Chapter 5
Chapter 5

Information Sharing is Strategic Behavior: Evidence from the Field

The lab studies presented in this dissertation showed that information sharing is strategic behavior motivated by social motives and social power construals: prosocials shared private important information while proselves shared public unimportant information; construing power as responsibility (PaR) for others’ outcomes motivated the sharing of private information compared with construing power as opportunity (PaO) to achieve own goals, only when perceived ability was high. This paper tested the external validity of these findings on strategic information sharing (SIS) among academics; SIS covered the ‘what’ of sharing (public vs. private information) and the sharing ‘with whom’ (familiar people vs. strangers). Two field studies (survey and experiment) found PaR as main predictor of the sharing of private important grant information, the sharing of grant proposals (GrantPs) with familiar people and with strangers. When perceived ability to write GrantPs was high, academics higher in PaR were as likely to share GrantPs with familiar people as academics lower in PaR; when perceived ability to write GrantPs was low, academics higher in PaR were significantly more likely to share GrantPs with familiar people than academics lower in PaR. No other significant effects were found. Theoretical, practical implications and future research directions are discussed.

Keywords: strategic information sharing, grant proposal, academics, power construed as responsibility, power construed as opportunity
5.1. Introduction
“...I asked my colleague who successfully applied for one big research grant in
social sciences to share his proposal so I can read it as a good example. He was
reluctant to share it and gave me instead some general tips on writing the
proposal”. This is what a senior researcher and colleague of mine once told me.
Essentially, this is one example of SIS behavior and it is not uncommon to
interact with researchers who keep own research ideas private and share some
less private information just to make a cooperative impression. In universities,
for instance, sharing grant information constitutes a dilemma (Cabrera &
Cabrera, 2002) such that scientists are increasingly pressured to develop
ground-breaking research ideas to win high-status funding and, at the same
time, they are expected to collaborate with other colleagues although
collaboration can “potentially give away a source of power and expertise to
others” (Hislop, 2009, p. 149).

A relatively recent body of research (Osatuyi, Hiltz, & Fjermestad, 2012;
Toma & Butera, 2009; Utz, Muscanell, & Goeritz, 2014) showed that
information sharing is strategic behavior motivated, for instance, by social
motives (Steinel, Utz, & Koning, 2010). Across several lab experiments, Steinel
et al. (2010) showed that prosocials (i.e., individuals concerned with joint
outcomes) shared their private important information while proselfs (i.e.,
individuals concerned to serve own interests) shared especially their public
unimportant information just to make a cooperative impression and even lied
about their private important information. Using a convenience sample, a more
recent experimental study by Bălău and Utz (2014) indicated that social power
construals (Sassenberg, Ellemers, & Scheepers, 2012) also affect SIS.
Specifically, construing PaR for others’ outcomes motivated especially the
sharing of private information compared with construing PaO to achieve one’s
goals (for more details, see Chapter 3 in this dissertation). A lab experiment
(Chapter 4) showed that ability moderated this effect; it occurred only when
perceived ability was high. This means that people construing PaR (vs. people
construing PaO) wanted to contribute to the collective outcome by putting
forward the private information they themselves assessed as valuable and
believed it to be helpful for the others (Kalman, Monge, Fulk, & Heino, 2002;
Stasser, Vaughan, & Stewart, 2000). Firstly, together, these lab studies demonstrate the causal relationships underlying SIS and do have the advantage of limiting the impact of confounds. However, they cannot guarantee that the findings are applicable in the real world too (see Utz et al., 2014, for an exception) where power and ability are often confounded (e.g., people with high ability often get promoted and end up in high power positions) and explanatory factors in general interact in a far more complex manner. Secondly, all these studies focused only on the ‘what’ of sharing considering only information importance and sharedness (e.g., public vs. private), disregarding aspects of the sharing ‘with whom’ while information sharing indispensably requires interpersonal interaction (Wang & Noe, 2010). To fill in these main gaps, this paper aims to examine what is robustly generalizable from the lab studies (i.e., taking a step further from manipulated to measured variables) considering other types of information as well, explicit (e.g., written proposals) but also tacit forms of knowledge (e.g., tips, advice). Beside the ‘what’ of sharing, this research also covers strategic aspects of the sharing ‘with whom’ (i.e., familiar people vs. strangers). More precisely, a field survey and a field experiment among academics aim to provide compelling evidence on how social value orientation (SVO), social power construals and perceived ability to write GrantPs (also as a moderator) impact SIS. Methodologically, the field experiment allows us to avoid the likely problem of survey respondents giving socially desirable answers (Sun & May, 2013). Overall, this research contributes especially to the literature on social power and to the literature on information and knowledge sharing.

5.2. Theoretical Background

5.2.1. Preliminary Remark: Information Sharing versus Knowledge Sharing

Although some scientists (Kogut & Zander, 1992; Nonaka, 1994) distinguish theoretically between data, information and knowledge, the most common practice in knowledge sharing research is to use especially the terms information and knowledge interchangeably, emphasizing that there is not much practical utility in distinguishing between the two (for a review, see Wang & Noe, 2010). Information is a representation of knowledge (Shin, Holden, &
Schmidt, 2001) because when the user articulates knowledge with the intent of transmitting it, it becomes information (Shin et al., 2001). Knowledge research also covers the relationship and interaction between the so-called explicit and tacit knowledge (Shin et al., 2001). Compared with tacit knowledge, explicit knowledge is articulated, codified and can be communicated in symbolic form or language. Such examples are tips, advice, files or written documents (Nonaka & Takeuchi, 1995). In line with previous research, throughout this paper, we use the terms information sharing and knowledge sharing interchangeably, focusing on articulated/explicit knowledge (e.g., written proposals) and also on knowledge that is not yet articulated/tacit (e.g., advice on writing GrantPs).

5.2.2. Strategic Information Sharing
Previous research showed that individuals are selective in encoding and retrieving information (see De Dreu et al., 2008), they lie, deceive (Steinel & De Dreu, 2004) and spin preference-consistent information (Scholten, Van Knippenberg, Nijstad, & De Dreu, 2007). Although it has been mentioned that knowledge sharing represents a mixed-motive situation (Cabrera & Cabrera, 2002), empirical research has largely neglected its strategic aspects. Most prior research was, moreover, not able to detect strategic behavior because it focused only on the quantity of information shared. We build especially on more recent literature that shapes information sharing as a motivated process, i.e., people deliberately select what information to share (De Dreu, Nijstad, & Van Knippenberg, 2008; Wittenbaum, Hollingshead, & Botero, 2004); in this latter case, the quality, the type of information (e.g., public, private, important, less important) is being considered before sharing.

Research on SIS so far (e.g., Bâlău & Utz, 2014; Steinel et al., 2010) mainly covered the ‘what’ of sharing by manipulating two information characteristics, i.e., information importance (important vs. unimportant) and information sharedness (public vs. private). Since current research aims to get a deeper understanding of SIS, in both field studies, essentially, we cover the ‘what’ of sharing by considering sharing of pieces of advice, tips, feedback or written documents such as GrantPs among academics. To capture additional strategic aspects of information sharing and because information sharing
requires indispensably human interaction (Wang & Noe, 2010), we focus additionally on the sharing ‘with whom’, distinguishing between sharing with familiar people and sharing with strangers.

In line with the social identity theory (Ashforth & Mael, 1989), there is a tendency to favor in-group members over out-group members. Expectation for reciprocity (Wasko & Faraj, 2005) also motivates individuals to share with familiar people. Whereas some studies showed that information sharing is triggered by familiarity, other studies showed that useful information can be also disclosed to strangers (Constant, Sproull, & Kiesler, 1996) mainly because this brings personal benefits (e.g., increased self-esteem, self-respect, respect from others). Research also showed that weak ties (e.g., distant acquaintances) more than strong ties (e.g., close friends) provide access to non-redundant information (e.g., job openings) (Levin & Cross, 2004) and that unique knowledge is expected to come from strangers (Phillips, Mannix, Neale, & Gruenfeld, 2004). These different effects found in previous literature may be because studies did not consider the same content/information to be shared in relation to both familiar people and strangers and it is thus speculative to say precisely with whom people share their valuable and unique information. Moreover, previous research did not consider the strategic aspects of information sharing. We therefore aim to clarify these findings for the sharing ‘with whom’. The following sub-sections look at the motives underlying SIS.

5.2.2.1. Social Value Orientation and Strategic Information Sharing
Social motivation is defined as the individual preference for outcome distributions between oneself and other group members (De Dreu et al., 2008); it rests on the idea that individuals are either prosocial (i.e., concerned with collective welfare and joint success) or proself (i.e., concerned with self-interests and ignore others’ needs, interests and beliefs) motivated (De Dreu et al., 2008). As already reported in the previous chapters, Toma and Butera (2009) and Steinel et al. (2010) were among the first scientists to demonstrate that social motivation plays an important role in information sharing within groups. For instance, to study SIS, in a series of experiments, Steinel et al., 2010 manipulated social motivation via a cooperative reward system and varied
information importance (important vs. unimportant) and sharedness (public vs. private). They showed that proself individuals are often not motivated to share all their information; they share several pieces of relatively unimportant information to make a cooperative impression, and keep the private important information for themselves. However, little is known about the impact of social value orientation (SVO), as a dispositional characteristic of individuals (Van Lange, Otten, De Bruin, & Joireman, 1997), on SIS (see Utz et al., 2014, for an exception). Thus, we aim to replicate these findings from the lab experiments with manipulated social motivation (see also Chapter 2 in this dissertation) in the field, with measured SVO. In this respect, we are going to use the continuous scales – i.e., prosocial, individualist and competitor scores – given also the low prevalence of the competitor scores obtained in previous studies (e.g., De Dreu & Boles, 1998; Van Lange et al., 1997). In both field studies, we expect to find results similar with those found in studies manipulating social motivation (e.g., Steinel et al., 2010). Prosocial motivations are expected to positively relate to the sharing of private important information because prosocials are usually concerned with collective welfare and joint success; the sharing of private important information is consistent with maintaining a cooperative stance, conducive to group goals, preserving harmony (De Dreu et al., 2008) and also helping the overall outcome of decision-making. Individualist and competitive motivations are expected to negatively relate to the sharing of private important information because individualists and competitors are usually concerned with self-interests and ignore others’ needs, interests and beliefs; not sharing private important information is consistent with taking a noncooperation stance, conducive to personal goals (De Dreu et al., 2008), disregarding the overall outcome of decision-making. We thus expect the following:

Hypothesis 1 (H1): a) Prosocial motivations are positively related to the sharing of private important information while b) individualist and competitive motivations are negatively related to the sharing of private important information.

1 Usually the low prevalence of individualist and competitive motivations determine researchers (e.g., Steinel, Utz, & Koning, 2010) to manipulate social motivation instead of measuring SVO.
Prosocial motivations are expected to positively relate to the sharing with familiar people and also with strangers (Maner & Gailliot, 2007) because prosocials have a general tendency to align with others (Jensen, Vaish, & Schmidt, 2014). Moreover, prosocials are altruistic and trust others striving to foster consensus (De Dreu et al., 2008). Individualist and competitive motivations are expected to positively relate to the sharing with familiar people because individualists and competitors are interested to maintain relationships, to satisfy the need to belong and connectedness (Deci & Ryan, 2000) with people they know (De Dreu et al., 2008). Individualist and competitive motivations are expected to negatively relate to the sharing with strangers because individualists and competitors have a general tendency to engage in lying and deception especially when there is the opportunity to do so; they usually maintain a non-cooperative and independent attitude towards their counterparts (De Dreu et al., 2008). We thus expect the following:

Hypothesis 1 (H1): Prosocial motivations are positively related to c) the sharing with familiar people and d) sharing with strangers while individualist and competitive motivations are e) positively related to the sharing with familiar people and f) negatively related to the sharing with strangers.

5.2.2.2. Social Power Construals and Strategic Information Sharing

Social power has been defined as potential influence, the ability of one person to affect others’ beliefs, attitudes, or behaviors (Pierro, Raven, Amato, & Belanger, 2013; Raven, 2008). Most studies (Anderson & Galinsky, 2006; Galinsky, Gruenfeld, & Magee, 2003; Inesi, Botti, Dubois, Rucker, & Galinsky, 2011) simply compared a low power and a high power condition, although a considerable body of studies has shown different facets of social power. Essentially, different power concepts are served by different mindsets, such as stereotyping others versus learning the individuating needs of others (Torelli & Shavitt, 2010). Torelli and Shavitt (2011) also showed that there are two separate views on power, i.e., power viewed in personalized terms (i.e., for gaining status over and recognition by others) versus the power viewed in socialized terms (i.e., for benefitting and helping others). In a similar vein,
Sassenberg et al. (2012) argued that social power can be construed either as *opportunity* (i.e., to shape one’s situation in line with own goals and interests) or as *responsibility* (i.e., for the outcomes of others who depend on the self). Overall, despite the fact that previous research has shown different facets of social power, little systematic research (Keltner, Gruenfeld, & Anderson, 2003) focused on how power perceptions affect information sharing (for an exception, see Galinsky, Magee, Rus, Rothman, & Todd, 2014), let alone SIS.

Using a convenience sample, the experimental study by Bălău and Utz (2014) was the first one to indicate that social power construals also affect SIS. Specifically, construing PaR for others’ outcomes, compared with construing PaO to achieve one’s goals, motivated especially the sharing of private information (for more details, see Chapter 3 in this dissertation). A lab experiment showed that perceived ability plays a moderating role; the effects of power construals only occurred when perceived ability was high (for more details, see Chapter 4 in this dissertation). We aim to replicate these findings in the field, by either measuring (i.e., using a field survey) or measuring and, at the same time, manipulating social power construals (i.e., using a field experiment). We thus expect the following:

Hypothesis 2 (H2): a) Individuals higher in PaR are more likely to share private important information while b) individuals higher in PaO are less likely to share private important information.

We expect power construed as responsibility to positively relate to the sharing with own group, i.e., with familiar people, because people higher in PaR are cooperators and cooperation has also been shown to increase as social distance decreases (Buchan, Croson, & Dawes, 2002); social distance is defined as the degree of reciprocity that subjects believe exist within a social interaction (Hoffman, McCabe, & Smith, 1996). We also expect PaR to positively relate to the sharing with strangers because people higher in PaR are concerned for the outcomes of others (Sassenberg et al., 2012) and focus on pursuing pro-social goals (Bolle & Vogel, 2011; McClelland, 1985). However, power construed as opportunity is expected to positively relate to the sharing with familiar people.
and negatively relate to the sharing with strangers because people higher in PaO (Sassenberg et al., 2012) act in their self-interest. Moreover, it is particularly motivating for people higher in PaO to share with familiar people since it increases their expectations for reciprocity (Hoffman et al., 1996). In relation with strangers, competition is also salient for people higher in PaO (Vonk, 1998). We thus expect the following:

Hypothesis 2 (H2): Power construed as responsibility is positively related to c) the sharing with familiar people and d) the sharing with strangers while power construed as opportunity is e) positively related to the sharing with familiar people and f) negatively related to the sharing with strangers.

5.2.2.3. Perceived Ability and Strategic Information Sharing

Ability has been defined as the task-related skills, talents, and capability (Cuddy, Fiske, & Glick, 2008) that enables an individual to be/perceive him/herself as competent within some specific domain (Mayer, Davis, & Schoorman, 1995; Robert, Dennis, & Hung, 2009). Ability informs one’s feelings of competence in general (Ryan & Deci, 2000) and, by influencing others’ reasoning and acting (Mayer et al., 1995), it affects information sharing behavior as well.

In the lab experiment presented in Chapter 4, perceived ability was found to significantly interact with information sharedness (public vs. private) such that people tended to share more private information in the high perceived ability condition than in the low perceived ability condition; no significant differences were found with regard to public information between people perceiving either high or low ability. It has been previously argued that individuals who perceive their own ability as high show competence and mastery over a body of knowledge and a set of techniques (Blau, 1979) and contribute their knowledge to meet project objectives (Dahlander & O’Mahony, 2011). Additionally, it has been shown that they coordinate the work, often sharing sound job-related advice (French & Raven, 1959; Hinkin & Schriesheim, 1989), showing eagerness to let others know what they know (Van Den Hooff, Schouten, & Simonovski, 2012). Conversely, previous research has shown that
individuals who perceive their own ability as low do not want to misinform others (Bordia, Irmer, & Abusah, 2006) by sharing low quality information. In line with these considerations, we aim to replicate the findings reported in Chapter 4 by measuring – in the field survey – and also manipulating – in the field experiment, perceived ability. We thus expect the following:

Hypothesis 3 (H3): a) Individuals who perceive their own ability as high are more likely to share private important information.

We expect perceived ability to be positively related to the sharing with familiar people and negatively related to the sharing with strangers because, in interactions with strangers, people have less expectations of reciprocity regarding the benefits (e.g., recognition) familiar others are expected to reciprocate. Since people often question the usefulness of sharing knowledge with others, sharing what one knows with strangers is less likely to happen also because sharing costs both time and effort and getting knowledge in return is important (Van Den Hooff & Otto, 2012). At the same time, the sharing with colleagues from own department, for instance, ensures a successful collective outcome whereas the sharing with strangers does not. We thus expect the following:

Hypothesis 3 (H3): Perceived ability is b) positively related to the sharing with familiar people and c) negatively related to the sharing with strangers.

5.2.2.4. Social Power Construals, Perceived Ability and Strategic Information Sharing

In the lab experiment presented in Chapter 4, we investigated how social power construals and perceived ability play out in an interactive fashion when it comes to information sharing. Construing PaR for others’ outcomes motivated the sharing of private information compared with construing PaO to achieve own goals only when perceived ability was high. We aim to replicate these findings in the field. However, it may be more difficult to find these effects in the real world given its complexity. One reason is that power and ability are often confounded
in real life (e.g., people with high ability often get promoted and end up in high power positions). Another reason is because the overlap between power and ability may subsequently result in misattributions (e.g., either to ability or to power) when it comes to explain successful outcomes. Previous research has also indicated that people in a power position are often perceived as more favorable than others of equal ability (Humphrey, 1985) who are not necessarily in a (similar) power position. Moreover, for those who are high in the organizational hierarchy and who do high-skill-level tasks, ability helps them to bring unique contributions for the quality of decision-making. Nevertheless, we expect perceived ability to moderate the social power effects for two reasons. First, because social goals and concerns for others’ outcomes become even more salient for individuals higher in PaR when perceived ability is high. Second, because the tendency to act in own interest, protective towards own valuable expertise become even more salient for individuals higher in PaO when perceived ability is high. Specifically, we expect that individuals higher in PaR are even more likely to share private important information while individuals higher in PaO are even less likely to share private important information when individuals perceive their own ability as high. We thus expect the following:

Hypothesis 4a (H4a): When individuals perceive their own ability as high, the relationship between social power construals and the sharing of private important information becomes stronger.

In a similar vein, when individuals perceive their own ability as high, the positive relationship between power construed as responsibility/opportunity and the sharing with familiar people becomes stronger. In other words, it pays off to focus, for instance, on extracting unique knowledge from the socially connected members (Thomas-Hunt, Ogden, & Neale, 2003) in the sense that it may result, for instance, in better contributions brought to the collective success by individuals higher in PaR and in increased expertise and reputation for individuals higher in PaO (Wasko & Faraj, 2005). We expect no significant effects on the sharing with strangers. Specifically, individuals higher in PaR and who perceive their own ability as high are less likely to share with strangers.
given the time and effort required to signal/prove a certain level of expertise to people one does not know; individuals higher in PaO and who perceive their own ability as high are less likely to share with strangers because of their tendency to act toward own interest (Sassenberg et al., 2012), protective toward their valuable expertise while the act of sharing is less likely to be reciprocated. We thus expect the following:

Hypothesis 4b (H4b): When individuals perceive their own ability as high, the relationship between social power construals and the sharing with familiar people becomes stronger.

5.3. Research Context Characteristics
Universities are more and more dependent on external funding sources to ensure the ‘production’ of knowledge, its transfer and dissemination. In this context, the sharing of information creates a dilemma for researchers who are expected to come up with original and valuable research ideas and proposals and, at the same time, to cooperate with colleagues. However, while the scientific community as a whole may benefit from the free dissemination of knowledge, information-sharing is often challenged by a scientist’s personal interests.

Since researchers are expected to vary in terms of years of research experience and hence experience with writing GrantPs, I adopted a tailored study distribution approach. Using Qualtrics, the web-based survey software (http://www.qualtrics.com/), a web-based questionnaire was designed. When accessing the link, the background information questions had a screening role\(^2\) such that experienced researchers (i.e., having a postdoc position or higher) were randomly directed either to take part in the field survey or in the field

\(^{2}\) For instance, experienced researchers were randomly directed either to take part in the field experiment or in the field survey, depending on their answer to the question related to the number of GrantPs they have written. For more details, please see the illustration of the study distribution strategy in Appendix I.
experiment\(^3\), whereas the less experienced researchers (e.g., prospective students, PhD students and others) were directed to take part in the field experiment only. The field survey and the field experiment among academics aim to show how SVO, social power construals and perceived task-related ability (i.e., perceived ability to write GrantPs) impact SIS. While hypotheses on how social power construals and perceived ability, separately and in interactions, affect the ‘what’ of sharing (i.e., H2a-b, 3a, and 4a) are tested in the two field studies, the hypotheses on how SVO, social power construals and perceived ability, separately and in interactions, affect the sharing ‘with whom’ (i.e., H1a-f, 2c-f, 3b-c and 4b) are tested only in the field survey.

An important methodological reason for investigating how researchers seek and exchange information related to writing GrantPs and applications is the need to maximize the realism of and complement the findings of the lab experiment (i.e., Study 2) in Chapter 2 which also used a grant writing scenario. A student sample was also used in Study 2, Chapter 2 and one could point out the drawback of having a limited representation of the real world: conducting the current field studies among academics addresses this limitation. A practical reason for choosing this particular professional category is because we hoped for a higher response because the topic investigated is considered to be highly relevant for participants and they also better empathize with the research goals of other members of the scientific community.

5.4. Study 1 – Field Survey

5.4.1. Method

5.4.1.1. Survey Administration

Qualtrics allowed us to effectively collect online data across a wide range of universities and disciplines. The survey made it compulsory to answer all questions in an attempt to reduce missing data. In order to reach a wide range of potential participants, the survey was distributed among researchers either

\(^3\) The possibility of reaching more experienced researchers was higher than reaching less experienced researchers, given also that not many less experienced researchers have experience in grant writing and applications. To be able to balance out the sample sizes, we adopted this tailored study distribution approach.
via invitations (Appendix II) sent directly to their email addresses, by posting the message with the invitation on the Facebook pages of international associations organizing research-related conferences (e.g., International Communication Association) or on the personal LinkedIn account and Twitter. To control for possible differences between the two main approaches to data collection (i.e., personal invitation messages vs. Internet), we also accounted for the ‘recruitment approach’ included as a dichotomous variable in our analyses.

5.4.1.2. Procedure
Participants read that the purpose of the survey is to understand how researchers seek and exchange information related to writing GrantPs and applications. Participants were asked to answer some general background questions (e.g., age, gender, nationality, research field, location where research takes place, research experience, current position), questions directly related to the topic of grant writing (e.g., number of proposals written, ability to write proposals, grant money received and their sharing behavior related to grants as well as two open-ended questions requiring respondents to indicate reasons for (not) sharing GrantPs. Subsequently, some questions about working style and attitudes measured social value orientation, social power construals and need for cognitive closure. Finally, participants were thanked and invited to provide any comments/suggestions about their experience.

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4 Email addresses were collected from papers published in an ISI-listed journal in the Social Science categories Business, Communication, Political Science, or Social Psychology in the years 2010 – 2012.
5 Academics were asked to consider the past five years when answering the question related to the number of GrantPs written and the grant money they received.
6 As Principal Applicant, academics, over the past five years, have written GrantPs as follows: 1 – 3 (50.8%), 4 – 6 (31.5%), 7 – 9 (2.8%), 10 – 12 (2.2%), more than 12 (2.8%), no proposal (9.9%); as Co-Applicant: 1 – 3 (47.5%), 4 – 6 (22.7%), 7 – 9 (5.0%), 10 – 12 (2.8%), more than 12 (2.8%), no proposal (19.3%).
7 As Principal Applicant, academics reported that over the past five years, they received grant money as follows: up to 25.000€/$ (14.4%), 25.000 – 50.000€/$ (7.2%), 50.000 – 100.000€/$ (9.9%), 100.000 – 250.000€/$ (16.6%), 250.000 – 500.000€/$ (17.1%), 500.000 – 1 million€/$ (7.2%), 1 – 5 millions€/$ (5.5%), more than 5 millions€/$ (0.6%), no grant money (21.5%); as Co-Applicant: up to 25.000€/$ (11.0%), 25.000 – 50.000€/$ (5.5%), 50.000 – 100.000€/$ (9.9%), 100.000 – 250.000€/$ (11.0%), 250.000 – 500.000€/$ (9.4%), 500.000 – 1 million€/$ (11.6%), 1 – 5 millions€/$ (6.6%), more than 5 millions€/$ (0.6%), no grant money (34.3%).
8 The survey contained some other scales – e.g., the preferred media to share grant information (e.g., face-to-face, on the phone/via Skype, e-mail) or reasons to refuse sharing (e.g., fear of having ideas stolen) – that were left out since they were not relevant to the hypotheses of the current paper.
5.4.1.3. Participants

N = 181 (male = 100; female = 81); \(M_{\text{age}} = 44.83,\ SD = 10.56\) (range 28 – 78 years, calculated without five responses because three of them were deleted since data screening revealed them as unrealistic ages and two of them were missing). At the moment of completing the questionnaire, respondents were located, with their research, in no less than 34 countries; the first five in rank were USA (N = 43), United Kingdom (N = 25), The Netherlands (N = 19), Germany (N = 14), and Australia (N = 9). Moreover, respondents declared that they work in different research areas: 66.90% work in the field of Social Sciences, 21.00% work in the field of Economics and Business, 4.40% work in the field of Arts/Humanities, 1.70% work in the field of Mathematics and Natural Sciences, 2.80% work in the field of Technology, 1.10% work in the field of Medical Sciences, 0.60% in the field of Law and 1.70% work in other research fields. Respondents also occupied various research positions: 40.90% of respondents were Full Professors, 23.20% of respondents were Associate Professors, 21.50% of respondents were Assistant Professors and 14.40% of respondents were in Postdoctoral positions.

5.4.1.4. Central Measures

Social value orientation. Social value orientation was measured according to Van Lange et al. (1997) and, in our field survey, out of 181 participants, 124 (68.5%) were identified as prosocials, 31 (17.1%) as individualists, and 1 (0.6%) as competitors; in line with past studies (e.g., De Cremer & Van Vugt, 1999; De Dreu & Van Kleef, 2004) results yielded a very low number of competitive choices. 16 (8.8%) participants could not be classified into any of the three categories and 9 (5.0%) participants had missing values.

Power construed as responsibility. Two items adapted from Sassenberg et al. (2012) were used to measure it: 1) “I take other people’s needs and feelings into account”, and 2) “I think about the consequences of my own decisions on

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\(^9\) The other countries (N = 7 and below), mentioned at random, were: Italy, Denmark, Sweden, Greece, Norway, Estonia, United Arab Emirates, Turkey, Chile, Taiwan, Slovenia, Pakistan, India, Poland, Hong Kong, Russia, Korea, Japan, Canada, Israel, Slovakia, Spain, Finland, Portugal, France, Switzerland, Belgium, Romania, Croatia.
others”. Answers were given on a 7-point Likert-type scale (1 = very unlikely, 7 = very likely) and an index was created (α = .77).

*Power construed as opportunity.* It was measured with two items adapted from Sassenberg et al. (2012): 1) “I make sure I don’t miss any opportunity that leads me to success”, and 2) “I do whatever it takes to succeed”. Answers were given on a 7-point Likert-type scale (1 = very unlikely, 7 = very likely) and an index was created (α = .68).

*Ability to write grant proposals.* 1 item measured the ability to write GrantPs: “How would you rate your ability when it comes to writing grant proposals”; answers were given on a 7-point Likert-type scale (1 = very bad, 7 = very good), Mwriting_ability = 5.48, SD = .93.

*The ‘what’ of sharing.* Six items were used to measure it: 1) “I share links to specific websites people might not know about”, 2) “I share the link to the FAQ of the grant homepage”, 3) “I share links to websites most people know about”, 4) “I share pieces of advice other people might not know about”, 5) “I try to share the most important pieces of advice I have”, and 6) “I share only pieces of advice that are less relevant”. Respondents indicated on a 7-point Likert-type scale, the likelihood of sharing the grant information (1 = very unlikely, 7 = very likely). To assess which type of grant information people share with people they know personally, an exploratory factor analysis with 6 items covering the ‘what’ of sharing, with varimax rotation, was conducted. Bartlett’s test of sphericity χ² (15) = 279,104, p < .001 indicated that the correlations between items were sufficiently large. Two factors were identified, the first one explaining 35% of the variance while the second one, 31% of the variance. We averaged the first three items (i.e., 1, 2, 3, α = .78) for the variable *sharing public grant information*. We averaged only items 4 and 5 (item 6, reversed coded, measuring unimportant information, was dropped to increase the reliability of α = .62 to α = .71) for the variable *sharing private important grant information*.

*Sharing with whom – familiar people.* To assess the sharing of GrantPs with familiar people, four items were used and respondents were asked to answers the items having in mind people they know (i.e., “Asked by people I know personally, ...”). The four items were: 1) “share tips or advice for writing grant proposals”, 2) “share examples of grant proposals I have written myself”,
3) “share examples of written grant proposals I have from other researchers”, and 4) “give feedback on their grant proposal”. Answers were given on a 7-point Likert-type scale (1 = very unlikely, 7 = very likely). Before running the reliability analysis\textsuperscript{10} (\(\alpha = .73\)), an exploratory factor analysis with the 4 items, with varimax rotation, was conducted. Bartlett’s test of sphericity \(\chi^2 (6) = 264,375\), \(p < .001\) indicated that the correlations between items were sufficiently large. One factor was identified, explaining 64% of the variance.

*Sharing with whom - strangers.* To assess the sharing of GrantPs with strangers, four items were used and respondents were asked to answer the items having in mind strangers (i.e., “When people to whom I have been recommended contact me, I ...”). The four items and the answer scale were similar with the ones used for the sharing with familiar people. Before running the reliability analysis\textsuperscript{11} (\(\alpha = .76\), item 3 was dropped to increase reliability from \(\alpha = .68\) to .76), an exploratory factor analysis with the 4 items, with varimax rotation, was conducted. Bartlett’s test of sphericity \(\chi^2 (6) = 129,060\), \(p < .001\) indicated that the correlations between items were sufficiently large. One factor was identified, explaining 55% of the variance.

### 5.4.1.5. Additional Measures

A question asked respondents to indicate their familiarity with the SVO measure (“How familiar are you with the task you have just completed?”); answers were given on a 7-point Likert-type scale (1 = entirely unfamiliar, 7 = entirely familiar) and showed that, overall, participants were not so familiar with it (M = 4.30, SD = 2.33). Need for cognitive closure (NFCC) was measured with three items taken from the 15-item version of the NFCC scale by (Roets & Van Hiel, 2011): 1) “I find that a well ordered life with regular hours suits my temperament”, 2) “I dislike unpredictable situations”, and 3) “I find that establishing a consistent routine enables me to enjoy life more”. Answers were given on a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree) and an index was created (\(\alpha = .81\)).

\textsuperscript{10} The additional answer “I was not asked to share” was removed from the analysis.

\textsuperscript{11} The additional answer “I have never been contacted by unknown people” was removed from the analysis.
5.4.2. Results

5.4.2.1. Descriptive Statistics and Intercorrelations
Table 1 displays the means and standard deviations as well as the intercorrelations between measures. No significant correlations were found between SVO and the main dependent variables; however, interestingly, prosocial motivations correlated positively with PaR and negatively with PaO while individualist and competitive motivations correlated negatively with PaR and positively with PaO. With regard to PaR, it correlated positively with the sharing of private important grant information, sharing GrantPs with familiar people and with sharing GrantPs with strangers and negatively with the sharing of unimportant grant information; PaR also correlated positively with perceived ability to write GrantPs. No significant correlations were found between PaO and the main dependent variables. Perceived ability to write GrantPs positively correlated with the sharing GrantPs with familiar people and negatively correlated with the sharing of unimportant grant information.

5.4.2.2. Analytical Strategy
SVO did not correlate with any of the measures on sharing (Table 1) and we already conclude\(^\text{12}\) that no significant SVO effects were found (H1a-f not supported). For the other two predictors – i.e., social power construals and perceived ability to write GrantPs – we conducted several step-wise hierarchical regressions to test their impact on the ‘what’ of sharing – i.e., the sharing of private important grant information – and on the sharing ‘with whom’ – i.e., the sharing of GrantPs with familiar people and the sharing of GrantPs with strangers, respectively.

\(^{12}\) Prosocial motivations and individualist motivations were found to be highly correlated (Table 1) and these findings create multicollinearity issues once the motivations are entered in a regression analysis.
### Table 1.
Means, standard deviations and intercorrelations of the measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prosocial Motivations</td>
<td>6.71</td>
<td>3.35</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Individualist Motivations</td>
<td>2.17</td>
<td>3.23</td>
<td>-0.99**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Competitor Motivations</td>
<td>0.12</td>
<td>0.59</td>
<td>-0.28**</td>
<td>0.11</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Power as Responsibility</td>
<td>6.35</td>
<td>0.72</td>
<td>0.23**</td>
<td>-0.21*</td>
<td>-0.12</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Power as Opportunity</td>
<td>3.77</td>
<td>1.43</td>
<td>-0.22**</td>
<td>0.19*</td>
<td>0.19*</td>
<td>0.01</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ability to Write Grant Proposals</td>
<td>5.48</td>
<td>0.93</td>
<td>-0.07</td>
<td>0.06</td>
<td>0.08</td>
<td>0.16*</td>
<td>-0.02</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Sharing Private Important Grant Information</td>
<td>6.26</td>
<td>0.88</td>
<td>0.02</td>
<td>-0.01</td>
<td>-0.04</td>
<td>0.25**</td>
<td>0.02</td>
<td>0.12</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Sharing Public Grant Information</td>
<td>4.36</td>
<td>1.62</td>
<td>-0.08</td>
<td>0.07</td>
<td>0.04</td>
<td>0.14</td>
<td>0.12</td>
<td>-0.06</td>
<td>0.01</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Sharing Unimportant Grant Information</td>
<td>1.86</td>
<td>1.32</td>
<td>-0.05</td>
<td>0.06</td>
<td>-0.02</td>
<td>-0.18*</td>
<td>0.07</td>
<td>-0.19*</td>
<td>-0.32**</td>
<td>0.09</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Sharing Grant Proposals with Familiar People</td>
<td>5.64</td>
<td>1.30</td>
<td>-0.06</td>
<td>0.05</td>
<td>0.05</td>
<td>0.28**</td>
<td>0.04</td>
<td>0.28**</td>
<td>0.34**</td>
<td>0.14</td>
<td>-0.06</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>11. Sharing Grant Proposals with Strangers</td>
<td>5.70</td>
<td>1.25</td>
<td>0.03</td>
<td>-0.04</td>
<td>0.07</td>
<td>0.24**</td>
<td>-0.08</td>
<td>0.00</td>
<td>0.14</td>
<td>0.07</td>
<td>-0.10</td>
<td>0.25**</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: For variables 1 to 3, N = 172, for variables 4 to 9, N = 181; for variables 10 and 11, N = 176 and N = 139, respectively.

**p < .01, *p < .05.

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13 Looking at the item level, academics reported to be more likely to share tips or advice for writing GrantPs (M = 6.26, SD = 1.27), GrantPs they have written themselves (M = 6.21, SD = 1.52) and to give feedback on other researchers’ GrantPs (M = 6.02, SD = 1.61) and less likely to share examples of written GrantPs they have from other researchers (M = 3.81, SD = 2.42).

14 Looking at the item level and similar with sharing GrantPs with familiar people, academics reported to be more likely to share tips or advice for writing GrantPs (M = 6.09, SD = 1.21), GrantPs they have written themselves (M = 5.47, SD = 1.72) and to give feedback on other researchers’ GrantPs (M = 5.62, SD = 1.38) and less likely to share examples of written GrantPs they have from other researchers (M = 3.40, SD = 2.26).
Thus, in Step 1, recruitment approach, gender, age, current research position, number of proposals written as Principal Applicant, number of proposals written as Co-Applicant, grant money received as Principal Applicant, grant money received as Co-Applicant, NFCC and prosocial motivations were entered as control variables. In Step 2, social power construals and perceived ability to write GrantPs were added. In the final step, the interaction terms – i.e., between PaR and perceived ability to write GrantPs, and between PaO and perceived ability to write GrantPs, respectively – were added; PaR, PaO and perceived ability to write GrantPs were mean-centered before computing the interactions (Aiken & West, 1991). All results are shown in Table 2 below.

5.4.2.3. Hypotheses Testing

Firstly, we tested the effects of social power construals and perceived ability to write GrantPs on the ‘what’ of sharing, i.e., on the sharing of private important information. With regard to the relationship between social power construals and the ‘what’ of sharing, we hypothesized that (H2a) individuals higher in PaR are more likely to share private important information while (H2b) individuals higher in PaO are less likely to share private important information. With regard to the relationship between perceived ability to write GrantPs and the ‘what’ of sharing, we hypothesized that (H3a) individuals more likely to perceive own ability as high are more likely to share private important information. We also hypothesized that (H4a) only when individuals are more likely to perceive own ability as high, the relationship between social power construals and the sharing of private important information becomes stronger.

In Step 1, control variables explained 4% of the variance, $F(10, 156) = .71, p = .72$. As can be seen in Table 2, a tendency was found for males ($B = -.25, p = .09$) reporting to be less likely to share private important grant information.

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15 Only prosocial motivations were entered as control variable because of the high correlation between these motivations and the individualist motivations but also because SVO measures were found to be correlated with power construals.
Table 2.
Hierarchical Regression Analyses Predicting the ‘What’ of Sharing and the Sharing ‘With Whom’

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>The Sharing of Private Important Grant Information</th>
<th>The Sharing of Grant Proposals with Familiar People</th>
<th>The Sharing of Grant Proposals with Strangers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \Delta R^2 ) respective step ( B (SE) ) final model</td>
<td>( \Delta R^2 ) respective step ( B (SE) ) final model</td>
<td>( \Delta R^2 ) respective step ( B (SE) ) final model</td>
</tr>
<tr>
<td>Step 1</td>
<td>-.02 ( \text{.08}^* )</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Recruitment approach</td>
<td>.12(.19) (-.02(.19))</td>
<td>.17(.28) (-.09(.27))</td>
<td>.29(.31) (.23(.32))</td>
</tr>
<tr>
<td>Gender</td>
<td>-.25(.15) (\dagger)</td>
<td>-.13(.16) (-.50(.22)^*)</td>
<td>-.30(.22)</td>
</tr>
<tr>
<td>Age</td>
<td>.01(.01) (.01(.01))</td>
<td>.01(.01) (.01(.01))</td>
<td>.01(.01) (.02(.01))</td>
</tr>
<tr>
<td>Current Research Position</td>
<td>.03(.09) (-.03(.09))</td>
<td>.14(.13) (.04(.13))</td>
<td>.10(.14) (.04(.15))</td>
</tr>
<tr>
<td>Number of proposals written as Principal Applicant</td>
<td>.06(.08) (.04(.08))</td>
<td>.14(.11) (.08(.11))</td>
<td>-.32(.12)**</td>
</tr>
<tr>
<td>Number of proposals written as Co-Applicant</td>
<td>.01(.07) (-.00(.07))</td>
<td>.15(.10) (.14(.10))</td>
<td>-.03(.11)</td>
</tr>
<tr>
<td>Grant money received as Principal Applicant</td>
<td>-.01(.03) (-.02(.03))</td>
<td>-.05(.04) (-.06(.04))</td>
<td>-.06(.04)</td>
</tr>
<tr>
<td>Grant money received as Co-Applicant</td>
<td>.02(.03) (.02(.03))</td>
<td>-.03(.04) (-.04(.04))</td>
<td>-.04(.04) (-.05(.04))</td>
</tr>
<tr>
<td>Need for Cognitive Closure</td>
<td>.03(.05) (.03(.05))</td>
<td>.18(.07)**</td>
<td>.19(.07)**</td>
</tr>
<tr>
<td>Prosocial motivations</td>
<td>.00(.02) (-.01(.02))</td>
<td>-.01(.03) (-.02(.03))</td>
<td>.01(.03)</td>
</tr>
<tr>
<td>Step 2</td>
<td>.01(\dagger)</td>
<td>.14**</td>
<td>.07</td>
</tr>
<tr>
<td>Power as Responsibility</td>
<td>.30(.12)* (.28(.12)*)</td>
<td>.38(.17)* (.33(.17)^\dagger)</td>
<td>.43(.21)* (.43(.21)^*)</td>
</tr>
<tr>
<td>Power as Opportunity</td>
<td>.03(.05)</td>
<td>.03(.05)</td>
<td>.01(.07)</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Ability to write grant proposals</td>
<td>.07(.08)</td>
<td>.08(.08)</td>
<td>.28(.11)*</td>
</tr>
</tbody>
</table>

**Step 3**

<table>
<thead>
<tr>
<th>Power as Responsibility*Ability to write grant proposals</th>
<th>.01</th>
<th>.15†</th>
<th>.07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power as Opportunity*Ability to write grant proposals</td>
<td>-.15(.12)</td>
<td>-.37(.17)*</td>
<td>.26(.18)</td>
</tr>
</tbody>
</table>

| Ability to write grant proposals | .01(.05) | .04(.08) | -.05(.08) |

*Note: Gender (1 = female, 2 = male), † p < .10, p < .05*, p < .01**, p < .001***.

When adding, in Step 2, social power construals and perceived ability to write GrantPs, the amount of explained variance reaches to 9%; compared with Step 1, this is a marginally significant increase, $F(3, 153) = 2.59$, $p = .06$. We found that individuals higher in PaR ($B = .30$, $p < .05$) reported to be significantly more likely to share private important grant information (H2a supported). We found non-significant effects of PaO ($B = .03$, $p = .56$) (H2b not supported) and of perceived ability to write GrantPs ($B = .07$, $p = .39$) (H3a not supported). Interestingly, in Step 2, the effect of gender was no longer significant ($B = -.14$, $p = .36$). Adding the interaction terms in Step 3 did not significantly increase the amount of explained variance which reached to 10$, F(2, 151) = .77$, $p = .46$. The effect of PaR was still significant ($B = .28$, $p < .05$) while the effect of PaO ($B = .03$, $p = .57$), of perceived ability to write GrantPs ($B = .08$, $p = .32$) and of gender remained unchanged ($B = -.13$, $p = .40$). The interaction effects between PaR and perceived ability to write GrantPs ($B = -.15$, $p = .23$) and PaO and perceived ability to write GrantPs ($B = .01$, $p = .89$) were non-significant (H4a not supported).
Secondly, we tested the effects of social power construals and perceived ability to write GrantPs on the sharing ‘with whom’, i.e., on the sharing with familiar people and on the sharing with strangers, respectively. When it comes to the sharing with familiar people, we hypothesized that (H2c) power construed as responsibility is positively related to the sharing with familiar people and that (H2e) power construed as opportunity is also positively related to the sharing with familiar people. We also hypothesized that (H3b) perceived ability is positively related to the sharing with familiar people and that (H4b) only when individuals are more likely to perceive own ability as high, the relationship between social power construals and the sharing with familiar people becomes stronger. In Step 1, control variables explained 14% of the variance, \( F(10, 151) = 2.37, p < .05 \). As can be seen in Table 2, males (\( B = -.50, p < .05 \)) reported to be significantly less likely to share GrantPs with familiar people. At the same time, individuals with high NFCC (\( B = .18, p < .05 \)) reported to be significantly more likely to share GrantPs with familiar people. When adding, in Step 2, social power construals and perceived ability to write GrantPs, the amount of explained variance reaches to 21%; compared with Step 1, this is a significant increase, \( F(3, 148) = 4.32, p < .01 \). We found that power construed as responsibility was positively related to the sharing with familiar people (.38, \( p < .05 \)), i.e., individuals higher in PaR reported to be more likely to share GrantPs with familiar people (H2c supported); power construed as opportunity was not related to the sharing with familiar people (.01, \( p = .93 \)) (H2e not supported). Step 2 also showed that perceived ability to write GrantPs was positively related to the sharing with familiar people (.28, \( p < .05 \)), i.e., individuals more likely to perceive own ability as high reported to be significantly more likely to share GrantPs with familiar people (H3b supported). While the effect of gender was no longer significant (\( B = -.33, p = .14 \)), the effect of NFCC was even more significant (\( B = .19, p < .01 \)). Adding the interaction terms in Step 3 determined a marginally significant increase in the amount of explained variance which reached to 23%, \( F(2, 146) = 2.67, p = .07 \). While the effect of PaR became marginally significant (\( B = .33, p = .06 \)), the effect of perceived ability to write GrantPs (\( B = .32, p < .01 \)) became more significant. The interaction between PaR and perceived ability to write GrantPs (\( B = -.37, p \)
< .05) was also significant. To break down the two-way significant interaction, Figure 1 shows the plot of this effect. Interestingly, the effect of gender (B = -.30, \( p = .17 \)) and the effect of NFCC (B = .19, \( p < .01 \)) remained unchanged.

![Figure 1. Moderating effect of the ability to write grant proposals on the power as responsibility – the sharing with familiar people relationship](image)

Regarding the interaction between PaR and perceived ability to write GrantPs, we found that when perceived ability to write GrantPs was high, individuals higher in PaR reported to be as likely to share GrantPs with familiar people as individuals lower in PaR (H4b not supported); when perceived ability to write GrantPs was low, individuals higher in PaR reported to be significantly more likely to share GrantPs with familiar people than individuals lower in PaR. When it comes to the sharing with strangers, we hypothesized that (H2d) power construed as responsibility is positively related to the sharing with strangers while (H2f) power construed as opportunity is negatively related to the sharing with strangers. We also hypothesized that (H3c) perceived ability is negatively related to the sharing with strangers. In Step 1, control variables explained 12% of the variance, \( F(10, 117) = 1.59, p = .12 \). Individuals having
more GrantPs written as Principal Applicant \( (B = -.32, p < .01) \) reported to be significantly less likely to share GrantPs with strangers. When adding, in Step 2, social power construals and perceived ability to write GrantPs, the amount of explained variance reaches to 16%; compared with Step 1, this is a non-significant increase, \( F(3, 114) = 2.02, p = .12 \). As can be seen in Table 2, we found that power construed as responsibility was positively related to the sharing with strangers \( (.43, p < .05) \), i.e., individuals construing PaR reported to be more likely to share GrantPs with strangers \( (H2d \text{ supported}) \); power construed as opportunity was not related to the sharing with strangers \( (-.10, p = .22) \) \( (H2f \text{ not supported}) \). As can be seen in Table 2, Step 2 also showed that perceived ability to write GrantPs was not related to the sharing with strangers \( (-.04, p = .78) \) \( (H3c \text{ supported}) \). Interestingly, the effect of the number of proposals written as Principal Applicant \( (B = -.32, p < .01) \) remained unchanged. Adding the interaction terms in Step 3 did not significantly increase the amount of explained variance which reached to 18%, \( F(2, 112) = 1.23, p = .30 \). The effect of PaR \( (B = .43, p < .05) \), the effect of PaO \( (B = -.09, p = .27) \) and the effect of perceived ability to write GrantPs \( (B = -.04, p = .75) \) remained unchanged while the interactions between PaR and perceived ability to write GrantPs \( (B = .26, p = .17) \) and PaO and perceived ability to write GrantPs \( (B = -.05, p = .55) \) were non-significant.

5.4.3. Discussion Field Survey

Overall, the results of the field survey indicated that academics share especially their private important grant information, and that they do not differentiate between familiar people and strangers. However, through the lens of SIS, we brought explanatory nuances for the ‘what’ of sharing and also for the sharing ‘with whom’. Specifically, although social motives and social power construals have been shown to influence SIS in various lab experiments, in the field survey only construing PaR turned out as significant predictor. Individuals higher in PaR were more likely to share private important information and more likely to share with familiar people as well as with strangers. Perceived ability to write GrantPs was positively related to the sharing with familiar people, regardless of whether individuals were either lower or higher in PaR; construing PaR was
positively related to the sharing with familiar people especially for individuals who perceive own ability to write GrantPs as low. The overall means for the sharing were relatively high and this outcome may be due to social desirability, i.e., academics providing socially desirable answers instead of the real ones. However, alternative explanations may also point toward the expectation for reciprocity or to the general norm of sharing and collaboration characterizing the scientific community at large.

Interestingly, we found a different sharing pattern compared with the findings in Chapter 4 of this dissertation. Specifically, in Chapter 4, the findings showed that construing PaR motivated the sharing of private information compared with construing PaO, only under conditions of high perceived ability. The current study found an interaction between construing PaR and perceived ability to write GrantPs on the sharing with familiar people. Essentially, construing PaR was positively related to the sharing with familiar people especially for individuals who perceived own ability to write GrantPs as low. Thus, no interaction effect between construing PaR and perceived ability to write GrantPs on the sharing of private important grant information was found anymore. Nevertheless, unlike in the study presented in Chapter 4, academics did not have to relate the particular sharing behavior to a particular task for which information would have been crucial, i.e., one cannot say whether the sharing of GrantPs with familiar people would hinder or contribute to a particular outcome. We found the sharing pattern in the current study potentially because the sharing with familiar people makes responsibility salient while decreasing the chance of receiving criticism. Past or future collaborations to do research or to apply for research grants as well as collaboration and reciprocity might be other underlying mechanisms explaining this pattern. At the same time, academics may have associated the reference group ‘familiar people’ with different people than participants in the experiment reported in Chapter 4 who adopted their sharing behavior through association with ‘colleagues at work’.

SVO and power construed as opportunity predicted neither the ‘what’ of sharing nor the sharing ‘with whom’. Interestingly, however, SVO measures correlated with social power construals, indicating that these are related
constructs. Since no SVO effects were found, we argue that the way power is construed (i.e., as responsibility) plays, in a real world, a more important role than SVO when it comes to SIS. NFCC (Webster & Kruglanski, 1994) was also found to have an effect on the sharing with familiar people. Academics with a high NFCC reported to be more likely to share with familiar people possibly because familiar people are thought to be more predictable than strangers and this also satisfies people’s need for structure (Webster & Kruglanski, 1994). Strangers, on the contrary, might, for instance, initiate lengthy conversations to ask additionally for information (De Dreu et al., 2008) and this requires the investment of time and effort which delays the satisfaction of individuals’ need for structure. Furthermore, when it comes to the sharing of GrantPs with strangers, results indicated that individuals having more GrantPs written as Principal Applicant reported to be less likely to share GrantPs with strangers. The number of GrantPs written as Principal Applicant may be considered an indicator of expertise and the findings suggests that academics strategically consider not to share with strangers: the sharing of GrantPs with strangers makes salient the potential risks of having ideas stolen or being exploited and there is less expectation of reciprocity. While we may assume that expertise may flow among familiar people at relatively low costs (e.g., less criticism, evaluations), it can also be the case that the current study failed to take into account more nuanced categories of the sharing ‘with whom’. For instance, the category of familiar people may suggest people which are close friends with or people (even friends) with whom you may be in competition for a particular grant. Overall, to better understand the current outcomes, a follow-up study should manipulate the main factors and simultaneously account for the corresponding measures of the manipulated constructs. This was the main purpose of Study 2.

5.5. Study 2 – Field Experiment

5.5.1. Method

5.3.1.1. Experimental Design and Field Experiment Administration

The field experiment was designed using Qualtrics, the web-based survey software (http://www.qualtrics.com/) and it had a 2(social power construals: as
responsibility vs. as opportunity) x 2 (perceived ability: high vs. low) design; it made it compulsory to answer all questions in an attempt to reduce missing data. A data collection approach, similar with the one for the field survey, was taken; although the approach was similar, a different set of participants than in the field survey was randomly chosen to take part in the field experiment (Appendix I).

5.5.1.2. Procedure
Similar with the field survey, firstly, participants read what the purpose of the field experiment was and answered several questions\textsuperscript{16} (e.g., age, gender, ability to write proposals, number of proposals written\textsuperscript{17}) and social power constraints, need for cognitive closure and social value orientation were also measured. In addition, we also asked participants to rate several reasons (e.g., time constraints, fear of having the ideas stolen) why they would refuse to share GrantPs. Subsequently, participants were randomly assigned to one of the four experimental conditions (social power constraints and ability were manipulated as described in Appendix III); we again accounted for the ‘recruitment approach’ creating a dichotomous variable in our data set. Compared with the field survey, participants answered only questions about the sharing of public, private, important and unimportant grant information but also questions about the sharing of GrantPs. Finally, participants were thanked and invited to provide any comments/suggestions about their experience.

5.5.1.3. Participants
N = 148 (male = 69; female = 79); M\textsubscript{age} = 43.74, SD = 12.05 (range 23 – 77 years). At the moment of completing the questionnaire, respondents were

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\textsuperscript{16} The experiment contained some other scales – e.g., reasons to refuse sharing (e.g., fear of having ideas stolen) – that were left out since they were not relevant to the hypotheses of the current paper.
\textsuperscript{17} As Principal Applicant, academics, over the past five years, have written GrantPs as follows: 1 – 3 (50.5%), 4 – 6 (19.6%), 7 – 9 (3.1%), 10 – 12 (2.1%), more than 12 (6.2%), no proposal (18.6%); as Co-Applicant: 1 – 3 (50.5%), 4 – 6 (21.6%), 7 – 9 (1.0%), 10 – 12 (6.2%), more than 12 (2.1%), no proposal (18.6%).
located with their research in no less than 34 countries\textsuperscript{18}; the first five in rank were USA (N = 32), The Netherlands (N = 14), Germany (N = 14), United Kingdom (N = 13), and Canada (N = 12). Moreover, respondents declared that they work in different research areas: 69.60\% work in the field of Social Sciences, 16.20\% work in the field of Economics and Business, 5.40\% work in other research fields (e.g., engineering, linguistics, business and economic ethics and philosophy), 4.10\% work in the field of Arts/Humanities, 2.00\% work in the field of Medical Sciences, 2.00\% in the field of Technology, 0.70\% work in the field of Law. Respondents occupied various research positions: 23.60\% of respondents were Associate Professors, 23.00\% of respondents were Full Professors, 18.20\% of respondents were in other positions (e.g., independent researchers, Professor Emeritus, Associate Director of Research), 13.50\% of respondents were PhD Students, 10.10\% of respondents were Assistant Professors, 8.80\% of respondents were in Postdoctoral positions and 2.70\% of respondents were prospective students. Overall, respondents declared also their ability to write GrantPs ($M_{\text{writing\_ability}} = 5.27, \text{SD} = 1.24$).

5.5.1.4. Independent Variables

Social power construals (Sassenberg et al., 2012) were manipulated by means of a scenario meant to directly activate the two concepts. After being told to imagine that “the Research Department where you work announces that in two year time the Department needs to appoint two Full Professors.”, participants in the power construed as responsibility condition were told that “the responsibilities that come along with the Full Professor position are to help the department members to become disciplinary, educational and institutional leaders too. These positions are about taking the other people’s needs and feelings into account, thinking about the consequences of one’s own decisions on others.”. Participants in power construed as opportunity condition were told that “the opportunities that come along with the Full Professor position are to

\textsuperscript{18} The other countries (N = 7 and below), mentioned at random, were: Czech Republic, New Zealand, Belgium, Switzerland, France, Portugal, Ireland, Italy, Spain, Luxembourg, Israel, Denmark, Sweden, Japan, Bolivia, Russia, Singapore, Costa Rica, Indonesia, Brazil, Slovenia, Australia, Greece, Norway, Kenya, Chile, Hungary, Austria, United Arab Emirates.
develop one’s own research program, to strengthen one’s leading role in the field of expertise, to become disciplinary, educational and institutional leader. These positions open up possibilities for one’s own achievement and success” (for details, see Appendix III).

Perceived ability was manipulated by telling participants in the high ability condition that “you have already drafted your concrete ideas for the proposal and you are very confident about it, you are sure that you will be able to come up with a ground-breaking idea in this area”. Participants in the low ability condition were told that “you have drafted only vague ideas for the proposal so far and you are not confident at all about it, you worry that you won’t be able to come up with a ground-breaking idea in this area” (for details, see Appendix III).

5.5.1.5. Dependent Measures
The ‘what’ of sharing. The same six items used in the field survey were asked, using the following stem: “During the information seminar, one of your colleagues asks you to share some pieces of advice/tips about applying for grants in general as well as for this specific grant. What do you do? ...”. Respondents indicated on a 7-point Likert-type scale, the likelihood of sharing the grant information (1 = very unlikely, 7 = very likely). To assess which type of grant information people share with people they know personally, an exploratory factor analysis, with varimax rotation, was conducted. Bartlett’s test of sphericity $\chi^2 (15) = 265,242, p < .001$ indicated that the correlations between items were sufficiently large. Two factors were identified, the first one explaining 42% of the variance while the second one, 27% of the variance. We averaged 4 items (i.e., 1, 4, 5, 6 – item 6 was reversed coded, $\alpha = .75$) to create the variable sharing private important grant information. We averaged the remaining items (i.e., 2 and 3) and created an index ($\alpha = .61$) for the variable sharing public grant information.

Sharing of grant proposals. Preceded by the question “During the information seminar, one of your colleagues asks you to share the draft of your grant proposal. What do you do?”, respondents provided answers to the following items: 1) “I share the complete draft proposal”, 2) “I share the most
important parts of the draft proposal”, 3) “I share only the least important parts of my draft proposal”. Answers were given on a 7-point Likert-type scale (1 = very unlikely, 7 = very likely) and an index was created (item 3 – reversed coded – was dropped to increase reliability from α = .57 to α = .71). Additionally, to distinguish between more explicit and rather implicit knowledge sharing – type of knowledge shared, we averaged two items for the index on the sharing of GrantPs (i.e., 1) “I share the complete draft proposal”, 2) “I share the most important parts of the draft proposal”, α = .71) – as more explicit type of knowledge – and other two items for the index on the sharing of pieces of advice (i.e., 1) “I share pieces of advice other people might not know about”, 2) “I try to share the most important pieces of advice I have”, α = .79) – as rather implicit type of knowledge.

Since the operationalization of the treatment is the same as the conceptual independent variable, no manipulation check items were used (Sigall & Mills, 1998; Stark & Minnesota, 2007); instead, two instructional manipulation check items were used. For the social power construals manipulation, participants had to choose between two answers: “The Full Professor position is all about 1) the responsibilities one has for the careers of the other colleagues in the department and 2) the opportunities one has for his/her own achievement and career success”. For the perceived ability manipulation, participants had to choose between two answers: “My draft proposal has 1) concrete ideas I am very confident about and 2) vague ideas I am not confident at all about”.

5.5.1.6. Additional Measures

Social value orientation. It was measured as in the field survey, i.e., according to Van Lange et al. (1997). In our field experiment, out of 148 participants, 103 (69.60%) were identified as prosocials, 33 (22.30%) as individualists, and 1 (0.7%) as competitors; again, a low number of competitive choices was found. 11 (7.4%) participants could not be classified into any of the three categories. As in the field survey, participants were not so familiar with the SVO measure (M = 3.91, SD = 2.29).
Power construed as responsibility. Two similar items as in the field survey and adapted from Sassenberg et al. (2012) measured power as responsibility ($\alpha = .90$).

Power construed as opportunity. Two similar items as in the field survey and adapted from Sassenberg et al. (2012) measured power as opportunity ($\alpha = .76$).

Ability to write grant proposals. The same item as in the field survey measured the ability to write GrantPs, $M_{writing\_ability} = 5.27$, SD = 1.24.

Need for cognitive closure. Three similar items as in the field survey and taken from the 15-item version NFCC scale (Roets & Van Hiel, 2011) measured NFCC ($\alpha = .80$).

5.5.2. Results

5.5.2.1. Instructional Manipulation Checks

A chi-square test yielded a significant effect of social power construals condition on the corresponding instructional manipulation check item, $\chi^2 (1, N = 148) = 27.48$, $p = .000$, Cramér’s $V = .43$. 48 participants (71.60%) chose the item corresponding to the power construed as opportunity condition in the power construed as opportunity condition while 58 participants (71.60%) chose the item corresponding to the power construed as responsibility condition in the power construed as responsibility condition.

Similarly, a chi-square test yielded a significant effect of perceived ability condition on the corresponding instructional manipulation check item, $\chi^2 (1, N = 148) = 98.57$, $p = .000$, Cramér’s $V = .82$. 66 participants (95.70%) chose the item corresponding to the low ability condition in the low ability condition while 68 participants (86.10%) chose the item corresponding to the high ability condition in the high ability condition.

5.5.2.2. Descriptive Statistics and Intercorrelations

Table 3 displays the means and standard deviations as well as the intercorrelations between the independent variables and the dependent measures. Although the correlations with the dependent measures reached significance neither for social power construals nor for perceived ability, they
were in the expected direction. Importantly, however, prosocial motivations (unlike in the survey) and power construed as responsibility positively correlated with the sharing of private important grant information; competitive motivations negatively correlated with the sharing of private important grant information as well as with the sharing of GrantPs; overall, these results bring consistent support for the findings of the field survey.

5.5.2.3. Hypotheses Testing
To test hypotheses 2a-b, 3a and 4a, we conducted a univariate analysis of variance with manipulated social power construals and manipulated perceived ability as independent variables and the sharing of private important information as the dependent variable. Results yielded significant results neither for social power construals, $F(1, 144) = 1.95, p = .17, \eta_p^2 = .01$ ($M = 5.73, SD = 0.89$ in the PaO condition vs. $M = 5.94, SD = 0.92$ in the PaR condition) nor for perceived ability, $F(1, 144) = .03, p = .87, \eta_p^2 = .00$ ($M = 5.85, SD = 0.90$ for individuals perceiving own ability as low vs. $M = 5.82, SD = 0.92$ for individuals perceiving own ability as high); the interaction between the two was also non-significant, $F(1, 144) = .57, p = .45, \eta_p^2 = .00$.

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19 Information sharedness and importance could have been used in a mixed analysis of variance as within-subject factors, as in the previous chapters. However, results yielded conceptually unbalanced factors, i.e., private important vs. public information. For hypotheses testing purposes, we therefore conducted a univariate analysis of variance with one factor only, i.e., private important information.
### Table 3.
Means, standard deviations and intercorrelations of the independent variables and dependent measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prosocial Motivations</td>
<td>6.30</td>
<td>3.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Individualist Motivations</td>
<td>2.47</td>
<td>3.42</td>
<td>-.97**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>3. Competitor Motivations</td>
<td>0.24</td>
<td>0.96</td>
<td>-.34**</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>4. Power as Responsibility</td>
<td>6.25</td>
<td>0.94</td>
<td>.22**</td>
<td>-.19*</td>
<td>-.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Power as Opportunity</td>
<td>4.11</td>
<td>1.35</td>
<td>-.01</td>
<td>.01</td>
<td>-.01</td>
<td>.01</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ability to Write Grant Proposals</td>
<td>5.27</td>
<td>1.24</td>
<td>.11</td>
<td>-.08</td>
<td>-.15</td>
<td>.03</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Social Power Construals</td>
<td>0.52</td>
<td>0.50</td>
<td>.04</td>
<td>-.04</td>
<td>-.02</td>
<td>-.06</td>
<td>.14</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8. Perceived Ability</td>
<td>0.48</td>
<td>0.50</td>
<td>.10</td>
<td>-.10</td>
<td>-.04</td>
<td>-.01</td>
<td>.06</td>
<td>.13</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Sharing Private Important Grant Information</td>
<td>5.84</td>
<td>0.91</td>
<td>.19*</td>
<td>-.13</td>
<td>-.25**</td>
<td>.29**</td>
<td>-.12</td>
<td>.06</td>
<td>.12</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Sharing Public Grant Information</td>
<td>5.55</td>
<td>1.31</td>
<td>-.03</td>
<td>.03</td>
<td>.02</td>
<td>.08</td>
<td>.06</td>
<td>-.05</td>
<td>.11</td>
<td>.02</td>
<td>.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Sharing Grant Proposals 20</td>
<td>4.81</td>
<td>1.51</td>
<td>.15</td>
<td>-.12</td>
<td>-.16*</td>
<td>.15</td>
<td>.03</td>
<td>.07</td>
<td>-.10</td>
<td>.03</td>
<td>.46**</td>
<td>-.08</td>
<td></td>
</tr>
</tbody>
</table>

Note: N = 148; the variable Social Power Construals is recoded from the experimental manipulation (0 = as opportunity, 1 = as responsibility) as well as the variable Perceived Ability (0 = low ability, 1 = high ability).

**p < .01, *p < .05.

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Looking at the item level, academics reported to be more likely to share the most important parts of their draft proposal (M = 5.27, SD = 1.46), to a lesser extent to share their complete draft proposal (M = 4.35, SD = 1.94) and also to share only the least important parts of their draft proposal (M = 2.82, SD = 1.76).
However, to account for possible individual differences regarding the constructs that were manipulated, we performed the univariate of variance once more, this time also including measured power construed as responsibility, measured power construed as opportunity and measured ability to write GrantPs as covariates (i.e., covariates may be predictive of the dependent variable). Including the covariates may also correct for a randomization that may not have worked properly although this is not the case with the current data since the distribution of cases is balanced within and among groups: in the PaR condition N = 77 (i.e., N = 39 in the low ability condition and N = 38 in the high ability condition) while in the PaO condition N = 71 (i.e., N = 38 in the low ability condition and N = 33 in the high ability condition). A marginally significant main effect of manipulated social power construals, $F(1, 141) = 3.88, p = .05, \eta_p^2 = .03$, indicated that academics in the PaR condition were more likely to share their private important information than academics in the PaO condition ($M = 5.94, SD = 0.92$ vs. $M = 5.73, SD = 0.89$) (H2a-b supported). In H3a, we hypothesized that individuals who perceive own ability as high are more likely to share private important information. Results indicated no significant main effect of manipulated perceived ability, $F(1, 141) = 0.03, p = .87, ns., \eta_p^2 = .00$ ($M = 5.82, SD = 0.92$ vs. $M = 5.85, SD = 0.90$) (H3a not supported); the interaction between the manipulated social power construals and manipulated perceived ability was also non-significant, $F(1, 141) = 0.07, p = .79, ns., \eta_p^2 = .00$ (H4a not supported). Additionally, we found a significant main effect of measured PaR, $F(1, 141) = 14.07, p < .001, \eta_p^2 = .09$, a marginally significant main effect of measured PaO, $F(1, 141) = 3.24, p = .07, \eta_p^2 = .02$. No other significant results were found, $F$'s $< 0.75, p$'s $> .39, \eta_p^2$'s $< .01$.

We conducted a univariate analysis of variance with social power construals and perceived ability as independent variables and the sharing of grant proposals as the dependent variable; measured power construed as responsibility, measured power construed as opportunity and measured ability to write GrantPs were again included as covariates. No significant results were

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21 Recruitment approach, gender, age, research position, number of proposals written, NFCC, SVO were used as control variables to account for possible confounding effects; we found non-significant effects and these variables were therefore not included in main analyses.
found, $F's < 2.72, p's > .10$. Because in the field what seems relevant knowledge to someone may seem less relevant knowledge to someone else, to investigate what could be SIS in the academics context, we also conducted a repeated-measure analysis of variance with type of knowledge shared (the sharing of GrantPs vs. the sharing of pieces of advice) as a within-subject factor. Results indicated a significant main effect of the type of knowledge shared, $F(1, 147) = 108.19, p < .001, \eta_p^2 = .42$. Specifically, academics reported to share a significantly bigger amount of pieces of advice than GrantPs ($M = 5.97, SD = 1.01$ vs. $M = 4.81, SD = 1.51$).

### 5.5.3. Discussion Field Experiment

Overall, the results of the field experiment indicated that academics were more likely to share private important information in the PaR condition than in the PaO condition, but only when accounting for the stable individual dispositions to construe power (i.e., accounting for the measured constructs corresponding to the manipulated social power construals) as well as for individuals’ perceived ability to write GrantPs. Then, the manipulation had an effect above and beyond the measured social power construals and individuals’ reported ability to write GrantPs. We included these additional measures in the analysis as covariates to have a more accurate picture of the effect of the experimental manipulations (Reis & Judd, 2014). However, these results should be considered with caution since the additional measures used two items for social power construals that were not previously validated and one item only for perceived ability to write GrantPs. Responses to such items typically contain a substantial amount of measurement error that, unfortunately, cannot be empirically tested, challenging the sound incremental validity argument (Westfall & Yarkoni, 2016). Nevertheless, taken these findings together, we once more replicated the effect of PaR found also in the field survey as well as in Chapters 3 and 4 in this dissertation. Regardless of whether social power construals were only manipulated (i.e., in Chapters 3 and 4), only measured (i.e., in the current field survey) or both measured and manipulated (i.e., in the current field experiment), power construed as responsibility turned out to be a strong predictor of the sharing of private important information.
As in the field survey, power construed as responsibility was positively related to the number of prosocial choices and negatively to the number of proself choices. However, in contrast to the field survey, power construed as opportunity was not correlated to SVO. There might be a bigger conceptual overlap between SVO measures and power construed as responsibility than with power construed as opportunity. At same time, the zero-order correlation coefficients might also be the result of the prevalence of prosocials in the sample.

Compared with the overall high levels of sharing in the field survey, the overall sharing in the field experiment was lower. We found this possibly because the sharing was task-related and considering contributions to a specific task might have determined academics to consider more what they share and thus behave more strategic. This is also in line with the definition of SIS since SIS takes shape in a context of task interdependence, as a motivated response to an expectation (or request) of sharing information. Because in the field survey the sharing was not related to a particular task or context, respondents might have also given social desirable answers compared with respondents in the field experiment who, most likely, implicitly assessed what they reported to share in context (see Appendix III for details).

In this field experiment, we did not find effects of perceived ability on SIS and this may be explained by the fact that the category of colleagues at work is not fine-grained enough. In other words, academics might have found difficulties to relate to this category of people since it may suggest colleagues with whom you are collaborating and, at the same time, colleagues with whom you are competing on a particular grant. Some respondents even expressed their need to get more information about the other team members as well (e.g., “In your scenario I did not know anything about the other staff. Therefore, I was comparatively reluctant to exchange ideas”). This eventually explains also why we did not find support for the interaction effect between social power construals and perceived ability.

Although the sharing of GrantPs did not differ as a function of social power construals or perceived ability, results indicated that academics reported to be significantly more likely to share more implicit knowledge such as pieces
of advice than more explicit one captured in written GrantPs. Seen through the lens of SIS, we found this potentially because more valuable information is captured in a GrantP than by pieces of advice shared with the others; this especially applies to real work settings where having not only good and original ideas but also and especially a well-written GrantP is what counts in a competition for grants.

5.6. General Discussion
Overall, an initial inspection of the means indicates that academics are willing to share mainly their private important grant information (e.g., tips, advice) and written grant proposals. However, first indicators of SIS stem from the relationship between variables. In particular, while PaR positively correlated with the sharing of private important grant information (Table 1 and 3), the sharing of GrantPs with familiar people and the sharing of GrantPs with strangers (Table 1), competitive motivations negatively correlated with the sharing of private important grant information and with the sharing of GrantPs, respectively (Table 3).

A closer look at the data reveals that the more people construed PaR, the more they shared private important grant information, as well as GrantPs with familiar people and also with strangers. This is the most important finding of this research, receiving consistent support across the two field studies complementing and consolidating also the findings reported in previous chapters. We also acknowledge that the PaO- and SVO-related hypotheses have not been supported. Table 5 shows an overview of the hypotheses tested in both field studies and, below, explanations for our findings are provided.

Perceived ability to write GrantPs was found to be a significant predictor of the sharing of GrantPs with familiar people. Most importantly, perceived ability to write GrantPs moderated the relationship between PaR and the sharing of GrantPs with familiar people. Specifically, when perceived ability to write GrantPs was low, individuals higher in PaR reported to be significantly more likely to share GrantPs with familiar people than individuals lower in PaR; when perceived ability to write GrantPs was high, individuals higher in PaR reported to be as likely to share GrantPs with familiar people as individuals lower in PaR.
The sharing pattern found in Chapter 4 – i.e., individuals construing PaR were more likely to share private information than individuals construing PaO only when perceived ability was high – is no longer detected in Chapter 5. This is possibly because non-task-oriented contexts referred to in the field survey shift attention from content to people. Moreover, the people-oriented explanation may hold also through the lens of information self-efficacy concerns, i.e., the person’s belief that others would value that person’s information once it is shared (Kalman et al., 2002). Information self-efficacy might have played a role, explaining thus why individuals showed a similar sharing pattern toward familiar people regardless of how power was construed (i.e., either as opportunity or as responsibility) when perceived ability was high; they wanted to contribute their information believing that others might find it helpful. Perceived norms to share with familiar people might also have overridden the content, still satisfying information self-efficacy concerns. In any case, the two moderation relationships found in the two chapters indicate how complex these interactions play out.
### Table 5.

**Overview of Supported/Not Supported Hypotheses**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Study 1 Field Survey</th>
<th>Study 2 Field Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong>: a) Prosocial motivations are positively related to the sharing of private important information while b) individualist and competitive motivations are negatively related to the sharing of private important information.</td>
<td>H1a - Not supported</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>H1a</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H1b</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>H1c</strong></td>
<td>H1c - Not supported</td>
<td></td>
</tr>
<tr>
<td><strong>H1d</strong></td>
<td>H1d - Not supported</td>
<td></td>
</tr>
<tr>
<td><strong>H1e</strong></td>
<td>H1e - Not supported</td>
<td></td>
</tr>
<tr>
<td><strong>H1f</strong></td>
<td>H1f - Not supported</td>
<td></td>
</tr>
<tr>
<td><strong>H1</strong>: Prosocial motivations are positively related to c) the sharing with familiar people and d) the sharing with strangers while individualist and competitive motivations are e) positively related to the sharing with familiar people and f) negatively related to the sharing with strangers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H2</strong>: a) Individuals higher in PaR are more likely to share private important information while b) individuals higher in PaO are less likely to share private important information.</td>
<td>H2a - Supported</td>
<td>H2a - Supported</td>
</tr>
<tr>
<td><strong>H2a</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H2b</strong></td>
<td>H2b - Not supported</td>
<td></td>
</tr>
<tr>
<td><strong>H2c</strong></td>
<td>H2c - Supported</td>
<td></td>
</tr>
<tr>
<td><strong>H2d</strong></td>
<td>H2d - Supported</td>
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<tr>
<td><strong>H2e</strong></td>
<td>H2e - Not supported</td>
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<tr>
<td><strong>H2f</strong></td>
<td>H2f - Not supported</td>
<td></td>
</tr>
<tr>
<td><strong>H2</strong>: Power construed as responsibility is positively related to c) the sharing with familiar people and d) the sharing with strangers while power construed as opportunity is e) positively related to the sharing with familiar people and f) negatively related to the sharing with strangers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H3</strong>: a) Individuals who perceive their own ability as high are more likely to share private important information.</td>
<td>H3a - Not supported</td>
<td>H3a - Not supported</td>
</tr>
<tr>
<td><strong>H3a</strong></td>
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<tr>
<td><strong>H3b</strong></td>
<td>H3b - Supported</td>
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<td><strong>H3c</strong></td>
<td>H3c - Not supported</td>
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<tr>
<td><strong>H3</strong>: Perceived ability is b) positively related to the sharing with familiar people and c) negatively related to the sharing with strangers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H4a</strong>: When individuals perceive their own ability as high, the relationship between social power construals and the sharing of private important information becomes stronger.</td>
<td>H4a - Not supported</td>
<td>H4a - Not supported</td>
</tr>
<tr>
<td><strong>H4a</strong></td>
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<tr>
<td><strong>H4b</strong>: When individuals perceive their own ability as high, the relationship between social power construals and the sharing with familiar people becomes stronger.</td>
<td>H4b - Not supported</td>
<td>Not applicable</td>
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</tbody>
</table>
Conclusive effects were found neither for PaO nor for SVO in relation with the sharing variables in the field survey. These latter findings may be explained by the fact that people may strategically use PaR instead of PaO to still acquire and maintain power through social engagement (i.e., in the interests of other group members) (Keltner, Van Kleef, Chen, & Kraus, 2008); this is illustrated by the high means of PaR compared with the much lower means of PaO (Table 1). The SVO-related findings in both the field survey and the field experiment may be explained by the fact that the sample was preponderantly prosocial. Moreover, compared with previous research, the two field studies accounted also for social power construals demonstrating that the latter plays a more important role than SVO.

5.6.1. Theoretical and Practical Implications
When referring to SIS, first, with these two field studies, we advance Steinel et al. (2010) in terms of how we measure SIS. We do this by discriminating among various dimensions of information sharing related either to the ‘what’ of sharing (e.g., the sharing of GrantPs, pieces of advice etc.) – and this goes beyond the information characteristics (e.g., public vs. private) considered so far – or to the sharing ‘with whom’ (i.e., with familiar people vs. with strangers). Particularly, referring to the same content to be shared, we theoretically distinguished between the sharing with familiar and the sharing with strangers. We thus showed that construing PaR stimulates the sharing with familiar people and also with strangers. This may be because the current study should have adopted a more fine-grained distinction between these categories of people to tackle SIS given that familiar people, for instance, may be either competitors or collaborators while strangers may raise interest for collaboration in sharers of information. About the sharing with familiar people, in particular, we found that this is even more motivating for those individuals who perceive own ability to write GrantPs as low. In addition, we found that academics are more likely to share more implicit knowledge such as pieces of advice than explicit information such as the actual GrantPs. This may be because in real work settings having especially a well-written GrantP is what counts in a competition for grants, a grant proposal containing original ideas that can be stolen. While a
general piece of advice is still helpful, it presents less risks of disclosing original and well-organized ideas usually found in a grant proposal. Linked to this first contribution, second, we go beyond the laboratory setting (Steinel et al., 2010) into a real community of professionals (to test the validity of the findings related to SIS. Essentially, although social motives and social power construals have been shown to influence SIS in the lab experiments presented in Chapter 2 and 4, in the field studies only construing PaR turned out as significant predictor of SIS. Since the reality is far more complex than controlled lab settings, results indicate that PaR plays a more important role than SVO in predicting SIS. From a methodological standpoint, we also consolidate current understanding of SIS given the triangulation of methods used (i.e., a field survey and a field experiment).

When referring to the literature on power, first, we bring empirical evidence for the important role PaR plays to predict SIS. Unlike previous research (e.g., Keltner et al., 2003) that looked at power differentials (high vs. low), current research shifts the perspective to social power construals (Sassenberg et al., 2012) as a more subtle facet of power in relation with SIS. Regardless of whether social power construals were only manipulated (i.e., in Chapters 3 and 4), only measured (i.e., in the current field survey) or both measured and manipulated (i.e., in the current field experiment), power construed as responsibility turned out to be a strong predictor of the sharing of private important grant information. Moreover, even in a sample with a majority of prosocials it is only the construal of PaR that made academics more likely to share their valuable knowledge. Second, to better understand the relationship between social power construals and SIS, we considered the role of perceived ability and its moderating role, in the field, among academics. While in Chapter 4 we found that perceived ability explains the relationship between social power construals and the sharing of private information, in the current chapter, perceived ability explains the relationship between social power construals and the sharing with familiar people. Particularly, perceived ability to write GrantPs was positively related to the sharing with familiar people, regardless of whether individuals were either less or more likely to construe PaR; construing PaR was positively related to the sharing with familiar people.
especially for individuals who perceive own ability to write GrantPs as low. As previously mentioned, when the sharer is presented with (less contextual) information and with categories of people with whom to share, more consideration is given to people than to information. Overall, these findings suggest that PaR and perceived ability interact in a complex manner and constitute an underlying mechanism explaining SIS. However, more research should be done to clarify the explanatory power of these constructs in relation to SIS.

From a practical perspective, it is important for organizations to know how individuals construe power because this helps to envision the sharing behavior and possible contributions to performance outcomes, for instance. At the same time, given the results of the field experiment, manipulating social power construals is effective above and beyond individuals’ disposition to construe power in a particular way. Another practical implication points to a clear distinction that should be made between power and ability within academic institutions and the importance of acknowledging this distinction since knowledge sharing and, especially, the sharing of private information, flows beyond positions and are rather dependent on ability when it comes to building information bridges, to advance science.

By controlling for a series of factors (e.g., current position, gender, age, number of proposals written and grant money received over the past five years), in the field survey, we found significant effects of NFCC and the number of proposals written as Principal Applicant. The need for structure as well as indicators of expertise seems to complete the picture on SIS, from a theoretical but also from a practical perspective; at the same time, the dynamic in interpersonal interactions is the one to shape SIS and a better scientific understanding from this angle is needed. We also expand understanding on the information sharing among academics in particular since studies addressing this line of research usually presented their findings with regard to confined cultural environments, i.e., in Malaysia (Ramayah, Yeap, & Ignatius, 2014). Overall, current findings help academic institutions to draw maps of collaboration and decide on information sharing strategies to make academics
having different positions share their knowledge and contribute, by and large, to a competitive environment that is more and more based on funds acquisition.

5.6.2. Limitations and Strengths
Self-report measures were used in this study to assess academics’ information sharing behavior, hence the usual limitations around self-reports such as potential biases and level of accuracy may apply. However, the fact that we simultaneously conducted a field experiment reduces from these limitations and provides compelling evidence on the extent to which information sharing is strategic behavior. Another limitation is that the manipulation of perceived ability was not successful given that the manipulation check was not significant. Because we believe in the effectiveness of fictional scenarios (Wilson & O’Gorman, 2003), this limitation may be tackled in a follow-up study that should consider manipulating ability independently of power construals. We also acknowledge that having a sample preponderantly prosocial is a limitation. The high proportion of prosocials is an indication that the sample is biased toward prosocials and this ceiling effect might be the reason for finding that SVO did not predict SIS in the field studies. In other words, the low response rate might have resulted in a biased sample (e.g., participants were willing to participate/interested in the subject study). Specifically, from a total of 8,993 e-mail addresses that were included in a panel, we had a 13.19% bounce rate and, from the remaining 7,807 e-mail addresses, 385 (4.93%) surveys were started and 254 (3.25%) survey were finished. Out of the 385 surveys, data relevant for our hypotheses could be used from 150 participants in the field survey and from 115 participants in the field experiment; to current samples, more participants were added given the recruiting effort made using the internet and social networks (extra N = 31 in field survey and extra N = 33 in the field experiment); in our analyses, we accounted for the recruitment approach. However, the interesting findings with regard to PaR (vs. as opportunity) indicate that SIS emerges even within a sample in which the majority of individuals have a prosocial motivation. This limitation also explains the high levels of overall sharing and that the self-selection principle composed our pool of participants,
i.e., people willing to volunteer and participate in the survey are already ‘givers’ by definition.

An important strength of this paper is given by the triangulation across methods and measures which yielded consistent results (e.g., the role of PaR on the sharing of private important information). Another essential strength is the fact that both the field survey and the field experiment covered a wide variety of countries from three continents which make the results valid that can be easily generalized across cultures and practices especially towards information sharing among academics. Another strength of this paper, from a theoretical perspective, is that we took a first step in examining SIS among academics by looking at group categories (i.e., with whom), distinguishing thus between familiar people (i.e., ‘people I know personally’) and strangers (i.e., ‘who are recommended to me’).

5.6.3. Future Research Directions and Conclusions

In this paper, with the field survey, we captured only broad categories of ‘familiar people’ and ‘strangers’ and future research should focus on expanding the attention to other categories as well, considering the degree of proximity with the sharer, shared ties etc. or taking more nuanced categories of familiar people (e.g., friends) and strangers (e.g., active in similar or completely different research fields); in this way SIS might be better understood on a deeper level. For instance, to expand the variety of sharing ‘with whom’ future research should consider constant versus occasional collaborators on tasks knowing that expectation for future interaction is an important factor hindering or enhancing collaboration (De Dreu et al., 2008; Jap, 2001). Future studies could also expand the variety of the ‘what’ of sharing by including more tacit aspects of knowledge (e.g., routines, practices), to capture more degrees of importance among various types of knowledge. At the same time, future research could examine the relationship between SVO, social power construals and ability in other knowledge-intensive environments such as the R&D departments in (big) organizations; these factors and especially power relationships in organizations play out differently compared with the power relationships in academic environments because competition might be more fierce than within the
scientific community. Overall, PaR was found to be strong predictor of the sharing of private important information, the sharing with familiar people as well as with strangers, playing a more important role than SVO; perceived ability to write GrantPs moderated the relationship between PaR and the sharing with familiar people, also predicting, alone, the sharing with familiar people. We found no effects for the relationship between PaO and SIS.

Acknowledgments
We are thankful to Ivar Vermeulen for providing us with the file containing the e-mail addresses used for data collection and to Bob van de Velde for extracting and compiling a ready-to-use list of the e-mail addresses. We are thankful to Peter Kerkhof and Debora Jeske for their help with distributing the link of the study within their own social networks.

References


Steinel, W., Utz, S., & Koning, L. (2010). The good, the bad and the ugly thing to do when sharing information: Revealing, concealing and lying depend on social motivation, distribution and importance of information. Organizational Behavior and Human Decision Processes, 113(2), 85-96. doi:10.1016/j.obhdp.2010.07.001


Appendix I – Illustration of the study distribution strategy

Figure 2. Illustration of the tailored study distribution approach
Appendix II – Invitation Message
Subject: "Grant Writing Behind the Scenes" Survey Invitation

Dear Researcher, dear Colleague(*),

Funding from external grant sources plays an important role for universities and research institutes, and may help researchers grow and develop their research lines. However, not much is known about how people learn to write successful grant applications and how they seek and exchange information related to grant applications. The aim of this survey is to increase our knowledge on this matter, and your input is therefore of great value.

We are interested in everybody's perspective, whether you applied for a research grant or not. This survey is distributed among publishing researchers from social science disciplines. It is part of a research program funded by the European Union, and conducted at the Communication Science Department, VU University Amsterdam.

The survey should take no more than 15 minutes to complete. You can access the survey using the following link Grant Writing Behind the Scenes

Your participation is voluntary but we hope for your support. You have the right to withdraw your data either at the beginning of the survey or at the end; your answers are used for scientific purposes, and only aggregated and anonymized data will be published.

The survey is active in the period 9 - 24 December 2014. If you have any questions about it, or about the related research, please do not hesitate to contact us.

Thank you for your time and we look forward to receiving your feedback. If you are interested, we will share the findings with you.

Yours sincerely,

Nicoleta Bălău

Researcher contact information
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(*) Your e-mail address has been collected from a paper published in an ISI-listed journal in the Social Science categories Business, Communication, Political Science, or Social Psychology in the years 2010-2012. From a larger list of addresses, yours was randomly drawn. We have taken much care to avoid double postings.
Appendix III – Manipulations social power construals and ability

Condition 1 – power as responsibility & high ability manipulation

Please read carefully the following specific situation:

Imagine that the Research Department where you work announces that in two year time the Department needs to appoint two Full Professors. The responsibilities that come along with the Full Professor position are to help the department members to become disciplinary, educational and institutional leaders too. The positions are about taking the other people's needs and feelings into account, thinking about the consequences of one’s own decisions on others.

You currently have an Associate Professor position in your Department and a call for a big grant proposal is just out. Getting this grant may increase your chances of getting one of the Full Professor positions in your Department. Later today, the members of your Department are going to attend an information seminar about this big grant.

You decide to attend too especially because the grant is in your area of expertise. You have already drafted your concrete ideas for the proposal and you are very confident about it, you are sure that you will be able to come up with a ground-breaking idea in this area.

Condition 2 – power as responsibility & low ability manipulation

Please read carefully the following specific situation:

Imagine that the Research Department where you work announces that in two year time the Department needs to appoint two Full Professors. The responsibilities that come along with the Full Professor position are to help the department members to become disciplinary, educational and institutional leaders too. These positions are about taking the other people's needs and feelings into account, thinking about the consequences of one’s own decisions on others.

You currently have an Associate Professor position in your Department and a call for a
big grant proposal is just out. Getting this grant may increase your chances of getting one of the Full Professor positions in your Department. Later today, the members of your Department are going to attend an information seminar about this big grant.

_You decide to attend too especially because the grant is in your area of expertise. You have drafted only vague ideas for the proposal so far and you are not confident at all about it, you worry that you won’t be able to come up with a ground-breaking idea in this area._

Condition 3 – power as opportunity & high ability manipulation
Please read carefully the following specific situation:

_Imagine that the Research Department where you work announces that in two year time the Department needs to appoint two Full Professors. The opportunities that come along with the Full Professor position are to develop one’s own research program, to strengthen one’s leading role in the field of expertise, to become a disciplinary, educational and institutional leader. These positions open up possibilities for one’s own achievement and success._

You currently have an Associate Professor position in your Department and a call for a big grant proposal is just out. Getting this grant may increase your chances of getting one of the Full Professor positions in your Department. Later today, the members of your Department are going to attend an information seminar about this big grant.

_You decide to attend too especially because the grant is in your area of expertise. You have already drafted your concrete ideas for the proposal and you are very confident about it, you are sure that you will be able to come up with a ground-breaking idea in this area._

Condition 4 – power as opportunity & low ability manipulation
Please read carefully the following specific situation:
Imagine that the Research Department where you work announces that in two year time the Department needs to appoint two Full Professors. The opportunities that come along with the Full Professor position are to develop one’s own research program, to strengthen one’s leading role in the field of expertise, to become a disciplinary, educational and institutional leader. These positions open up possibilities for one’s own achievement and success.

You currently have an Associate Professor position in your Department and a call for a big grant proposal is just out. Getting this grant may increase your chances of getting one of the Full Professor positions in your Department.

Later today, the members of your Department are going to attend an information seminar about this big grant.

You decide to attend too especially because the grant is in your area of expertise. You have drafted only vague ideas for the proposal so far and you are not confident at all about it, you worry that you won’t be able to come up with a ground-breaking idea in this area.