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Making sense of business failure: a social psychological perspective on financial and legal judgments in the context of insolvency

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3 Similarity Bias in Credit Decisions for Entrepreneurs on the Brink of Bankruptcy[1]

Abstract

For entrepreneurs on the brink of bankruptcy, it is of vital importance that relevant stakeholders such as investors or bankers accurately assess the viability of their business, free from unwanted biases that bear no relevance to its chance of survival. Despite the prevalence of entrepreneurs facing financial distress, there has been little research on the role of cognitive biases in funding decisions in this important context of financial distress. Our research aimed to investigate whether entrepreneurs who are perceived by a banker as more similar are more likely to get capital to save their business from bankruptcy than entrepreneurs who are perceived as less similar to the banker. Additionally, we investigated whether similarity bias affected bankers' causal attributions of what caused the financial distress as well as their perceptions of the entrepreneur's trustworthiness. Using experimental vignettes, we found that bankers ultimately did not demonstrate a similarity bias in their credit decisions. We did find a similarity bias in their causal attributions and trustworthiness judgments.

3.1 Introduction

Throughout entrepreneurs' professional life span, external parties judge the growth potential and viability of their ventures in relation to possible investments or for the extension of credit by financial institutions such as banks. This is true in the start-up phase, in times of significant growth, and also when a venture is in decline and experiencing financial distress. During such periods of substantial decline, entrepreneurs typically require additional funding from investors and/or shareholders, or additional credit from their bank to finance a turnaround or to survive a loss-making phase. When entrepreneurs are unable to fulfil their duties towards their bank and require additional credit or a deferment on their loan payments, it is the duty of the bank's representative to assess the viability of the distressed venture. If the banker judges posit-

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ively, ensuing support from the bank can be expected. If the banker judges negatively, however, bankruptcy might follow. Hence, the entrepreneur's future depends for an important part on the banker's assessment of the venture's future prospects.

For entrepreneurs, the consequences of bankruptcy can be detrimental, both professionally and personally (Jenkins et al., 2014; Kesteren et al., 2017; Ucbasaran et al., 2013). Furthermore, banks and other creditors can also suffer major losses in case of bankruptcy. Consequently, for both entrepreneurs and bankers involved, but possibly most eminently for the entrepreneurs, it is of utmost importance that the viability of their businesses is accurately assessed. Fortunately, bankers are trained to be objective, are experts in the industries their clients operate in, and are aware of (macro-)economic trends that influence the chances of a company's survival. It therefore stands to reason that bankers are in a good position to objectively and accurately assess the likelihood that a distressed company will be able to perform a successful turnaround and resume profitability.

At the same time, however, assessing a venture's viability is a complex matter and humans are notoriously vulnerable to cognitive biases when making judgments under uncertainty (Baron, 2014; Kahneman, 2011; Kahneman, Slovic, & Tversky, 1982; Tversky & Kahneman, 1974). Indeed, research suggests that bankers can, in fact, succumb to the effects of cognitive biases such as the hindsight bias (i.e., the feeling that after the fact someone "knew all along" something would happen) (Biais & Weber, 2009) and the status quo bias (i.e., the tendency to stick to a current and known position or previously chosen position) (Burmeister & Schade, 2007). However, to our knowledge no research has been conducted investigating the extent to which biases affect judgments and decisions made by bankers regarding the future of struggling entrepreneurs. This is surprising for two reasons. First, given the relatively high failure rates of new start-ups where typically only 50% survives the first five years of being in business (BLS, 2019), entrepreneurs will almost invariably face financial distress at some point in their careers and will then have to liaise with their financiers to find a solution in order to survive. Therefore, studying the psychology of financial decision making in the context of financial distress is important. Second, cognitive biases typically surface under conditions characterized by uncertainty, time pressure, and emotional turmoil (e.g., (Tversky & Kahneman, 1974). Indeed, for several biases it has been demonstrated that biases exert stronger effects when the situation at hand is increasingly precarious (e.g., Kneer & Bourgeois-Gironde, 2017; Schkade & Kilbourne, 1991). Hence, the risk of financiers succumbing to unwanted cognitive biases is particularly high in the context of financial distress. We consider this a critical gap to fill given the lack of current research in this area.

The goal of our research is therefore twofold. First, we aim to draw attention to this important yet understudied area of biases in financial decision making in the context of financial distress. Second, we aim to provide a first

empirical test of whether bankers are affected by biases in their credit decisions when confronted with an entrepreneur in financial distress. More specifically, we test whether similarity bias affects bankers in such a way that they will attribute the cause of an entrepreneur's decline to external factors rather than to the entrepreneur when the entrepreneur is perceived to be similar to the banker, and whether bankers also have more trust in the entrepreneur in that case. Finally, we test whether ultimately there is a relationship between perceived similarity and credit decisions. In the following, we first briefly review the literature on similarity bias and explain why this bias is particularly interesting in this context. Next, we introduce two competing hypotheses regarding the susceptibility of bankers to similarity bias. Finally, we provide a first empirical test of whether bankers are indeed affected by similarity bias when evaluating the case of a business' decline, the trustworthiness of an entrepreneur, and ultimately when making credit decisions.

3.1.1 Similarity Bias

When someone evaluates another person more favourably or behaves in a more positive manner towards another person as a result of a (perceived) shared identity or other shared characteristics, this is called similarity bias (or the similar-to-me effect; Byrne, 1972). People are inherently social and tribal creatures in the sense that we tend to make snap judgments on the basis of whether another person belongs to the same group or not, sometimes based on only limited information, which can subsequently affect attitudes and behaviours towards that person (Tajfel, 1970; Tajfel & Turner, 1979; Turner, Brown, & Tajfel, 1979). Favouring those who belong to one's own group versus members of an out-group (i.e., in-group bias), as well as similarity biases more generally, can largely be explained by social identity theory (Tajfel, 1982) and self-categorization theory (Turner, 1999). These two theories indicate that people categorize and identify themselves along certain dimensions (e.g., age, sex, race, profession, etc.), with the purpose of deriving a positive self-identity from belonging to certain social groups. When membership of a particular group is then made salient, others are likely perceived and evaluated along that same dimension (i.e., as being part of the same group or not), which then affects attitudes and behaviours towards that individual, such that people generally evaluate others more favourably who belong to the same group from which they derive their identity (Branscombe, Ellemers, Spears, & Doosje, 1999; Haslam, 2001; Hewstone, Rubin, & Willis, 2002).

The notion that perceived similarity to others can affect cognitive processes and subsequent behaviour has been widely demonstrated, for example in the context of assigning blame in cases of rape (Grubb & Harrower, 2009), in the context of job applications (e.g., Dalessio & Imada, 1984; Lin, Dobbins, & Farh, 1992), or when evaluating the credibility of expert witnesses (Gardner, Titcomb,

Cramer, Stroud, & Bate, 2013) (for more studies on similarity bias, see Gino, Shang, & Croson, 2009; McKeever, 2015; Strauss, Barrick, & Connerley, 2001; Tidwell, Eastwick, & Finkel, 2013; Wilson, DeRue, Matta, Howe, & Conlon, 2016). More relevant for the present purposes, similarity biases have also been found in financial decision-making. Research found that venture capitalists (VCs) evaluate an investment opportunity more favourably if they believe the founding entrepreneur thinks in a more similar way to themselves (Murnieks, Haynie, Wiltbank, & Harting, 2011). Moreover, VCs have been shown to prefer start-up teams that match themselves in terms of professional or educational background (Franke, Gruber, Harhoff, & Henkel, 2006). Finally, a more recent study has shown that financial analysts issue more favourable forecasts of a particular company when they perceive the company's CEO to be similar to themselves in terms of personality (Becker, Medjedovic, & Merkle, 2019). Thus, evidence suggests that equity investors are not immune to the effects of similarity bias.

Importantly, as discussed, whether bankers in the specific context of credit decisions for entrepreneurs in financial distress are also affected by similarity bias remains an open question. That is, are entrepreneurs facing bankruptcy more likely to receive additional capital from their bank if a banker perceives the entrepreneur as more similar to him/herself?

3.1.2 Competing Hypotheses on Similarity Bias in Bankers' Credit Decisions

Two opposing hypotheses can be put forward regarding the question whether bankers dealing with distressed credit are affected by similarity bias. On the one hand, based on the discussed theories (e.g., social identity theory) and the discussed literature on similarity biases in financial decision making, it stands to reason that bankers might indeed favour struggling entrepreneurs who are perceived as being similar to themselves.

Additionally, for several biases (e.g., hindsight bias and outcome bias) it has been shown that they exert stronger effects in the case of negative events (Kneer & Bourgeois-Gironde, 2017; Schkade & Kilbourne, 1991). It might therefore be that similarity bias too is more likely to surface in case of an adverse event, as such events typically trigger sense-making processes and causal attributions (Hastie, 1984). For example, there is some evidence that female entrepreneurs are disadvantaged by credit institutions in terms of their likelihood of obtaining funding (e.g., Belucci, Borisov, & Zazzaro, 2009; Carter, Shaw, Lam, & Wilson, 2007; Carter & Peter, 1998; Fraser, 2005) and that this gender bias might be particularly pronounced in conditions of economic turmoil (Thébaud & Sharkey, 2016).

Finally, whereas first-time investment decisions are largely forward-looking given the limited or even complete absence of operational and financial data, judgments and decisions made by financiers facing a business in decline also

have a backward-looking element. That is, financiers want to know what the major causes are of the financial distress as this will affect their trust in the management team and consequently the company's outlook for the future. Hence, in the context of financial decline, similarity bias might not only affect expectations of the future, but also sense-making processes and attributions regarding the cause of the financial decline, which combined might aggravate the bias' effect. In sum, there is ample reason to expect bankers to be affected by similarity bias when faced with a business in decline.

On the other hand, however, important differences exist between equity investors (among whom similarity biases have been identified) and bankers providing credit. Moreover, the context of first-time financing is markedly different from refinancing or providing additional credit to a struggling entrepreneur with whom you already have a relationship. Both of these differences between the context of bankers dealing with distressed credit and the previously studied context of equity investors in first-time financing might have implications for the effects of similarity bias. To elaborate on this point, it is useful to contrast bankers with equity investors.

Even though the situations of VCs and bankers are similar in the sense that both are faced with uncertainty and have to assess the likelihood a company will ultimately succeed, the differences between the two centre around (1) the nature of their relationship with entrepreneurs, (2) information asymmetry, and (3) their personal characteristics. Regarding the relationship with entrepreneurs, VCs typically acquire an equity stake in a company and take board seats, in that sense becoming part of the entrepreneurial team. In contrast, banks typically extend secured loans (e.g., collateralized loans) instead of acquiring an equity stake and as a result their relationship with the owners is more distant. To reduce the risk and moral hazards, and to make sure they will be aligned with their future business partners (i.e., the company owners), VCs might have a stronger incentive to analyse a venture's entrepreneurial team more thoroughly than do bankers. Hence, the different nature of the relationships VCs and bankers have with entrepreneurs possibly makes VCs more focused on the characteristics (e.g., personalities, managements styles, history, etc.) of the entrepreneurs when assessing an investment opportunity. This increased focus on entrepreneurs might ultimately make VCs more susceptible to similarity bias.

Following directly from differences in the relationship are differences in information asymmetry. Information asymmetry emerges when two parties in a transaction (e.g., entrepreneur and venture capitalist) do not have access to the same information, posing a risk (i.e., moral hazard) for the party with less information. Such asymmetric information is more likely to arise after initial contracting (e.g., Boot & Thakor, 1993; Cumming & Johan, 2008; Trester, 1998), but can also exist in the investment stage (Cohen & Dean, 2005). For example, it is common for VCs to have very little information regarding the entrepreneur's skill level during the stages of contract negotiations and capital

investment, as this typically only becomes apparent in later stages (e.g., Chan, Siegel, & Thakor, 1990). It could be argued that information asymmetry and accompanying moral hazards are less of an issue for bankers deciding over a company's future that has been with the bank for some time and is now facing financial decline, primarily because there is ample information for bankers to draw from (for research on the relationship between information asymmetry and moral hazards, see for example Fu, Yang, & An, 2019; Hölmstrom, 1979). Indeed, banks are likely to have access to large quantities of both 'hard' quantitative data and 'soft' qualitative data, as increased exposure to a company's owner over a prolonged period of time allows for more information to be gathered (see also Fredriksson & Moro, 2014). Hence, given VCs' general lack of hard or soft information in relation to founding entrepreneurs, and since hard data is impossible to obtain, VCs might have a need to increase their access to soft data and will therefore more thoroughly analyse a venture's founding team.

There is evidence that supports the notion that VCs are more focused on gathering information about entrepreneurs and bankers are more focused on the financial aspects of a potential transaction. For example, Mason and Stark (2004) found that bankers particularly focussed on the financials of the proposal and largely disregarded information pertaining to the entrepreneur, whereas equity investors (e.g., VCs and Business Angels) factored their assessment of the entrepreneur more strongly into their investment decision. Also, Storey (1994) provided evidence for the idea that in bank lending, personal characteristics of new firm founders are largely unrelated to lending decisions. In contrast, MacMillan, Siegel, and Subba Narasimha (1985) surveyed VCs regarding the criteria they use to evaluate new venture proposals and found that "above all it is the quality of the entrepreneur that ultimately determines the funding decision". Finally, research has also shown that in case of information asymmetry between current owners and outside (equity) investors, these investors use information regarding the legitimacy of a company's top management team as a signal of value in an attempt to reduce their investment risk (Cohen & Dean, 2005). Combined there seems to be strong evidence for the notion that information regarding the entrepreneurial team is more important to VCs than it is to bankers when it comes to funding decisions (see also: Dixon, 1991; Franke et al., 2006; Goslin & Barge, 1986; Muzyka, Birley, & Leleux, 1996; Nagy, Pollack, Rutherford, & Lohrke, 2012; Shepherd & Zacharakis, 1999; Tyebjee & Bruno, 1981).

Finally, and somewhat more speculative in nature, the differences in individual characteristics of bankers and VCs might also suggest that the similarity bias found among VCs might not generalize to bankers dealing with distressed credit. For example, it stands to reason that someone who consciously chooses to become a venture capitalist possesses different personality traits than someone aspiring to be a banker. It might for example be that due to this self-selection process, the average VC will typically be less risk averse

compared to a banker. Similarly, VCs are more akin to entrepreneurs themselves whereas bankers typically consider themselves to be more akin to trustees looking over other people's money. Indeed, whereas a venture capitalist's income is strongly tied to the success rate of his/her investments, bankers are salaried employees of a bank. Given this more entrepreneurial nature of VCs, they might be more inclined than bankers to consider other entrepreneurs who are more similar to them as having a higher likelihood of succeeding.

In sum, due to the differences between VCs and bankers discussed above, it can be argued that bankers dealing with distressed credit will be less affected by similarity bias than equity investors. This leaves us with two competing hypotheses. On the one hand, we could argue that the heuristics and biases in human cognition are so innate and automatic that we can safely assume that similar to equity investors, other type of financiers such as bankers dealing with distressed companies will most likely also succumb to the effects of similarity bias. In contrast, it might be that bankers dealing with distressed credit are actually less susceptible to similarity bias, given that equity investors in early-stage funding and bankers dealing with distressed credit differ in several important respects. An important goal of this study is therefore to provide a first test of similarity bias among professional bankers specialized in distressed credit.

By doing so, we aim to contribute to the literature on financial decision making and similarity bias in two ways. First, we aim to draw attention to the important topic of lending decisions in general in the context of financial distress and distressed credit and biases in such decisions more specifically. As argued, many entrepreneurs will at some point face strong financial decline and will therefore need to liaise with their financiers to work out a solution. Despite this context of financial and emotional turmoil providing all the ingredients for biases to manifest, no research (to our knowledge) has yet empirically tested whether biases affect bankers' sense-making process when faced with a struggling entrepreneur, or their subsequent credit decisions (for an overview of research on biases among different types of financiers and entrepreneurs outside the context of financial decline, see Zhang & Cueto, 2017). The second contribution of the current research is that we provide a first empirical investigation of the question whether bankers in the highly relevant context of entrepreneurs in financial distress are affected by similarity bias.

3.1.3 The Current Study

We tested whether bankers who are confronted with an entrepreneur in financial distress and who perceive an entrepreneur to be similar to themselves (1) are more likely to attribute the cause of the distress to external factors and thus to not hold the entrepreneur accountable, (2) are more likely to trust the

entrepreneur to be able to turn his company around, and (3) are more likely to extend additional credit. We now briefly elaborate on each of these variables.

3.1.4 Similarity Bias and Causal Attributions

A noteworthy aspect of the banker-entrepreneur relationship in the context of near insolvency is that a sense-making process might take place in which the banker aims to understand the cause of a company's financial decline. If a banker believes the entrepreneur is the primary cause of the decline (maybe even under ideal market conditions), this will likely affect the banker's trust in the entrepreneur's ability to turn his/her company around. Likewise, if a banker believes the decline is due to external circumstances, this will likely not affect the trust the banker might have in the owner.

A relevant theory to draw from when aiming to understand the relationship between causal attributions, perceived trustworthiness and risk-taking behaviour is that of Tomlinson and Mayer (2009). According to the authors, people seek to understand the cause of an adverse event (i.e., a trust violation in their model) and depending on the outcome of such causal attributions, trust repair is either facilitated or hampered. Specifically, individuals tend to analyse the cause of a trust violation along the dimensions of locus of causality (i.e., cause is internal or external to the agent), controllability (i.e., was the cause of the trust violation controllable or not), and stability (i.e., is the cause of a stable or temporal nature). If the cause of a particular adverse event is perceived to be due to external factors, this will likely not result in a trust violation in the first place, thereby nullifying the need to repair the trustworthiness of a trustee (e.g., Lewicki & Bunker, 1996; Tomlinson & Mayer, 2009). Therefore, we focus on the locus of causality (i.e., external or internal cause) as the key part of the causal attribution process. It is important to note that we do not claim that there has been a breach of trust in the banker-entrepreneur relationship when a company faces substantial decline (although there might have been). Rather, we merely consider the literature on trust repair to be of importance for the current context as an adverse event has occurred (company facing bankruptcy) and bankers will likely try to make sense of the causes of the financial decline as such knowledge is relevant for deciding whether or not to extent further credit.

We ask whether perceived similarity with an entrepreneur in financial distress is associated with external causal attributions regarding the cause of the financial distress. That is, will a banker who is faced with an entrepreneur who requires additional credit for her/his struggling business be more inclined to attribute the cause of the entrepreneur's financial problems to external factors (e.g., economic downturn, new laws/regulations, etc.), rather than to internal factors (e.g., entrepreneurial skills and leadership), when the entrepreneur is perceived as similar to the banker? A wide body of research outside

the realm of financial decision making found that following an adverse event seemingly caused by a certain actor, people are inclined to attribute the adversity to internal factors (i.e., to the actor) when the actor is dissimilar or part of an out-group, and more to external factors (i.e., to the situation) when the actor is perceived as similar or as part of their in-group (e.g., Banks, 1976; Burger, 1981; Kouabenan, Medina, Gilibert, & Bouzon, 2001; Shaver, 1970). To test whether a similar bias can be observed in the present context, we formulated the following working hypothesis:

Hypothesis 1: Perceived similarity is positively related to external causal attributions.

3.1.5 Similarity Bias, Trustworthiness and Credit Decisions

It is important to distinguish between the concepts of trustworthiness and trust. The act of extending credit to a struggling entrepreneur constitutes an act of trust, as trusting someone is typically seen as the willingness to take a risk in a relationship (Mayer, Davis, & Schoorman, 1995) or "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another" (Rousseau, Sitkin, Burt, & Camerer, 1998). Indeed, in the banker-entrepreneur relationship it is the banker who, at risk of incurring financial losses, accepts vulnerability when extending a loan based on the expectation that the entrepreneur will be able to fulfil her duties towards the bank and ultimately repay the loan. Hence, the decision to extend credit is an expression of trust on behalf of a banker. Trustworthiness on the other hand is a quality of a particular person rather than an action. A trustworthy entrepreneur is someone who is perceived by a banker to be competent, benevolent, and honest, which combined result in a level of trust in the entrepreneur (Mayer et al., 1995).

An entrepreneur's trustworthiness has been identified as a key factor in financial decision making of equity investors, often ranking among the top-three investment criteria (e.g., Aldrich & Fiol, 1994; Harrison, Dibben, & Mason, 1997; Hill, Leitch, & Harrison, 2006; Sudek, 2006; Van Osnabrugge & Robinson, 2000). Empirical research has demonstrated that the more trust-building behaviours were displayed by entrepreneurs in their relationship with business angels, the more likely they were to receive funding from these investors (Maxwell & Lévesque, 2014). Moreover, interpersonal trust in entrepreneurs, acquired through interactions over time, helps investors in the deal-making process of early stage technology ventures (Scarbrough, Swan, Amaeshi, & Briggs, 2013). Also, business angels operating in countries characterized by high levels of trust are more likely to make angel investments than those operating in countries with lower levels of trust (Bottazzi, Da Rin, & Hellmann, 2016; Ding, Au, & Chiang, 2015). Hence, trust and trustworthiness seem to

play a key role in the investor-entrepreneur relationship and research suggest this is also the case in the bank-entrepreneur relationship (e.g., Saparito, Chen, & Sapienza, 2004; Saparito & Colwell, 2010).

Outside the context of financial decision making, a relationship has been found between perceived similarity and perceived trustworthiness. For example, it has been shown that similarity in terms of facial features leads to heightened perceived trustworthiness (DeBruine, 2005; Farmer, McKay, & Tsakiris, 2014) and cooperation (DeBruine, 2002; Kret, Fischer, & De Dreu, 2015; Krupp, DeBruine, & Barclay, 2008). Within the context of mergers and acquisitions, it has been shown that higher degrees of similarity between the senior management of two firms influenced post-acquisition trust towards the acquiring firm (Yildiz, 2014). Hence, it might be that entrepreneurs who are perceived to be similar by a banker will also be perceived as more trustworthy by that banker and are also more likely to receive credit. To test this, we formulated the following hypotheses:

Hypothesis 2: Bankers who perceive an entrepreneur to be more similar to themselves will perceive the entrepreneur to be more trustworthy.

Hypothesis 3: Bankers who perceive an entrepreneur to be more similar to themselves will be more likely to extend additional credit to entrepreneurs of businesses in distress.

3.2 Method

We tested the hypotheses outlined above using experimental vignettes. We chose this specific method in large part to avoid the typical problems associated with more post-hoc methodologies in which participants are required to retrospectively indicate why they made certain decisions (e.g., Baddeley, 1979). Such methods can be sub-optimal as memories may be inaccurate and overall validity may be low (e.g., Trochim, 2001; Van Der Vaart, Van Der Zouwen, & Dijkstra, 1995). It will for example be difficult for bankers to accurately remember to what extent they perceived an entrepreneur they dealt with at some point in time to be similar to themselves and to what extent they trusted the entrepreneur. Moreover, it would be hard to take into account all the differences that exist across real-life cases to be able to isolate the influence of perceived similarity on credit decisions.

While we recognize the limitations of using vignettes, such as potential threats to the external validity and thus generalizability following from difficulties in recreating a realistic banker-entrepreneur context, overall we consider the chosen methodology appropriate and useful for the current study. Specifically, the combination of an experimental research design with a realistic scenario (the case was developed in collaboration with a senior banker)

improves the external validity, while at the same time allowing for controlling key variables and for causal inferences to be drawn. That is, by using vignettes we can keep all variables that are not of interest for the current studies fixed and therefore isolate the potential effect of similarity (for a review of the experimental vignette methodology including best practices, see Aguinis & Bradley, 2014).

We asked participants to read a business case describing an entrepreneur whose business was in financial distress and for which the entrepreneur required additional capital to finance a turnaround. Participants were asked (1) to what extent they perceived the entrepreneur to be similar to themselves, (2) what they believed the cause of the decline was (i.e., internal or external cause), (3) how trustworthy they perceived the entrepreneur to be, and finally (4) how likely they believed it to be they would comply with the entrepreneur's request and provide the additional capital necessary to avoid bankruptcy. To add to the realism of the case, we designed a case involving an entrepreneur who was active in the commercial real-estate business and who could therefore offer collateral when requesting additional capital, thereby simulating the typical situation in which a bank will have a relatively secured position.

3.2.1 Participants

In this study, 146 bankers participated and were either recruited with the cooperation of several major Dutch banks, or via an e-mail invitation. Of the total sample, 121 (82.9%) were male. The average age was 43.8 (SD = 9.5) and the average number of years of professional experience was 9.7 (SD = 7.3). This specific group of bankers all specialized in distressed credit and worked at their banks' departments that deal with businesses in distress.

3.2.2 Procedure

The study was built and administered using Qualtrics (2018) online survey software and participants received a link that directed them to the survey. At the start of the survey, participants were informed that the goal of the study was to investigate judgment and decision making processes in the context of distressed credit and that their participation was completely anonymous. Participants first answered several demographic questions regarding their sex, age, profession, and years of experience. Next, participants were presented with a business case and asked to read the case thoroughly before proceeding to the next stage. Prior to reading the specifics of the case, participants were asked to adopt the perspective of the banker who had to decide over this business case in which a struggling entrepreneur required additional capital to finance a turnaround.

After the case, participants were asked questions that aimed to measure the variables in the following order: (1) perceived similarity, (2) causal attributions, (3) perceived trustworthiness of the entrepreneur, and (4) likelihood of extending credit. Before being asked to answer the main question regarding the likelihood of extending credit, participants were once again presented with the case and thus given the opportunity to read it once more.[2]

3.2.3 Business Case

The case concerned an entrepreneur who started in the commercial real-estate business only a few years ago and who now owned five properties for commercial lease. One of the rental contracts was abruptly ended due to a bankruptcy of the business that was leasing one of the five properties. As a result, the entrepreneur's revenue dropped and he could no longer meet his obligations towards his bank anymore, which is why the entrepreneur was transferred to the department dealing with distressed credit. The entrepreneur felt that in order to be able to rent out that fifth property again, the property needed to be thoroughly renovated. Without the renovation, bankruptcy (both professional and personal) was imminent. The entrepreneur had no personal funds left and therefore needed the bank to finance the renovation. The amount required was substantial and amounted to 5% of the credit already outstanding.

3.2.4 Independent variables

3.2.4.1 Perceived similarity

Three items about the participants' supposed client (i.e., the entrepreneur) aimed to measure the perceived similarity with this client (Cronbach's $\alpha = .82$). Participants were asked to what extent they agreed with the following three statements: (1) "I believe to have a similar character as my client, [client name]," (2) "I believe to have similar norms and values as my client, [client name]," and (3) "I believe to be generally similar to my client, [client name]." Participants answered on a 7-point Likert scale, ranging from *Strongly disagree* (1) to *Strongly agree* (7). The answers to these questions were averaged to create a single score for perceived similarity.

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2 Participants were also asked to answer questions about blame attributions, their belief in free will, their sleep quality of the night before, as well as three basic arithmetic questions that aimed to measure their cognitive thinking style. These questions were included as part of a separate study and will not be discussed in this paper. Details of these questions as well as the results are available upon request.

3.2.4.2 Actual similarity

This study also experimentally manipulated actual similarity between the participant and the entrepreneur as described in the case. Specifically, participants were randomly assigned to either the "similar" condition or the "dissimilar" condition. At the beginning of the case, a brief description was provided of the entrepreneur which differed based on the assigned condition in the following dimensions: (1) age, (2) professional background, (3) educational background, and (4) socio-economic status. In the similar condition, the entrepreneur was of the same age (e.g., in his/her thirties, forties, fifties, etc.), had a professional background in financial services before starting his/her own business, completed a university degree, and had a first and last name that corresponded to names that are more common among elite families (Onland & Bloothooft, 2008). In the dissimilar condition, the entrepreneur was as far removed as possible in terms of age (i.e., in his/her sixties if participant's age < 45; in his/her late twenties if participant's age > 45), had a professional background as a communication advisor in the cultural sector, completed no formal schooling, and had a first and last name that corresponded to names that are more common among lower socio-economic groups (Onland & Bloothooft, 2008). Manipulations of socio-economic status were based on the assumption that the majority of bankers have obtained a university degree and are part of higher socio-economic groups.

Such a similarity manipulation based on only few factors such as age and background has been used in previous research and proven successful (e.g., Shaver, 1970). Indeed, age has been shown to be an important factor when categorizing individuals (Brewer & Lui, 1989). In addition, based on the minimal group paradigm (Tajfel, 1970), it should be expected that information regarding age and (professional) background are sufficient to attribute group membership towards individuals.

Nonetheless, despite the successful manipulation in previous studies of similarity using only a limited number of factors, there are many other studies which found no effect of actual similarity, but only of perceived similarity (e.g., Ferris & Judge, 1991; Strauss et al., 2001; Tidwell et al., 2013; Turban & Jones, 1988). This is in accordance with work by Byrne (1972), who suggested that for the proposed similar-to-me effect to be manifested, an observer must first actually perceive the other as similar. As we included both perceived and actual similarity in this study, we were able to compare effects relating to each factor.

3.2.5 Dependent Variables

3.2.5.1 Causal attribution

Participants' perceptions of the cause of the entrepreneur's dire situation were measured using the following two items: (1) "[Name client] is [himself/herself] the primary cause of the imminent bankruptcy of [his/her] business" and (2) "External factors outside of [name client]'s control are the primary cause of [his/her] company's imminent bankruptcy." Participants answered on a 7-point Likert scale, ranging from *Strongly disagree* (1) to *Strongly agree* (7). The first item measured internal attributions and the second measured external attributions. Considering these are two sides of the same coin and are therefore strongly correlated (r = -.46), we reverse scored the internal attribution item and then averaged the two items to get a single causal attribution score representing the extent to which participants believed the cause of the entrepreneur's difficult situation was largely due to external factors (reflected by a higher score) rather than due to the entrepreneur him/herself (reflected by a lower score). Importantly, similar effects and significance levels were found in the analyses when either item was used as a single item representing a separate construct. Hence, the conclusions remain the same irrespective of whether these two items are analysed as single items or as a two-item scale.

3.2.5.2 Perceived trustworthiness

To measure the perceived trustworthiness of the entrepreneur, three items were administered (Cronbach's α = .70). Following work by Mayer and colleagues (1995), each of these items aimed to capture a specific dimension of trustworthiness: (1) "ability", (2) "benevolence" and (3) "integrity". For ability, the item was: "I trust that my client, [client name], has the ability to make [his/her] his company financially healthy again." The item measuring benevolence was: "I trust that my client, [client name], will act in a benevolent manner towards me." The item measuring trust in the entrepreneur's integrity was: "I trust that my client, [client name], is a person of integrity who delivers on [his/her] promises and who is honest towards me." All items were answered on a 7-point Likert scale, ranging from *Strongly disagree* (1) to *Strongly agree* (7).

Mayer et al. (1995) created a questionnaire consisting of five to six items to measure each of these components of trustworthiness. In this study, however, we limited the scale to a single item per component for the following reasons. First, based on a pilot study in which we included all 17 items from Mayer et al.'s trustworthiness scale, we learned that the participants considered it difficult to answer a large number of questions about a person they did not know and of whom they had only received a brief description. Second, we wanted to use items that were relevant for the present context and focused

on trustworthiness in relation to entrepreneurship, instead of the more generic items developed by Mayer et al. (1995).

3.2.5.3 Likelihood of extending credit

We measured participants' behavioural intentions regarding the entrepreneur's request for additional capital. Specifically, the participants were asked, if they were the banker deciding over this particular case, how likely it was that they would provide the entrepreneur with the required funds to finance the property's renovation. This variable was measured by asking participants the following question: "How likely do you believe it to be that you would comply with [client name]'s request for additional funding for the renovation?" Participants answered on a 7-point Likert scale, ranging from *Very unlikely* (1) to *Very likely* (7).

3.3 Results

3.3.1 Data Preparation

We thought it important that participants properly read the case as this was vital for being able to answer the subsequent questions. Therefore, participants who spent less than 60 seconds on the case were excluded from the analyses. This is cut-off criterion that we chose and which is purposefully lenient as reading the case that consisted of 447 words in 60 seconds would require a reading speed of 7.3 standard deviations above the average reading speed (M = 228 words per minute, SD = 20; (Trauzettel-Klosinski & Dietz, 2012). Hence, it is safe to assume we only excluded those who indeed did not devote sufficient attention to the case. In total, six participants were excluded from the analyses and doing so did not affect any of the findings as similar effects and significant levels were found when the complete sample was analysed.

3.3.2 Similarity Bias

First, we tested whether participants in the similar condition perceived the entrepreneur to be more similar than participants in the dissimilar condition. We found a statistically significant difference in the expected direction, $t(138) = 4.08$, $p < .001$, $d = 0.70$, such that those in the similar condition (M = 3.72, SD = 1.13) also perceived the entrepreneur to be more similar to themselves than those in the dissimilar condition (M = 3.02, SD = 0.91).

Next, two separate analyses were conducted to test for similarity bias in the participants' causal attributions, trustworthiness judgments, and ultimate credit decision. We conducted a Multivariate Analysis of Variance (MANOVA)

to test whether manipulated similarity affected the dependent variables. The results showed a multivariate effect of manipulated similarity, $F(3,136) = 6.23$, $p = .001$, $\eta_p^2 = .121$. Subsequent univariate analyses revealed that manipulated similarity affected only the perceived trustworthiness of the entrepreneur, $F(1,138) = 10.46$, $p = .002$, $\eta_p^2 = .070$, such that entrepreneurs were deemed to be more trustworthy by those in the similar condition ($M = 4.76$, $SD = 0.85$) than by those in the dissimilar condition ($M = 4.31$, $SD = 0.79$). No effect was found for causal attributions, $F(1,138) = 0.72$, $p = .398$, $\eta_p^2 = .005$, or for the final credit decision, $F(1,138) = 1.35$, $p = .248$, $\eta_p^2 = .010$. Please see Table 3.1 for the results.

Table 3.1. Means, standard deviations, and statistical tests for the manipulated similarity conditions for each of the three dependent variables.

	Dissimilar condition		*Similar condition*				
	M	*SD*	*M*	*SD*	*F*(1,138)	*p*	η_p^2
Causal attribution	3.96	1.05	4.11	1.05	0.72	.398	.005
Trustworthiness	4.31	0.79	4.76	0.85	10.46	.002	.070
Credit decision	4.71	1.45	4.51	0.85	1.35	.248	.010

In addition to manipulated similarity, we conducted correlation analyses to see whether perceived similarity correlated with any of the dependent variables. As Table 3.2 shows, perceived similarity significantly correlated with external causal attributions (Pearson $r = .195$, $p = .021$) and perceived trustworthiness (Pearson $r = .305$, $p < .001$), but not with the likelihood of extending credit (Pearson $r = .106$, $p = .214$).

Table 3.2. Pearson correlations for the independent variables at the dependent variable "Credit decision" (N = 140). * $p < .05$, ** $p < .01$

	M	*SD*	Sim. (manip.)	Sim. (perc.)	Causal attr.	Trust-worth.	Credit decis.
Similarity (manipulated)			-	.33**	.07	.27**	-.10
Similarity (perceived)	3.33	1.07		-	.20*	.31**	.11
Causal Attribution	4.03	1.07			-	.34**	.37**
Trustworthiness	4.51	0.85				-	.39**
Credit decision	4.58	1.45					-

3.3.3 Exploratory Analyses

For exploratory purposes, we tested whether the variables used were related in such a way that the relationship between perceived similarity and the likelihood of extending credit was mediated in a serial manner by causal attributions and perceived trustworthiness. Specifically, we hypothesized that the relationship between perceived similarity and the likelihood a banker will extend credit to a struggling entrepreneur is mediated in serial by causal attributions and perceived trustworthiness, such that high levels of perceived similarity lead to more external causal attributions, which increase the perceived trustworthiness of the entrepreneur, ultimately resulting in a higher chance of extending the required capital by the banker (see Figure 3.1).

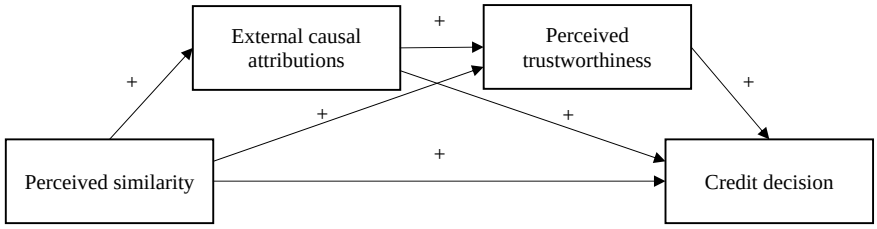

Figure 3.1. Hypothesized serial mediation model for the relationship between perceived similarity and bankers' credit decisions.

To investigate the exploratory hypothesis that perceived similarity predicts the final credit decision through causal attributions and perceived trustworthiness, we performed a serial mediation analysis using Hayes (2013) PROCESS (10.000 bootstraps). The analyses of the mediation paths revealed that

perceived trustworthiness mediates the relationship between perceived similarity and the final credit decision (see also Table 3.3), as indicated by a significant indirect effect, b = .11, 95% CI [0.03, 0.21]. Furthermore, the mediation path from perceived similarity through causal attributions to the final credit decision was also significant, b = .08, 95% CI [0.01, 0.18]), as well as the total serial mediation model, b = .02, 95% CI [0.004, 0.05]. A comparison of the regression weights of the different indirect effects shows that the indirect effect through perceived trustworthiness accounted for the majority of the variance (see Table 3.4).

Table 3.3. Unstandardized regression coefficients (b), standard errors (SE) and significance levels (p) for the proposed sequential mediation model for Study 3, with causal attribution (M_1), blame (M_2), and trustworthiness (M_3) as mediators of the relationship between perceived similarity (X) and the final Credit decision (Y).

	M_1			M_2			Y (Credit decision)		
	b	*SE*	*p*	b	*SE*	*p*	b	*SE*	*p*
X (Sim. Perc.)	0.19	0.08	.021	0.20	0.06	.002	-0.06	0.11	.59
M_1 (Causal attr.)	-	-	-	0.23	0.06	<.001	0.37	0.11	.001
M_2 (Trustw.)	-	-	-	-	-	-	0.54	0.14	<.001
Constant	3.39	0.29	<.001	2.92	0.31	<.001	0.83	0.66	.59
	$R^2 = .038$			$R^2 = .172$			$R^2 = .219$		
	$F(1,138) = 5.46$, $p = .021$			$F(2, 137) = 14.24$, $p < .001$			$F(3,136) = 12.68$, $p < .001$		

Table 3.4. Unstandardized regression coefficients (b), standard errors (SE) and 95% confidence intervals for each path of the sequential mediation analysis of Study 3.

Path	b	*SE*	95% CI
Sim. → Cause → DV	.072	.037	0.01, 0.15
Sim. → Trustworthiness → DV	.107	.046	0.03, 0.21
Sim. → Cause → Trustworthiness → DV	.024	.013	0.004, 0.05

3.4 Discussion

We set out to draw attention to the important yet understudied topic of decision making processes in the context of financial decline. Additionally, we aimed to provide a first empirical test of whether bankers dealing with distressed credit succumb to similarity bias when confronted with an entrepreneur in financial distress who requires additional capital to save his/her business. The data showed that bankers appear only partly to succumb to the effects

of similarity bias in that they attribute the cause of the distress to external factors rather than to the entrepreneur and also consider the entrepreneur to be more trustworthy when the entrepreneur is perceived as more similar to the banker than when the entrepreneur is perceived as dissimilar. Importantly, however, similarity with the entrepreneur (manipulated or perceived) was not significantly related to the likelihood of extending credit. This finding suggests that ultimately, bankers might not be affected by similarity bias when deciding whether or not to extend additional credit to an entrepreneur in financial distress.

It is noteworthy that perceived similarity was in fact associated with external causal attributions and increased perceived trustworthiness of the entrepreneur. It seems therefore that in line with the discussed literature on similarity bias, bankers are similar to other financial professionals in the sense that perceived similarity does affect their causal attributions and perceptions of trustworthiness, but just not their ultimate inclination to extend credit to entrepreneurs in financial distress. With this data, we provide the first evidence for the idea that, given the idiosyncrasies of bankers dealing with distressed credit (e.g., less information asymmetry, increased focus on 'hard' financial data, etc.), this particular subset of financial professionals might be less susceptible to similarity bias (compared to other financial professionals such as equity investors) when deciding over lending requests.

Despite the absence of an overall relationship between perceived similarity and the credit decision (i.e., no total effect), the exploratory mediation analyses revealed that causal attributions and trustworthiness judgments mediated the relationship between perceived similarity and the decision to extend credit in a sequential manner. Moreover, we also found that perceived similarity predicted causal attributions and perceived trustworthiness of the entrepreneur, which then predicted the likelihood of extending the requested capital. The indirect effect from perceived similarity to the likelihood of extending credit through perceived trustworthiness was the strongest. Importantly, no total effect was found, suggesting that ultimately perceived similarity was not related to the credit decision.

The existence of a significant indirect effect in the absence of a total effect can suggest the existence of a suppression effect (e.g., Mackinnon, Krull, & Lockwood, 2010; Rucker, Preacher, Tormala, & Petty, 2011) in which one or more suppressor variables that were not included in the model suppressed the positive indirect effect, resulting in a net effect of zero. However, as of yet we are unsure what exactly can explain the existence of an indirect (albeit small) effect in the absence of a total effect. Regardless, the conclusion concerning bankers being less affected by similarity bias remains the same. That is, bankers were affected by similarity bias in their causal attributions and trustworthiness judgments, but this ultimately did not influence their credit decisions.

3.4.1 Theoretical Implications

Our findings have several theoretical implications in light of previous research. First, the current study adds to the literature on biases in financial decision making by providing the first investigation of similarity bias among bankers dealing with entrepreneurs in financial distress. We consider this study to be of added value as we questioned whether previous research on similarity bias among VCs could be generalized to the specific context of bankers facing lending requests from entrepreneurs in financial distress. The finding that bankers in our study were less affected by similarity bias when deciding whether or not to provide new capital to an entrepreneur in financial distress contradicts previous research that did find a similarity bias in financial decision making among venture capitalists (e.g., Becker et al., 2019; Franke et al., 2006; Murnieks et al., 2011). We encourage future research to build on the present work and use the inherent differences across financial professionals and institutions to shed more light on when biases are more (or less) likely to occur and among which group. Doing so may result in useful insights that can ultimately be used to reduce the unwanted impact of biases in financial decision making. Considering research on debiasing in entrepreneurship research is rather limited (Zhang & Cueto, 2015), the suggested route might prove to be useful for further work on debiasing methods.

Second, the results can shed light on which factors affect bankers' decision making when confronted with an entrepreneur in financial distress. The empirical research on bankers' judgments and decision making is scarce, particularly in the context of distressed credit, which is why the current research is particularly useful. From the research on investment decision making of VCs it is already known that trust in the entrepreneur is a key variable (e.g., Aldrich & Fiol, 1994; Harrison et al., 1997; Hill et al., 2006; Sudek, 2006; Van Osnabrugge & Robinson, 2000) The results of the current research suggest that similar to VCs, perceived trustworthiness is an important predictor of bankers' credit decision (see also Howorth & Moro, 2006, 2012; Moro & Fink, 2013). Moreover, idiosyncratic to the current context of distressed credit, attributions regarding the cause of a business' decline also predicted the intention to provide additional capital.

Finally, we provide support for and extend Tomlinson and Mayer's (2009) model of trust repair. Specifically, in line with that model of trust repair, we found that in this situation involving an adverse event (in their model a trust violation), causal attributions indeed matter for perceptions of trustworthiness. Moreover, we found support for the link from causal attributions to perceived trustworthiness to trusting behavior (i.e., extending credit). Additionally, we extend the model of trust repair by including perceived similarity as a factor. Indeed, perceived similarity affected both perceived trustworthiness and causal attributions, which in turn predicted the likelihood of extending credit.

3.4.2 Practical implications

We consider the finding that bankers appear to be less susceptible to similarity bias in their credit decision to be relevant not only for bankers, but also for equity investors and entrepreneurs. Specifically, based on knowledge regarding biases in different types of financiers, entrepreneurs can adjust their strategy accordingly. For example, when looking to get funding from VCs in an early stage, entrepreneurs are probably better off spending sufficient time building a good relationship with the VCs and in particular finding common ground, rather than focusing continually on for example their financial projections. Likewise, when facing financial decline and requiring additional capital from their bank, entrepreneurs can probably better spend their time convincing their banker that their earning potential and anticipated cash flow is looking favorable given the market conditions (i.e., 'hard' quantitative information), rather than trying to establish common ground and improving on the relationship.

Ultimately, if our findings hold true, research should focus on examining what exactly makes bankers less susceptible to similarity bias, as these insights could help other financial professionals such as equity investors to protect themselves from this bias' influence. For example, it has been suggested that relative to equity investors, bankers have a more standardized and structured approach to their credit decisions, resulting in consistency in their judgments (Mason & Stark, 2004). Therefore, equity players might benefit from adopting similar approaches in analysing their investment opportunities, in order to limit the potential effect of similarity bias from weighing too heavily on their decision. Also, once research has identified what exactly helps bankers to protect themselves from similarity bias, bankers themselves can more effectively home in on those elements and further limit the bias' effects.

Alternatively, a fruitful avenue for future research aiming to find the drivers behind the findings of the current research is that of investigating individual differences that might moderate susceptibility to similarity biases. For example, we would encourage future research to include personality measures or other factors that might affect susceptibility to similarity biases. For example, the personal need for structure might influence the degree to which financial professionals will categorize an entrepreneur and subsequently compare themselves to the entrepreneur (Moskowitz, 1993). Likewise, in line with research showing that analysts rely less on intuition in their judgments (Thoma, White, Panigrahi, Strowger, & Anderson, 2015), it might be worthwhile to include the Cognitive Reflection Test (CRT; see for example Pennycook, Cheyne, Koehler, & Fugelsang, 2016) in future studies to investigate the potential moderating role of thinking styles.

3.4.3 Limitations and Future Research

Some issues remain with this study, and these should be studied carefully in research following the findings presented herein. First, even though we found robust evidence for the notion that perceived similarity in the banker-entrepreneur relationship has relevant consequences for causal attributions and perceived trustworthiness, the finding that perceived similarity was ultimately unrelated to credit decisions in bankers warrants further scrutiny. First of all, the methods used have some limitations. As is inherent to the methodology of experimental vignettes, it remains uncertain to what extent the findings can be generalized to real-life cases. Even though the case was developed in collaboration with bankers and was perceived as realistic, an online study is different from actually interacting with entrepreneurs and having to make consequential decisions. It would therefore be worthwhile to build on the current research by using different methods.

Moreover, the scales we used for measuring causal attributions and perceived trustworthiness were based on previous research, but with the purpose of keeping the study as short as possible to increase conversion rates, we significantly reduced the number of items used (two for causal attributions and three for perceived trustworthiness) and also made them context specific. As a result, despite having high face validity and acceptable internal consistencies, the scales we used were not validated and may thus lack construct validity.

Overall the materials we used were relatively idiosyncratic, and before drawing strong conclusions it would be necessary to replicate the findings using different materials, populations, and methods. Specifically, we used a sample of Dutch bankers, (2) presented these bankers with a very specific scenario of a struggling entrepreneur in the real-estate sector, and (3) used self-report measures for the expected likelihood of extending credit rather than measuring actual behavior. Combined, these points warrant a careful assessment of the generalizability of the present findings to other, real-world settings. In particular, the case focused on an entrepreneur in the commercial real-estate sector. Even though we purposefully chose this sector to add to the realism of the case (i.e., by focusing on collateralized loans), it is possible that credit decisions in this context are different from other contexts in which entrepreneurs can offer less collateral, making the loans more risky.

Moreover, the current sample was predominantly male, which therefore did not allow for a comparison between male and female bankers. Given the finding in previous research that male and female loan officers adhere to slightly different criteria in assessing loan applications, as well as the finding that these genders use different negotiation strategies (Carter, Sara; Shaw, Eleeanor; Lam, Wing; Wilson, 2007), it would be worthwhile for future research to take gender into account.

Furthermore, it might be that the finding of bankers not being affected by similarity bias might be confined to the specific context of companies in financial distress. It might therefore be that when bankers have to decide whether or not to extend credit to an entrepreneur with whom the bank does not have a prior history, bankers will be equally incentivized to closely observe and analyse the company owners to gather as much 'soft' information as they can to base their decision on, possibly making it more likely for similarity bias to have an effect. There is already some evidence that suggests that in initial lending applications, the behaviour entrepreneurs display (i.e., voluntary information disclosure) affects bankers' perceptions of entrepreneur competence, suggesting that at least in the absence of an existing relationship, bankers might actively evaluate entrepreneurs to reduce the risk associated with extending credit (Moro, Fink, & Kautonen, 2014).

Having said that, relative to equity investors, bankers are less likely to provide credit in the initial stages of venture formation and growth, precisely because there is too little information available on the business' viability (making lending too risky). Whereas bankers are unlikely to invest in the earliest stages, equity investors might find themselves in a similar position as bankers dealing with distressed credit when a company they invested in faces substantial decline and requires additional capital to survive a loss-making phase. Hence, it would be interesting to see whether equity investors are also less affected by similarity bias when they too have access to 'hard' quantitative data in addition to soft data, both acquired over a prolonged period of working together. In other words, did we find a lack of similarity bias among bankers primarily because of unique features of this group, or can the results also be explained by differences in the amount of hard and soft information available at different stages of the financier-entrepreneur relationship?

Another factor that might be relevant in this regard is a bank's size. That is, large banks are typically more distant and less relationship based. Small banks on the other hand seem better able to acquire and rely on 'soft' information when extending credit. Indeed, research has shown that large banks use a more standardized credit assessment approach, whereas smaller banks rely more heavily on the pre-existing relationship with the borrower (Berger, Klapper, & Udell, 2001; Berger, Miller, Petersen, Rajan, & Stein, 2005; Cole, Goldberg, & White, 2004). It may therefore be that smaller banks might in a sense be more similar to equity investors in that they are willing to (and have to) provide capital when information is scarce.

In sum, following the current research it remains uncertain whether the lack of similarity bias among bankers can be generalized to real-world contexts, and if so what exactly can explain the absence of this bias. Nonetheless, we consider the findings of the current research to be of added value to the literature and encourage future research to study differences in cognitive biases in different types of financial professionals in different phases of the entre-

preneurial life cycle, as this can ultimately lead to invaluable insights on how to reduce cognitive bias in the crucial context of assessing a business' potential.

The remaining chapters of this dissertation switch to legal professionals as the subjects of investigation. The next chapter investigates whether legal professionals can be affected by similarity bias when evaluating business valuations and business valuators in the context of selling distressed assets. In addition to similarity bias, it is investigated whether in this context legal professionals can also succumb to outcome bias and gender bias.