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Utilizing Incentives and Accountability In Control in Control?

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Erasmus University Rotterdam

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Utilizing Incentives and Accountability

In Control in Control?

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Utilizing Incentives and Accountability

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Prof.dr. Marcel van Rinsum

Address delivered at the occasion of accepting the appointment as Professor of Accounting & Incentives, Erasmus University Rotterdam, at the Rotterdam School of Management, Erasmus University Rotterdam on Friday September 20, 2019.

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Erasmus University Rotterdam

Inaugural Lecture on 20 September 2019. Prof.dr. Marcel van Rinsum

Utilizing Incentives and Accountability

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Abstract

Objectivity and transparency are often considered to be desirable attributes of a performance measurement and incentive system. Subjectivity, on the other hand, is typically equated with bias and has a negative connotation. But accounting research shows us that a degree of subjectivity, in other words, allowing leeway for supervisors' judgments in evaluations, is usually optimal. I argue that we should switch to the term 'discretion', to be better able to communicate its benefits. Moreover, I discuss the benefits and costs of discretion and of transparency. I surmise that a balance between objectivity and discretion is required, and that transparency is definitely not always desirable. Furthermore, I discuss how discretion relates to the way in which managers are held accountable. Holding managers accountable for outcomes is not always optimal, yet pervasive. Finally, I outline future research opportunities on discretion and accountability, apply the insights about performance measurement to the academic working environment, and promote the use of new research methods.

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Samenvatting

Objectiviteit en transparantie worden vaak gezien als wenselijke kenmerken van een prestatiemeet- en beloningssysteem. Subjectiviteit, aan de andere kant, wordt meestal geassocieerd met 'bias' of vertekening en heeft een negatieve connotatie. Accounting onderzoek laat ons echter zien dat een mate van subjectiviteit, ofwel een rol voor het oordeel van de leidinggevende in evaluaties, veelal optimaal is. Ik beargumenteer dat we zouden moeten overstappen op de term 'discretion' (beoordelingsvrijheid), om de voordelen ervan beter te kunnen communiceren. Voorts illustreer ik de voordelen van 'discretion' en van transparantie, alsmede de nadelen. Ik stel dat een balans tussen objectiviteit en 'discretion' vereist is, en dat transparantie zeker niet altijd gewenst is. Verder bespreek ik hoe 'discretion' gerelateerd is aan de wijze waarop managers verantwoordelijk gehouden worden ('accountability'). Managers verantwoordelijk houden voor resultaten is niet altijd optimaal, maar veelvoorkomend. Tenslotte beschrijf ik toekomstige onderzoeksmogelijkheden over 'discretion' en 'accountability', pas ik de inzichten over prestatiemeting toe op de academische werkomgeving, en propageer ik het gebruik van nieuwe onderzoeksmethoden.

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1. Introduction

Mijnheer de Rector Magnificus, Geacht College van Decanen, Distinguished colleagues, Dear family, friends, Dear guests.

The field of Accounting and Incentives studies how the use of performance measures affects judgment and decision-making. Selecting and implementing performance measures in organizations provides managers and employees with (implicit) economic and social incentives for performance. If well designed, a performance measurement system (or accounting system) helps to make an organization's members act congruently with its strategy and ensures that they make economically sound decisions. If ill designed, the system is likely to provide perverse incentives and lead to suboptimal behavior by managers and employees. Thus, holding managers and employees accountable for well-chosen performance measures and providing them with appropriate incentives is crucial to organizational success.

This brings me to the title of my inaugural address: Utilizing Incentives and Accountability: In Control In Control? The study of Accounting and Incentives has overlap with the field of Management Control or simply Control. Are we *in control* in the field of Control? Are we utilizing incentives and accountability for performance in proper ways in organizations, to be and stay *in control*? And, is our knowledge about this well-developed and developing well?

To address these challenging, broad questions, I will focus primarily on a pervasive related question: How much should we rely on **objective** performance measures to hold individuals accountable and incentivize them? I have encountered and participated in recurring discussions on this theme with students, controllers, and executives in classrooms, as well as in management meetings. A frequently voiced position in such discussions is that objectivity is a good attribute, as is **transparency**, and that more of both will improve the measurement and evaluation system. In my address, however, one of the central arguments is that managers should resist tendencies to focus only on easily, objectively measurable results to gauge performance and incentivize individuals. In a similar vein, more transparency is not always better.

In the next sections, I will first explain several lessons learnt about the design of a performance measurement system, which forms the basis for providing incentives. I will outline that measurement systems using objective measures can benefit organizations, but can typically only solve part of the puzzle. Perhaps counterintuitively, a degree of subjectivity in performance measurement is often optimal, despite its negative connotation. Thus, managers should resist temptations to hold subordinates accountable for objective outcomes only.

Insights from accounting research studies can help managers in finding ways of doing so. To illustrate, I discuss the interrelated topics of *performance measurement systems* and objective measures (section 2), *subjectivity or discretion* (section 3), *transparency* (section 4), and *accountability* (section 5).

In the last two sections, I will address the theme 'in control in Control'. Specifically, I describe how I believe we can and should move research in this field forward. To that end, I outline opportunities for further research in section 6 with a focus on discretion and accountability, their interrelation, and on research methods. These opportunities align with my own research plans for the coming years. In section 7, I proceed with the same theme by applying the knowledge acquired from studying organizations' measurement, accountability, and incentive structures to our own work as researchers. Specifically, I will make recommendations about how we conduct and evaluate research and how we can further shape and improve our own measurement and evaluation system.

2. Objective performance measurement systems

One of the main lessons learnt in the field of Accounting and Incentives is that an organization's performance measurement system should be geared to the circumstances and, in general, be *balanced*. Below, I explain why this is so important and that this implies that fully objective systems are likely to fail.

Incentivizing managers and employees based on objective performance measures and targets can lead to positive organizational outcomes. First, effort and performance levels may increase. Employing clear measurement systems can also enhance organizational members' sense of direction; i.e., provide clarity about which types of actions and decisions are desirable to achieve the organization's strategic objectives (e.g., Bonner & Sprinkle, 2002). Consistent with this notion, in a survey study with Frank Verbeeten, I showed that public sector organizations could benefit from a stronger emphasis on objective performance measures. Our data shows that this stronger emphasis can enhance perceived mission clarity, thus advancing employees' sense of direction, which consequently increases motivation (Van Rinsum & Verbeeten, 2012). Directing managers' and employees' behavior by utilizing objective performance measurement can be very beneficial.

A solidly developed accounting or measurement system is crucial for organizational success, but designing a measurement system that provides managers with a sense of direction that is in line with the organization's strategy and objectives, represents a significant challenge. Ultimately desirable outcomes often are, and need to be, defined in financial terms. Accounting measures, such as profit and return on investment, therefore play a significant role in performance measurement systems, and their usage can greatly benefit the organization.

There is, however, also evidence that using accounting performance measures can evoke short-termism, or myopia — an excessive focus on achieving near term results at the expense of long-term value-creating investments (e.g., Merchant, 1990). Accounting measures such a profit inherently reflect results that have already been achieved. These measures can be boosted in the short run (only) by, for instance, lowering quality or service levels or investing sub-optimally low amounts in long-term projects (Graham, Harvey, & Rajpogal, 2005). Therefore, managers can benefit by increasing short-term accounting performance at the cost of future results. Moreover, high reliance on objective accounting performance measures can instigate fraud and lead to peak levels of managerial risk-taking (e.g., at ENRON; Healy & Palepu, 2003).

In fact, banking too much on any single performance measure, or a limited set of performance measures, is risky. Accounting and other performance measures vary in their characteristics and all have their individual strengths and weaknesses (Gibbs et al., 2009). Performance measure properties such as accuracy, controllability (influenceability versus noise), congruence with organizational objectives,

and timeliness all differ across metrics and can differentially affect judgments and decisions. For example, a lack of controllability can cause perceived unfairness, as managers typically dislike being responsible for results which they cannot significantly influence. This, in turn, may lead to manipulation.

The strengths and weaknesses inherent in measures demonstrate a trade-off in objective performance measurement systems. On the one hand, emphasis on such systems enhances motivation; on the other hand, they can stimulate dysfunctional behavior. At middle-management level, optimally designing a performance measurement system is particularly challenging. At this level, a system comprised of multiple measures is typically indicated, such as a Balanced Scorecard (BSC; Kaplan & Norton, 2001). A well-designed measurement system not only includes accounting measures (imperfectly) representing periodic economic value creation, but also measures that drive these financial results. A system that measures strategic, non-financial, performance dimensions can ensure that managers also focus on long-term performance. Such measures, customer satisfaction for instance, are considered leading indicators that are predictive of future value creation. Including these measures in a performance measurement system in combination with 'lagging' accounting measures (such as profit or return on investment) can provide better alignment with the organizational objectives and allow managers to strike the right balance between the short- and long-term consequences of their decisions (Kaplan & Norton, 2001).

Balance is also desirable in terms of performance measure properties (e.g., controllability), to compensate the relative weakness of one measure regarding a specific property with another measure that is strong on that particular property (Gibbs et al., 2009). Yet even when one keeps these balances in mind, determining the weight to be set on each performance measure for evaluation and incentive purposes is notoriously difficult. For motivational purposes, it may be wise to prespecify these weights. This, however, possibly and often likely evokes 'gaming' of the prespecified measurement and evaluation system, as managers can now focus too much on the measures in the accounting system that are, for example, most influenceable and thus lead to the biggest improvement in their evaluations and rewards. Managers may even lose sight of the organization's strategy and start to view maximizing their performance measures as the ultimate goal; the *surrogation* effect (Choi, Hecht, & Tayler, 2012).

Hence, even a measurement system with multiple indicators threatens to result in dysfunctional effects. This brings me to the central tenet of my speech. Holding managers accountable for outcomes only in an objective, fully transparent manner is not as good an idea as one may think. In fact, this may have strong adverse effects and cause accounting scandals rather than prevent them. Nevertheless, in my experience, more objectivity (and transparency) is often advocated in discussions about measurement system design. I conclude that there seems to be a tendency to overrely on accountability for objective outcomes, which tallies with recent research findings (Bol & Smith, 2011; Dai, Kuang, & Tang, 2018).

Again, a balance is needed, namely between objectivity and subjectivity. Subjectivity refers to supervisors' discretion to rate performance or adjust performance evaluations. Perhaps counterintuitively, subjectivity in performance measurement and evaluation is generally a good thing, as it allows coping with unforeseen circumstances and situational nuances. I will explain this in more detail next.

3. Subjectivity or discretion

In this section, I outline costs and benefits of the opposite of objectivity: subjectivity. I describe where the negative connotations of subjectivity likely originate from and I highlight insights from accounting research on the topic, including some of my own studies. These insights reveal that subjectivity is often beneficial.

In a fully objective system, performance evaluations are determined formulaically based on objective measures and weights. The formula is determined ex ante, i.e., at the beginning of the evaluation period. As an example, the following measurement system, coupled with a bonus, could apply to a sales- or business unit manager: 5 % of net margin on sales (over a specific period) is paid out as a bonus, plus a lump-sum bonus if a certain minimum target customer satisfaction score is obtained. The latter could be the average score given by customers for the product and sales service, for example, on a scale of 1-10. Both sales and the customer satisfaction score are objective measures. It is a clear, unambiguous preset system. It is objective and **transparent**.

An objective measurement and evaluation system reduces uncertainty about the process. But, this comes at a cost: there is no way to deal with the effect of environmental uncertainty (unless it is somehow built into the formula, which is not always possible). Effects of unpredictable events and circumstances that affect the manager's possibilities to generate sufficient sales influence the outcome of the formula and hence the manager's bonus. Unless a manager can foresee an uncertain event that will adversely affect results, it may not be fair to allow his or her bonus to drop significantly.

Another cost of rigidly applying an objective evaluation system is the inability to correct the outcome for any opportunistic behavior that may occur. For example, a manager subject to the earlier example bonus system may decide to ignore the effects on customer satisfaction, if the bonus based on this measure is relatively small. Instead, he or she may try to push a higher sales volume to customers, e.g., by overrepresenting products' usefulness to specific customers. This can boost the manager's bonus in the current period, which is in the manager's self-interest provided that (s)he is moving on to another job soon after. Thus, a rigid objective system can evoke short-termism.

Is subjectivity in evaluations a solution? It involves evaluating based on the supervisor's judgment. Over the years, I have learned that many students, executives, and colleagues deem subjectivity to be undesirable. Basically, they equate it with **bias**. And they have a point, as accounting studies have indeed documented biased evaluations when superiors have a significant influence on the outcome. Compared to fully objective systems, subjective evaluations can exhibit leniency bias, centrality or compression bias, recency bias, an outcome effect, and favoritism. Leniency bias occurs when superiors evaluate subordinates' performance more positively than actual performance warrants (Bol, 2011; Moers, 2005). Centrality bias occurs when compressed evaluations take place, leading to reduced dispersion with few subordinates evaluated as stellar or bad

performers (Kampkötter & Sliwka, 2018; Moers, 2005). Both biases are at least partly due to a desire to avoid costly discussions with subordinates (Bol, 2011). Recency bias is present when recent failures or successes are overweighted in an evaluation (e.g., Arnold et al., 2002). The outcome effect entails that an evaluator dislikes negative outcomes and appreciates positive ones, regardless of the decision-making process and risk involved (Ghosh & Lush, 2000). Finally, favoritism leads to inaccuracies in evaluations, which is the case when supervisors rate subordinates they personally like better relatively high (Ittner, Larcker, & Meyer, 2003). I have found *perceived* favoritism by subordinates to be quite pervasive in my own surveys, which is potentially problematic irrespective of whether superiors actually play favorites.

Given all these potentially occurring biases and inaccuracies, should we even consider employing subjectivity in measurement and evaluation systems? The answer is a definitive 'yes'. Accounting research shows us why. In essence, incorporating discretion in evaluations achieves more flexibility. First, it allows for evaluations on aspects of performance that are not easily objectively defined or evaluated (Gibbs et al., 2004), such as creativity, innovativeness, and cooperativeness. Moreover, subjectivity is used more frequently and pervasively in practice when more opportunities for manipulation exist, and in circumstances where a long-term managerial orientation is more desirable. To illustrate, better growth opportunities and longer product development and life cycles are positively associated with subjectivity (Bushman, Indejikian, & Smith, 1996), as is the use of objective performance measures that are more susceptible to manipulation (Gibbs et al., 2004). This evidence on the determinants of the use of subjectivity strongly suggests that subjectivity helps to prevent dysfunctional behavior such as manipulation and myopia.

There are more positive aspects to subjectivity. Superiors use it to correct for unforeseen adverse circumstances that subordinates may encounter, such as a suddenly declining market size or a competitor unexpectedly entering the market. Corrections for such uncertain events can ensure that evaluations are fairer or are at least perceived as such (Bol, Hecht, & Smith, 2015; Van Rinsum, 2015). Deviations in outside factors affecting results are not always impossible to foresee, nor is it always the case that the effects of outside influences cannot be countered. For instance, market shrinkage can sometimes be predicted and the effects of exchange rate movements can be undone through hedging. To motivate managers to think ahead, for instance to anticipate likely states of the market, discretion is often needed (Bol et al., 2015). This allows supervisors to employ their professional judgment. They can then stick to the objectively measured results if managers could or should have been able to foresee the changes that occurred in the business environment. Or they can adjust evaluations and rewards if complicating outside factors were truly unforeseen and/or the effects thereof could not be anticipated and countered (Bol et al., 2015). Using discretion in this manner provides managers with incentives to work hard and directs their efforts strategically. Introducing subjectivity can thus turn an objective system into a more balanced one.

A study I undertook with Victor Maas and Kristy Towry provides another example of the benefits of discretion. We investigated whether superiors are willing to make a personal sacrifice to enhance the accuracy of their evaluations, by filtering out a noisy factor. Specifically, we investigated evaluators' willingness to pay for information that would help them to determine the relative contribution to team performance of each of two team members. In practice, supervisors can often easily observe team performance, but not each individual team member's contribution. At a cost and by investing time, for instance by interviewing peers or monitoring regularly, supervisors can acquire additional information about individual efforts. In our experimental study, we find that when supervisors have the power to adjust individual evaluations, they are indeed willing to incur personal costs to gather such additional information. They consequently use this information to improve their individual performance evaluation and bonus allocation decisions, by punishing slackers and rewarding high contributors. In doing so, supervisors ensure that evaluations are fair and reciprocate subordinates' trust in them (Maas, Van Rinsum, & Towry, 2012). Our study thus demonstrates that supervisors intend to improve the accuracy and fairness of individual performance measures and evaluations, even when it is costly to them personally and they do not benefit from it themselves. Again, subjectivity works out positively.

The abovementioned advantages of subjectivity apparently make it a very useful tool. Subjectivity is an integral part of many firms' performance measurement and evaluation systems (e.g., Murphy & Cleveland, 1991). Given the negative connotations it has to many people, its widespread use, and its many potential positive effects, I advocate that we stop using the label subjectivity. As the antonym of objectivity it may be an intuitive label to accounting researchers, but it equates to bias or a mostly random judgment for most others. Hence, I believe we would be better off using the more neutral term *discretion*, especially in our conversations with students and practitioners. This can help disseminate the research findings on this topic and enhance our impact in the business community, and I will therefore refer to **discretion** henceforth.

In sum, we should all realize the significant benefits that discretion has to offer in performance measurement and evaluation systems. In my experience, tendencies to over focus on objectivity and the accompanying ex ante transparency are frequently (too) strongly represented in related discussions. Designing an upfront fully transparent objective system should not be our ultimate goal. Rather, measurement and evaluation procedures should achieve a balance between objectivity and discretion, and discussions should reflect this.

4. Transparency

Thus far, I have argued that upfront transparency, in the form of objective measurement and evaluation of an individual's performance, is not the paramount objective in performance measurement. It is important to note, however, that transparency is a much broader concept that does not equate to objectivity. In this section, I address transparency as a central concept in performance measurement and evaluation. I illustrate transparency and its effects in a broader context, discuss whether transparency generally is a good thing, and examine whether discretion and transparency are necessarily at odds with each other.

Information policy. Transparency in performance measurement systems also relates to whether or not peers are informed about each other's performance. Accounting research has examined how an organization's information or reporting policy affects behavior (Evans et al., 2016). Under an open policy, individual performance levels are known among peer groups of managers, while under a closed policy such information is not available to individuals. Together with Victor Maas, I conducted an experimental study on the effects of different information policies on reporting honesty. Our findings indicate that managers, whose performance reports are made public, tend to report their own performance level more truthfully. When all performance reports are public, being dishonest by manipulating one's own performance to a high level presents a more easily observable infraction of social norms. Managers, who care about the impression they leave on their peers, thus tend to be more truthful in their performance reports in such situations than under a non-transparent, closed information policy (Maas & Van Rinsum, 2013). Reducing performance measure manipulation is an important effect of employing an open information policy, given that managers often have some leeway in reporting periodic results - for instance, they can delay or accelerate making provisions or maintenance. In sum, this form of transparency can help mitigate performance measure manipulation. We can, however, not conclude that more transparency is generally better, because studies with a different focus document both positive and negative effects (Bol, Kramer & Maas, 2016; Evans et al., 2016). Below, I illustrate this further.

Relative performance evaluation. In a more competitive environment, the effects of transparency about individual performance levels among peers may contrast those of Maas and Van Rinsum (2013). Outperforming others can then become most important to an individual, and transparency can lead to more instead of less manipulation (e.g., Brüggen & Luft, 2011). This brings me to a prolific subset of the literature that investigates the effects of relative performance information. Research has shown that evaluations based on relative performance can cause many adverse effects. As a first illustration, the desire to stand out in a ranking can lead managers to overly focus on a task at which they are relatively good, while neglecting other responsibilities (Hannan et al., 2013). Relative performance evaluation (RPE) can also lead to sabotaging others' performance to improve one's own ranking (Hartmann & Schreck, 2018). Other potential negative effects include complacency and giving up effects (e.g., Berger et al.,

2013). That is, top ranked individuals with a big lead and bottom ranked individuals who trail far behind can exhibit lower motivation levels due to the increased transparency about individual ranks.

Despite the abovementioned potential downsides to relative performance evaluations, RPE can be very beneficial. Research shows quite consistent evidence that effort and performance increase when rankings are employed in a measurement and evaluation system (e.g., Hannan et al., 2013; Tafkov, 2013). The results of one of my studies, with Stephan Kramer and Victor Maas, demonstrate that this performance enhancing effect of relative performance information also holds without explicit rankings. Our study also investigated whether the order in which relative performance information is presented, from best-to-worst, worst-to-best, or in random order, differentially affects performance. We find no order effects, on average, on the magnitude of the performance increase. For bottom performers, however, a worst-to-best order appears to be most motivating (Kramer, Maas, & Van Rinsum, 2016). These studies on relative performance information and evaluation show that social comparison processes, rather than (just) economic incentives, strongly affect the motivation of managers and employees.

Discretion and transparency. Thus far, I have discussed *upfront* transparency. An objective measurement system, the information policy and relative performance evaluation systems are generally clear and known to subordinate managers and employees at the beginning of the evaluation period. The preceding sections highlighted that each form of transparency has its pros and cons, and that it is not possible to provide generic advice on the optimal level. Any such advice requires tailoring to organizational circumstances (e.g., competition level, culture, the risk and impact of sabotage and manipulation).

I have also argued that discretion is often a valuable aspect of any measurement and evaluation system, which implies that we need to be willing to accept lower levels of ex ante transparency. Does that mean that discretion is at odds with transparency in measurement and accountability systems? Not necessarily.

To illustrate, recall the prior discussion indicating that a major advantage of discretion is filtering out noise. It can be used as a tool to adjust evaluations for unforeseen, uncertain outside factors that influence performance outcomes. Note that accounting research distinguishes three basic types of discretion in performance measurement and evaluation systems (e.g., Höppe & Moers, 2011; Ittner et al., 2003), that determine how evaluations can be adjusted:

a. Using subjective measures. This category refers to indicators that involve a rating by the superior. Examples include scoring subordinates on indicators such as 'organizational commitment' or 'being a team player' on a scale of 1 to 5. A subjective measure enabling a supervisor to take into account uncertain factors could be a rating on 'responsiveness to outside factors'.

- b. Flexibility in weighting objective measures. This type of discretion involves a set of objective measures, without a preset weight on each of these measures for the determination of the evaluation outcome. If a manager attempts to game the system by lowering quality or long-term investments to boost short run profit, the former measures could be assigned a higher weight, while profit may be weighted lower. Thus, supervisors can use their discretion in (re)setting the weights to penalize any dysfunctional behavior ex post. Moreover, managers anticipating this use of discretion have less incentive to engage in such behavior. In the preceding example concerning adjustment for uncertain outside factors, the relative weight on the profit measure could be varied by the supervisor, depending on whether the manager should have been able to foresee that the outside factor would influence results.
- **c. Ex post discretionary adjustments.** This represent the broadest type of discretion, which allows supervisors to make additions and adjustments ex post to any preset (nonbinding) performance measurement system. For instance, additional performance criteria can be specified ex post and incorporated into a manager's evaluation, or a bonus amount calculated based on a standard formula can be adjusted ex post.

Adjusting evaluations for unforeseen influences of outside factors is possible with all three forms, although the last type of discretion appears to involve the most flexibility. Thus, the level of ex post transparency of the evaluation system may well depend on the type of discretion. Under (a), any correction will be in one or more subjective measures. Provided that an appropriate measure is available, such as 'responsiveness to outside factors', it can be clear to the evaluatee how and why the evaluation outcome came about. Under (b), varying weights will be apparent. Under (c), an explanation by the supervisor seems paramount to provide ex post transparency about the evaluation criteria employed. In practice, the latter may hold in many cases, as mixed forms of these discretion types can and often do occur. Thus, if the discretionary evaluation process is managed well by the supervisor, it can still be relatively transparent. Feedback quality, procedural justice, and trust are important factors in this process (Bellavance, Landry, & Schiehll, 2013; Hartmann & Slapniçar, 2009).

When discretion is applied, a supervisor may incorporate the actions/decisions taken by a manager into his or her evaluation, as we saw above in the example about responding to outside factors affecting performance. This brings me to the different ways of holding managers accountable, which are very much interwoven with performance measurement and discretion.

5. Accountability for performance

In this section, I pay attention to alternative ways of holding managers accountable and how they relate to discretion and objective measurement systems.

Accountability types. Holding managers accountable, and the way this is done, is of significant influence on judgment and decision-making (e.g., Libby, Salterio & Webb, 2004; Siegel-Jacobs & Yates, 1996). Utilizing a performance measurement system involving objective and/or subjective performance measures exemplifies mostly *outcome accountability*. Under this type of accountability, managers are responsible for the outcomes of their decisions. It is commonly used in organizations and is similar to 'results' or 'output' control (Anthony et al., 2014; Merchant & Van der Stede, 2018).

When broad discretion is employed and supervisors take managers' actions into account when evaluating their performance, another form of accountability, namely *process accountability* becomes relevant. Under process accountability, supervisors evaluate their subordinate managers based on the quality of the explanations and justifications of their decisions (Lerner & Tetlock, 1999), rather than on the outcomes. Process accountability potentially offers benefits in conditions of uncertainty, because managers should take decisions that are optimal *ex ante*. Focusing evaluations on the decision process rather than on an uncontrollable, uncertain outcome can lead to better evaluations and decisions under such circumstances. Unless process accountability is applied based on a fixed and predetermined set of decision rules, discretion forms an integral part of it.

Accountability and decision-making. The psychology literature documents several potentially beneficial effects of process accountability, such as increased and more systematic information processing (De Dreu et al., 2006). Judgment and decision-making quality generally appears to be better under process than outcome accountability (Libby et al., 2004; Patil, Vieider, & Tetlock, 2014; Siegel-Jacobs & Yates, 1996). Nevertheless, the literature also suggests that benefits of process accountability have their limits. Higher levels of information processing potentially cause over-attention to non-diagnostic information, leading to a dilution effect that can adversely affect judgment and decision quality (Bartlett, Johnson, & Reckers, 2014; Siegel-Jacobs & Yates, 1996; Tetlock & Boettger, 1989). Moreover, setting characteristics such as task complexity, can determine if and to what extent process accountability is beneficial (Chang et al., 2017; De Langhe, van Osselaer, & Wierenga, 2011; Patil, Tetlock, & Mellers, 2016).

Somewhat surprisingly, little evidence of the influence of accountability type on decision-making exists in the managerial accounting literature (Chang, Cheng, & Trotman, 2013). One of my recent studies, with Nicola Dalla Via and Paolo Perego, addresses this gap in the literature. We studied how accountability type affects decision-making quality. Participants in our experiment were asked to make a project funding decision based on information about the project's performance effects, that could be extracted from BSC data. Using eye-tracking technology, we find that individuals exert higher search efforts under process accountability than under outcome accountability, in conditions where they

have no ex ante causal cues. We also find higher decision-making guality under process accountability in these conditions. These findings are consistent with our theory that having to provide explanations for their decisions makes individuals more motivated and better able to infer the causal performance effects of the project. In contrast, under outcome accountability, individuals fare far worse in terms of decision quality in situations where they lack causal cues. However, both accountability types result in similar decision quality levels when individuals are provided with causal cues in the BSC. These cues can take the form of a strategy map or causal chain that outlines relationships between performance dimensions (e.g., Humphreys, Gary, & Trotman, 2016; Tayler, 2010). Nevertheless, even with such cues, process accountability is beneficial because it makes the search process more efficient than under outcome accountability. That is, managers then need to exert less search effort to reach an identical decision guality level. In sum, process accountability leads to greater search effort and better decisions when causal cues are absent, and results in similar decision guality and a more efficient search process when causal information is provided in the BSC (Dalla Via, Perego & Van Rinsum, 2019). Hence, our study shows that the benefits of process accountability for decision-making depend on the format employed in the performance measurement system. We also demonstrate that when the performance measurement system does not provide causal cues, outcome accountability can lead to (very) poor decision quality.

Accountability and discretion. Pleas for more objective measurement are typically also requests to further increase outcome accountability, a much-used form of accountability. Yet as the abovementioned literature shows, process accountability can improve decision-making.

Recall that process accountability typically involves discretion, though not always. If a decision process is spelled out precisely and the rules that need to be followed to reach a certain decision are laid out in detail ex ante, no meaningful discretion is involved. In this case, process accountability equates to simple forms of 'action' control (Merchant & Van der Stede, 2018). Yet in cases where the rules are not and/or cannot be precisely defined ex ante, discretion is needed. An example of where both discretion and process accountability could and probably should be employed is the previously mentioned one-time specific project funding decision. Process accountability can certainly be useful if applied to such a relatively infrequent and complex investment decision (Dalla Via et al., 2019). It can apply more generally, too. In the previous section, I provided an example of how discretion can be implemented when managers are confronted with uncertain events that affect their performance outcomes. Discretion then helps to augment performance information stemming from the measurement system in place - and given that supervisors assess the quality of managers' decisions on how to respond or anticipate, this is similar to process accountability. Thus, we see a mixture of accountability types embedded in the measurement and evaluation system.

A good performance measurement system requires a balance between objectivity and discretion, and similarly, the *right mix between outcome and process accountability*. As I elaborate next, accounting research could benefit from integrating insights from the separate research streams on discretion and accountability, which so far have not extensively drawn upon each other's insights.

6. In control in Control: A route forward

Below I describe future research opportunities on discretion and accountability, which also represents my research agenda. Additionally, I discuss new research methods.

Topics for future research. The accounting literature on discretion has advanced considerably in recent years, and as a result we have learned much about the benefits and costs of discretion and how and when organizations should and do use it. Nevertheless, many opportunities for further advancement of our knowledge exist.

First, most studies have concentrated their attention either on the determinants of discretion (e.g., Bushman et al., 1996; Gibbs et al., 2004), or on the use of discretion by the superior. We have learned that superiors suffer from biases in their evaluations (e.g., Bol, 2011; Moers, 2005), but also that they use their discretion to filter out noisy uncontrollable influences (e.g., Bol et al., 2015; Maas, Van Rinsum & Towry, 2012). Studies investigating the effects of supervisor's use of discretion on subordinates' attitudes and behavior, however, are less common (Moers, 2005). Studies have mostly assumed that superiors are able to correctly anticipate evaluatees' responses. At first glance, this is not a far-fetched assumption, but the results of some studies suggest that deducing employees' responses is not always straightforward. For instance, Bol et al. (2015) show that adjustments that make individuals' evaluation fairer are perhaps not perceived as fair when compensation interdependence is present. When the total bonus pool consists of a fixed amount, adjusting the bonus amount of one individual upward requires reducing another individual's bonus. Such a reduction is deemed unfair if the other individual's performance remained constant, despite the fact that such an adjustment would be equitable, i.e., in line with both individuals' relative efforts. As another example, Bol's (2011) results suggest somewhat counterintuitively that leniency bias, i.e., rating individuals better than they deserve, leads to higher performance. Thus, biases that help supervisors avoid political costs from complaints and thus seem primarily driven by the supervisor's self-interest, work out beneficially for the organization. Overall, however, little direct evidence exists on the effect of discretionary evaluations adjustments on subordinates' perception of fairness. The same holds for the potential of discretionary adjustments to constrain dysfunctional behavior such as gaming and myopia. Discretion clearly provides incentives for subordinates to limit dysfunctional behavior, as compared to an objective measurement system. But that benefit of discretion may be partially undone if the perceived fairness of evaluation outcomes is low, for instance, due to biases in the evaluations. Hence, there are numerous possibilities for researchers to look into why, how, and under which circumstances discretion affects organizational outcomes such as fairness, trust, and performance. Moreover, there are plenty of opportunities for more research into decision-making in managerial accounting, as recently pointed out by colleagues in the field (e.g., Brüggen, 2018). This also holds for discretion; the effects thereof on effort direction and decision-making guality require additional attention.

Second, studies investigating discretion have only relatively recently begun to distinguish between the effects of different types of discretion (Bellavance et al., 2013). Evidence thus far suggests that broader forms of discretion do not necessarily work advantageously. For instance, Bailey, Hecht and Towry (2011) show that partial discretion over a bonus pool can lead to a higher degree of adjustment for uncontrollable influences made by supervisors, relative to broader discretion. Moreover, Höppe and Moers (2011) indicate that applying the 'flexible weighting' variant of discretion is more beneficial in motivating managers to anticipate outside influences. These studies suggest that more purposeful, 'earmarked' forms of discretion can work better than other forms. More research is needed to determine if each form of discretion influences important outcomes, such as fairness, trust, motivation, decision-making, and performance, differentially. Additionally, we need to nail down the main drivers of any such differential effects, which potentially include the subordinate's perception of the purposefulness and transparency of each discretionary part of the evaluation system (Hartmann & Slapnicar, 2009; Van Rinsum, 2015). In other words, we need to look deeper into the process of discretionary evaluations and how this relates to the type of discretion.

A third promising avenue for future research relates to promotion decisions. Promotions represent an under-investigated type of discretionary evaluation decisions. These decisions differ from regular periodic evaluation and bonus decisions in the sense that they are not only meant to incentivize performance in the current job, but they should also serve the purpose of selecting individuals who will likely be most productive in the future job (e.g., Grabner & Moers, 2013). Together with Gary Hecht and Victor Maas, I conducted a study that aims to contribute to the recent stream of accounting research investigating managers' promotion decisions (e.g., Bol ϑ Leiby, 2018; Chan, 2018; Grabner & Moers, 2013). We examine how the design of the performance measurement and incentive system affects managers' tendencies to act strategically in promotion decisions. Managers act strategically if they do not promote the best performer, but rather another employee, because they do not want to sacrifice a highly productive member from their current team. Our experimental study shows that transparency and group incentives affect managers' propensity to promote employees strategically. Specifically, group incentives align managers' and employees' incentives such that it is in both their interests not to lose high performers from the team, and our evidence suggests that managers tend to use this as an excuse to promote strategically. Transparency about each other's performance among employees, however, has an opposite effect. Higher transparency causes managers to give more weight to considerations of fairness and makes them less inclined to abstain from promoting the best performer (Hecht, Maas, & Van Rinsum, 2019). Thus, we show a positive effect of transparency. Transparency has, however, also been shown to negatively affect the quality of promotion decisions (Chan, 2018). Again, we see benefits and costs of transparency, but we still have much to learn about this type of discretionary decisions, and the effects of the performance measurement and incentive system thereon.

Accountability type represents a fourth avenue for further investigation. Few studies have investigated hybrid forms of outcome and process accountability (Patil et al., 2014), while we typically see these mix forms in evaluation systems in practice. In accounting, we should learn more about the effects of accountability types and hybrid systems on decision-making. Accounting researchers can investigate how decision-making quality under such systems varies with reporting format, and with the performance measures and incentives that are used. Given that process accountability typically involves discretion, examining this aligns well with the above outlined research agenda for discretion. Building on the insights about how discretion is used by superiors and keeping in mind the pros and cons of discretion can greatly benefit further study of process and hybrid accountability systems. For instance, we need to understand if and when supervisors' biases play a significant role in the efficacy of these systems.

We thus need to tie the insights on discretion and accountability together. So far, studies on accountability type have mainly investigated effects on subordinates' judgment and decision-making, without focusing on the supervisor's evaluation decisions or process. Few of these studies are in an accounting context. Accounting studies have focused on discretionary evaluation decisions, but less on their effects and also less on the process involved. We need to tie the insights from these two streams of literature together, and further investigate the effects of the supervisor's evaluation process on evaluatees' decision-making, to come full circle. I look forward to conducting further research on these topics.

New research methods. I would like to advocate reflection on and improvement of our research methods, as I elaborate next.

First, many studies in the field of Accounting & Incentives use either the experimental or the archival method. Survey studies are a viable and valid research method, but they are currently less popular and seem to have too little publication potential. As mainly an experimental researcher myself, I find this a regrettable situation. Experimental studies require abstracting, boiling empirical testing down to the essential causal mechanism indicated by theory. But we can only develop theory when we are inspired by and build on findings from other studies, and are able to provide practical contributions. Evidence about organizational practices obtained from survey studies and, for example, quotes from field studies can help in this regard. Hence, it is a pity that they currently seem underemployed. I hope we will see more initiatives like the recent *Special Interest Forum on Survey Research* in the *Journal of Management Accounting Research* (vol. 30, no. 2, 2018). Consistent triangulation, the use of multiple methods, is key to advancing our knowledge, and experimental research is greatly assisted by evidence obtained from studies employing different methods.

Second, when conducting experimental research, a challenging aspect is how to set the stage as part of the overall design of an experiment. Independent variables are manipulated, while all other factors are kept constant. These other factors pertain to the study's setting characteristics, such as the task and its framing. Experimentalists need to make choices about these characteristics, which should be informed and driven by theory as much as possible. These choices are not always easily made. Yet how we set the stage may affect our inferences. For example, when studying the use and/or effects of discretion the type of discretion may affect a study's outcomes. In a similar vein, the framing of the setting can be an important factor. For instance, do we make participants aware of *why* we endowed a supervisor with discretion? In experimental studies and in practice, responses in terms of attitude and behavior may well depend on this framing (Van Rinsum, 2015). Managers may find a discretionary adjustment to their evaluation much fairer when they are fully aware of its purpose, and are fully informed by their company (or: in the experimental setting) that the *reason* for endowing the supervisor with discretion is to 'enable a correction for uncertainty'. That is, elaborating on the process and providing a rationale for it, as opposed to just factually communicating the discretion to adjust, could influence results.

Note that my points are not meant as critique – as experimental researchers, we all face choices and trade-offs in our design. Rather, it implies (1) that we should carefully report and reflect on design choices made in our work and (2) that design choices made can inspire future research whenever they may limit generalization. Thus, we should process studies in depth, including the method employed, as inspiration for follow-up studies that extend and generalize our insights. Additionally, we should not adopt an existing instrument too easily for any new study, but carefully reconsider its setting characteristics and framing. Although an existing instrument is easier to 'sell', and may well be appropriate for a follow-up study, we need to watch out that we do not end up with sub-streams of literature with results that are driven by a particular setting. Ergo, we need 'triangulation' of experimental research, too.

Finally, new methods have become available due to technological advances. As a result, we have an opportunity to generate deeper insights about the processes underlying judgment and decision-making based on accounting information. Adopting insights and methods from neuroscience provides one such potentially fruitful opportunity (e.g., Eskenazi, Hartmann, & Rietdijk, 2016). Another available method, that requires a smaller upfront investment, is eye-tracking technology (Dalla Via, Perego, & Van Rinsum, 2019). This method has become more cost-effective and flexible relatively recently, which even facilitates taking it into the field to conduct tests with practitioners as participants. Employing these new methods can and should advance research in our field.

7. In control in Control: Our system

The opportunities for further research as I outlined in the previous section will bring the field of Accounting & Control, which has made significant progress in the past decennia, (even) more in control. Triangulation and applying new methods holds significant promise for advancement.

But what about our own performance measurement, evaluation, and incentive system? Below, I apply insights from research in this field to our own working environment.

Evaluating academics. A core point I made about measurement and evaluation systems is that they should be balanced, in particular with respect to objectivity and discretion, as well as with respect to outcome and process accountability. In our line of work, research productivity represents a very important aspect of performance. Research output, in terms of publications in top journals, is an often-used indicator for research productivity. As any indicator, it is imperfect; conducting a good research study is not necessarily a guarantee for a top publication in a timely fashion. An excellent study will typically find a good outlet, but there is uncertainty regarding the outcome at any given journal based on a regularly lengthy review process involving a low number of referees. The process from submission to publication or rejection at a given journal can easily take two years or more. Given the uncertainty involved, a level of discretion is called for. Moreover, a number of other highly relevant criteria such as teaching, the role of co-authors, innovativeness, creativity, organizational commitment, and (potential) impact provide more reasons for having discretion built into our evaluation system. This is particularly relevant for promotion decisions. Similarly, we need a mixture of outcome and process accountability in evaluation decisions. Certainly, accountability for outcomes provides a clear and important motivator. Allowing for professional judgment of each evaluatee's process behind the performance outcomes, however, is also crucial for the reasons outlined above

Of course, the optimal degree and use of discretion can vary per field and institution, and minimum objective targets do and should vary. It is up to each of us and each business school to reflect on and determine the appropriate level of discretion. Hence, my points should be seen as a guideline and reminder for (re)design and not as a critique of any specific system. In my opinion, it is clear that objectivity and *ex ante* transparency are not goals in themselves and we cannot fully rely on them. Important is that discussions about promotion criteria, and for example about constructing and implementing measures of researchers' impact, should acknowledge this and embrace the important role that professional judgment can and should play.

Journal review process. The number of articles we publish in top journals is one of our most important objective performance indicators. I would like to share a few musings about the review process that underlies our publications and hence affects this performance measure. My thoughts apply to the field of Accounting, but may also be relevant to business research in general and other fields.

More transparency, flexibility, and interactivity could help to improve the review process and its outcomes. More interaction facilitates information exchange and academic dialogue, and by incorporating this the review process could benefit even more from the discretion and professional judgment that is already involved. For example, by making optimal use of the possibilities offered by information technology, we, as a community, could create possibilities to allow authors to anonymously ask clarifying questions to reviewers about their comments. Another possibility is to allow author(s) a brief first response option to reviewers' reports before a decision is made, particularly in the first round. Process accountability is again key. Especially more innovative research sometimes requires more additional explanation, which is occasionally hard to predict by author(s). A more interactive review procedure can facilitate elucidation of the choices that were made in research studies and may prevent too many first-round rejections (which seem to be on the increase). Of course, if a rejection is the ultimate result, it should better come sooner rather than later. But early rejections should never be a goal in themselves, and they should not occur too frequently. They preclude the opportunity for exchanging thoughts, which would perhaps lead to a revision of initial beliefs and impressions and to reaching a mutual understanding. Thus, I believe we have much to gain as a community from increased interaction, and we should be open to rethinking the current process, which entails predominantly one-way communication following the submission of a paper. Let's experiment! Doing so may improve an objective indicator that is an important input to our evaluations.

8. Conclusion

Objectivity often seems a desirable aspect of a performance measurement and evaluation system. But to provide congruent incentives, a degree of subjectivity is often desirable. Although it may lead to bias, it offers a much-needed possibility for incorporating professional judgment into managers' evaluations. Given the positive aspects to subjectivity and its negative connotation with bias, we should use the neutral label **discretion** to disseminate insights from accounting research to managers and others. We need to acknowledge the important role of discretion for organizations, including our own working environment.

With objectivity comes *ex ante* transparency in performance measurement. Yet transparency is a much broader term as it also applies to the availability of performance information to peers. More transparency in this respect has pros and cons, and like objectivity, transparency is not always optimal. Furthermore, discretion is not necessarily at odds with transparency, provided there is a relatively clear process and rationale behind a supervisor's discretionary evaluation — which delivers *ex post* transparency.

To move forward, we need to tie the insights on discretion together with those from the accountability literature. Process accountability typically involves a judgment by the superior and can positively affect subordinates' judgment and decision-making. But as of yet we lack precise knowledge about how the type of discretion, the framing of the role of the superior, and the process involved in a discretionary evaluation decision affect subordinates' behavior. The experimental method is often used to investigate related questions, and new methods such as eye tracking can significantly advance our knowledge by revealing underlying judgment and decision-making processes. But we also need more survey and field research to help further theory building and to identify practically relevant questions. Additionally, we need to consider if and how our experimental design choices potentially affect the generalizability of our findings, as we reflect on setting characteristics and framing. In practice, the framing of performance evaluation systems and situations likely matters, and our understanding of discretionary evaluations can benefit from investigating variations of these. In sum, triangulation in terms of applying diverse methods and experimental settings holds much promise for extending our knowledge about discretion and accountability.

9. Word of thanks

Time to embark on a somewhat risky endeavor. I am grateful to many people who have helped me get to this stage in my career, directly or indirectly, and it is a daunting task to list all of them. I hope I do not inadvertently leave anyone out, but if so, please know your support is much appreciated!

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