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

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4 Legal Professionals Judging Business Valuations and Valuators

The Role of Similarity, Outcome and Gender Bias[1]

ABSTRACT

Legal professionals are frequently confronted with complex valuation issues, as in business many disputes revolve around conflicting views on a business' valuation (i.e., the present value of a company's future earnings as determined by a valuator). Ideally, legal professionals judge valuations solely on the basis of the correct application of the selected valuation method. However, legal professionals are generally not trained to judge an economic valuation on its mathematical and methodological soundness. Therefore, the present experimental study (N = 272) investigates which factors might influence legal professionals' opinions concerning valuations and valuators. We demonstrate that legal professionals' judgments of valuations and valuators are affected by (1) the degree of perceived similarity with the valuator (i.e., similarity bias), (2) the outcome of a deal in which a valuation was used (i.e., outcome bias), and (3) the valuator's gender (i.e., gender bias). Implications for theory and legal practice are discussed.

4.1 INTRODUCTION

In business transactions, it is common for the parties involved to perceive the value of a company or asset very differently, frequently resulting in lengthy and costly legal disputes. Consider for example a seller and a buyer of a company arguing about the value of the company as the buyer believes the seller overvalued the company. Or consider a company shareholder who is obliged to transfer his/her shares to another shareholder following a shareholder dispute, and who believes these shares are worth much more than the other shareholder does. Similar situations of differing value perceptions and resultant disputes can for example be found when (1) a shareholder suffered damages as a result of an unlawful act by another shareholder and the loss of value has to be determined, (2) tax authorities disagree on the value of a

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specific company after shares have been transferred within a family circle, or (3) creditors who disagree with company owners on the value of the distressed company where a debt-for-equity swap is proposed. Hence, there are numerous litigations involving business valuations, making these valuations the subject of lengthy and costly legal proceedings.

In such disputes, legal professionals are confronted with and need to form an opinion on complex valuation issues. When evaluating the quality and accuracy of a business valuator's work, legal professionals ideally base their judgments solely on the correct application of the selected valuation method. However, valuation methods, such as the widely accepted Discounted Cash Flow (DCF) method, are vulnerable to 'errors' in the associated inputs (Bancel & Mittoo, 2014), and sensitive to underlying (valuation) assumptions (e.g., Baker, Ruback, & Wurgler, 2007; Ben-David, Graham, & Harvey, 2007; Heaton, 2002; Nikolic & Yan, 2014; Roll, 1986). Such complexities make business valuations highly technical exercises requiring advanced quantitative and financial skills. One may ask whether legal professionals are really capable of judging a valuation on its own merit, since they are usually not formally trained or qualified in the field of business valuation. This then begs the question on which grounds – other than the actual quality of a valuation or valuator – legal professionals (either as a representative of a stakeholder, or as a representative of the court) evaluate valuators and their valuations.

This question is important as legal professionals are frequently presented with complex valuation issues. Just in 2017 the Delaware Court of Chancery in the United States of America (i.e., a non-jury trial court specialized in settling disputes involving fairness decisions for different types of business entities) produced more than 230 opinions and orders, involving (among others) companies listed on the New York Stock Exchange and NASDAQ (Opinions and Orders, 2018). Additionally, in Europe where commercial courts settle commercial disputes involving legal and financial experts, the number of civil cases brought to court has been significant. In 2005, for instance, seventeen Dutch courts appointed 205 financial expert witnesses in total, and this figure does not yet include experts appointed by the litigants (de Groot & Elbers, 2008).

Moreover, in the context of (near) insolvency, legal professionals are increasingly presented with complex valuation issues as a result of the global trend towards business rescue, rather than having businesses file for bankruptcy. Specifically, following the example of Chapter 11 proceedings in the US in which debt restructurings allow businesses to continue as a going concern, other countries are now adopting laws and regulations that aim to provide businesses with a second chance. For example, the UK has its so-called "scheme of arrangements" (Companies Act, 2006) in which the court arranges debt restructurings and forms agreements between shareholders and creditors with the goal of facilitating a fresh start. Similar procedures are found in for example Australia (Corporations Act, 2001) and South Africa (Companies Act,

2008). Likewise, the European Committee is actively working on harmonizing its nation states' bankruptcy laws with the purpose of enabling business rescues to run more smoothly. With this growing focus on business rescue, valuation issues are becoming increasingly common. For example, based on a valuation of a company's earning capacity it is determined (in order to minimize damages for creditors) whether a business is more valuable as a going concern or whether a liquidation is more economical. In case of a potential fresh start (i.e., avoiding bankruptcy), the value of a company needs to be determined to find potential investors, fresh capital to fund the restructured business, or to value the claims of the different capital providers. In sum, legal professionals are frequently confronted with situations involving business valuations and due to the described trends this will only increase further.

Given the inherent complexity of judging valuations on their own merit, we investigated which factors might unjustifiably influence legal professionals' judgments of valuators and their valuations. Specifically, we aimed to explore whether cognitive biases can affect the trust that legal professionals have in valuators and in the soundness of these valuator's valuations. In this way, we set out to not only expand the existing literature on heuristics and biases in judicial proceedings by examining cognitive biases in a business valuation context, but more importantly to further our understanding of potential issues that might arise in the numerous cases where legal professionals are confronted with business valuations. Indeed, this legal context, which has received scant research attention, is important as biased perceptions of a valuator or a valuation may play a role in producing wrongful legal judgments and, consequently, bring considerable financial and/or emotional harm to the parties involved.

4.1.1 Cognitive Biases in Judging Valuators and Valuations

The notion that humans can deviate from the rational standard as a result of heuristics and biases has been well established (e.g., Kahneman & Tversky, 1979; Tversky & Kahneman, 1974). Additionally, the effects of heuristics and biases on decision making when dealing with complex financial matters has received ample research attention (e.g., Adebambo & Yan, 2018; Baker et al., 2007; Ben-David et al., 2007; Bikas, Jurevièienë, Dubinskas, & Novickytë, 2013; Daniel, Hirshleifer, & Subrahmanyam, 1998; De Bondt & Thaler, 1995; Heaton, 2002; Roll, 1986; Shefrin & Statman, 1985; Shiller, 2003; Slovic, 1972). However, to our knowledge, little or no research has been conducted on how biases might affect legal professionals in the context of disputes involving business valuations. We consider this an important gap to fill, as further insight into the dynamics of valuation disputes might ultimately help reduce the number (or length and costs) of disputes in this field.

The current research focusses on three well-known cognitive biases: similarity bias, outcome bias, and gender bias. We first briefly discuss each of these biases and elaborate on how these might affect legal professionals' judgments of valuators and valuations.

4.1.2 Similarity Bias

Similarity bias is usually conceptualized as prejudice towards and a biased perception of another individual based on sharing certain traits with that individual, such that those who are perceived to be more similar are evaluated more positively (e.g., Byrne, 1972; Vivian Chen, Lee, & Yvonne Yeh, 2008). Similarity bias has been shown to affect perceptions and judgments across different contexts, such as performance evaluations (e.g., Turban & Jones, 1988), hiring decisions (e.g., Vivian Chen et al., 2008) and cooperative behaviour (e.g., Balliet, Wu, & De Dreu, 2014). Most important for the present purposes, similarity biases have also been found in legal decision making. For example, it has been shown that minority participants (acting as jury members) showed positive in-group biases when evaluating the culpability of rape offenders, such that perpetrators were more often judged to be guilty when the rape victim was of the same ethnicity as the participant (Rector & Bagby, 1997). Moreover, jury members who saw themselves as similar to the defendant in terms of religiosity were typically less certain of the defendant's culpability (Miller, Maskaly, Green, & Peoples, 2011). Also, mock jury members perceived an expert witness as more credible when they also perceived the expert witness to be more similar to themselves in terms of personality (Gardner et al., 2013). Importantly, these effects seem not to be limited to lay people (i.e., jury members); they appear to affect legal professionals as well. Specifically, it has been found that justices' votes in US Supreme Court freedom-of-expression cases reflected their personal preferences towards the speech's ideological grouping (i.e. conservative or liberal), concluding that US Supreme Court judges can be affected by in-group biases (Epstein, Parker, & Segal, 2018).

However, it remains uncertain whether similarity bias can affect legal professionals when dealing with business valuation matters, especially because the evidence of similarity bias in financial decision making is scarce. Nonetheless, some research suggests financial judgments are not immune to similarity bias. For example, venture capitalists have been shown to evaluate opportunities more favourably when these are represented by entrepreneurs who 'think' in ways similar to their own, and that they tend to favour teams similar to themselves in type of training and experience (Franke et al., 2006; Murnieks et al., 2011). Also, recent work has shown that when financial analysts perceive a CEO to be similar to themselves in terms of personality, they will issue more positive forecasts of the CEO's company than when they perceive the CEO to be dissimilar (Becker et al., 2019).

We consider it an interesting and relevant question to test empirically whether legal professionals are affected by similarity bias when judging valuators and their work. Could it be, for example, that legal professionals have more trust in a valuation made by a valuator who is perceived as similar to themselves, even though this valuation might actually be of lesser quality than one conducted by a valuator who is perceived as less similar? To test the potential existence of such a similarity bias, we formulated the following hypothesis:

> *Hypothesis 1a: When legal professionals perceive a valuator to be more similar to themselves, they have more trust in the valuation.*

In addition to the hypothesized link between perceived similarity and trust in a valuation, we also tested to what extent the perceived trustworthiness of the valuator mediates this relationship. We expect that the higher the perceived similarity between a legal professional and a valuator, the more trustworthy the valuator will be perceived to be, and, consequently, the more trust the legal professional will have in the valuator's valuation. The distinction between trust and trustworthiness deserves further consideration. The act of trusting a valuation outcome and using that outcome in subsequent negotiations is considered an act of trust, as trust can be defined as the willingness to take a risk in a relationship (Mayer et al., 1995) or as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another" (Rousseau et al., 1998). Trustworthiness is different in that it is a quality of a particular person rather than an action. A legal professional who considers a valuator to be trustworthy believes that valuator is competent, benevolent, and honest, which together lead to heightened trust in the valuator (Mayer et al., 1995).

Hence, we expect perceived trustworthiness of a valuator to mediate the relationship between perceived similarity and trust in the valuator's valuation. There is evidence for the notion that perceptions of trustworthiness can be affected by the degree a person is perceived as similar by an observer (e.g., Cazier, Shao, & Louis, 2007; Lui, Ngo, & Hon, 2006; Racherla, Mandviwalla, & Connolly, 2012; Yildiz, 2015). For example, even when people only match in terms of facial features, this is sufficient to increase perceptions of trustworthiness (DeBruine, 2005; Farmer, McKay, & Tsakiris, 2014), as well as subsequent cooperation (DeBruine, 2002; Kret, Fischer, & De Dreu, 2015; Krupp, Debruine, & Barclay, 2008). Therefore, based on the above we formulated the following hypothesis:

> *Hypothesis 1b: Perceived trustworthiness of the valuator mediates the relationship between perceived similarity and trust in the valuation.*

4.1.3 Outcome Bias

Outcome bias is the tendency to take the outcome of a certain decision into account when evaluating that decision, "in a way that is irrelevant to the true quality of the decision" (Baron & Hershey, 1988, p. 570). In other words, people tend to judge the quality of an earlier decision for a large part on its outcome, rather than on evaluating the elements that led to the decision.

A substantive body of literature has been published on outcome bias across a range of different contexts. For example, research shows that the worse the consequences of a particular accident are, the greater the tendency to assign higher levels of responsibility and blame for the accident to the initiator (Baron & Hershey, 1988; Walster, 1966). Gino, Moore, and Bazerman (2009) demonstrated that people condemn unethical behaviour more strongly and assign greater levels of blame when the (randomly generated) outcome of the behaviour has detrimental consequences relative to when people are unaware of the behaviour's consequences. In a medical context it has been demonstrated that when people are asked to evaluate a surgeon's decision to perform an operating on a patient, this decisions is judged more negatively when (all else being equal) the operation ultimately fails and the patient dies compared to when the operation is successful and the patient recovers (Sezer, Zhang, Gino, & Bazerman, 2016). In financial decision making, people believed an auditor to be more negligent after an adverse outcome (i.e., business failure) compared to when these individuals remained ignorant of the outcome (Kadous, 2000; Peecher & Piercey, 2008). Also, when finance managers had to evaluate their agents' investment strategies and assign bonuses accordingly, these managers evaluated the same strategy more favourably when it resulted in a good payoff, even if they otherwise had a negative perception of the investment strategy (König-Kersting, Pollmann, Potters, & Trautmann, 2017).

Outcome biases can also be found in legal decision making. For example, evaluations of medical negligence were strongly influenced by knowledge of an adverse outcome, such that the same actions of a medical specialist were evaluated less harshly if one was ignorant of any adverse outcome (Hugh & Dekker, 2009, see also Harley, 2007; Kamin & Rachlinski, 1995). There is also some evidence that legal professionals such as judges can be affected by outcome information (e.g., Anderson, Lowe, & Reckers, 1993; Kneer & Bourgeois-Gironde, 2017).

We investigated whether legal professionals are also affected by outcome information when evaluating a business valuator. Specifically, when a business valuator conducted a valuation and this valuation is used to negotiate a deal, will legal professionals evaluate the valuator more negatively when the deal turns out to be a bad one compared to when the deal turned out to be a good one? Outcome bias can be disadvantageous for valuators as this may result in increasingly negative perceptions of both the valuation and the valuator when the outcome of a deal is unfavourable. Hence, valuators might be

exposed to the risk of being unduly blamed for an adverse outcome, being excluded from future work despite the quality and soundness of their work, or even be held liable. To test whether legal professionals are affected by outcome bias in this context, we formulated the following hypothesis:

> *Hypothesis 2: Valuators will be judged more negatively following an undesirable outcome and more positively following a desirable outcome.*

4.1.4 Gender Bias

Gender bias entails the automatic (conscious or unconscious and positive or negative) prejudice or preference towards a specific gender (Greenwald & Banaji, 1995; Rothchild, 2007). This bias has been studied in a range of different contexts, such as career success, corporate leadership, and female leadership (e.g., Hoyt & Murphy, 2016; Kanter, 1977), and within certain occupational groups such as teachers, scientists and lawyers. Research shows that both men and women place a higher trust in their superior when that superior has the same gender (Scott, 1983), that men are often preferred to equally qualified women (Marlowe, Schneider, & Nelson, 1996), and that men are believed to be more competent and have greater status compared to women (Ridgeway, 2001).

More importantly for the present purposes, gender bias has also been found in the legal domain. It has been shown that gender bias occurs in federal courts in the US, as demonstrated in situations such as courtroom interaction, jury instructions, judicial staffing, and attitudes towards female judges and lawyers (Resnik, 1993). Moreover, when forensic psychiatric clinicians and judges were given a written vignette describing a homicide case, female defendants were judged significantly more often as legally insane relative to male defendants (Yourstone, Lindholm, Grann, & Svenson, 2008). Additionally, in a study investigating attorneys' credibility, mock jurors indicated that male attorneys were more likely to be retained as their own personal council than female attorneys (Hodgson & Pryor, 1984).

Interestingly, it appears that not only do men judge women more negatively, in some contexts women also judge other females more negatively. For example, in the same study that investigated attorneys' credibility, female participants rated a female attorney as significantly less intelligent, less friendly, less pleasant, less capable, less expert, less trained, and less experienced than a male attorney (Hodgson & Pryor, 1984). In contrast, male participants did not demonstrate such a gender bias. Similarly, research has shown that women are perceived (both by men and women) to be less similar to successful scientists than men are (Carli, Alawa, Lee, Zhao, & Kim, 2016). Moreover, within the context of female leadership, successful women sometimes aim to defend their position in (male-dominated) organizations by actively disad-

vantaging other women in their rise to the top (the 'Queen bee syndrome'; Baumgartner & Schneider, 2010; Derks, Van Laar, & Ellemers, 2016; Mathison, 1986). However, in other contexts women are perceived more positively by other women, as indicated by a study that showed that female physicians rated the abstract of a medical research design more positively in case the authors were female compared to when they were male, whereas male assessors did not show such a bias (Johansson, Risberg, Hamberg, & Westman, 2002). Hence, gender bias can be found both among men and women and differs such that people sometimes favour and at other times disfavour their own gender.

Therefore, it is not completely clear how gender bias might affect perceptions of valuators and their valuations. To test this potential bias in legal professionals' evaluations of valuators and their work, we formulated the following working hypothesis:

Hypothesis 3: Legal professionals have more trust in a valuator and the valuation if the gender of the valuator matches their own.

4.1.5 The Current Study

Using an experimental research design, we studied a unique sample of legal professionals to see whether they are affected by similarity, outcome, and gender bias when dealing with valuation issues. Specifically, we addressed the three hypotheses: (1) whether legal professionals have more trust in a valuation when this valuation has been conducted by a valuator who is similar to themselves rather than dissimilar, (2) whether legal professionals evaluate a valuator more negatively after a bad deal than after a good deal, and (3) whether evaluations of valuators and their valuations are in some way affected by the gender of the valuator and/or the legal professional.

The legal professionals who participated in this study were presented with a business case involving a business valuation. The context of the case was a business that recently went bankrupt and for which a trustee was appointed to settle the estate. In the case, the trustee hired a valuator to determine the value of the company prior to engaging in negotiations with potential buyers. Participants were asked to put themselves in the shoes of the appointed trustee and to evaluate the valuation and role of the valuator from the perspective of the trustee handling the estate.

4.2 METHOD

4.2.1 Participants

A total of 272 legal professionals in the field of business rescue and insolvency completed an online survey, for which they were approached via e-mail. Participants were members of INSOL International, a world-wide federation of national associations of legal professionals who specialize in turnaround and insolvency. Of these, 125 participants reported working as insolvency lawyer (46.0%), 89 as insolvency practitioner (32.7%), 32 as accountant (11.8%), 21 as turnaround/restructuring consultant/manager (7.7%), 17 as trustee, (6.3%), 17 as legal scholar (6.3%), 13 as judge (4.8%), 6 as banker (2.2%), and 13 chose 'other' (4.8%).[2] To ensure a relevant sample was obtained for our purposes, participants were asked whether they are confronted with decisions in their work that involve valuation outcomes; 83.5% answered positively.[3]

We aimed to get an even split between male and female participants, resulting in a distribution of 126 females (46.3%) and 146 males. The average age of the participants was 45.1 (SD = 11.5) and they had on average 19.1 years (SD = 11.2) professional experience. Forty different countries are represented in the sample. The six most represented countries are: The United Kingdom (26.5%), Australia (16.2%), South Africa (9.2%), Canada (5.5%), the United States of America (4.8%), and the Netherlands (4.8%).[4]

4.2.2 Design and Procedure

We adopted a 2 (Similarity: low vs. high) x 2 (Outcome: positive vs. negative) x 2 (Firm: low profile vs. high profile) between subjects factorial design. This means that for half of the participants, the description of the valuator matched the participant in key aspects (i.e., high similarity condition), whereas for the other half the description mismatched the participant (i.e. low similarity condition). Also, for half of the participants, the outcome of the deal as described in the case was positive (i.e., positive outcome condition) whereas for the other half the described outcome of the deal was a bad one (i.e., negative outcome condition). The Firm variable varied the valuator's current employer, which was either a low profile firm (i.e., "a small, local valuation firm") or high-profile firm (i.e., "an international Big Four firm"). This factor was incorporated for exploratory reasons to determine whether the biases under investigation only manifested in case the valuator worked for either

2 The sum of these figures equals 333, which is more than the total number of 272 participants due to the fact that participants were allowed to list more than one profession.
3 Results did not differ significantly when only this group was analysed.
4 See Appendix 4.1 for a complete overview of the participants' nationalities.

a high profile or low profile firm. The key outcome variables of interest were (1) the participants' trust in the valuation and (2) the participants' evaluation of the role the valuator played in bringing about the outcome of the deal.

On starting the survey, participants received a general introduction regarding the background of the study and were subsequently asked to answer several demographic questions regarding their gender, age, nationality, profession, experience in their profession, and whether their work involved making decisions based on valuation outcomes. Next, participants were presented with the first part of a case concerning a business that recently went bankrupt and for which a trustee was appointed to settle the estate. In the case, the trustee hired a valuator to determine the value of the company prior to engaging in negotiations with potential buyers. Participants were asked to put themselves in the shoes of the appointed trustee and to evaluate the valuation and role of the valuator from the perspective of the trustee handling the estate.

Following the first part of the case, participants were presented with three questions that aimed to measure the participants' perceived similarity with the valuator. Next, three questions were presented to measure the perceived trustworthiness of the valuator. Finally, participants were asked to answer four questions that measured the participants' trust in the valuation itself.

After part one of the case with accompanying questions, participants were presented with the outcome of the case (i.e., the second part of the case), in which a deal was closed with a buyer of the entire estate. Half the participants received an outcome in which the deal turned out to be good and the other half was presented with an outcome detailing a bad deal. Next, participants were asked questions aimed at capturing the participants' perception of the valuator's role in bringing about the good or bad deal.

Finally, participants were asked whether English was their native language (68.0% indicated "yes") and if not to what extent they properly understood the case and subsequent questions. Participants answered on a 7-point Likert scale ranging from (1) "Strongly disagree" to (7) "Strongly agree" (M = 6.52, SD = 0.68). Participants were debriefed and given the opportunity to provide feedback and leave behind their e-mail address, so they could be informed about the results.[5]

5 We report all manipulations, all data exclusions, and all measures in our study, so we note that two short sets of questions (10 in total) on free will and quality of sleep, and six general questions unrelated to the case on valuation practices in general were excluded from the analyses. These questions were pilot questions for a different research project. The results are available on request.

4.2.3 Material and Measurements

4.2.3.1 Part one of the case

Similarity and profile manipulations

The fictitious case (albeit based on a real-world case) described a company (GBP 100 million turnover, 350 employees) in the fashion industry that recently went bankrupt after the main financiers decided to end the funding after years of trying to save the company from bankruptcy. As a result, the creditors were exposed to a deficit of roughly GBP 25 million and a trustee was appointed by the court to settle the estate and manage a possible relaunch of the company. The trustee aimed to sell the assets for at least GBP 25 million to minimize any shortage of the estate and the creditors also believed such a result would be realistic. A private equity firm (PE-firm) turned out to be interested in buying the company. Prior to starting negotiations with the PE-firm, the trustee hired a valuator to value the assets of the company.

The case provided information about the background of the valuator which was either designed to match (in the high similarity condition) or to mismatch (in the low similarity condition) the participants. Specifically, for those in the high similarity condition, the described valuator was of the same gender as the participant (i.e., Laura Matthews in case of a female participant and Andrew Matthews in case of a male participant) and of the same age (i.e., "in his/her thirties if the participant was between 30-39 years old, "in his/her forties" if the participant was between 40-49 years old, etc.). In the low similarity condition, the gender of the valuator was the opposite from the participant's and the valuator's age was as far away from the participant's age as possible. If the participant was younger than 45, the case stated that the valuator was "in his/her sixties", and if the participant was 45 years or older, the valuator was "in his late-twenties". The valuator's employer was varied such that for half of the participants the valuator worked at a low-profile firm (i.e., "a small, local valuation firm), and for the other half of the participants the valuator worked at a high-profile firm (i.e., "an international Big Four firm"). The valuator's educational and professional background were kept consistent across the two conditions.

Finally, the case mentioned that the valuator determined the value of the company's assets using the DCF-method and that the assets were valued at GBP 18.25 million, which was roughly GBP 7 million short of preventing a deficit of the estate (total debt was GBP 25 million). The full case can be found in Appendix 4.2.

Perceived similarity

In addition to manipulating similarity by altering the profile of the valuator, we also measured *perceived similarity* with the valuator. This was done for two reasons. First, this allowed us to check whether the manipulation of similarity was successful, as this would mean the perceived similarity would be signi-

ficantly higher in the high similarity condition than in the low similarity condition. Second, we wanted to examine the effect of both actual (i.e., manipulated) similarity and perceived similarity on trust in the valuation through its effects on perceived trustworthiness of the valuator. Previous research has shown that perceived similarity is typically a stronger predictor of attitudes and behaviour than actual similarity (e.g., Ferris & Judge, 1991; Strauss, Barrick, & Connerley, 2001; Tidwell, Eastwick, & Finkel, 2013; Turban & Jones, 1988). This is thought to be because in order for similarity biases to manifest, an observer must first actually consider another person to be similar (Byrne, 1972). In Chapter 3 of this dissertation it was also observed that perceived similarity correlated stronger with other variables than manipulated similarity.

The perceived similarity scale (Cronbach's $\alpha = .84$) consisted of the following three items: "I believe I have a similar character as the valuation professional, [Laura/Andrew] Matthews", "I believe I have similar norms and values as the valuation professional, [Laura/Andrew] Matthews", and "I believe that, in general, I am very similar to the valuation professional, [Laura/Andrew] Matthews". Participants were asked to indicate the extent to which they agreed with each statement on a 7-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (7).

Trustworthiness of the valuator

This variable was measured using three items (Cronbach's $\alpha = .77$), each representing one of the three dimensions of trustworthiness, "ability", "benevolence" and "integrity", as put forward by Mayer et al. (1995). The item measuring ability was: "I trust that the valuation professional, *[Laura/Andrew] Matthews*, is competent in the field of business valuation and is able to make a solid forecast for the purpose of this valuation". The item measuring benevolence was: I trust that the valuation professional, *[Laura/Andrew] Matthews*, has an eye for the issues that are important in this case and that *[she/he]* will do [her/his] utmost best to meet me in my objectives". The item measuring integrity was: I trust that the valuation professional, *[Laura/Andrew] Matthews*, is a person of integrity and will be fair to me in [her/his] considerations towards the value of the assets". Participants again responded on a 7-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (7).

Trust in the valuation

We measured participants' trust in the valuation outcome using four items (Cronbach's $\alpha = .67$). Considering the importance of risk taking in trusting behaviour (e.g., Mayer & Davis, 1999) we aimed to measure participants' trust in the valuation outcome by including questions asking participants how likely they believed it was they would perform certain actions involving risk based on the valuation outcome. Specifically, we asked participants (1) "How likely do you consider it to be that you would accept the valuation outcome and start negotiating with the PE-firm based on [Laura/Andrew] Matthews's valuation of GBP 18 million?", and (2) "How likely is it that you would consult

a second valuator to check the valuation outcome as determined by [Laura/Andrew] Matthews, realizing there are additional costs to a second opinion that will affect the estate?". Participants answered on a 7-point Likert scale ranging from "very unlikely" (1) to "very likely" (7). The other two items of the scale were (3) "I trust that the valuation outcome is representative of the market value of the assets" and (4) "To what extent do you believe it is justified to try to determine a higher valuation outcome by arguing the outcome with the valuator, [Laura/Andrew] Matthews?". Participants answered these last two questions on a 7-point Likert scale with the first ranging from "strongly disagree" (1) to "strongly agree" (7), and the second from "very justified" (1) to "very unjustified" (7).

As the internal consistency of the scale was below the benchmark range of .70-.80 (Lance, Butts, & Michels, 2006), we conducted exploratory factor analysis (EFA) to see if the four items did appear to measure a single construct. The EFA identified one single factor and all four items loaded on the factor satisfactorily. Also, the observed Cronbach's alpha can be considered sufficient for theory-testing purposes (Nunnally & Bernstein, 1994). Hence, based on the face validity of the scale combined with the internal consistency and EFA we believe it is safe to assume the four-item scale is a valid measure of participants' trust in the valuation outcome.

4.2.3.2 Part two of the case

Outcome manipulation

After the questions concerning perceived similarity, trustworthiness of the valuator, and trust in the valuation, participants were presented with either a positive outcome or a negative outcome to the case. The positive outcome described a situation in which the negotiations with the PE-firm went very slow and difficult and that other parties refrained from making a bid when they learned the assets were valued at GBP 18 million. However, in the end the deal was closed at GBP 18 million and the creditors felt satisfied, believing this deal was the best they could have gotten out of the situation. In the negative outcome scenario, the PE-firm accepted the GBP 18 million offer instantly, and that the trustee was later approached by other parties who indicated they were willing to pay GBP 25 million and above for the assets. Because of this, the creditors reported feeling frustrated as they believed a good enough deal to cover the entire deficit of the estate had in fact been feasible. Hence, the difference between the two outcome scenarios was the ease with which the deal was closed and the creditors and major stakeholders' reactions to the deal (i.e., either happy or frustrated).[6]

6 Both the positive and negative outcome scenario can be found in Appendix 4.3.

Evaluation of the valuator's role
We aimed to investigate the effect of outcome information on the evaluation of the role the valuator played in bringing about the outcome of the case. That is, are valuators judged more negatively after a suboptimal outcome (i.e., a bad deal) and more favourably after a fortunate outcome (i.e., a good deal)? We used three separate measures (i.e., not a single scale). First, participants were asked: "To what extent do you consider the valuation professional, [Laura/Andrew] Matthews, to be blameworthy or praiseworthy for the end result of the case (i.e., closing the deal at GBP 18 million)?", to be answered on a 7-point Likert scale ranging from "*very blameworthy*" (1) to "*very praiseworthy*" (7). Second, participants were asked to indicate to which extent they agreed or disagreed with the following statement: "I believe that the valuation professional, [Laura/Andrew] Matthews, did [her/his] utmost best to determine a value according to the best of [her/his] knowledge and belief". Third, participants were presented with the statement: "Considering the outcome of the deal, I believe I would hire the valuation professional, [Laura/Andrew] Matthews, next time again". These last two statements were answered on a 7-point Likert scale ranging from "*strongly disagree*" (1) to "*strongly agree*" (7).[7]

4.3 Results

4.3.1 Data Preparation

Considering the importance of reading the case and the details regarding the valuator properly, we determined a-priori the exclusion criterion of having to spend at least 60 seconds reading the case. Even though this is relatively arbitrarily chosen, we consider it a very lenient cut-off point, given it would require a reading speed of 16.8 standard deviations (1 SD = 30 words/minute) above the average reading speed (M = 228 words/minute) in the English language (Trauzettel-Klosinski & Dietz, 2012) to complete the case of 733 words within 60 seconds. Eleven participants (4.0%) were excluded from the analyses, resulting in a final sample of 261participants. Importantly, excluding participants from further analyses did not affect any of the findings as similar effect sizes and significance levels were found when the entire sample was analysed.

7 A fourth item was presented but in hindsight we realized this item was phrased suboptimally and participants may have had difficulties interpreting this question. Therefore, this item was excluded from the analysis. The item was: "I believe that the end result of the case (i.e., closing the deal at GBP 18 million) is due to the work of the valuation professional, [Laura/Andrew] Matthews".

4.3.2 Similarity Bias

We tested the hypothesis that trust in a valuation can partly be explained by the similarity between the valuator and the legal professional judging the valuation, and that this relationship is mediated by the perceived trustworthiness of the valuator. We first conducted a manipulation check to see whether the similarity manipulation affected the perceived similarity of the valuation professional. An independent samples t-test indicated that those in the high similarity condition indeed perceived the valuator to be more similar to themselves (M = 4.07, SD = 1.05) than those in the low similarity condition did (M = 3.56, SD = 1.07), $t(259) = -3.84$, $p < .001$, $d = .48$, suggesting the manipulation of similarity was successful.

Next, we used Hayes (2018) PROCESS (10.000 bootstrap samples) to investigate whether similarity (perceived and manipulated) predicted the participants' trust in the valuation, and whether this relationship was mediated by the perceived trustworthiness of the valuator. When using manipulated similarity as the predictor variable, no significant effect was found on the participants' trust in the valuation, b =.11, SE = .13, 95% CI [-.16, .37]. When perceived similarity was used as the predictor variable, perceived similarity was found to predict trust in the valuation outcome, and this relationship was mediated by the perceived trustworthiness of the valuator, as indicated by a significant indirect effect, b =.12, SE = .03, 95% CI [.06, .18]. Hence, the hypothesis that perceived similarity with the valuator predicts trust in a valuation and that this relationship is mediated by the perceived trustworthiness of the valuator was confirmed. Table 4.1 shows further details of the mediation analysis.

Table 4.1. Unstandardized Regression Coefficients (b), Standard Errors (SE) and Significance Levels (p) for the Proposed Mediation Model with Perceived Trustworthiness of the Valuator (M) as the Mediator of the Relationship Between Perceived Similarity (X) and Trust in the Valuation (Y).

	M (Trustworthiness)			Y (Trust in valuation)		
Antecedent	*b*	*SE*	*p*	*b*	*SE*	*p*
X (Perceived similarity)	.25	.05	< .001	.13	.06	.026
M (Trustworthiness)	-	-	-	.48	.07	< .001
Constant	4.14	.20	< .001	.88	.35	.013
	R^2 = .089			R^2 = .89		
	$F(1, 259) = 25.32$, $p < .001$			$F(2, 258) = 35.06$, $p < .001$		

We conducted a second mediation analysis in which the valuator's firm profile (high profile vs. low profile) was included as a moderator variable for each

of the mediation model's paths. This was done to explore whether the relationships between perceived similarity, perceived trustworthiness, and trust in the valuation were dependent on the valuator's firm profile. Results showed that none of the moderation effects were significant (all *p*-values > .46), suggesting that the observed relationship was independent of the reputation of the valuator's firm.

4.3.3 Outcome Bias

We tested the hypothesis that participants' evaluation of the role of the valuator in bringing about the outcome of the deal is affected by the outcome of that deal (i.e., positive vs. negative), and whether such an effect is dependent on the reputation of the valuator's firm. First, we conducted a Multivariate Analysis of Variance (MANOVA) with the deal outcome condition (positive vs. negative) and the valuator's firm profile (low profile vs. high profile) as the independent variables (including the interaction term), and the three separate items measuring the evaluation of the valuation professional's role in bringing about the deal outcome as dependent variables. The MANOVA returned a significant effect for the deal outcome condition, $F(3,255) = 35.51$, $p < .001$, $\eta_p^2 = .30$, but not for the valuator's firm profile, nor for the interaction between these two factors (Fs < 1). That is, the effect of the deal outcome on the evaluation of the valuator's role in the outcome was independent of the profile of the valuator's firm.

As Table 4.2 shows, subsequent Univariate Analyses of Variance (ANOVA) revealed that there were significant effects of the deal outcome condition for all three dependent variables. In case of a negative deal outcome, participants believed the valuator deserved blame for the outcome of the deal as indicated by a score below the midpoint ($M = 3.64$), whereas a positive deal outcome led participants to believe the valuator deserved praise ($M = 4.49$). Likewise, in case of a positive outcome participants believed more strongly that the valuator did her/his utmost best to determine a value according to the best of her/his knowledge and belief ($M = 5.35$), than when the case ended negatively ($M = 4.81$). Moreover, results showed that participants believed they would rehire the valuator in case of a positive deal outcome as indicated by a mean score above the midpoint ($M = 4.49$), whereas they believed they would not rehire the valuator in case of a negative deal outcome ($M = 3.50$). Hence, the results indicate that participants are affected by the outcome of the deal when evaluating whether the valuator should be praised or blamed, whether the valuator did her/his best, and whether they would rehire the valuator in the future.

Table 4.2. Descriptive Statistics and Significance Tests for the Univariate Analyses for the Effects of Deal Outcome on the Three Dependent Variables.

	Negative Outcome (N = 129)		*Positive Outcome* (N = 132)				
Dependent Variables	*M*	(*SD*)	*M*	(*SD*)	$F(1, 259)$	*p*	η^2
Blame/Praise	3.64	(.79)	4.49	(.85)	69.76	< .001	.212
Effort	4.81	(1.15)	5.35	(1.00)	16.56	< .001	.060
Rehire	3.50	(1.34)	4.49	(1.14)	87.61	< .001	.253

Interestingly, post-hoc exploratory analyses indicated that on top of the effect of the deal outcome, the perceived similarity with the valuator also affected the participants' evaluation of the valuator. As Table 4.3 shows, multiple linear regression analyses indicated that when the outcome condition and perceived similarity are included as predictor variables in a stepwise approach, the model with both variables explained significantly more variance (for Blame/Praise, Effort, and Rehire) than the model in which only the deal outcome was included. Hence, it appears that not only did the participants have more trust in the valuation due to higher perceptions of trustworthiness of the valuator if the valuator was perceived as more similar to themselves, this perceived similarity with the valuator also predicted participants' judgments regarding whether the valuator deserved blame or praise, whether the valuator did her/his best and whether they would rehire the valuator.

Table 4.3. Unstandardized Regression Coefficients (*b*), 95% Confidence Intervals [95% CI] and t-values of the Multiple Regression Models with Deal Outcome Condition and Perceived Similarity as Predictor Variables of the Dependent Variables Blame/Praise, Effort, and Rehire. * $p < .05$, *** $p < .001$.

	Model 1		*Model 2*	
Blame/Praise	b [95% CI]	*t*	b (95% CI)	*t*
Deal Outcome condition (negative = 0, positive = 1)	.85 [.65, 1.05]	8.35 ***	.85 [.65, 1.05]	8.42 ***
Perceived Similarity	-	-	.11 [.02, .20]	2.37*
	$R^2 = .212$		$\Delta R^2 = .017$	
	$F(1, 259) = 69.76$, $p < .001$		$F(1, 258) = 5.59$, $p = .019$	
Effort	b [95% CI]	*t*	b (95% CI)	*t*
Deal Outcome condition (negative = 0, positive = 1)	.54 [.28, .81]	4.07 ***	.54 [.29, .79]	4.19 ***
Perceived Similarity	-	-	.26 [.14, .37]	4.30***
	$R^2 = .056$		$\Delta R^2 = .063$	
	$F(1, 259) = 16.56$, $p < .001$		$F(1, 258) = 18.46$, $p < .001$	
Rehire	b [95% CI]	*t*	b (95% CI)	*t*
Deal Outcome condition (negative = 0, positive = 1)	1.44 [1.14, 1.75]	9.36 ***	1.44 [1.15, 1.73]	9.69 ***
Perceived Similarity	-	-	.31 [.18, .45]	4.54***
	$R^2 = .253$		$\Delta R^2 = .055$	
	$F(1, 259) = 87.61$, $p < .001$		$F(1, 258) = 20.61$, $p < .001$	

4.3.4 Gender Bias

We explored whether the gender of the valuator explained variance in the perceived trustworthiness of the valuator, and whether this effect depended on the gender of the legal professional. An ANOVA with the perceived trustworthiness of the valuator as the dependent variable and the gender of the valuator and that of the participant as independent variables did not return a significant interaction effect between these two variables, $F(1,257) = 2.43$,

$p = .12$, $\eta_p^2 = .01$, nor any main effects. However, post-hoc exploratory analyses did reveal a gender bias when we analysed the components of trustworthiness (i.e., ability, benevolence, and integrity). The three items corresponding to the three dimensions of trustworthiness were subjected to a MANOVA with both the gender of the participant and the valuator as independent variables. The results showed a significant effect for the interaction between the two gender variables, $F(3,255) = 2.70$, $p = .046$, $\eta_p^2 = .03$, but not for the main effects.

Subsequent univariate analyses indicated that there was only a significant interaction effect for the item measuring trust in the valuator's ability, $F(1,257) = 6.53$, $p = .011$, $\eta_p^2 = .03$. Simple main effect analyses showed that male participants had more trust in the valuator's ability when the valuator was also male ($M = 5.30$, $SD = 1.05$) than when the valuator was female ($M = 4.77$, $SD = 1.10$), $F(1,138) = 8.52$, $p = .004$, $\eta_p^2 = .06$. Female participants on the other hand showed no difference in their judgments of the valuator's ability based on the valuator's gender, as their perception of the male valuator's ability ($M = 5.13$, $SD = 1.22$) was not statistically different ($F < 1$) from their perception of the female valuator's ability ($M = 5.31$, $SD = 1.13$).

Table 4.4. Unstandardized Regression Coefficients (*b*), Standard Errors (*SE*) and Significance Levels (*p*) for the Proposed Moderated Mediation Model with Trust in the Valuator's Ability as the Mediator (M) of the Relationship Between the Valuator's Gender (X) and Trust in the Valuation (Y), with the Participant's Gender as the Moderator (W).

	Trust in valuator's ability (M)			*Trust in valuation (Y)*		
Antecedent	*b*	*SE*	*p*	*b*	*SE*	*p*
Valuator's gender (X)	*-.53*	*.19*	*< .01*	*-.08*	*.12*	*.50*
Trust ability (M)	-	-	-	*.40*	*.05*	*< .001*
Participant's gender (W)	*-.18*	*.20*	*.37*			
X*W	*.71*	*.28*	*.01*			
Constant	*5.30*	*.14*	*< .001*	*1.77*	*.27*	*< .001*
	$R^2 = .039$			*$R^2 = .187$*		
	$F(3, 257) = 3.48$, $p = .017$			*$F(2, 258) = 29.73$, $p < .001$*		

	Trust in valuator's ability (M)		
	b	*SE*	*p*
Male participant (W)			
Valuator's gender (X)	*-.53*	*.19*	*< .01*
Female participant (W)			
Valuator's gender (X)	*.18*	*.20*	*.37*

To explore whether this gender bias affected trust in the valuation through its effect on trust in the valuator's ability, a mediation analysis was carried out. As Table 4.4 shows, the heightened trust in the valuator's ability, when both the participant and valuator were male, mediated the relationship between the gender of the valuator and the participant's trust in the valuation, as indicated by a significant moderated mediation effect, Index = .29, 95% CI [.06, .54]. That is, the gender of the valuator predicted the participants' trust in the ability of the valuator and this subsequently predicted the trust in the valuation, but only if the participant was male, as indicated by a significant indirect effect for this group, b = -.21, SE = .08, 95% CI [-.37, -.06], and the fact that such a mediation effect did not exist for female participants, b =.07, SE = .09, 95% CI [-.09, .25]. The conceptual model of the moderated mediation effect is illustrated by Figure 4.1.

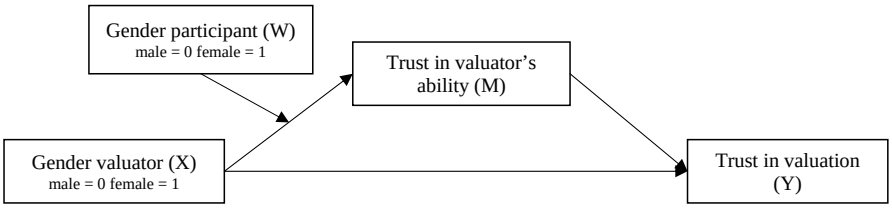

Figure 4.1. Moderated mediation model of the relationship between the gender of the valuator (X)

4.4 Discussion

We investigated the extent to which legal professionals are affected by outcome bias, similarity bias, or gender bias when they evaluate valuators and their valuations. We found that when legal professionals evaluate a valuator after they have used her/his valuation report for the sale of a company's assets, the outcome of the deal affects the legal professionals' opinion of the valuator. In case of a good deal, the valuator is perceived in a more positive light whereas the same valuator is perceived more negatively after a bad deal. This effect is independent of the profile of the valuator's firm. We also found that if a valuator is perceived by legal professionals as more similar to themselves, they also perceive the valuator as more trustworthy, and in turn have more trust in his/her valuation. Perceived similarity thus partly influences the legal professional's trust in the valuation indirectly through its effect on the trustworthiness of the valuator. Interestingly, in the case of higher perceived similarity, legal professionals are also more positive about the valuator's role in the deal, since they are more likely to rehire the valuator in the future, believe more strongly that the valuator deserves praise (or less blame in case of a bad deal), and believe more strongly that the valuator did her/his best in valuing the assets of the company. In addition, we found that male pro-

fessionals have more trust in the ability of a valuator when the valuator is a male as well. This heightened trust in the valuator's ability also predicts trust in the valuation. Female professionals do not show such gender bias in their perception of the ability of the valuator.

4.4.1 Theoretical and Practical Implications

Our research shows that legal professionals can be influenced by extra-legal factors when evaluating valuators and their valuations. The study thereby contributes to the literature by demonstrating that similarity, outcome bias, and gender bias can also manifest itself in the context of evaluating valuations and valuators.

Specifically, we found empirical support for the notion that legal professionals can be susceptible to similarity bias when dealing with complex valuation matters, thereby building on the previously discussed research on similarity biases in legal decision making (e.g., Epstein et al., 2018; Gardner et al., 2013; Miller et al., 2011; Rector & Bagby, 1997). Moreover, empirical support was found for the notion that when legal professionals have to evaluate valuators, they can be affected by outcome knowledge in such a way that a bad deal outcome causes them to perceive the valuator more negatively. This finding is in line with research on outcome bias in the legal context (e.g., Anderson, et al., 1993; Harley, 2007; Kamin & Rachlinski, 1995; Kneer & Bourgeois-Gironde, 2017). Finally, empirical support was found for gender bias among male legal professionals in such a way that male participants have more trust in the valuator's ability when the valuator was also male compared to when the valuator was female. This is in line with studies demonstrating that males favour other males (e.g., Fay & Williams, 1993; Macnell, Driscoll, & Hunt, 2015; Marlowe et al., 1996; Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012), but in contrast with research showing that females are harsher when judging men (e.g., Johansson et al., 2002).

Equally important are the practical implications of our research. In business, the interests of stakeholders are frequently not aligned. Consequently, there are many disputes between stakeholders involving or even focusing on a valuation. In their capacity as representative of the stakeholders' interests, or as independent experts representing the court, legal professionals are confronted with valuation reports and valuation issues and they must form opinions about the valuation and the valuator. In an ideal world, the evaluation of valuators and valuations is solely based on the quality of the valuation and the correctness of the applied valuation framework. Following our premise that it is unlikely that legal professionals are able to judge valuations on their own merit, we indeed found that other extra-legal factors influence legal professionals' perception about valuations and valuators.

The implication of this is that regardless of whether a valuation is demonstrably correct, complies to all (theory-based) valuation standards and requirements, and is free from valuation input biases, both the valuation and the valuator can be judged as inadequate, and vice versa. This can be problematic as from a pragmatic standpoint it can obscure the efficient settlement of valuation disputes. From a more principally oriented standpoint it could be argued that valuators might be unduly blamed, discredited and/or distrusted despite having delivered sound work, violating a fair treatment in legal proceedings. Indeed, disputes about or involving valuations might be conducted on improper grounds and even be unnecessarily extended, which is not beneficial for any stakeholder.

Importantly, neither worldwide valuation practice nor legal practice currently offer clear answers to counter this problem, for an important part because cognitive biases are difficult to neutralize or eliminate. Both valuation professionals and legal professionals must be more aware of the effects of biases, as these can enlarge the magnitude of a conflict or ignite new conflicts. We therefore emphasize the importance of developing new approaches and methods to reduce the impact of biases in perceptions on valuators and their valuations.

4.4.2 Limitations and Future Research

Our findings are based on an ecologically valid sample with realistic study materials that included a real-world business case as well as a summary of a valuation report. Taken together, these factors benefit the external validity and overall generalizability of our study. We nonetheless acknowledge certain limitations. An arguable weakness of the study is the compressed manner in which the financial and valuation assumptions were presented. Although participants gave positive feedback on the presented case, we acknowledge that it is difficult to establish with certainty that our findings are fully generalizable to real-life cases. For reasons of brevity, participants were not presented with a complete valuation report. Hence, it might be that different results emerge when a detailed valuation report is presented. However, we consider this to be unlikely as we suspect that many legal professionals are not trained to analyse and fully grasp a complete valuation report, and that they generally do not have the time to do so.

Moreover, we presented a case that concerned an insolvent company of which the assets were sold to simulate a 'going-concern' situation. Therefore, it remains an open question whether the current findings can be generalized to different cases outside the context of restructuring and insolvency, which might be dealt with by legal professionals other than the restructuring and insolvency specialists used in this study. However, given that cognitive biases are largely universal, we suspect that legal professionals with a different legal

focus will be similarly affected. Nonetheless, future research could investigate the generalizability of the current findings across legal contexts.

Another limitation of the research concerns the probability that the gender of the valuator was confounded with the valuator's age. Specifically, if male participants were presented with a male valuator, this valuator was also in the same age category (i.e., thirties, forties, etc.) as the participants. Likewise, if the participant was male and the valuator female, the valuator's age was different from that of the participant. Hence, it could be that the observed findings can be explained by a bias that people might have that favours people of (roughly) the same age relative to people further removed in terms of their age. Therefore, the similarity in terms of age and gender combined may have affected the trust in the valuator's ability, rather than the valuator's gender per se. Future research could further investigate the observed gender bias in a legal professional's trust in the valuator's ability, to test whether it is truly a bias based on a valuator's gender or whether the valuator's gender and age combined signal a high or low level of similarity with the valuator.

Our research paves the way for future research to explore the effects of the same biases when presenting a more extensive valuation report, when using a context of a successful business instead of insolvency, and to explore the effect of gender bias when considering the valuator's gender in isolation rather than in combination with age. We also raise the question what should and could be done to limit or even avoid biases when judging valuators and valuations in practice. Developing new evaluation techniques and methods as well as actively training legal experts in recognizing biases when judging both valuators and valuations could result in a better understanding of valuations in a legal context. Likewise, valuators should be made aware of the influence that biases might have on how they are judged and perceived by legal professionals. Such a mutual understanding of the human factors influencing the perception of valuations and valuators can be beneficial for dispute resolution.

The next chapter builds on the research presented here in the sense that it looks at how outcome information can affect legal professionals' judgments concerning the foreseeability of a company's bankruptcy (i.e., hindsight bias), as well judgments concerning directors' actions when operating in the vicinity of insolvency and their liability for damages (i.e., outcome bias). Additionally, the next chapter aims to improve our understanding of these biases by investigating the relationship between legal professionals' belief in free will and the extent to which they succumb to these biases.