Do Disclosure and Certification Exacerbate Bias From Conflict of Interest?

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Abstract

Professional accountants often face a potential conflict between their duty to protect the investing public and the self interest of the client paying for their services. In this study, we conduct an experiment to investigate the effectiveness of disclosure and certification in controlling bias of professional accountants in a business valuation context. We recruit 161 experts to value a business for the purpose of issuing a fairness opinion. We set up a no conflict baseline condition, and manipulate the type of conflict (with one agent [the seller], with two agents [both buyer and seller]) and the bias control (none, disclosure, certification). We also run one two agent conflict condition with both disclosure and certification. Results show that when the conflict is with one agent (the seller), the professional accountant is biased only when he makes a conflict disclosure. When the conflict is with two agents (both the buyer and the seller), the professional accountant is biased in all bias control conditions (none, disclosure, certification). Our results indicate that disclosure exacerbates bias, while certification has no effect.
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"Sunshine is the best disinfectant."

Supreme Court Justice Louis D. Brandeis (1856-1941)

1.0 Introduction

In this study, we investigate the efficacy of disclosure and certification in controlling bias stemming from conflicts of interest. This is important because regulators have increasingly relied on market controls such as disclosure and certification (rather than professional controls such as codes of conduct, or prohibitions of actions) to control bias from conflict of interest. Recent research in psychology (Cain et al., [2005]; Miller [2007]) raises concerns that disclosure exacerbates bias from conflict of interest. We provide empirical evidence on the efficacy of disclosure and certification in controlling bias from conflict of interest in an accounting valuation context.

Professional accountants often provide expert opinions in circumstances where they are required to act in the public interest, yet are hired and paid by a client who has a self interest in the outcome of the accountant’s report (e.g., US Vs Arthur Young [1984]).¹ For example, auditors are hired by a client to provide an audit opinion and the client has a clear self interest to receive a “clean” audit opinion. Valuators are hired by a company to provide an objective valuation of a company up for sale and the client has a self interest to receive the highest

¹ See for example Chief Justice Warren Burger’s opinion in the Arthur Young case, in which he said that the independent public accountant performs a public watchdog function [that] demands that the accountant maintain total independence from the client at all times and requires complete fidelity to the public trust (pg 818 of the court opinion).
valuation possible. The professional codes of conduct that govern the behavior of valuators, such as those of Chartered Accountants (CAs) and Chartered Business Valuators (CBVs) expressly require their members to be objective and independent. Thus, in these types of situations, the professional accountant often faces a potential conflict of interest between behaving objectively and promoting the interests of the client. Historically, professional bodies have relied on codes of conduct to educate and socialize their members to act in an objective manner to promote the public interest. However, these codes are widely considered to be inadequate and economists regard them primarily as restraints on trade (c.f. Klein and Leffler [1981], Stigler [1971]). As a result, regulators have instead favored the use of market controls, such as disclosure. Recent regulation in the US (e.g., Sarbanes-Oxley Act 2002 “SOX”) has sought to control bias by requiring disclosure of conflicts of interest and/or a certification of objectivity (SOX 302). Auditors are required to disclose audit, tax and other fees obtained from a client (SEC 2003), and recent changes in auditor independence requirements (threat/safeguard approach) are utilitarian in nature and are thus, more like market controls than traditional professional controls.

The efficacy of disclosure as a de-biasing mechanism comes from the widespread faith in its ability to reduce information asymmetry (Verrecchia, 2001). As a result, disclosure is used in many domains where experts face potential for conflict of interest. For example, effective April 14, 2003, brokerage firms were required, under the global settlement with regulators, to sever links between research and investment banking, including ceasing analyst compensation for equity research and were required to disclose investment banking conflicts in analyst reports. However, recent research in psychology suggests that disclosure may be an inappropriate bias control that exacerbates rather than controls bias stemming from conflicts of interest (Cain et al., [2005], Miller [2007]). Moreover, CEO/CFO certification of financial statements under SOX

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2 Source: http://www.oag.state.ny.us/press/2002/dec/dec20b_02.html
was required to provide additional assurance as to the reliability of the financial statements. Recent research suggests that this certification is not valued by the market (Bhattacharya, Groznik & Haslem, [2007]) but there is little understanding of the effect of certification on the objectivity of the individual.

Advocates of disclosure implicitly assume that disclosure (or sunlight) will improve advice by forcing experts to be less biased, or at least making their bias transparent to users (Verrechia [2001], Healy and Palepu [2000]). However, Cain et al. ([2005]) propose two mechanisms through which disclosure actually makes experts more biased: strategic exaggeration and moral licensing.

Strategic exaggeration is a *conscious* bias where experts who expect the recipient to discount their advice compensate by deliberately skewing the advice. Moral licensing is a *sub-conscious* bias whereby experts feel that by disclosing a conflict of interest, they have discharged their fiduciary duty to protect the client or public interest. The simple act of providing the disclosure makes the expert feel good morally, and liberates him to act in a more self-serving manner (Monin and Miller [2001]). In addition, the act of making a disclosure can also cause the professional to feel unfairly penalized. Feeling that they are being treated unfairly is a primary reason cited by people for cheating and misbehaving. Biased behavior may then be rationalized by a sense of fairness or entitlement (Miller [2007], [DeSteno and Valdesolo 2011]).

We conduct an experiment with experienced professional accountants to provide evidence on the efficacy of disclosure and certification as de-biasing mechanisms for conflicts of interest. Specifically, we recruit 161 professional accountants in a 2x3+1 between subject’s design that varies (1) the type of conflict of interest and (2) the bias control. Participants act as valuation advisors to a board of directors that seeks a fairness opinion in connection with the
divestiture of a subsidiary. Each advisor provides a point estimate (in $) for the value of the subsidiary. We obtain a baseline measurement (no conflict, base condition) by having some participants act as arbitrators that were hired jointly by the buyer and the seller to provide an objective valuation opinion.

Our results indicate that when there is a conflict of interest with one agent (the seller) and no bias control, experts are completely objective (relative to the no conflict baseline). The introduction of a disclosure creates a significant biased estimate, while introduction of a certification has no effect on the level of bias. When the conflict is with two agents (both the buyer and the seller), there is a significant biased estimate in all conditions (no control, disclosure, and certification) relative to the baseline measurement. Our results provide evidence that traditional professional controls appear to work effectively in this valuation setting only when the conflict is with one agent, and that recently introduced market oriented controls such as disclosure induce more bias via moral licensing. Our study suggests that widespread faith in disclosure as a de-biasing mechanism is misplaced, especially in settings that have a potential conflict of interest. In fact, the best remedy for a potential conflict seems dependent on the type of conflict. For a conflict with one agent that arises from the normal structure of the accounting profession (i.e., the client pays the professional accountant and has the opportunity for an ongoing relationship), it may be advisable to rely on codes of conduct to guide professionals’ objectivity and allow the conflict to exist without disclosure. As the number of agents increases the optimal solution may be to forbid the behavior that creates a conflict, rather than allowing the conflict and mandating disclosure (as is done in the threat/safeguard approach to auditor independence and in valuation settings such as ours).
This research contributes to the literature on both a theoretical and practical level. Our study contributes to theory by identifying that moral licensing is the psychological mechanism, through which disclosure induces bias. On a practical level, to ensure adequate protection of those involved in business transactions it is essential to investigate the effectiveness of market controls and professional controls in mitigating conflicts of interest and the associated biases. To date, empirical research has focused on investor reaction to analyst bias (e.g. Malmendier & Shanthikumar, 2007), but this stream of research has failed to account for the method by which investors become aware of any underlying conflict of interest (e.g. disclosure). This study captures this deficiency by explicitly testing the impact of disclosure on professional bias. The study is also the first to investigate the effect of moral licensing due to the presence of others in an accounting conflict of interest setting. The psychology literature has primarily examined moral licensing in a setting where the expert has a conflict with just one agent who uses his report (e.g. Cain et al., [2005], Koch & Schmidt, [2010]). We extend this literature by examining both a conflict with one agent and a conflict with two agents (both the buyer and the seller) which occurs with more frequency in the accounting profession than in other professions.

Previous research on moral licensing in psychology (Cain et al., [2005] and in accounting Koch & Schmidt [2010] has been conducted with student subjects in a laboratory setting. The current literature has also examined the issue of analyst and manager bias in the realm of capital market transactions; yet, an entire professional world where conflicts of interest are very real has not been adequately explored. For example, the Koch & Schmidt [2010] study uses an experimental markets setting and replicates the Cain et al [2005] finding that disclosure exacerbates bias for student subjects acting in the role of an auditor providing a report about the quality of an asset to investors. Koch & Schmidt [2010] show that bias emanating from
disclosure is attenuated by experience when both the auditor and investor subjects get precise feedback about the value of an asset in a multi-period setting. Our study, on the other hand, provides a unique institutional setting in which to evaluate conflicts of interest by using expert participants who belong to a professional association and have long run real world valuation experience. Our experimental setting also does not have perfect feedback to guide participant behavior.

The use of professional participants brings to light some noteworthy strengths of our study. While some economists and psychologists are skeptical about codes of conduct and professional claims about objectivity, there are some countervailing pressures that push professional accountants towards being objective. One pressure comes from professional review and discipline processes (as well as being part of a professional culture, King [2002]) that are salient to professional accountants, but not to undergraduate students taking part in social science experiments. A second key factor is the threat of litigation (Palmrose [1991]). A third factor is reputation and a desire for repeated business (Antle et al., [1997]). These forces have to be balanced against personal relationships with the client, and various motives to get ahead for individual accountants. The balance of these forces is likely to situate professional accountants closer to being objective than is the case for students taking part in social science experiments.

Finally, the literature also consistently studies disclosure as the only means of regulation available for dealing with conflicts of interest. This paper explores the potential dysfunctional consequences of this oft used mechanism and is the first to investigate the impact of certification on the biases of individuals. In this way, the paper speaks to regulators about unforeseen consequences of their decisions and can make recommendations for future regulations.
Overall, this study is important because individuals rely on expert advice in many contexts (e.g., medical advice, legal advice, and the purchase of various accounting related services) where conflicts of interest may exist. The government also relies on professional advisors to discipline the tax figures reported by individuals and corporations. It is expected that the findings from this study could be applied to these areas as well as to a financial market setting and will, therefore, provide valuable information and protection for individuals in many situations.

2. Theory and Hypothesis Development

Professional Objectivity

In many domains, society has relied on professions to develop experts who act in the public interest rather than exploiting their superior knowledge for their own self interest (Abbott [1988]). Historically, professional associations tried to maintain professional (objective) behavior by limiting the commercial instincts of their members. These limitations were enforced through extensive socialization promoting objectivity and independence, and through restrictions on behavior encoded in codes of conduct. For example, in auditing, the code of conduct promoted objectivity and independence, and also severely restricted advertising, solicitation of clients, low-balling of fees, and acceptance of contingent fees (Zeff [2003]). In the 1970’s, new theories in economics, especially the argument that information and reputation could be used as alternatives to government regulation (Stigler [1971]) began to gain favor. In the late 1970’s, the Federal Trade Commission (FTC) in the U.S. adopted these new economic theories and began to view all professional regulation as indications of collusion and restraint of trade under the antitrust laws. Under pressure from the FTC (and a series of Supreme Court decisions in the U.S.
such as Bates Vs Arizona [1977]), all professional associations relaxed the provisions in their codes of conduct to allow more competition in markets for professional services (Sunder [2003]). A key factor underlying regulators and courts having faith in competition was the argument that providing information (such as advertising and disclosure) reduces information asymmetry (Stigler [1961]) and thus enables users of professional services to make informed decisions (SEC [2003], Healy and Palepu [2000], Klein and Leffler [1981] Stigler [1971]). Recent regulatory reforms promoted by SOX have attributes of both traditional professional controls (e.g., restricting auditors from providing some consulting services to audit clients) as well as reliance on market controls such as disclosure and certification.

Psychologists also have very little faith in professional objectivity, though their concerns are about subconscious bias (Bazerman et al., [2002]) and motivated reasoning whereby individuals see things as they would like them to be, rather than as they are (Kunda [1990]).

Disclosure and the Creation of Bias

While there have been periodic doubts in various professions about the efficacy of market controls, and especially disclosure (e.g., see Rodwin [1993] in the law) as constraints on behavior, the more sustained and recent challenge to use of disclosure has come from George Loewenstein and his colleagues who argue that disclosure is actually a source of bias rather than a source of discipline (Cain et al., [2005], Moore et al., [2007]). Cain et al ([2005]) propose two psychological mechanisms whereby disclosure creates bias. First, disclosure can lead to strategic exaggeration. Advisors who make a conflict disclosure may fear that their advice will be discounted by the user of their report, so they will counteract this effect by further skewing their advice. Therefore, even if the SEC [2003] is correct in assessing that investors may discount reports from professional accountants which contain a conflict disclosure, they did not anticipate
that the professional accountants would deliberately skew their advice in anticipation of this discounting. While Cain et al. [2005] show that student subjects engage in such strategic exaggeration, it is not clear that their findings will generalize to professional (expert) accountants who are socialized to be objective [Abbott 1988]. Most professionals would strenuously deny that their judgment could be swayed in such an explicit manner. This would be very overt bias, and seen as a form of corruption.

The second and more insidious psychological mechanism is moral licensing. Professionals who provide a conflict disclosure may feel that they have discharged their duty to their client, and no longer owe a fiduciary duty of care. Usually, having a psychological license means that people perceive that they are permitted to take an action or make a socially undesirable statement without fear of discrediting themselves (Efron and Miller [2010]). This permission (legitimacy) is developed due to some action (e.g., disclosure), history, context or status category that pertains to a specific person. Moral licensing is thought to be sub-conscious and, thus, poses a much bigger threat to objectivity, since the professional accountant would not be aware of this bias.

Moral licensing is psychologically similar to motivated reasoning (Kunda [1990]) whereby people attend more, and weight more heavily, information that is consistent with their own thoughts or interests. The social psychology literature shows that observers grant a psychological license to others (Efron and Monin [2010]), and that agents license themselves, especially when they have engaged in a socially desirable behavior (such as disclosing a conflict) that validates their moral credentials (Monin and Miller [2001], Khan and Dhar [2006] Sachdeva et al., [2009]). While individuals are able to license themselves, these licensing effects are
magnified in the presence of others (Miller and Effron [2010], Kunda [1990]). Ethical credentialing is primarily a social license, and hence its effect is magnified in a social setting.

In the next two sub-sections we further delineate the concept of moral licensing using two settings: one where the agent licenses himself, and one where there are others present and the licensing is done socially.

2.1 AGENTS PSYCHOLOGICALLY LICENSE THEMSELVES (CONFLICT WITH ONE AGENT)

We first consider a situation where professional accountants are hired by one agent (the seller in our case) to perform a service, though the report will be used by the board and provided to the investing public. In this most basic setting, professional standards require the professional accountant to be objective, independent and act in the best interest of the investing public. This represents our Seller Conflict condition. In such a situation, it is reasonable that the professional accountant acts in the interest of the seller while balancing the need to adhere to objectivity and professional standards. The possibility that this balance is compromised increases when the accountant receives greater incentives (in our case, the prospect of more future business from seller) to take the side of the client. However, the incremental effect of this incentive to side the client may be limited in the light of professional standards to be objective and the lack of a reasonable justification to do so.

This situation changes when the accountant issues a conflict disclosure. They may become vulnerable to self-serving biases such as motivated reasoning (Kunda [1990]). Motivated reasoning requires two conditions to be effective (Kunda [1990]). First, the agent must have a directional goal so (s)he can engage in a biased reasoning process to reach that goal. Second, the agent has to be able to construct a reasonable justification for the directional goal. This requirement for a reasonable justification disciplines the motivated reasoning process and
enables people who follow such biased reasoning to maintain an illusion of objectivity (Kunda [1990]; Kadous, Kennedy and Peecher [2003]). As we explain below, the act of disclosing a conflict of interest may provide this justification.

When the accountant makes a conflict of interest disclosure, he may feel that the reader has been forewarned and may discount the accountant’s judgments for potential bias (even if the accountant remains objective), so he may feel licensed to counteract this “penalization” by adjusting his/her judgment by an amount upwards or downwards (depending on whether the disclosure suggests an upward/downward bias by the accountant). This feeling of victimization is thought to be a primary mechanism underlying a strategic exaggeration motivation (Miller [2007]). Psychology research also documents that taking an action (such as disclosure) elevates people’s sense of their own ethicality, which in turn leads them to perceive that they are licensed to act in a self serving manner (Cain et al., [2005], Monin and Miller [2001]). In general, psychology research suggests that psychological licensing is a sub-conscious bias, and that the accountant (or individual) will be unlikely to take counter debiasing measures (Miller and Efron [2010], Miller [2007]). Thus, the disclosure would dominate some of the feelings of restraint the accountant may have from professional controls such as codes of conduct.

Moral licensing literature suggests that the reasonableness constraint may be much less binding than has been commonly thought in the motivated reasoning literature. Monin and Miller [2001] have proposed a moral credentials model to explain how psychological licensing works. A person’s behavioral history (or recent action such as making a conflict disclosure) provides a psychological license by sub-consciously altering how subsequent behavior is perceived by the self. Once a moral credential has been established for the self, an agent can act in a self serving manner by framing the behavior as being moral, that is, having no awareness of
any moral transgression (self delusion). Having a self perception of being moral, licenses the self to behave in a self serving manner, both in the domain where the moral credentialing behavior was performed, as well as in other unrelated domains (Khan and Dhar [2006], Sachdeva et al., [2009]). This ability to transfer moral credentials across domains (and capacity for self delusion suggests that limits on self serving biases may be weaker than commonly thought in the motivated reasoning literature.

H1: When hired by the seller, professional accountants facing the prospect of more business from the seller (potential conflict) will assess a higher valuation when they issue a conflict of interest disclosure than when they do not make this disclosure.

The issuance of a certification of objectivity is a practice used in some professions (e.g., financial analysts, CFO’s, auditors) to provide an assurance of objectivity to users. Unlike the conflict disclosure which draws both the accountant’s and the users’ attention to the potential bias, the certification of objectivity draws attention to the positive aspect of objectivity. The certification serves as a reminder for the accountant to be objective. In addition, the accountant is less likely to perceive that users will infer that the accountant is biased and (unfairly) discount his/her professional judgment (Miller [2007], DeSteno and Valdesolo [2011]). Consequently, bias arising from the moral licensing effect exhibited when the professional accountant issues a certification will be small (if any).

H2: When hired by the seller, professional accountants facing the prospect of more business from the seller (potential conflict) will assess a higher valuation when they issue a conflict of interest disclosure than when they issue a certification of objectivity.
To the extent that accountants who do not have bias controls (no disclosure and no certification) may be biased, issuing a certification of objectivity might reduce this bias. For example, certification may increase feelings of accountability and may bring to light reputational concerns. Vermeer (2005) finds that companies providing voluntary CEO/CFO certification of financial statements were less likely to engage in income increasing earnings management. However, as we discuss earlier, accountants who make no disclosures or certifications are likely still bound by professional standards to be objective, and lack reasonable justification to steer away from these standards. Thus, here we predict that professional controls will dominate the desire to provide biased advice and there will be no differences in judgments made by accountants issuing certifications of objectivity and those not making any such certification.

H3: When hired by the seller, valuations by professional accountants facing the prospect of more business from the seller (potential conflict) will not differ when they issue a certification of objectivity and when they do not issue such a certification.

2.2 AGENTS LOOK TO OTHERS FOR PSYCHOLOGICAL (SOCIAL) LICENSE (CONFLICT WITH TWO AGENTS)

In the previous section, we discuss a situation where the accountant is hired by one agent, the seller, and there are incentives to please the seller because of the potential for future business from the seller. In that situation, the incentives are aligned with the professional duty to protect the interests of the client that hired the accountant. We now discuss a situation where there are economic incentives that conflict with the interest of the client (seller). Consider a situation where the seller hires the accountant to provide a valuation, but the accountant’s firm is also
bidding for a substantial contract from the potential buyer. Here, the two sets of incentives conflict—alignment of interest with the current client versus potential future client. This represents our Buyer and Seller Conflict condition. It is quite common for professional accountants who work in the valuation field to represent both buyers and sellers; thus, our manipulation has external validity and operationalizes a type of conflict often faced by professional accountants. In some field such as law, professional standards prohibit lawyers from acting for both buyers and sellers, but there is no such prohibition in accounting.

How would the accountant respond in such a situation? We see two possibilities. The first possibility is that the accountant can bias the valuation in the buyer’s favor (i.e., indicate a lower valuation) to please the buyer to secure the business from the buyer. The cost of this approach is that it may backfire and is therefore, an unlikely course of action for the accountant. The buyer can potentially realize that the accountant is not acting in the interest of the client (seller), and for that reason, not purchase the accountant’s services. Another reason the accountant is unlikely to adjust in favor of the buyer relates to their duty to the seller. Specifically, absent disclosure, the seller may subsequently learn about the conflict of interest and question the accountant’s professionalism or loyalty to them as a client. As a precautionary measure against the seller’s concern, the accountant is more likely to bias the valuation upwards in the seller’s favor. For these two reasons, a second possibility, that is, bias in favor of the seller is more likely. That is, the accountant can adjust the valuation upwards in the seller’s favor to demonstrate his alignment with the seller’s interest, and signal that he acts in the interest of the client (and, similarly, in the interest of the buyer should the buyer employ the accountant’s services).

It is quite common for accountants to engage in conflict situations that would not be tolerated in other professions such as acting as an expert for both the husband and wife in a divorce case, and providing audit services to clients who are direct competitors.
In the ethics literature with its concern for taking the perspective of the other, the salience of the buyer ought to exert a disciplining influence on the professional accountant. Yet the psychology of moral licensing literature suggests the opposite. The salience of the other party (buyer) serves to increase bias rather than reduce it. The moral licensing explanation is consistent with a large social psychology literature on social facilitation where the presence of others raises arousal in the decision maker and impairs his decision making performance (Zajonc 1965). Another psychology mechanism by which presence of others impairs judgment includes distraction and evaluation apprehension (Baron 1986). Note that the professional accountant does not have to be hired by the buyer to facilitate the presence of others effects. Social facilitation theory suggests that the mere thought of having the potential of working for the buyer can change behavior (Zajonc, 1965). Overall, arousal, distraction and evaluation apprehension serve to bias the focal agent who is the decision maker. Our discussion above suggests the following hypothesis:

H4: When hired by the seller, professional accountants will assess a higher valuation when they face the prospect of more business from the buyer than when they face the prospect of more business from the seller.

In Hypothesis 2, we predict that disclosure of a conflict of interest (in terms of bias towards the seller) induces a moral licensing effect within the accountant such that he adjusts his judgments in the direction of the bias compared to a situation when no such disclosure is made. In the current situation where the disclosure relates to a conflict of interest with the buyer, we expect that the moral licensing effect (which predicts a judgment bias in favor of the buyer) will
weaken. Specifically, as we discussed earlier in developing Hypothesis 4, the accountant likely wants to signal his professionalism to the seller and manage the seller’s concerns, and this will weaken or negate any moral licensing effect associated with disclosure of a conflict of interest. Thus, we expect a smaller (if any) moral licensing effect associated with a conflict of interest disclosure when the accountant anticipates potential future business from the buyer versus the seller.

H5: The moral licensing effect from issuing a conflict of interest disclosure (versus no disclosure) will be smaller when the accountant anticipates future business from the buyer than when the accountant anticipates future business from the seller.

Finally, in H3 we predicted that with a one agent conflict, issuing a certification of objectivity would have no effect on the professional accountant. However, this prediction was contingent on the belief that the accountant would remain objective without bias controls. Here, when we have a two agent setting (conflict with buyer and seller) we do not predict that the accountant will remain objective without bias controls. Instead, consistent with H4 we expect the accountant to have a general bias towards the seller. Therefore, there is the opportunity for the act of issuing a certification of objectivity to increase feelings of accountability and bring to light reputational concerns as intended.

If certification of objectivity works, it will lead the accountant to move away from being biased towards the seller. However, it is still possible that certification has no effect when the accountant expects potential future business from the buyer. This is because the accountant’s concerns about alleviating concerns by the seller and signaling his/her professionalism to the
buyer by issuing valuation judgments biased towards the seller may be strong enough to overwhelm the effect of certification.

H6: The effect of issuing a certification of objectivity will be larger when the accountant anticipates future business from the buyer (versus the seller), such that when the accountant anticipates future business from the buyer, accountants’ valuation judgments will be lower when they issue a certification of objectivity than when they do not do so.

3. METHOD

3.1 PARTICIPANTS

Our participants consist of 161 experts with business valuation experience located throughout Canada. Participants were recruited with assistance from the Canadian Institute of Chartered Business Valuators (CICBV), the Alberta and Ontario Institutes of Chartered Accountants (ICAA and ICAO) and professional accountants who had extensive contacts in the business valuation community. These contacts distributed e-mail messages describing the research study, advertised the study in their professional newsletters, and encouraged members to participate in the study. One of the researchers then contacted potential participants by phone or email to seek their participation. Upon their consent, 303 research instruments were sent to participants by courier mail. One hundred and sixty one completed instruments were returned to the researcher, for a response rate of 53 percent. Participants were 67% Chartered Accountants (CAs), 41% Chartered Business Valuators (CBVs) and 10% Chartered Financial Analysts (CFAs). Nine percent of participants did not possess a professional designation but had an MBA and/ or PhD (mostly in finance or economics). On average, participants had 15 years work

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4 Excluding participants without a professional designation does not affect the results as presented.
experience, had 7.4 years of work experience in business valuation and had worked on 56 valuation engagements.

3.2 PROCEDURE

We employ a 2x3+1 partial factorial\(^5\) between-subjects design with Conflict Type (with one agent [seller], or with two agents [both the buyer and seller]) and Bias Control (None, Disclosure or Certification) as independent variables. We also run a no conflict case, which serves as a baseline control and a two agent conflict case with both disclosure and certification. In all cases, participants assumed the role of a business valuator hired by the Board of Directors of a seller for the purpose of preparing a business valuation. The business valuation was prepared for the eventual issuance of a fairness opinion in conjunction with the sale of Nisku Energy Services Ltd. (‘Nisku’), a subsidiary of a large public oilfield company (the client). Participants were given a four page case that included background information on Nisku and financial information necessary for completing the valuation using the discounted cash flow method. We developed the experimental materials in consultation with two business valuation experts, and pilot tested the materials on 15 professional accountants with extensive valuation experience. These pilot participants provided feedback on the external validity of case setting, and the understandability of the experimental manipulations.

We use a valuation setting involving fairness opinions as the basis for our experimental task for three reasons. First, there is no clear legal requirement in Canada (there is in the US) as to what disclosures \emph{must} be made (though some are made voluntarily), and there are no

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\(^5\) We have a partial factorial design in that we did not run the conflict seller with both disclosure and certification condition (we only ran the conflict buyer and seller with both disclosure and certification condition). This is because we had difficulty in recruiting expert participants and anticipated the most bias in participants in the conflict buyer and seller conditions thus having the most potential to find an effect in that condition.
requirements for certification of fairness opinions.6 These features of the current regulatory environment allow for manipulation of disclosure and certification while maintaining external validity. Second, valuing a business involves significant judgments and significant estimation. Accordingly, there is not one “correct” way to value a business and this ambiguity allows for biases (both conscious and subconscious) to affect the valuation estimates provided. Third, fairness opinions are used by 70% of sellers in today’s market (Kisgen, Qian and Song [2009]). Thus, fairness opinions represent an important source of information for both buyers and sellers, and provide a rich task environment in which to test the variables in our experiment.

In all cases, the valuator was hired by the seller. We did this because in practice the seller’s board of directors is more likely to hire a valuator for a fairness opinion (Kisgen, Qian and Song [2009]). The level of conflict was manipulated by telling participants in the Seller (Buyer and Seller) Conflict condition that the seller (buyer) had received board approval for the sale (purchase) of additional companies, and that their firm had submitted a proposal to the seller (buyer) for this additional business and had been shortlisted. Thus, the Buyer and Seller Conflict condition represents the case where the valuator was hired by the seller, but had the potential for future business with the buyer. In contrast, Seller Conflict condition represents the case where the valuator was hired by the seller and had the potential to earn additional business from that same seller.7 Specifically, participants were told the following:

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6 Ontario Securities Commission (‘OSC’) rule 61-501 and the Canadian Institute of Chartered Business Valuators (‘CICBV’) standard #110 note that a fairness opinion should disclose “a description of any material past, present or anticipated relationship between the firm and any interested party which may be relevant to the firm’s independence for the purposes of providing the fairness opinion. A firm must also disclose the existence of any contingent liabilities or payments to be received in conjunction with the fairness opinion.” The words “material” and “relevant” are not defined under the regulations.

7 The potential for future business was used to create a conflict of interest for two reasons. First, Makhija and Narayanan ([2007]) find that the loss of future business is a significant consideration for a firm issuing a fairness opinion. Second, the rules surrounding disclosure of material (anticipated future) relationships are not clearly defined.
In addition to the sale of Nisku, the Seller’s (Buyer’s) board of directors has preliminarily authorized a plan that would include the sale (purchase) of additional companies (in the group). Your firm has submitted a proposal for additional business and other advisory services to assist with the Seller’s (Buyer’s) Board’s plan. The Board’s chairman has acknowledged receipt of your proposal and has informed you that your firm has been short listed as one of three possible service providers to be engaged to assist the board with its plan.

The value of these future business/advisory services is very large and the partner of your firm who submitted the proposal has emphasized the importance of winning this proposal to provide future services for the Seller (Buyer).

As one of the bias controls, disclosure of the above conflict was manipulated using a mandatory disclosure regime (i.e. participants were not given the choice whether to disclose the conflict of interest), which is in line with previous research designs (Koch & Schmidt [2010], Cain, et al., [2005]) Participants in the Disclosure conditions were given the following information:

Your firm has adopted a disclosure policy for clients where third parties could perceive a potential conflict of interest. The Nisku transaction has been deemed to require this disclosure, and your firm has specified that the following Conflict of Interest Disclosure should be provided in your report:

**Conflict of Interest Disclosure**

We have submitted a proposal and have been shortlisted to provide additional business and other advisory work related to future business transactions by Alberta Company (the Buyer).8

As an alternative bias control, we manipulated whether a certification of objectivity was made by the valuator. Participants in the Certification conditions were given the following information:

Your firm has adopted a certification of objectivity for clients where third parties could perceive a potential conflict of interest. The Nisku transaction has been deemed to require this certification and the following Certification of Objectivity is required by your firm:

**Certification of Objectivity**

I __________ hereby certify that the valuation amounts are unbiased and reflect my independent professional valuator’s opinion about Nisku.

Participants in the no bias control (baseline) condition were not given the disclosure or certification information.

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8 In the Conflict Seller conditions the last part of the statement read “by Oilfield Services Group of Companies (the Seller).
We create a baseline condition where participants have no conflict of interest. We do so by aligning their interests with both buyer and seller. Specifically, in the baseline condition, participants were instructed that they were appointed jointly by the buyer and seller to act as arbitrators to resolve a transaction price dispute in the above mentioned sale transaction. To ensure we had created a case that was truly free from conflict, we collected information on the participants’ perception of conflict of interest on a 10 point scale anchored by no conflict and extremely high conflict. On average, in the no conflict condition, participants perceived a very low level of conflict (mean = 2.0). Further, the level of perceived conflict was significantly lower than all other experimental conditions (mean = 5.5, p =<0.001) with the closest condition being the Conflict Seller/Disclosure condition (mean = 4.8 vs. 2.0, p=<0.01). These checks indicate that the baseline condition is relatively conflict free.

**Dependent Variables**

Each participant was asked to perform a valuation and provide a point estimate ($) of the selling price for Nisku. As part of the case information, participants were provided with a table that contained nine possible point estimates ranging from $5.6 million to $16.2 million. These point estimates were determined by taking three variables (customer relationships, potential warranty claims and new drilling technology) and assigning each variable a conservative, medium and aggressive value. The values were then crossed with 3 possible values for the valuation discount rate (conservative, medium and aggressive) creating nine possible valuation combinations ranging from a conservative value assigned to the discount rate and all three variables ($5.6 million) to an aggressive value assigned to the discount rate and all three variables ($16.2m).
Overall, we asked participants for (a) a range and point estimate for use in the fairness opinion, (b) an estimate of the final selling price for Nisku and (c) an estimate of what the buyer’s valuator might present as a valuation estimate. The range and point estimates for use and the fairness opinion were used as representative of the participants’ reporting values. An estimate of the final selling price was requested to compare it to the point estimate as a measure of the participant’s conscious bias. The buyer’s valuator’s point estimate was requested to gain insight as to amount of bias the participants perceived in other valuators.

4. ANALYSIS AND RESULTS

Participants responded to four manipulation check questions relating to our independent variables. To check the Conflict manipulation, participants were asked to identify whether the seller or the buyer was the engaging party for the fairness opinion, and were asked to whom the firm submitted a proposal for additional services. For the Bias Control manipulation participants were asked whether a disclosure or certification (or none) was made in the case. Ten participants incorrectly answered 50% or more of the questions and were dropped from the analysis. Of the remaining participants, 97% correctly answered all four manipulation checks and 3% (5 participants) correctly answered three questions. Excluding those five participants (3%) who incorrectly answered one of the four questions does not change the results. In addition, three participants gave extreme outlier valuations⁹ and were dropped from the experiment. This resulted in 148 usable responses.

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⁹ Three participants provided valuations of $22.5M, $5.0M and $2.5M, which were dropped. All these values were outside the range of values provided in our table. The valuation of $22.5M was identified as an outlier during data analysis as the Bonferroni correction value was greater than tolerance. The valuation of $5.0M was dropped from the experiment because the participant indicated that he/she had no confidence in the valuation and had consulted with someone else to determine the value. The valuation of $2.5M was removed because the participant provided a valuation range that included zero, which we were told in our pilot testing, was not a possible valuation for Nisku.
Participants in the Buyer and Seller Conflict conditions perceived a higher amount of conflict (mean = 7.1) compared to those in the Seller Conflict conditions (mean = 5.3, t=3.08 p<0.01). This is consistent with our expectations that the presence of another party (the buyer) should make the participants feel greater conflict of interest.

We also measured the extent to which participants felt they were objective, on a scale of 1 to 10, anchored by very conservative and very aggressive, when providing the valuation estimate. Overall, participants felt that they were very objective (mean = 7.9). Participants in the Certification conditions (mean = 8.5) felt that they were more objective than those in the Disclosure conditions (mean = 7.1, t= 2.36, p = 0.02) indicating that certification has an effect on conscious feelings of objectivity. There were no differences in objectivity between participants in the Seller and Buyer and Seller conflict conditions (means = 7.7 and 8.0, t=0.13, p=0.55).

To check the overall external validity of our valuation task we asked participants to indicate their level of confidence in their valuation estimates on a scale of 0 (extremely low) to 1.0 (extremely high). Responses indicate that our task was valid with participants indicating that they were moderately confident in their valuation estimates (mean = 0.6). Participants also respond to other background and demographic questions.

4.1 TESTS OF HYPOTHESES

Table 1, Panel A presents the descriptive statistics for participants’ point valuation estimates for Nisku. In the base case (no conflict) participants assign Nisku an average value of $8.38 million. In the conflict conditions, average responses range from $8.53 million to $10.05 million.

Hypothesis 1, 2 and 4 suggest an interaction between conflict type and disclosure in that conflict type matters to the amount of bias in the point estimate when there is no bias control, but
does not matter when the professional accountant makes a conflict disclosure. To test these hypotheses, we conduct a two-way ANOVA with conflict type and disclosure as independent variables and participants’ point estimates as the dependent variable. Table 1, Panels B and C show the planned contrasts along with the ANOVA results. As predicted, the ANOVA in Table 1, Panel C shows a statistically significant interaction between conflict type and disclosure (F=5.67, p =0.02). There is no main effect for conflict type (F=0.32, p=0.57) or disclosure (F=2.59, p<=0.11).

4.1a DISCLOSURE

Hypothesis 1 suggests that when incentives are aligned with the seller, professional accountants who make a conflict of interest disclosure will be biased towards the seller (inflated valuation estimates). Table 1 Panel A provides evidence of this behavior with participants in the disclosure condition providing average valuation estimates of $10.03 million compared to the no disclosure condition at $8.53 million. As seen in Table 1 Panel C, this difference is significant (p=0.03) and is consistent with H1 indicating that disclosure is causing the bias in the valuation estimates. In addition, Table 1, Panel A shows that mean estimate of the disclosure group was $10.03 million which is significantly higher than that of the baseline group ($8.38 million, p=0.01).

Hypothesis 1 also intuitively posits that when the professional accountant’s incentives are aligned with the seller, professional accountants with no bias control will be objective in their estimates (valuation estimates will only inflate once disclosure is added). As Table 1, Panel A shows the mean estimate of this group was $ 8.53 million whereas the baseline (no conflict)
group estimate was $ 8.38 million. This difference is not significant (p=0.41). This result is consistent with H1. Taken together, the results for H1 provide evidence that the conflict disclosure and not the relationship with the seller (or change in incentive structure from the baseline condition) is causing the bias in the professional accountants’ valuation estimates.

Hypothesis 2 posits that professional accountants who make a conflict disclosure will be biased in their estimates in favor of their client (higher value for the seller), but will not exhibit the same bias when they make a certification of objectivity. Table 1, Panel A shows that the mean estimate of the disclosure group was $10.03 million, whereas the mean estimate of the certification group was $8.80 million. Table 1, Panel C shows that this difference is statistically significant (p=0.04) providing support for H2. Further support for this hypothesis comes from the fact that the disclosure group ($10.03 million) is significantly higher than the baseline group (p=0.01), but the certification group ($8.80 million) is not (p=0.24). These results are consistent with H2.

4.1b. CERTIFICATION

Hypothesis 3 posits that professional accountants in the certification, conflict seller condition will be objective. Table 1, Panel A shows this group had a mean estimate of $8.80 million, which is not significantly different from the baseline group (mean = $8.58 million, p=0.24). Table 1, Panel C also shows that the certification group does not differ from the no bias control group (mean = $8.38 million) when the conflict is with the seller (p=0.33). This is consistent with H3. This further supports the notion that the potential conflict of future business with the seller does not in itself create bias in the professional accountant. Only the disclosure of the conflict causes the bias.
Taken as a whole these results indicate that professional accountants are objective in the conflict seller condition, except when they make a conflict disclosure. Only the act of making a disclosure leads to a significantly biased valuation estimate in favor of the client.

4.1c CONFLICT TYPE

When the professional accountant has a conflict with both the buyer and the seller, Hypothesis 4 posits that, in all conditions, estimates will be biased (upward) in favor of the client. As shown in Table 1, Panel A, mean estimates in this conflict buyer and seller condition are $9.63 million for no bias control (p=0.02 versus the baseline), $9.47 million in the disclosure condition (p=0.03 versus the baseline), and $10.05 million in the certification condition (p<0.01 versus the baseline). None of these conditions are significantly different from each other (smallest p=.24 for disclosure versus certification condition). These results support the general tendency to bias valuations upward when the conflict is with the buyer and the seller. With respect to the difference between the general tendencies of the Seller Conflict and Seller and Buyer Conflict conditions, the mean valuation estimate for participants in the Seller (Buyer and Seller) Conflict condition is $9.10 million ($9.70 million). This difference is statistically significant (p=0.05). This is consistent with H4.

Hypothesis 5 proposes that the effect of disclosure is less when the conflict is with both the Buyer and Seller. Here, we expect the increased pressure from the potential conflict with the buyer to bias the professional in the direction of the seller regardless of the bias control introduced. Consistent with this theory, mean valuation estimates in the Buyer and Seller Conflict, No Disclosure conditions are $9.63 million and in the Buyer and Seller Conflict, Disclosure condition are $9.47 million. There is no difference between these conditions (p=0.38)
as seen in Table 1, Panel C, indicating that the conflict dominates the disclosure bias control. This differs from the findings under H1 where we saw that the effect of disclosure dominated the conflict type when the conflict was only with the seller. These findings support H5.

With respect to the Certification and Buyer and Seller Conflict condition, Hypothesis 6 posits that certification will put pressure on the professional accountant to behave objectively. However, again we find that the effect of a conflict with two agents (Buyer and Seller) dominate any pressures of objectivity created by issuing a certification. Table 1, Panel A, shows that mean valuation estimates in the Buyer and Seller Conflict, Certification condition are $10.05 million and $9.63 million in the Buyer and Seller, No Certification condition. These conditions are not statistically different (p=0.245) as seen in Table 1, Panel C. We do not find support for H6.

When the conflict level is with two agents (both the Buyer and Seller) all conditions including the No Control condition exhibit bias. This means that none of the bias controls alone work to reduce valuation estimates in line with the baseline condition. This suggests that professional controls like codes of conducts may work effectively when the level of conflict is with one agent but break down as the number of agent’s increases. As accountants often find themselves in business relationships with a wide variety of agents whose interests are partially congruent (and partially opposed), regulatory controls (both professional and market controls) may be insufficient to counter the increased pressure on objectivity.

As none of the bias controls alone helped reduce valuation estimates in the two agent conflict conditions, an additional test for the combined effects of disclosure and certification, was conducted by having a condition with Buyer and Seller conflict, and both Disclosure and Certification present. Table 1, Panel A, shows the mean valuation estimate in this condition is $9.0 million, which is higher than the baseline mean of $8.38 million, though the effect is only
marginally significant (p=0.13). Comparing the two certification conditions ($9 million versus $10.05 million as seen in Table 1, Panel C) yields a statistically significant result (p=0.02).

Overall, this indicates that the simultaneous combination of disclosure and certification seems to be somewhat effective in reducing bias in the two agent conflict condition.

If the accountant uses moral licensing to justify an increased valuation estimate with disclosure, this moral licensing appears to disappear when a certification is simultaneously made (the certification appeared after the conflict disclosure in the case). A combination of disclosure and certification appears to be weakly effective in making professional accountants more objective.

4.2 Psychological Processes of Disclosure: Conscious vs. Sub-Conscious Bias

As hypothesized, participants displayed bias in their valuation estimates under various conditions including disclosure. Cain et al [2005] posit two separate psychological processes that could lead to disclosure creating biased estimates of value. The first is a conscious bias, where the professional accountant expects his advice to be discounted, so he strategically exaggerates his report in anticipation of this discounting. The second is moral licensing, which is a sub-conscious bias and thus more difficult to eliminate or control through regulation. To analyze whether participant bias seen in H1 and H2 was a result of strategic exaggeration or moral licensing or we asked participants to report three estimates of value for the Nisku transaction: a point estimate, an estimate of the final selling price, and an estimate of what point estimate another valuation expert, specifically one hired by the buyer, would provide. From these estimates we calculated subconscious and conscious bias.

We use the average reported value in the baseline (no conflict) condition as our measure of the true value of the Nisku subsidiary. We then compute a sub-conscious bias value for each
condition whereby the amount of sub-conscious bias equals the participant’s point estimate minus the average estimated selling price in the baseline (no conflict) condition. We use the final selling price instead of the point estimate because the final selling price is more reflective of what the participant truly felt the business would sell for. We use this as a measure of subconscious bias because this was a between subjects experiment and any amount by which participants’ estimates exceed the baseline value would represent a bias of which they were unaware (sub-conscious).

We also calculate a conscious bias value for each condition by calculating the difference between the participant’s estimated final selling price and that same participant’s point estimate. We use this as a measure of conscious bias because the participant reports both estimates and therefore, any change in value between the two estimates is conscious and intentional.

Descriptive results for conscious and subconscious bias are shown in Table 2. Total average bias (both conscious and subconscious) for all conditions is $1.037M. This means that on average, participants inflated their estimates 12% above the conflict free condition ($8.38 M). Approximately 85% of this bias is sub-conscious bias (mean of $881k), whereas only 15% of the bias is conscious bias (mean of $156k). These proportions are significantly different (p<0.001). While there is a clear pattern of experts reporting a point estimate for the fairness opinion that differs from their estimate of the final selling price (117 of 161 participants (73%) report a conscious bias), the amount of this bias is small (on average approximately 9% of the business valuation). In the Seller Conflict, No Bias Control condition average conscious bias is negative, because participants believe the final selling price will be higher than their original point estimate. This is one reason why participants in this condition were objective overall in their value estimates.
To further help identify whether inflated valuation estimates were as a result of strategic exaggeration (conscious bias or participants rationalizing their behavior by a sense of entitlement (Miller [2007])) participants were also asked to rate how fair it would be, on a ten point scale with ten representing extremely fair and five representing neutral, for the recipient to discount their advice because of a conflict disclosure. First, we find that they type of conflict has no effect on perceptions of fairness. In the Seller Conflict conditions the mean rating was 4.8, whereas in the Seller and Buyer Conflict conditions the mean was 5.5, which are not significantly different (p=0.42). Second, we look at those conditions where the valuations estimates are biased and determine if participants in those cells behaved with bias because of a desire to strategically exaggerate (in other words, are their perceptions of fairness significantly different from neutral on the 10 point scale). Here, we find that participants in the Seller Conflict, Disclosure condition had an average perception of fairness of 5.0 which is not significantly from neutral (p=1.0). As noted above, the average fairness rating in the Buyer and Seller Conflict conditions was 5.5, which is also not significantly different from neutral (p=0.16). These results do not support the notion that that expert subjects were motivated to strategically exaggerate their estimates due to their perceptions of the (un)fairness of anticipated discounting. This further supports the finding of small amounts of conscious bias.

With respect to sub-conscious bias, in the Seller Conflict conditions, the mean sub-conscious bias was $749k; whereas, in the Seller and Buyer Conflict conditions the mean sub-conscious bias was $981k. These means are not significantly different (p=0.50). These results indicate that although participants indicate they feel a higher conflict in the Seller and Buyer Conflict conditions they do not respond to this pressure with an increase in sub-conscious bias specifically.
As a comparison with the calculation of the subconscious and conscious biases, we also measured participants’ awareness of their own bias. As discussed earlier, there were no differences in objectivity ratings across conditions and participants felt overall that they were highly objective. Given the salient nature of this question and the strong professional backgrounds of our participants, it is not surprising that they felt they were objective (even if they were not). Another indirect way of ascertaining bias awareness in participants is to ask them about bias they perceive in others (rather than themselves). We did this by asking participants what point estimate they expected an expert valuator hired by the buyer to place on the Nisku transaction. Descriptive results are shown in Table 3. In all conditions, participants expected an expert working for the buyer to be biased in favor of the buyer’s preferences and assign a lower value to the company. These findings are counter to the results of participants reporting of their own objectivity as seen above. Even though our participants were members of a profession and bound by a code of conduct requiring independence and objectivity, 120/148 participants (81%) expected their fellow professional valuation experts to be biased in favor of the client who hired them. Participants also indicated in their open ended responses that they did not believe they themselves would be biased towards their clients, but believed other professionals would feel pressure to act for the buyer/seller. These findings are consistent with psychology literature where individuals exhibit a tendency to evaluate themselves more favorably than others (Brown, 1986) while failing to behave in a manner that is consistent with their own charitable self attributions (Epley & Dunning, [2000]). In addition, it is common for people to overestimate the extent to which others’ behavior is influenced by external incentives, and underestimate the influence of incentives on their own behavior (Miller & Ratner, [1998]). Our findings indicate that professional accountants’ behavior is consistent with this literature.
Finally, our study finds support for the fact that disclosure leads to bias when conflict is with one agent (the seller) (H1). Thus, to determine whether the bias was due to the subconscious effect of moral licensing we compared the amount of subconscious bias in the Conflict Seller, No Disclosure condition ($383k) to the amount of subconscious bias in the Conflict Seller, Disclosure Condition ($1.61m). These amounts are marginally significantly different (p=0.08). However, the amount of conscious bias in the Conflict Seller, No Disclosure condition (-$178k) and the Conflict Seller, Disclosure condition ($97k) are not significantly different (p=0.33). This provides some evidence that the psychological process behind the bias that exists when disclosure of a conflict is made stems from moral licensing.

4.3 Other Process Measures

Previous studies of motivated reasoning (e.g, Kadous et al., [2003]) have manipulated the extent to which the participant feels motivated to help the client achieve its reporting goals. Although we do not directly manipulate the level of goal commitment, we examine the possibility that participants more highly committed to achieving the seller’s goal of the highest possible price exploit the flexibility in the valuation methodology to increase their point estimate. Following Klein et al.’s (2001) goal commitment questionnaire we asked participants to answer 5 questions, each on a 5 point scale, about how important it was for them to help the client obtain the highest possible price. Interestingly, we find that goal commitment was highest in the baseline (no conflict) condition (mean = 4.2). When disclosure and a conflict with the seller was introduced, goal commitment decreased to an average of 3.7, which is significantly different from the base case (p<0.01). These results could suggest that as the professional accountant becomes more conflicted, stated goal commitment decreases as an overt way of counteracting bias. These results are counter to what Kadous et al (2003) find in that we would have expected
bias in the point estimate to increase with goal commitment. However, this difference might be because in our study, the goal of achieving the highest selling price belonged to the client; whereas, the Kadous et al (2003) goal of accepting a client preferred accounting method belonged to the (auditor) participant.

Finally, we asked additional questions to gain insight into professional accountant’s beliefs about conflict of interest disclosures. Here, we asked participants to what extent, on a ten point scale, disclosure of a conflict of interest increases the seller’s trust in the valuation report. The mean rating was 5.0 indicating that participants do not feel that disclosure hurts or helps the users of a fairness opinion. Overall, participants’ open ended comments indicated very little consideration for the fact that disclosure might affect a users’ ability to trust or rely on the fairness opinion. However, current literature indicates that investors are indeed affected by disclosure in that they are unable to fully account for the impact of a conflict on an advisor even when it is disclosed (c.f. Cain et al (2005) and Mikhail et al. (2007). This is a fruitful area for further research.

The above results indicate that professional accountants are aware and committed to their clients’ goals, but do not feel that this awareness or disclosure of a conflict decreases their ability to be objective, increases their susceptibility to discounting or decreases the trust placed in a fairness opinion. Overall, this suggests that experts are not aware of their bias and that the bias is sub-conscious.

5. CONCLUSION

This study investigates the efficacy of disclosure and certification in curbing biases stemming from conflicts of interest with one agent (Seller) or two agents (Buyer and Seller). Our results show that for a conflict with one agent (the seller), professional accountants are objective,
except when they make a conflict disclosure. This suggests that professional controls, such as codes of conduct, may be effective in curbing biased behavior when the conflict is with one agent only. In a two agent (both Buyer and Seller) conflict situation, professional accountants are biased in all conditions and disclosure does not curb bias. Our findings provide evidence that the act of making a disclosure creates a moral license to behave in a self serving manner. This phenomenon had been posited as a consequence of disclosure by Cain et al [2005] in psychology experiments, but had yet to be tested in the domain where these disclosures had the potential for harm. This result suggests that disclosure as a regulatory control for conflicts of interest is ineffective, and possibly harmful.

The issuance of a written certification of objectivity does not bias professional accountants’ valuation estimates; however, it also does not act as a disciplining mechanism in a situation where the there is a conflict of interest. These results are consistent with empirical evidence that shows that certification of financial statements is not valued by the market (Bhattacharya, Groznik & Haslem[2007]).

Overall, we find that professional accountants are unable to remain objective in situations involving conflicts of interest with multiple agents. When accountants experience conflict with the buyer and seller, they feel more pressure to generate a self serving response, and are biased regardless of whether a bias control is in place. In actual practice, accountants operate in many situations where there is the potential for business with more than one party to a transaction. Our results suggest that this may be problematic.

The legal profession uses a variety of devices to deal with conflict of interest, including procedural regulations that proscribe the participation in decision making by conflicted agents (Issacharoff [2007]). For example, law firms have a conflict committee that independently (of
the partner bringing in the business) reviews all prospective (and current) clients for potential conflicts with other firm clients or activities (Shapiro [2003]). In accounting, Big 4 audit firms (and any firm building an audit industry specialization) conduct a similar review process, but, have numerous clients with conflicting interests. Often, the client prefers (at least at some times) for the audit firm to have these conflicting relationships (Fiolleau et al., [2011]). Regulators have had to force accounting firms to adopt procedural regulations such as prohibiting auditors from providing certain consulting services to audit clients (SOX), and forcing a cooling off period for senior audit firm staff that start working for audit clients in positions with significant reporting responsibility (SOX). The accounting profession appears to have a higher tolerance for conflict of interest than other professions such as law.

Our analysis of participants’ thought processes suggests that professional accountants are aware of client goals and expect other experts, but not themselves, to be biased in favor of the client’s interests. While they perceive more conflict, they do not perceive that they may be personally biased. This suggests that the bias we observe as a result of disclosure is subconscious. Further, ratings of their own objectivity, expectations that it is fair for others to discount their valuation report, and ratings of the extent to which disclosure increases the seller’s trust in their advice all suggest a lack of awareness of bias, and a lack of any conscious attempt to create bias.

Our study extends the literature in several ways. First, it raises questions about the effectiveness of disclosure as a disciplining mechanism in cases involving conflict of interest. Instead of constraining the estimates of professional accountants, disclosure serves to exacerbate the effects of conflict of interest by inducing more sub-conscious bias. Regulators have often sought to rely on disclosure rather than prohibiting behaviors that generate conflict of interest.
Our results suggest that this reliance on disclosure as a disciplining mechanism needs to be reconsidered. Prohibiting professional accountants from engaging in behaviors that generate conflicts, especially those that pull the accountant in more than one direction (seller and buyer conflicts) may be preferable to allowing them to have a conflict and then disclose it. However, since we also find that professionals are objective when faced simply with a conflict and no corresponding disclosure, it may be preferable to allow some conflicts of interest to arise naturally and for regulators to trust in the socialization of professionals as objective and unbiased experts.

Second, the results have implications for regulators looking at certification as a solution to problems such as earnings management and conflicts of interest. Prior literature (Bhattacharya, Groznik & Haslem, 2007) has shown that certification is not valued by the market. However, certification may be useful for prosecuting professionals who misbehave if it makes it easier ex-post to establish legal responsibility, but should not be seen as an ex-ante objectivity inducing mechanism.

Third, the study provides further evidence on the causes and nature of bias in professional accountants. Existing literature speaks to the existence of moral licensing as a psychological phenomenon (Cain et al, 2005) and this study serves to provide evidence as to its presence in the realm of professional accounting.

One limitation of our study is that we deliberately studied a valuation task which is a highly ambiguous task. In most tasks, professional accountants work in a more structured environment where they have less scope to engage in self serving behavior. A second limitation is that the professional accountants in this study do not meet with the seller, the buyer or have to worry about litigation or other reputational concerns. These environmental features can be
examined in future studies. Third, an important reason for providing disclosure is for the users of the reports to adjust their own valuations with a more complete understanding of preparer incentives. Future studies can investigate how well users process conflict disclosures and understand (and adjust for) potential biases of preparers. Our study provides a starting point to understand the dysfunctional consequences of disclosure, especially as a mechanism for inducing discipline in conflict of interest settings.

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# TABLE 1
Effects of Disclosure and Conflict Type on Participant’s Valuation Point Estimates

## PANEL A: Mean (Standard Deviation) of Participant’s Point Estimates (in millions)

<table>
<thead>
<tr>
<th></th>
<th>Low Conflict (Seller)</th>
<th>High Conflict Seller +Buyer</th>
<th>No Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Disclosure</strong></td>
<td>$8.53 ($1.89)</td>
<td>$9.63 ($1.84)</td>
<td>$8.38 ($1.90)</td>
</tr>
<tr>
<td>n = 15</td>
<td></td>
<td>n = 20</td>
<td>n=19</td>
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<tr>
<td><strong>Disclosure</strong></td>
<td>$10.03 ($2.45)</td>
<td>$9.47 ($1.69)</td>
<td>-----</td>
</tr>
<tr>
<td>n = 16</td>
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<td>n = 20</td>
<td></td>
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<tr>
<td><strong>Certification</strong></td>
<td>$8.80 ($1.70)</td>
<td>$10.05 ($1.82)</td>
<td>-----</td>
</tr>
<tr>
<td>n = 20</td>
<td></td>
<td>n = 17</td>
<td></td>
</tr>
<tr>
<td><strong>Disclosure + Certification</strong></td>
<td>-----</td>
<td>$9.00 ($1.50)</td>
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<td>N=21</td>
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## PANEL B: Planned Comparisons

<table>
<thead>
<tr>
<th>Planned Mean Comparisons</th>
<th>t</th>
<th>One-Sided p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: When hired by the seller, professional accountants facing the prospect or more business from the seller (low conflict) will assess a higher valuation when they issue a conflict of interest disclosure than when they do not make this disclosure</td>
<td>1.89</td>
<td>0.034</td>
</tr>
<tr>
<td>H2: When hired by the seller, professional accountants facing the prospect or more business from the seller (low conflict) will assess a higher valuation when they issue a conflict of interest disclosure than when they issue a certification of objectivity.</td>
<td>1.78</td>
<td>0.042</td>
</tr>
<tr>
<td>H3: When hired by the seller, professional accountants facing the prospect or more business from the seller (low conflict) will not differ when they issue a certification of objectivity and when they do not</td>
<td>0.44</td>
<td>0.33</td>
</tr>
</tbody>
</table>
issue such a certification.

**H4:** When hired by the seller, professional accountants facing the prospect or more business from the buyer (high conflict) will assess a higher valuation than when they face the prospect of more business from the seller (low conflict).

**H5:** When hired by the seller, professional accountants facing the prospect or more business from the buyer (high conflict) will not differ in their valuation estimate when they issue a conflict of interest disclosure and when they do not make this disclosure.

**H6:** The effect of issuing a certification of objectivity will be larger when the accountant anticipates future business from the buyer (versus the seller) such that when the accountant anticipates future business from the buyer, accountants’ valuation judgments will be lower when they issue a certification of objectivity than when they do not do so.

Add the cell 8 comparison here also?

**PANEL C: ANOVA Results**

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>MSE</th>
<th>F-stat</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict</td>
<td>1</td>
<td>0.32</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>Disclosure</td>
<td>1</td>
<td>2.59</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Years University</td>
<td>1</td>
<td>2.09</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>Conflict x Disclosure</td>
<td>1</td>
<td>5.67</td>
<td>0.02</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 2
CONSCIOUS VS SUBCONSCIOUS BIAS

<table>
<thead>
<tr>
<th></th>
<th>Conflict Seller</th>
<th>Conflict – Buyer + Seller</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Disclosure</td>
<td>Subconscious: +$383k</td>
<td>Subconscious: +$1.08m</td>
</tr>
<tr>
<td></td>
<td>Conscious: -$178k</td>
<td>Conscious: +$231k</td>
</tr>
<tr>
<td>Disclosure</td>
<td>Subconscious: +$1.61m</td>
<td>Subconscious: +$795k</td>
</tr>
<tr>
<td></td>
<td>Conscious: +$97k</td>
<td>Conscious: +$352k</td>
</tr>
<tr>
<td></td>
<td>Total: +$1.71m</td>
<td>Total: +$1.15m</td>
</tr>
<tr>
<td>Certification</td>
<td>Subconscious: +$253k</td>
<td>Subconscious: +$1.52m</td>
</tr>
<tr>
<td></td>
<td>Conscious: +$221k</td>
<td>Conscious: +$212k</td>
</tr>
<tr>
<td>Certification + Disclosure</td>
<td>Subconscious: +$518k</td>
<td>Subconscious: +$518k</td>
</tr>
<tr>
<td></td>
<td>Conscious: +$156k</td>
<td>Conscious: +$156k</td>
</tr>
</tbody>
</table>

Base Cell = Baseline Cell  Final Selling Price
Subconscious Bias = Final Selling Price (Mine) – Baseline Cell  Final Selling Price
Conscious Bias = Final Selling Price (Mine) - Point Estimate (Reported to the Board)
# TABLE 3
Expected Bias in Other Expert (Own Point Estimate - Buyer’s Expert’s Point Estimate)

<table>
<thead>
<tr>
<th>Conflict Seller</th>
<th>Conflict - Buyer</th>
<th>No Conflict - Arbitrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Disclosure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell 2</td>
<td>$850k</td>
<td>Cell 4</td>
</tr>
<tr>
<td>Cell 3</td>
<td>$554k</td>
<td>Cell 5</td>
</tr>
<tr>
<td>Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell 6</td>
<td>$1.18m</td>
<td>Cell 7</td>
</tr>
<tr>
<td>Certification + Disclosure</td>
<td>Cell 8</td>
<td>$1.44m</td>
</tr>
</tbody>
</table>