Okinawa Village Shrine Mountain River Rain Hiroshima | Art Work Picture Workshop Artist Exhibition Museum Composition Tree Energy | Medical Cure Hospital Health Care Patient Disease Surgery Cancer Nursing | Disabled Service Woman Elderly people Welfare Function System Salon Safety Consultation |
| <i>Topic Titles</i> | <i>Poverty</i> | <i>Disaster</i> | <i>History</i> | <i>(Payment)</i> | |
| Top 10 words related to the topic | Cambodia Poverty Village Nepal Movie Education Thailand Philippines Donation Orphan | Disaster Damage Revival Fukushima Earthquake Disaster prevention Volunteer Tohoku Refugee | History Train Showa era Museum Meiji era At that time Maintenance Peace Exhibition Posterity | Donation Benefaction Charity Research Resident Science Income Measurement Subsidy Tax | |

Source: Authors.

Step 1-2: Estimation by Regression Analysis

To estimate the impact of these topics on the success and failure of crowdfunding campaigns, we conducted a logistic regression analysis.

Dependent Variable: The first dependent variable was the simple classification of success and failure (*Campaign success*). Here, success meant that the amount of money pledged by backers surpassed the target amount set by the campaign founder. We input “1” when the campaign succeeded ($n = 1282$) and “0” when it failed ($n = 1014$), and then we examined the effect of topic probability through a logistic regression.

A potential dependent variable was the total amount of funds raised. However, considering the institutional design of Readyfor, we assumed that the success or failure of the campaign could not be properly measured by the amount of money. On the Readyfor platform, to encourage backers to invest in campaigns, the target amount of money is set somewhat higher and the “all-or-nothing” format is adopted. About 45 percent of campaigns have resulted in failure, which means that campaign founders did not take anything. Therefore, backers are incentivized to support the campaigns they believe should be realized. In this platform design, Readyfor campaigns tends to be polarized; some collect money around the target amount, and others collect almost no money. When the target amount is exceeded, the growth of the investment tends to drop sharply. According to our data, limited numbers of projects reached 200 percent of the target amount. For those reasons, we did not use the actual amount of money invested. The dependent variable in our study was the success or failure of achieving the target amount.

Independent Variable: As described above, we set the topic probability of each campaign as the independent variable. In 24 topics, we treated the topic composition probability of “Payment” as the control variable because the topic “Payment,” was not a campaign issue but the explanation of the payment method.

Control Variable: We controlled for variables that previous studies found to affect fundraising success. First, because the visual image of a campaign has a positive impact on its success (Courtney *et al.*, 2017; Mollick, 2014), the number of images was introduced as a control variable (*# of images*). Because Readyfor does not use videos to promote campaigns, we did not introduce the number of videos as a variable. Second, previous studies have shown that female founders were more likely to succeed in crowdfunding (Gorbatai & Nelson, 2015; Greenberg & Mollick, 2017; Johnson *et al.*, 2018), so we controlled for the gender of the campaign founder. When the presenter’s gender was female, the dummy variable *female* took the value of 1, and when the gender was male, the variable *male* took the value of 1. When a campaign was presented by an organization, and gender could not be identified, we regarded the gender as unidentified and assigned the value of 0 to both *female* and *male* variables. Third, regarding the campaign founder’s affiliation, previous studies found that success was easier to achieve when the affiliated organization had a rich social network (Belleflamme *et al.*, 2014; Mollick, 2014). We controlled for campaigns run by educational institutions (*educational institution*) and non-profit organizations (*NPOs*),

as both organizational types had credibility in carrying out social activities. Fourth, when the target funding amount was large, it was natural for success to be difficult; therefore, we decided to introduce the funding amount as a control variable (*target amount*). Fifth, regarding campaign duration, we assumed that the longer the funding period, the more likely the campaign would be funded (Kuppuswamy & Bayus, 2017). However, if the period was too long, backers and potential investors might lose their interest. Thus, the length of the campaign (*duration*) and its square (*duration*²) were introduced as control variables. Sixth, we considered that it would be difficult to invest in a campaign if the course price was too large; therefore, we introduced a median value (*investment course price*) of each campaign.

Finally, when the topics were dispersed among various categories, the focus of the project was difficult to understand (Sitruk *et al.*, 2020). Thus, the square sum of topic probabilities was introduced by calculating the degree of concentration on a topic (*topic concentration*).

The descriptive statistics of these dependent and control variables are shown in Table 9.3, and the correlation matrix of all variables is displayed in Table 9.4.

Table 9.3: Descriptive Statistics for Dependent and Control Variables

| | <i>Mean</i> | <i>Median</i> | <i>SD</i> | <i>Max</i> | <i>Min</i> |
|------------------------------|---|---------------|-----------|------------|------------|
| <i>Campaign success</i> | 1: success = 1282; 0: failure = 1014 | | | | |
| <i>Money invested</i> | 985410 | 530000 | 1972196 | 56500000 | 0 |
| <i># of backers</i> | 68 | 40 | 107 | 1876 | 0 |
| <i># of images</i> | 14 | 12 | 7 | 70 | 4 |
| <i>Gender</i> | 1: female = 657; 0: male = 1237; unidentified = 402 | | | | |
| <i>NPO</i> | 1: yes = 431; 0: no = 1865 | | | | |
| <i>Educational institute</i> | 1: yes = 88; 0: no = 2208 | | | | |
| <i>Target amount</i> | 1111065 | 750000 | 1889686 | 50000000 | 10000 |
| <i>Duration</i> | 44 | 41 | 18 | 92 | 1 |
| <i>Topic concentration</i> | 0.241 | 0.219 | 0.098 | 0.862 | 0.085 |
| <i>Investment price</i> | 22948 | 20000 | 28966 | 700000 | 1000 |

Note: SD = Standard deviation; $n = 2.296$

Source: Authors.

Measuring Empathy with Issues

Step 2-1: Questionnaire Survey

In the second step of our study, we measured the degree of empathy with issues addressed in the campaign. We conducted a questionnaire survey online from September 9–18, 2020. Because the demography of Readyfor backers is mainly 20–40 years-old people who were interested in social issues, we targeted a similar demography in this survey. We received a total of 121 responses: 68 students from five universities participated in a social problem-solving program; nine employees at one company participated in the same program; and 44 business persons in an online community of people with an interest in social issues. The overview of the sample is shown in Table 9.5. Because perceptions of what is prosocial are dependent on the cultural context (Barkow *et al.*, 1995; Hofstede *et al.*, 2010), we choose Japanese people as the sample in this study.

Table 9.5: Overview of the Sample in the Questionnaire Survey

| <i>Affiliation</i> | | <i>Gender</i> | | <i>Age</i> | |
|--------------------------------------|---------------------------------|---------------|----|------------|----|
| Univ B, Tokyo | 13 | Male | 84 | 20–29 | 74 |
| Univ A, Osaka | 12 | Female | 37 | 30–39 | 9 |
| Univ C, Aichi | 10 | | | 40–49 | 21 |
| Univ D, Chiba | 14 | | | 50–59 | 11 |
| Univ E, Kanagawa | 19 | | | 60– | 6 |
| Company F, Tokyo, Osaka, Aichi | Tokyo 5, Osaka 2, Aichi 2 | | | | |
| Online community about social act | 44 | | | | |

Note: $n = 121$

Source: Authors.

The students and employees who participated in the program were not lectured on social issues in advance, and there was no risk of bias due to prior information. Nevertheless, concerns about sampling bias remained in each subgroup. We compared the values of the subsamples and found that they were consistent. We considered that the data had a low risk of sampling bias, and they represented the thoughts and feeling of people interested in social issues in Japan.

In the questionnaire, we included word lists consisting of 23 topics and their titles, as shown in Table 9.2, and we asked three questions regarding empathy with each of the 23 topics, except “Payment.” The first question, “To what extent do you think projects dealing with this issue met profit goals?” was adapted from the project profitability scale (Griffin & Page, 1996). This scale was used to measure *perceived profitability*, the degree of self-interest motivation evoked by the topic. The second question, “How much do you feel warmth, kindness, compassion, and tenderness for this issue?” was adapted from Nelson and Baumgarte’s (2004) scale. This scale was used to measure *emotional empathy*. Third, we asked, “How much do you think the target’s distress was a result of the unpleasantness or difficulty of the situation?” which was also adapted from Nelson and Baumgarte’s (2004) and used to measure *cognitive empathy*. Although Nelson and Baumgarte’s (2004) original scale included multiple items, we chose one item from each scale to fit the context and to reduce the effort of respondents answering multiple questions for each of the 23 topics. We followed the translation-back translation procedure to check the accuracy of the translation of the original English-language items into Japanese. All questions were answered on a 5-point Likert scale ranging from 1 (not at all) to 5 (completely). We used the average value of 121 respondents for each question.

Step 2-2: Analysis of the Relationship between Empathy with Issues and their Impact on Funding Success

In last step of our analysis, we compared the impact on the probability of success of issues from the campaign text data obtained in Step 1 with the scores of empathy with issues obtained from the questionnaire survey in Step 2. We conducted a correlation analysis of the degree of improvement in the probability of campaign success, the coefficients obtained from regression, the degree of empathy, and that of self-interest motivation. Based on this analysis, we tested our hypothesis that cognitive empathy with the issue enhances the probability of the campaign’s success.

RESULTS

In the first step of our analysis, we analyzed the types of issues that would improve the probability of campaign success. The results of our logistic regression analysis are shown in Table 9.6. Because introducing all 24 topic probabilities would have resulted in a series correlation among all topics within the regression model, we removed the topic, “*new product*”, from the independent variables. This topic had the largest negative effect on the results. By removing it, the value of the coefficient of each topic probability shown in Table 9.6 meant the statistical difference from the coefficient of the topic *new product*.

Table 9.6: Results of the Logistic Regression Analyses

| | <i>Model 1</i> | <i>Model 2</i> |
|-----------------------------|----------------------------|----------------------------|
| Dependent Variable | <i>Campaign Success</i> | <i>Campaign Success</i> |
| Method | <i>Logistic Regression</i> | <i>Logistic Regression</i> |
| Intercept | -1.63 (0.28)*** | -3.25 (0.53)*** |
| Independent variable | | |
| <i>Nature</i> | | 3.15 (0.68)*** |
| <i>Medical</i> | | 3.05 (0.65)*** |
| <i>Disaster</i> | | 2.70 (0.87)** |
| <i>Tradition</i> | | 2.70 (1.10)* |
| <i>Competition</i> | | 2.33 (1.08)* |
| <i>Music</i> | | 2.21 (0.53)*** |
| <i>Regional</i> | | 2.17 (0.74)** |
| <i>Dance and act</i> | | 2.09 (0.66)** |
| <i>Sports</i> | | 2.04 (0.68)** |
| <i>Art</i> | | 1.97 (1.16)+ |
| <i>Animal</i> | | 1.94 (0.67)** |
| <i>Agriculture</i> | | 1.93 (0.54)*** |
| <i>Poverty</i> | | 1.75 (0.66)** |
| <i>Childcare</i> | | 1.61 (0.57)** |
| <i>Education</i> | | 1.55 (0.56)** |
| <i>International affair</i> | | 1.51 (0.74)* |
| <i>Food</i> | | 1.46 (0.68)* |
| <i>Drink</i> | | 0.82 (1.08) |
| <i>Beauty</i> | | 0.63 (0.86) |
| <i>Website</i> | | 0.57 (0.60) |
| <i>Welfare</i> | | 0.41 (0.63) |
| <i>Pictures</i> | | 0.13 (1.12) |
| Control variable | | |
| <i>Payment</i> | | 3.54 (0.91)*** |
| <i># of images</i> | 0.06 (0.00)*** | 0.06 (0.00)*** |

| | Model 1 | Model 2 |
|------------------------------|-----------------|----------------|
| <i>Female</i> | 0.36 (0.09)*** | 0.34 (0.10)** |
| <i>Male</i> | -0.07 (0.11) | -0.09 (0.11) |
| <i>NPO</i> | 0.60 (0.11)*** | 0.44 (0.12)*** |
| <i>Educational institute</i> | 1.56 (0.30)*** | 1.17 (0.32)*** |
| <i>Target amount</i> | -0.07 (0.02)* | -0.09 (0.03)** |
| <i>Duration</i> | 0.377 (0.10)*** | 0.35 (0.11)** |
| <i>Duration</i> ² | -0.03 (0.01)*** | -0.03 (0.01)** |
| <i>Topic concentration</i> | 0.21 (0.44) | 0.43 (0.51) |
| <i>Investment price</i> | -0.00 (0.00) | -0.00 (0.00) |
| Model statistics | | |
| AIC | 2990 | 2947 |
| McFadden's R ² | 0.05 | 0.09 |

Note: n = 2,296,

+ p. < 0.1, * p. < 0.05, ** p. < 0.01, *** p. < 0.001.

Source: Authors.

The results showed that the probability of campaign success varied, depending on the issues they addressed. The introduction of topic composition probability improved the explanatory power of the model ($R^2 = 0.05$ in Model 1, and $R^2 = 0.09$ in Model 2). Two-thirds of the 23 types of topic composition probabilities showed statistically significant positive coefficients. The differences in their values ranged from 1.46 to 3.15. Thus, H_1 is supported.

The following summarizes the results of the control variables. The description of *payment* improved campaign success. The variable *# of images* showed a positive effect on campaign success. Founders' characteristics such as *female*, *NPO*, and *educational institute* had a positive influence on campaign success. These results are consistent with those of previous studies (Belleflamme *et al.*, 2014; Mollick, 2014). Regarding *duration*, we found an inverse-U-shaped relationship with campaign success. Based on these results, success probability was the highest with a *duration* of 58 days.

In the second step of our analysis, we compared the coefficients of topic composition probabilities obtained from the above regression analysis with the extent of empathy the respondents felt for those topics. Table 9.7 shows the values of self-interest motive (*perceived profitability*), *emotional empathy*, and *cognitive empathy* obtained from the questionnaire survey, as well as the coefficients obtained in the regression analysis.

Table 9.7: Results of Questionnaire Survey in Step 2 and the Coefficients obtained in Step 1

| <i>Topic</i> | <i>Perceived Profitability</i> | <i>Emotional Empathy</i> | <i>Cognitive Empathy</i> | <i>Coefficients at Step 1</i> |
|------------------------------|--------------------------------|--------------------------|--------------------------|-------------------------------|
| <i>Nature</i> | 2.97 | 3.62 | 3.72 | 3.15*** |
| <i>Medical</i> | 3.57 | 3.97 | 4.22 | 3.05*** |
| <i>Disaster</i> | 3.02 | 4.03 | 4.40 | 2.70** |
| <i>Tradition</i> | 2.93 | 3.77 | 3.30 | 2.70* |
| <i>Competition</i> | 3.33 | 3.33 | 3.10 | 2.33* |
| <i>Music</i> | 3.45 | 4.02 | 3.38 | 2.21*** |
| <i>Regional</i> | 3.58 | 3.86 | 3.37 | 2.17** |
| <i>Dance and act</i> | 3.13 | 3.45 | 3.04 | 2.09** |
| <i>Sports</i> | 3.04 | 3.50 | 3.34 | 2.04** |
| <i>Art</i> | 3.12 | 3.73 | 3.30 | 1.97* |
| <i>Animal</i> | 3.01 | 4.12 | 3.82 | 1.94** |
| <i>Agriculture</i> | 3.32 | 4.09 | 3.70 | 1.93*** |
| <i>Poverty</i> | 3.06 | 4.07 | 4.13 | 1.75** |
| <i>Childcare</i> | 3.19 | 4.37 | 3.64 | 1.61** |
| <i>Education</i> | 3.16 | 3.64 | 3.34 | 1.55** |
| <i>International affairs</i> | 3.26 | 3.40 | 3.15 | 1.51* |
| <i>Food</i> | 3.36 | 3.84 | 3.25 | 1.46* |
| <i>Drink</i> | 3.64 | 3.50 | 3.12 | 0.82 |
| <i>Beauty</i> | 3.58 | 3.28 | 2.68 | 0.63 |
| <i>Website</i> | 3.47 | 2.62 | 2.83 | 0.57 |
| <i>Welfare</i> | 2.98 | 4.05 | 4.20 | 0.41 |
| <i>Pictures</i> | 3.50 | 3.60 | 2.90 | 0.13 |
| <i>New product</i> | 3.56 | 4.07 | 3.41 | 0.00 |

Source: Authors.

Because the three variables obtained from the questionnaire survey were correlated with each other and could not be fed into the same regression model, correlation analyses were conducted between each variable, and the coefficients were obtained in Step 1. The results are shown in Table 9.8, which indicate a negative correlation between *perceived profitability* and the coefficient (correlation = -0.42 , $p = 0.05$). That is, on the Ready for platform, issues associated with profitability did not attract people.

Instead, people tended to negatively evaluate the commercial nature of the campaign. Thus, H_2 is supported.

Table 9.8: Correlation Analysis of Empathy, Perceived Profitability and Coefficients

| | <i>Perceived Profitability</i> | <i>Emotional Empathy</i> | <i>Cognitive Empathy</i> |
|-------------|--------------------------------|--------------------------|--------------------------|
| Correlation | -0.42 | 0.22 | 0.41 |
| p-value | 0.05 | 0.30 | 0.05 |

Source: Authors.

As shown in Table 9.8, a weak positive correlation was found between *emotional empathy* and the coefficient that indicates the impact of issues on fundraising success (correlation = 0.22, $p = 0.30$). Thus, emotional empathy and impactful issues were not associated. Thus, H_3 is supported. In contrast, Table 9.8 also shows a positive correlation *between cognitive empathy* and the coefficient indicating the impact of issue (correlation = 0.41, $p = 0.05$). These results suggest that people are not likely to invest in a social issue for which they have warm, kind, and compassionate emotions. They are more likely to invest in an issue if they think that the target of the issue has a reason to be supported. Thus, H_4 is supported.

DISCUSSION

Theoretical Implications

The results of our study contribute to the literature on crowdfunding. First, this study clarified that the issues a campaign addresses matters in crowdfunding. Although previous studies verified that the categorization provided by the platform influences funding success (Moss *et al.*, 2018; Sitruk *et al.*, 2020), it is selected by the campaign presenter and does not match the content of the campaign. This study used LDA topic modeling to quantify campaign content as the sum of compositional probabilities found that the odds ratio of success to failure varied depending on these probabilities. This study contributes to the crowdfunding research by reexamining the influence of issues of campaigns using a more rigorous method compared with those used by previous studies.

Second, and more importantly, we found evidence that the theory of empathy predicts people's decisions to invest in issues. On prosocial crowdfunding platforms, people do not invest based on self-interest but on altruism. Of the two types of empathy, this study revealed that cognitive empathy led to prosocial investment, while emotional empathy did not. These results are consistent with the theory of empathy and with previous experiments that were designed in line with that theory (Artinger *et al.*, 2014; Li *et al.*, 2019).

Third, this study provides an explanation for the mixed outcomes of previous crowdfunding studies. In previous studies, it was pointed out that in prosocial crowdfunding campaigns, altruism was the foundation of backers' investment (Allison *et al.*, 2015; Belleflamme *et al.*, 2014; Cholakova & Clarysse, 2015). However, some studies have shown that narratives and rhetorical appeals to hardship and emotional pain were less likely to receive funding (Moss *et al.*, 2015; Naimi *et al.*, 2020). In contrast, some studies also indicated that explaining a campaign's prosocial orientation was an effective way to obtain prosocial investment (Berns *et al.*, 2020; Parhankangas & Renko, 2017). Although these results seem to conflict, the concepts of emotional and cognitive empathy used in the present study provided consistency. Appeals to emotional empathy are not effective in motivating backers, but offering logical reasons why the target of the issue should be helped, which is associated with cognitive empathy, is effective in prosocial crowdfunding campaigns.

As an additional contribution, this study provides evidence obtained from crowdfunding in Asia. Much research on crowdfunding has been conducted on Kickstarter and Kiva in the US (e.g., Mollick, 2014), while some studies have reported crowdfunding in the Netherlands and Australia (Ahlers *et al.*, 2015; Cholakova & Clarysse, 2015). However, few studies have analyzed crowdfunding in Asia. Our study revealed the current landscape of crowdfunding in Japan and showed evidence of different contexts from existing studies, which provides some insights; on one hand, we confirmed previous findings regarding the advantage of having a female founder, being an NPO, and utilizing many images. These results are consistent with previous studies, which suggests that prosocial crowdfunding has a common foundation across countries. On the other hand, we need to consider national differences in looking into the types of prosocial campaigns that are likely to evoke empathy. For example, in this study, the issue related to "Disaster" ranked high, both in the value of cognitive empathy and the coefficient for funding success. This result reflects the current Japanese situation in which people experience repeated natural disasters after 2011. Such national contexts should be introduced to activate international comparisons of crowdfunding.

Lastly, this study contributes to the literature on the empathy-altruism hypothesis. Previous studies on the empathy-altruism hypothesis have discussed whether emotional empathy or cognitive empathy is more strongly linked to prosocial behaviors (Artinger *et al.*, 2014; Klimecki *et al.*, 2016; Li *et al.*, 2019). While previous research has focused on economic games played in laboratory experiments, this study observed the effects of empathy on prosocial behavior in the context of actual investments in crowdfunding. Thus, the study offers evidence that cognitive empathy is a primary antecedent to people's prosocial investment behavior.

Practical Implications

This study highlights issues that are likely to be supported in crowdfunding campaigns, which can be an effective way of raising capital for entrepreneurs. Moreover, if a campaign is related to a topic that is difficult to empathize with, the likelihood of success could be increased if the campaign were designed to support an issue that is likely to be supported. For example, although campaigns related to beauty tend to be less supported, their success rate may increase if the campaign is aimed at people with disabilities or disaster victims. Thus, this study provides evidence for the keys to success in crowdfunding campaigns, which may have the negative effect of allowing campaign founders to exploit prosocial orientations for financial gain.

Nevertheless, if the results of our study are utilized ethically, they may help allocate resources to new business ventures that are socially beneficial. Further research on effective alternative funding could result in the allocation of more social resources to businesses that cannot be funded through conventional financing pathways, which would ultimately result in an increase in social welfare.

CONCLUSION AND FUTURE DIRECTIONS

This study attempts to elucidate the effects of a prosocial orientation on investments in entrepreneurial businesses through crowdfunding platforms. By drawing on the theory of empathy in social psychology, the research focused on social issues that campaigns addressed, rather than the rhetoric and narratives used in campaigns. The study applied a topic modelling method to identify types of social issues expressed in campaign documents. A questionnaire survey method was used to measure the degree of empathic feeling about social issues. The results revealed that campaigns that addressed social issues that evoked people's cognitive empathy were more likely to be supported.

The present study has the following limitations. First, we did not directly observe the psychological processes of investors who were attracted to a prosocial orientation. Previous social-psychology studies have specified a general psychological process model related to empathy and altruistic behavior (Batson, 2012; Cialdini *et al.*, 1997). Whether that model is applicable to the crowdfunding context or whether there are differences in the psychological processes involved in crowdfunding could not be addressed in this study. In future research, we will examine the psychological process model of investment behavior in crowdfunding using other methods such as laboratory experiments.

Second, we did not analyze the influence of national culture. By its definition, cognitive empathy reflects the culture in which an individual was born and raised. The results of this analysis might be affected by the cultures of Japan or East Asia. It

is possible that in Europe and the US, social welfare is highly developed, and empathy for children, the sick, and people with disabilities is a social norm. Previous studies have suggested that emotional empathy is a strong determinant of prosocial behavior in Western countries (e.g., Gummerum & Hanoch, 2012; Klimecki *et al.*, 2016). However, prosocial investment might be triggered by emotional empathy in different contexts. Regarding cultural influences, this study provided evidence that cognitive empathy determines investment in a Japanese prosocial crowdfunding platform. Further international comparisons would shed light on the generalizability of the findings of the present study.

REFERENCES

- Ahlers, G.K.C., Cumming, D., Günther, C., & Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship Theory & Practice*, 39(4), 955–980.
- Allison, T.H., Davis, B.C., Short, J.C., & Webb, J.W. (2015). Crowdfunding in a prosocial microlending environment: Examining the role of intrinsic versus extrinsic cues. *Entrepreneurship Theory and Practice*, 39(1), 53–73.
- Allison, T.H., McKenny, A.F., & Short, J.C. (2013). The effect of entrepreneurial rhetoric on microlending investment: An examination of the warm-glow effect. *Journal of Business Venturing*, 28(6), 690–707.
- Amel-Zadeh, A., & Serafeim, G. (2018). Why and how investors use ESG information: Evidence from a global survey. *Financial Analysts Journal*, 74(3), 87–103.
- Artinger, F., Exadaktylos, F., Koppel, H., & Sääksvuori, L. (2014). In others' shoes: Do individual differences in empathy and theory of mind shape social preferences? *PLOS ONE*, 9(4), e92844.
- Bandura, A. (1963). *Social learning and personality development*. Holt, Rinehart, and Winston.
- Barkow, J.H., Cosmides, L., & Tooby, J. (1995). *The adapted mind: Evolutionary psychology and the generation of culture* (Eds.). Oxford University Press.
- Batson, C.D. (2012). The empathy-altruism hypothesis: Issues and implications. In J. Decety (Ed.), *Empathy: From bench to bedside* (pp. 41–54). MIT Press.
- Belleflamme, P., Lambert, T., & Schwienbacher, A. (2014). Crowdfunding: Tapping the right crowd. *Journal of Business Venturing*, 29(5), 585–609.
- Berns, J.P., Figueroa-Armijos, M., da Motta Veiga, S.P., & Dunne, T.C. (2020). Dynamics of lending-based prosocial crowdfunding: Using a social responsibility lens. *Journal of Business Ethics*, 161(1), 169–185.
- Bloom, P. (2017). Empathy and its discontents. *Trends in Cognitive Sciences*, 21(1), 24–31.
- Bretschneider, U., & Leimeister, J.M. (2017). Not just an ego-trip: Exploring backers' motivation for funding in incentive-based crowdfunding. *The Journal of Strategic Information Systems*, 26(4), 246–260.
- Brief, A.P., & Motowidlo, S.J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, 11(4): 710–725.
- Bruton, G., Khavul, S., Siegel, D., & Wright, M. (2015). New financial alternatives in seeding entrepreneurship: Microfinance, crowdfunding, and peer-to-peer innovations. *Entrepreneurship Theory and Practice*, 39(1), 9–26.

- Buttice, V., Colombo, M.G., & Wright, M. (2017). Serial crowdfunding, social capital, and project success. *Entrepreneurship Theory and Practice*, 41(2), 183–207.
- Calic, G., & Mosakowski, E. (2016). Kicking off social entrepreneurship: How a sustainability orientation influences crowdfunding success. *Journal of Management Studies*, 53(5), 738–767.
- Campbell, J.C., & Ikegami, N. (2003). Japan's radical reform of long-term care. *Social Policy & Administration*, 37(1), 21–34.
- Chan, C.R., & Parhankangas, A. (2017). Crowdfunding innovative ideas: How incremental and radical innovativeness influence funding outcomes. *Entrepreneurship Theory and Practice*, 41(2), 237–263.
- Cholakova, M., & Clarysse, B. (2015). Does the possibility to make equity investments in crowdfunding projects crowd out reward-based investments? *Entrepreneurship Theory and Practice*, 39(1), 145–172.
- Cialdini, R.B., Brown, S.L., Lewis, B.P., Luce, C., & Neuberg, S.L. (1997). Reinterpreting the empathy–altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology*, 73(3), 481.
- Courtney, C., Dutta, S., & Li, Y. (2017). Resolving information asymmetry: Signaling, endorsement, and crowdfunding success. *Entrepreneurship Theory and Practice*, 41(2), 265–290.
- Cuff, B.M., Brown, S.J., Taylor, L., & Howat, D.J. (2016). Empathy: A review of the concept. *Emotion Review*, 8(2), 144–153.
- Dai, H., & Zhang, D.J. (2019). Prosocial goal pursuit in crowdfunding: Evidence from kickstarter. *Journal of Marketing Research*, 56(3), 498–517.
- Davis, M.H. (2018). *Empathy: A Social Psychological Approach*. Routledge.
- Davis, B.C., Hmieleski, K.M., Webb, J.W., & Coombs, J.E. (2017). Funders' positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion. *Journal of Business Venturing*, 32(1), 90–106.
- De Waal, F.B. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology*, 59, 279–300.
- Decety, J., & Jackson, P.L. (2004). The functional architecture of human empathy. *Behavioral and Cognitive Neuroscience Reviews*, 3(2), 71–100.
- Decety, J., & Lamm, C. (2006). Human empathy through the lens of social neuroscience. *The Scientific World Journal*, 6, 1146–1163.
- Decety, J., & Yoder, K.J. (2016). Empathy and motivation for justice: Cognitive empathy and concern, but not emotional empathy, predict sensitivity to injustice for others. *Social Neuroscience*, 11(1), 1–14.
- Decety, J., & Yoder, K.J. (2017). The emerging social neuroscience of justice motivation. *Trends in Cognitive Sciences*, 21(1), 6–14.
- Declerck, C.H., & Bogaert, S. (2008). Social value orientation: Related to empathy and the ability to read the mind in the eyes. *The Journal of Social Psychology*, 148(6), 711–726.
- Dunn, E.W., Aknin, L.B., & Norton, M.I. (2014). Prosocial spending and happiness: Using money to benefit others pays off. *Current Directions in Psychological Science*, 23(1), 41–47.
- Eccles, N.S., & Viviers, S. (2011). The origins and meanings of names describing investment practices that integrate a consideration of ESG issues in the academic literature. *Journal of Business Ethics*, 104(3), 389–402.

- Eisenberg, N., Fabes, R. A., & Spinrad, T.L. (2007). Prosocial development. In N. Eisenberg, W. Damon and R.M. Lerner (Eds.), *Handbook of Child Psychology: Social, Emotional and Personality Development*: Vol. 3 (pp. 646–718). Wiley.
- Fehr, E., & Gächter, S. (2000). Fairness and retaliation: The economics of reciprocity. *Journal of Economic Perspectives*, 14(3), 159–181.
- Forsythe, R., Horowitz, J., Savin, N., & Sefton, M. (1994). Fairness in simple bargaining experiments. *Games and Economic Behaviour*, 6, 347–369.
- Gleasure, R., & Feller, J. (2016). Does heart or head rule donor behaviors in charitable crowdfunding markets? *International Journal of Electronic Commerce*, 20(4): 499–524.
- Gorbatai, A., & Nelson, L. (2015). *The narrative advantage: Gender and the language of crowdfunding*. Haas School of Business UC Berkeley Research Papers.
- Goubert, K.D. Craig, T. Vervoort, S. Morley, M.J.L. & Sullivan, C. De. (2005). Facing others in pain: the effects of empathy. *Pain*, 118(3), 285–288.
- Greenberg, J., & Mollick, E. (2017). Activist choice homophily and the crowdfunding of female founders. *Administrative Science Quarterly*, 62(2), 341–374.
- Griffin, A., & Page, A.L. (1996). PDMA success measurement project: Recommended measures for product development success and failure. *Journal of Product Innovation Management*, 13(6), 478–496.
- Gummerum, M., & Hanoch, Y. (2012). Altruism behind bars: Sharing, justice, perspective taking and empathy among inmates. *Social Justice Research*, 25(1), 61–78.
- Harbaugh, W.T., Mayr, U., & Burghart, D.R. (2007). Neural responses to taxation and voluntary giving reveal motives for charitable donations. *Science*, 316(5831), 1622–1625.
- Heller, L.R., & Badding, K.D. (2012). For compassion or money? The factors influencing the funding of micro loans. *The Journal of Socio-Economics*, 41(6), 831–835.
- Herrmann, E., Call, J., Hernández-Lloreda, M.V., Hare, B., & Tomasello, M. (2007). Humans have evolved specialized skills of social cognition: The cultural intelligence hypothesis. *Science*, 317(5843), 1360–1366.
- Hillman, A.J., & Keim, G.D. (2001). Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strategic Management Journal*, 22(2), 125–139.
- Hoffman, M.L. (2001). *Empathy and Moral Development: Implications for Caring and Justice*. Cambridge University Press.
- Hoffman, M.L. (2008). Empathy and prosocial behaviour. In M. Lewis, J.M. Haviland-Jones & L.F. Barrett (Eds.), *Handbook of Emotions: Vol. 3* (pp. 440–455). Guilford Press.
- Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (Vol. 2). McGraw-Hill.
- Jancenelle, V.E., & Javalgi, R.R.G. (2018). The effect of moral foundations in prosocial crowdfunding. *International Small Business Journal*, 36(8), 932–951.
- Jancenelle, V.E., Javalgi, R.R.G., & Cavusgil, E. (2018). The role of economic and normative signals in international prosocial crowdfunding: An illustration using market orientation and psychological capital. *International Business Review*, 27(1), 208–217.
- Johnson, M.A., Stevenson, R.M., & Letwin, C.R. (2018). A woman's place is in the... startup! Crowdfunder judgments, implicit bias, and the stereotype content model. *Journal of Business Venturing*, 33(6), 813–831.

- Jones, T.M., Felps, W., & Bigley, G.A. (2007). Ethical theory and stakeholder-related decisions: The role of stakeholder culture. *Academy of Management Review*, 32(1), 137–155.
- Klimecki, O.M., Mayer, S.V., Jusyte, A., Scheeff, J., & Schönenberg, M. (2016). Empathy promotes altruistic behavior in economic interactions. *Scientific Reports*, 6(1), 1–5.
- Kotha, R., & George, G. (2012). Friends, family, or fools: Entrepreneur experience and its implications for equity distribution and resource mobilization. *Journal of Business Venturing*, 27(5), 525–543.
- Kuppuswamy, V., & Bayus, B.L. (2017). Does my contribution to your crowdfunding project matter? *Journal of Business Venturing*, 32(1), 72–89.
- Li, Z., Yu, J., Yang, X., & Zhu, L. (2019). Associations between empathy and altruistic sharing behavior in Chinese adults. *The Journal of General Psychology*, 146(1), 1–16.
- Luke, B., Barraket, J., & Eversole, R. (2013). Measurement as legitimacy versus legitimacy of measures: Performance evaluation of social enterprise. *Qualitative Research in Accounting & Management*, 10(3–4), 234–258.
- Meyskens, M., & Bird, L. (2015). Crowdfunding and value creation. *Entrepreneurship Research Journal*, 5(2), 155–166.
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1–16.
- Moss, T.W., Neubaum, D.O., & Meyskens, M. (2015). The effect of virtuous and entrepreneurial orientations on microfinance lending and repayment: A signaling theory perspective. *Entrepreneurship Theory and Practice*, 39(1), 27–52.
- Moss, T.W., Renko, M., Block, E., & Meyskens, M. (2018). Funding the story of hybrid ventures: Crowdfunder lending preferences and linguistic hybridity. *Journal of Business Venturing*, 33(5), 643–659.
- Nelson, D.W., & Baumgarte, R. (2004). Cross-cultural misunderstandings reduce empathic responding. *Journal of Applied Social Psychology*, 34(2), 391–401.
- Naimi, A., Arenas, D., & Kickul, J.R. (2020). Too emotional to succeed: Entrepreneurial storytelling in a prosocial setting. *Academy of Management Proceedings*, 2020(1), 19044.
- Parhankangas, A., & Renko, M. (2017). Linguistic style and crowdfunding success among social and commercial entrepreneurs. *Journal of Business Venturing*, 32(2), 215–236.
- Pavey, L., Greitemeyer, T., & Sparks, P. (2012). “I help because I want to, not because you tell me to” empathy increases autonomously motivated helping. *Personality and Social Psychology Bulletin*, 38(5), 681–689.
- Pedwell, C. (2012). Economies of empathy: Obama, neoliberalism, and social justice. *Environment and Planning D: Society and Space*, 30(2), 280–297.
- Pietraszkiewicz, A., Soppe, B., & Formanowicz, M. (2017). Go pro bono: Prosocial language as a success factor in crowdfunding. *Social Psychology*, 48(5), 265–278.
- Reniers, R.L., Corcoran, R., Drake, R., Shryane, N.M., & Vollm, B.A. (2011). The QCAE: A questionnaire of cognitive and affective empathy. *Journal of Personality Assessment*, 93, 84–95.
- Roma, P., Petruzzelli, A.M., & Perrone, G. (2017). From the crowd to the market: The role of reward-based crowdfunding performance in attracting professional investors. *Research Policy*, 46(9), 1606–1628.
- Ryan, P.W., & Lyne, I. (2008). Social enterprise and the measurement of social value: Methodological issues with the calculation and application of the social return on investment. *Education, Knowledge & Economy*, 2(3), 223–237.

- Shneor, R., & Munim, Z.H. (2019). Reward crowdfunding contribution as planned behaviour: An extended framework. *Journal of Business Research*, 103, 56–70.
- Short, J.C., Ketchen Jr, D.J., McKenny, A.F., Allison, T.H., & Ireland, R.D. (2017). Research on crowdfunding: Reviewing the (very recent) past and celebrating the present. *Entrepreneurship Theory and Practice*, 41(2), 149–160.
- Sitruk, J., Dibiaggio, L., & Zunino, D. (2020). Category labels and entrepreneurial resource acquisition: A study of crowdfunding campaigns. *Academy of Management Proceedings*, 2020(1), 13603.
- Smith, A. (2006). Cognitive empathy and emotional empathy in human behavior and evolution. *The Psychological Record*, 56(1), 3–21.
- Stanko, M.A., & Henard, D.H. (2017). Toward a better understanding of crowdfunding, openness, and the consequences for innovation. *Research Policy*, 46(4), 784–798.
- Technavio (2018). *Global Crowdfunding Market 2018–2022*.
<https://www.technavio.com/report/global-crowdfunding-market-analysis-share>.
- Tomasello, M. (2009). *Why We Cooperate*. MIT Press.
- Yamada, M., & Decety, J. (2009). Unconscious affective processing and empathy: An investigation of subliminal priming on the detection of painful facial expressions. *Pain*, 143(1–2), 71–75.
- Yunus, M. (2009). Creating a world without poverty: Social business and the future of capitalism. *Global Urban Development Magazine*, 4(2), 16–41.