

Utrecht University
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Master Thesis

**ACCOUNTABILITY – ARE WE BETTER OFF
WITHOUT IT?**

AN EMPIRICAL STUDY ON THE EFFECTS OF ACCOUNTABILITY ON
PUBLIC MANAGER'S WORK BEHAVIOUR

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1 Two Sides of a Coin: The “Accountability Paradox”

Public managers increasingly lament about perverse effects of accountability. Whether in the health sector, education, or general administration — throughout the public sector accountability is reported to decrease rather than increase performance. These reports fall in a time where society has experienced the so-called “audit explosion” (Power 1997), which has been enforced by new public management (NPM) reforms. While accountability has always been central in the public sector, its quantity has since increased. Accountability has become the crucial means to increase efficiency, control, and to improve results (Harvey 2005; Noordegraaf & van der Meulen 2008). Simultaneously, managers have experienced a change in the quality of accountability: NPM favors accountability on outcomes over processes (Bouckaert & Halligan 2008; Page 2006) since the outcome accountability is assumed to improve managerial performance by reducing bureaucratic constraints and increasing discretionary space. But does this hold in practice?

Public managers have always faced highly complex tasks. However, since the NPM-reforms these complex tasks are complemented by evenly complex accountability demands. This increase and simultaneous shift in accountability has led to the so-called “accountability paradox” (Dubnick 2005; Halachmi 2002). On the one hand, accountability “is one of those golden concepts that no one can be against” (Bovens et al. 2008, 225) and aims to (and sometimes does) contribute to an effective and legitimate public administration. On the other hand, however, it brings about negative implications. Managers accountable for the success rate of their decisions e.g. tend to make easy decisions themselves, while shifting difficult ones to colleagues (Smith 1995). With this ‘buckpassing’ behaviour they personally achieve higher success rates and comply with accountability obligations. Nevertheless, few people would argue that this behaviour is actually desirable or even improves performance. Other examples of strategic behaviour such as gaming (De Bruin 2000) also emphasize the potential dysfunction inherent in accountability mechanisms (cf. Pollitt 2003).

Despite the centrality of accountability in public administrative practice and debate, the specific reasons for these heterogeneous effects remain in the dark. It is yet unknown when accountability has positive and when negative effects. This lack of knowledge is (at least partly) due to the applied theoretical approaches towards individual behaviour. The dominant theories based on Rational Choice (RC), although (or perhaps ‘because’) based on the same paradigm as NPM reforms themselves, might not be able to predict how accountability affects the performance of public officials. RC theories predict that more accountability mechanisms reduce strategic behaviour by making it more ‘costly’ (Alchian & Demsetz 1972). However, research shows that this prediction does often not hold true in organisational settings (cf. Frey 1997; Lerner & Tetlock 1999). The limited explanatory power of RC theories lies in neglecting the complexity of intra-personal cognitive processes relevant to model work behaviour. Since work behaviour is a prerequisite for performance and since “at their core all forms of accountability are linked to behaviours [...]” (Dubnick 2005, 382), this study analyses the effects of accountability on managers’ work behaviour.

To overcome the theoretical limitations of current rational choice-based research, this study follows a novel and strongly interdisciplinary approach. A cognitive theory from social psychology is applied to model the effects of accountability on public managers’ behaviour. This distinct theoretical approach to individual behaviour allows to answer the research question:

How does accountability affect public managers’ work behaviour?

This research focus sheds light on whether the effects of accountability on work behaviour are as “paradoxical” as assumed. If that is the case, the applied theory hopefully allows to shed light on when accountability exerts positive and when negative effects.

Empirical evidence suggests that the effects of accountability on managers' behaviour cannot be assessed without taking their personal motivation into account (Ryan & Deci 2006; Vandenabeele 2009). Firstly, depending on their motivation, managers "are more [or less] deeply engaged and productive" (Ryan & Deci 2006, 1558). Secondly and more importantly, the type of motivation is believed to influence the degree to which managers adapt their behaviour to external stimuli such as accountability. Given these suggested implications of motivation regarding accountability as well as work behaviour, the mitigating effect of motivation is included into the analysis.

The article is structured as follows: At first, public managers' central role in NPM-reforms is introduced. The theoretical framework then elaborates on the central concepts of *accountability*, *work behaviour*, *motivation*, and derives a research model and hypotheses. Consequently, the quasi-experimental research design, the survey among Dutch public middle managers, and the statistical analysis are presented. The section on the results is followed by a discussion of the findings, including their broader significance and theoretical implications. The final conclusions reflect on this research's merits as well as its limitations and sketch some ideas for future accountability research.

2 Theoretical Framework

2.1 Public Managers & New Public Management

Over the last decades, public organisations have experienced a major thrust in their accountability environments with the goal to improve governmental performance. Public managers are central actors in this context. They are involved in "complex, knowledge-intensive, and 'soft' public services that require judgement" (Noordegraaf 2007, 769), and hence "higher or further education and [...] vocational training and experience" (Evetts 2006, 136).

At the same time, NPM reforms shifted the emphasis of accountability: during the 1970s mostly “hierarchical accountability for inputs [...] and legal accountability for processes” were applied (Heinrich 2002, 712). Nowadays, it is accounted for “performance and measurable outcomes rather than procedural correctness and hierarchical compliance” (T Hart & Wille 2006, 124). “[P]ublic managers and line staff [are granted] increased flexibility [only] in exchange for increased accountability” for outcomes (Page 2006, 167; cf. Osborne & Gaebler 1992). While experiencing more discretionary space concerning how to achieve their daily tasks, managers are simultaneously held accountable more tightly for the outcomes.

In this knowledge-intensive environment, administrative performance crucially depends on managerial behaviour. Investing a great deal of effort into a decision making process is the adequate behaviour in order to “promote the welfare of the [...] organisation” (Doney & Armstrong 1996, 57). Consequently, managers “who thoroughly evaluate the available alternatives before reaching a decision should be favorably evaluated [...]” (Simonson & Staw 1992, 421). These managers are more likely “achieving desirable societal outcomes” (Bovens et al. 2008, 232). This suggested link between work behaviour and performance leads to the assumption that accountability should stimulate public managers to engage in thorough and effortful work behaviour in order to perform well.

2.2 Accountability

Accountability not only plays a central role in managers’ work environment (Dubnick 2005). Accountability also is a “logically complex construct” (Lerner & Tetlock 1999, 270) in itself, applied in several academic fields such as public administration and social psychology. Despite the common interest in accountability, the approaches towards it differ across disciplines. Psychologists consider accountability to be a bridging element

between an individual and any external constituency, be it friends, strangers, or superiors (Lupson 2007). In their view, the effects of external accountability on work behaviour is strongly influenced by intra-personal cognitive processes (Chaiken & Trope 1999; Tetlock 2002). These intra-personal processes (rather than external factors) forming the central research agenda, psychologists apply cognitive theories to model work behaviour.

Contrastingly, accountability research in public administration focuses more dominantly on the organisational constraint externally imposed on actors. Given the analytical focus on accountability itself rather than individual predispositions, the simplistic approximation of intra-personal processes is mostly the assumption of rational behaviour.

Despite the contrasting approaches towards accountability, the definition of the concept is the same in both disciplines: it is “first of all about relations” of giving account (Halachmi 2002, 371; Bovens et al. 2008; Dubnick 2005). These accountability relations require the existence of an actor and an audience. In addition to these two criteria of ‘who’ is accountable ‘to whom’, types of accountability are to be distinguished according to ‘how’ (relation) and ‘for what’ (content) the actor is accountable (Bovens 2006; Lerner & Tetlock 1999; Mulgan 2003). The ‘content’-dimension distinguishes between process and outcome accountability. While the former requires managers to render account on whether they follow the rules and regulations, the latter holds managers accountable on the outcomes¹ of their decisions regardless of how they achieve them. Accountability is defined here as

“a relationship between an actor and a forum, in which the actor has an obligation to explain and justify his or her conduct, the forum can pose questions and pass judgement, and the actor may face consequences” (Bovens 2006, 9).

Empirical studies have identified several performance enhancing effects of accountability (Bouckaert & Halligan 2008). Nevertheless, undesirable effects of accountability

¹For a more detailed overview on the concepts of results, output, outcomes, and impact, please see Bouckaert and Halligan (2008).

and other forms of control have been uncovered, as well. Smith (1995) e.g. observes the tendency of civil servants to engage in “tunnel vision”. Tunnel vision makes individuals focus on specific issues accounted for while not considering the broader non-accounted context of equal importance (van Thiel & Leeuw 2002). Similarly, gaming behaviour such as “hitting the target but missing the point” (Bevan & Hood 2006, 521), is an undesired behaviour frequently observed in public organisations. Other scholars show that individuals engage in political behaviour (Tetlock 2002). By shifting their own attitudes to preferences of the accountability fora, they intend to please the fora and avoid sanctions. By doing so, they undermine the purpose of accountability. Nevertheless, it is not yet understood when and which accountability mechanisms lead to these (un-)desired behaviours.

The identical core of accountability in both public administration and psychology offers a promising starting point to shed light on the relationship between accountability and individual behaviour. This study therefore combines insights from both disciplines. From a public management perspective it assesses the two central types of accountability in public organisations: process and outcome accountability, which are seen as external factors affecting individual behaviour. This analytical focus reflects the emphasis of NPM reforms on a shift from process to outcome accountability.² In line with psychological findings this study moreover acknowledges that intra-personal processes influence managers’ behaviour. Consequently, both intra-personal and external effects on behaviour are studied.

²The focus on these two accountability mechanisms allows to go beyond ‘quantity’. Scholars so far have focused on the effects of the amount of accountability, introducing terms such as “accountability overload” and “accountability deficit” (Bovens 2006). This study, however, analyzes the effects of qualitatively different characteristics of accountability on managers work behaviour.

2.3 Work Behaviour

Work behaviour is a crucial predeterminant of individual performance. While some behaviours are believed to positively affect performance, other behaviours are said to decrease it. Although work behaviour is essentially perceived as the same concept in various academic disciplines, it is labeled differently across them. While economists talk about *work effort* (cf. Frey 1997), psychologists refer to *coping behaviour* (Tetlock 2002). From both perspectives, however, behaviour is determined by external accountability as well as internal cognitive processes. In the specific context of this study, work behaviour is defined as the actions an actor takes in a given situation while knowing that he is held accountable for them.³

In public management, work behaviour has mostly been modelled through RC theories (for an exception see public service motivation, Vandenabeele (2008)). According to e.g. RC-based agency theory, the establishment (or increase in quantity) of accountability mechanisms leads to an increased work effort since strategic behaviour becomes more costly for the agent (Alchian & Demsetz 1972). Empirical assessment of the agency model, however, shows that its predictions often do not hold true regarding the work behaviour of individual agents in organisations (Lerner & Tetlock 1999). The limited ability of actors to act purely rational and “decide and think as normative models say they should” (Simonson & Nye 1992, 417) has even motivated some scholars to talk of ‘cognitive misers’ (Taylor 1981). Despite major research efforts, theories from the field of public administration have not yet been able to explain the effects of accountability on managers’ work behaviour reliably.

³From now on, for reasons of parsimony this study refers to the term *work behaviour*.

The social psychologist Tetlock (2002) proposes a different theoretical approach. Work behaviours are formulated in line with the metaphor of the *intuitive politician*: actors generally “seek the approval and respect of key constituencies” (ibid., 455) when held accountable. Therefore, actors are assumed to behave adequately to satisfy their accountability forum – rather than to maximize their self-utility.

Pro-Social Behaviour

Based on this central premise to please the audience, the intuitive politician can engage in different work behaviours. While some of these are positively related to performance others exert negative effects. The central managerial behaviour believed to increase performance is called *preemptive self-criticism* by some authors (ibid.). Most scholars, however, refer to it as *pro-social behaviour* (Le Grand 2003; Doney & Armstrong 1996). *Pro-social behaviour* (PSB) implies high cognitive effort among managers for the sake of doing a good job and is defined as

“anticipating plausible objections of would-be critics, factoring those objections into one’s mental representation of the problem, and reaching a complex synthesis that specifies how to deal with trade-offs” (Tetlock 2002, 455).

Pro-social behaviour is expected to reduce a variety of decision errors reflecting an actor’s bounded rationality (Simon 1957; see Simonson & Nye 1992). By reducing these errors and other cognitive biases, PSB is believed to generally lead to decisions of higher quality (Tetlock 2002). These high quality decisions are considered a prerequisite for good performance. Given the suggested positive effect of PSB on performance, this work behaviour is desirable among public managers. However, “people will perform this cognitive work only when low-effort strategies have been systematically cut off by the logic of the situation” (ibid., 455). If the logic of the situation allows it, managers opt for low-effort and avoid pro-social behaviour.

Studying private sector managers, Doney and Armstrong (1996) show that process accountability leads to reflective and sophisticated analysis of complex information within a decision making situation. Similarly, Simonson and Staw (1992, 422) argue that it “would (a) lead decision makers to engage in more evenhanded evaluation [sic!] of alternatives and (b) decrease the need for self-justification”.

Contrastingly, outcome accountability might lead to less PSB due to two reasons. Firstly, the additional discretionary space granted to managers in the new accountability regimes does not systematically cut off the possibility of avoiding PSB. Secondly, outcome accountability is argued to increase stress among managers (Siegel-Jacob & Yates 1996). This may be due to holding a manager accountable, although he only has limited influence on the outcomes of his decisions. By increasing stress, outcome accountability “could narrow attentional capacity [,] simplify the decision process”, and increase judgmental inconsistencies (Lerner & Tetlock 1999, 258; Siegel-Jacobs & Yates 1996). For public managers, this logic might be even more essential than in private sector. The high uncertainty of public sector outcomes might imply less managerial influence on these outcomes (Noordegraaf 2007). Hence, public managers might be more prone to stress.

H1: Experiencing process accountability, public managers engage in more pro-social behaviour than experiencing no accountability.

H2: Experiencing outcome accountability, public managers engage in less pro-social behaviour than experiencing no accountability.

Political Behaviour

Managers can also adopt a work behaviour to primarily justify their actions towards others and put themselves and their work in a favorable light. While potentially implying high-cognitive effort, this *political behaviour* (PB) serves a different aim. Rather than

contributing to good decision making (and hence good performance), PB aims at “self-protection and self-promotion” (Doney & Armstrong 1996, 59). Therewith, it might also include high effort. *Pro-social* and *political behaviour* are hence not mutually exclusive concepts but rather two qualitatively different behaviours. While high effort related to PSB contributes to sophisticated decision making, however, effort involved in PB serves the “primary purpose of justifying [managers’] actions to others” (ibid., 59). Also called symbolic search (ibid.), managers behave politically in order to protect and enhance their social and self-image. This political behaviour channels the manager’s effort away from the content of his work and towards self-presentation. While PB might not lead to worse performance under all possible circumstances, it is nevertheless assumed to negatively affect managers’ decision making quality in most situations.

Given the relational nature of all accountability mechanisms and the inherent dependency of any actor’s well-being on his forum’s judgment, all types of accountability are assumed to stimulate political behaviour.

H3: If public managers experience process accountability, they engage in more political behaviour than experiencing no accountability.

H4: If public managers experience outcome accountability, they engage in more political behaviour than experiencing no accountability.

2.4 Does Motivation Have a Say?

The degree to which accountability affects the work behaviour of public managers, yet, might depend on motivation. It has been shown that if autonomously motivated, “people are more deeply engaged and productive” (Ryan & Deci 2006, 1558). According to Self-Determination Theory (SDT), motivation refers to whether an individual is rather autonomously motivated in organizing its behaviour or control oriented (ibid.). While autonomous motivation locates the stimulus for behaviour within the individual, an actor scoring high on controlled motivation is believed to be more dependent “on perceived or ambient social contingencies” (ibid., 1563; Gagné & Deci 2005). Accountability is such a contingency.

Motivation is therefore believed to moderate the degree to which a manager’s work behaviour is affected by accountability. This means that accountability might have a very limited effect on a manager’s behaviour if the manager is autonomously motivated. If so, he acts according to internally developed patterns independent from external accountability. This applies to both *pro-social* and *political behaviour*. If a manager is intrinsically motivated to do a good job, he naturally engages in pro-social behaviour. Similarly, the same manager would engage in little political behaviour given his primary interest in the work itself rather than in self-presentation.

H5: With an increasing autonomous motivation, the effect of accountability on public managers’ pro-social behaviour decreases.

H6: With an increasing autonomous motivation, the effect of accountability on public managers’ political behaviour decreases.

Summarizing, this study analyses the effects of accountability on public managers’ work behaviour. On the independent dimension a distinction is made between account-

ability for processes and for outcomes. On the dependent dimension the study differentiates between the desirable *pro-social behaviour* and the undesirable *political behaviour*.⁴ Moreover, the study controls for the suggested moderating effect of autonomous motivation (See *Figure 1* for an overview).

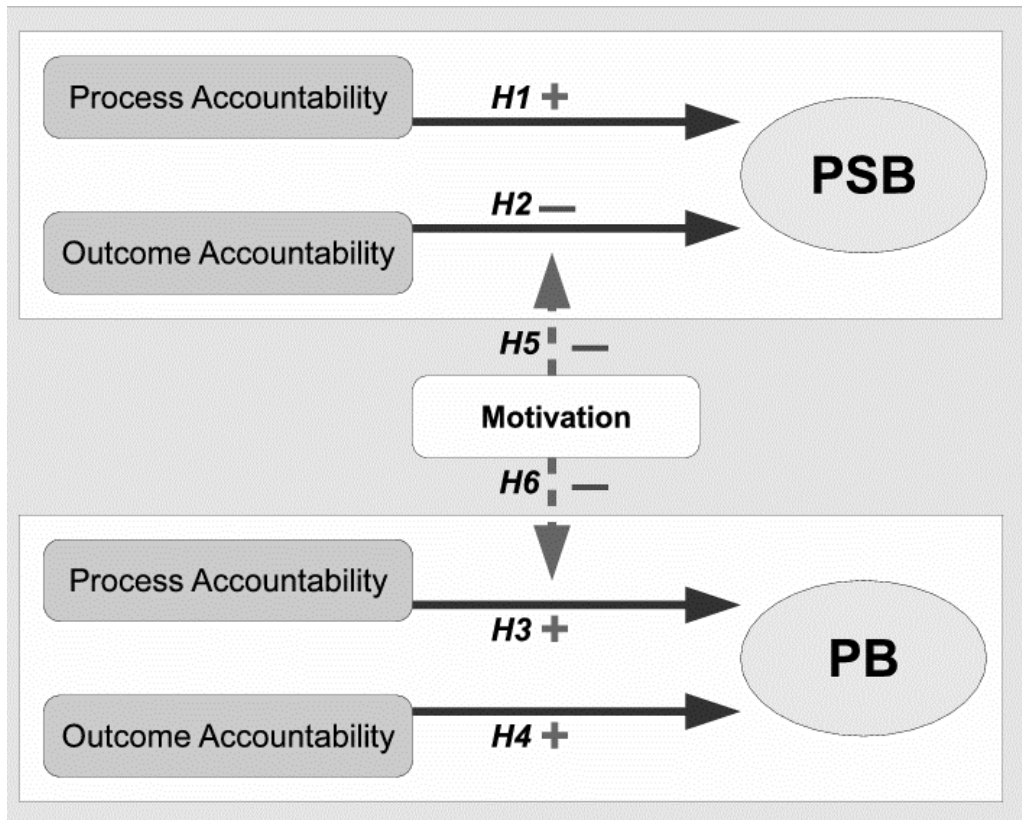


Figure 1: Research Model

⁴As outlined above, the normative terms *desirable* and *undesirable* behaviours rest on the assumption that pro-social behaviour leads to better performance while political behaviour exerts a negative effect on performance.

3 Methodology

3.1 Research Design & Data Collection

A quasi-experimental research design based on a factorial survey has been adopted. This approach “establish[es] internal validity while maintaining high levels of external validity” (Wright & Grant 2009, 16). The sample for the study is composed of 73 public middle managers in the Netherlands. The respondents are enrolled in the *executive master programmes* (EMP) for professional mid-career development at the Utrecht School of Governance (USG), Utrecht University. The Dutch survey has been distributed during the programmes’ regular meetings between March and May 2010. 65 out of 73 course participants completed the questionnaire (89% response rate). The use of three vignettes (see below) in each questionnaire leads to a multiplication (3x) of observations usable for analysis since every participant reported on three hypothetical decision making situations. These situations rather than the individual respondents form the unit of analysis and lead to a total of 194 observations.⁵

3.2 Measurement

The questionnaire confronts participants with three hypothetical decision making situations (vignettes). Each participant in the study answered items on all situations, which were identical with regard to their content. However, while in one situation the respondent is not held to account at all, in the second he faces process accountability. In the third situation, the participant is held accountable for outcomes. The hypothetical nature of the situations allows to control the accountability stimuli and leads to a high internal validity. This allows to derive strong conclusions with regard to the theoretically established rela-

⁵One participant only filled out 2 out of the three vignettes.

tionships and their practical implications.⁶

Each of the three vignettes (*see Appendix A*) included seven items covering the two dependent constructs of *work behaviour*. While four items were used to measure *pro-social behaviour*, three items covered *political behaviour*. The items have been adopted from previous work by Doney and Armstrong (1996) as well as Tetlock, where they have proven reliable in both traditional survey research and quasi-experimental settings. Given this study's focus on middle managers in the Netherlands, each question has been translated into Dutch and field-tested before being included into the final survey. Each item is based on a 7 point Likert-scale (for a full list of Survey items, please see *Appendix B*). The dependent construct *pro-social behaviour* was measured with statements such as

*I spent much time and effort relating to this task.*⁷

while *political behaviour* has been operationalized through e.g.

I collected information primarily to make a good impression.

The construct and convergent validity of both constructs has been assessed with confirmatory factor analysis (CFA). The initial model of work behaviour yielded a poor fit (*Table 1*). Based on substantial considerations as well as model estimates and modification indices, one item measuring *political behaviour* has been deleted. The model fit, although better, was still unsatisfactory. Reducing *pro-social behaviour* to three items finally yielded an excellent fit on all relevant fit indices (Hu & Bentler 1999). The correlation between PSB and PB in the final model is at a rather low level ($r = .212$).

⁶A second measurement instrument was applied, as well. Based on self-reporting on a recent accountability relationship with their superior, participants were asked to report on their experience. However, findings of this approach did not yield sufficiently high data quality.

⁷All survey items cited here are freely translated from Dutch.

Table 1: CFA Model Fit – PSB & PB

	χ^2	p-value	RMSEA	pCLOSE	CFI
Initial Model	37.301	.000	.098	.016	.963
Modified Model I	20.535	.008	.090	.077	.977
Final Model	6.564	.161	.058	.357	.994

The independent constructs covering accountability are incorporated in the vignettes themselves. The vignette on outcome accountability reads:

Imagine you are a division manager in your organisation. During a major restructuring you are asked by your superior to evaluate five different projects, identify the most promising one, and put it on fast-track. This is the first time you are in touch with these kind of projects and you do not know about the preferences of your superior. You know that a few months after implementation you must report towards your superior on the outcomes of your chosen project. These outcomes are relevant for your annual evaluation.

The two other vignettes simulate situations with no accountability and process accountability, respectively, leading to three dichotomous variables.

Managers' autonomous motivation is measured with four items from the identity regulation scale applied by Vandenberghe (2008), which initially goes back to the Academic Self-Regulation questionnaire by Grolnick and Ryan (1989). The items applied in this study measure the two latent factors *identified regulation* and *intrinsic regulation*, which together reflect autonomous motivation. The measure of autonomous motivation is constructed by taking the combined average value of the four items, which included statements such as

At work, I always do my best because I think my job is fun.

The CFA-model of motivation reaches an acceptable fit, however with limitations (Table 2). While the χ^2 value confirms the model fit at the 5% level, the Root Mean Squared Error of Approximation is above the regular threshold. However, this might be

due to the small sample size. Furthermore, the probability of a close fit indicates a good model fit. Therefore, the four items are assumed to reflect autonomous motivation well.⁸

Table 2: CFA Model Fit – Autonomous Motivation

	χ^2	p-value	RMSEA	pCLOSE	CFI
Autonomous Motivation	4.901	.086	.152	.120	.938

Additionally, the study controls for the effects of the participants' age and the professionalism of the relationship towards their superior. This is controlled for since the professionalism might affect the dependent as well as independent constructs. On the one hand, it could influence how participants perceive the accountability demands imposed by their superior (i.e. regarding the perceived legitimacy). On the other hand, work behaviour might be affected by the amount of professionalism. The *professionalism*-variable is hence included to uncover potentially hidden relationships and increase the validity of the final model. A descriptive account of all variables used for the analysis is reported in *Table 3*.

Table 3: Summary Statistics

	Obs	Mean	Std. Dev.	Min.	Max
Pro-Social Behaviour	194	5.12	.92	2	7
Political Behaviour	194	2.43	1.36	1	6
Process Accountability	194	.34	.47	0	1
Outcome Accountability	194	.33	.47	0	1
Autonomous Motivation	65	4.03	.59	2.75	5
Professionalism	65	5.11	.98	2	7
Age	65	45.33	7.57	25	61

⁸Both CFA models have been estimated using maximum likelihood estimators. These have been shown to yield effective as well as efficient results with ordinally scaled variables. Furthermore, ML estimation is robust against partial non-normal distribution of the variables (Kline 2004). To confirm the robustness of ML estimation against non-normality, the Unweighted Least Squared (ULS) estimation method has been applied, as well. While the parameter estimates were naturally the same, the fit indices are also in line with ML-findings.

3.3 Analysis

The analysis is based on OLS multiple regression analysis (Tabachnick & Fidell 2007) as well as multiple moderated regression (MMR) analysis (Baron & Kenny 1986). Since the vignettes are the unit of analysis, their nested nature within the individuals needed to be taken into account⁹. Diagnostics show that the dependent variables are partly non-normally distributed. While this is a common deficiency of survey data, this sample's distribution is still within an acceptable range. Furthermore, the *variance inflation factors* indicate no problem of multicollinearity and the distribution of residuals is homoskedastic. The regression analyses to test the hypotheses reflect the subsequent two equations:

Without interaction terms:

$$Y = \beta_0 + \beta_1 Proc + \beta_2 Outc + \beta_3 Mot + \beta_4 Age + \beta_5 Prof + \varepsilon$$

With interaction terms:

$$Y = \beta_0 + \beta_1 Proc + \beta_2 Outc + \beta_3 Mot + \beta_4 (Proc \times Mot) + \beta_5 (Outc \times Mot) + \beta_6 Age + \beta_7 Prof + \varepsilon$$

4 Results

Four regression models have been estimated. While two models take pro-social behaviour (PSB) as the dependent construct, the remaining two predict political behaviour (PB). For each dependent variable one model is estimated with only direct effects of the independent variables (PSB I & PB I), while the multiple moderated regression models include the interaction effects (PSB II & PB II). Results are reported in *Table 4*. While the predictive power of the models is comparably low

⁹Robust standard errors are estimated and the F-test is adapted to the clustered nature of the data. For this purpose, the denominator for the degrees of freedom is the level of the individual rather than the vignette.

(R^2 s range from 9 to 12%), all models provide strongly significant predictors for work behaviour.¹⁰

Table 4: Accountability, Motivation & Work Behaviour

	(1)	(2)	(3)	(4)
	PSB I	PSB II	PB I	PB II
Process Accountability	0.26** (3.08)	0.26** (3.10)	0.40** (3.41)	0.40** (3.41)
Outcome Accountability	0.19+ (1.95)	0.19+ (1.98)	0.40** (3.18)	0.40** (3.16)
Autonomous Motivation	0.42** (2.89)	0.28 (1.57)	-0.07 (-0.30)	-0.05 (-0.21)
Process Accountability x Motivation		0.17 (1.33)		-0.08 (-0.34)
Outcome Accountability x Motivation		0.25 (1.60)		0.02 (0.08)
Professional Relationship	0.04 (0.44)	0.04 (0.43)	-0.40** (-2.86)	-0.40** (-2.84)
Age	0.00 (0.40)	0.00 (0.40)	-0.02 (-1.09)	-0.02 (-1.08)
Constant	2.85*** (4.03)	3.41*** (4.18)	5.46*** (3.80)	5.37*** (3.73)
Observations	194	194	194	194
R^2	0.089	0.094	0.118	0.118
F-Values	5.62***	4.30***	5.07***	3.68**
F-Ratios	–	4.27*	–	.31

Clustered OLS multiple (moderated) regression analyses calculating robust standard errors.

t -statistics in parentheses

+ $p < 0.1$ * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

¹⁰If we were interested in predicting the dependent construct as a whole, a high R^2 would have been mandatory. However, this study aims to determine the unique effects of accountability and motivation on work effort independent from other potential predictors (i.e. salary). Therefore, the R^2 is of secondary interest.

Accountability

All four models show significant direct effects of accountability on pro-social and political behaviour respectively. While the effects of process accountability are strongly significant in all models ($p \leq .01$), the effect size on pro-social behaviour ($b = .262$) is smaller than the one on political behaviour ($b = .400$). Outcome accountability reaches the same effect size and significance-level as process accountability when regressed on PB. On PSB, however, the effect of outcome accountability ($b = .185$) is smaller than process accountability, being merely significant at the 10% level.

The results also show positive effects of both process and outcome accountability on public managers' tendency towards political behaviour. This indicates that both process and outcome accountability increase the amount of PB among public middle managers. Moreover, the effects of process and outcome accountability on PB are similar in size.

Motivation

Findings with regard to the hypothesized moderating effect of motivation on the above relationships (H5 & H6) are weak. None of the interaction terms provides significant b-coefficients¹¹. The F-test comparing the R^2 of models PSB I and II indicates that an interaction effect between motivation and accountability significantly contributes to the predictive power of the model (Jaccard 2003). However, this finding is refuted once the number of independent variables in each model is taken into account. In that case, PSB II does not perform better than PSB I.¹² The graphical analysis (*Figure 2*) supports this argument given effect slopes that basically run parallel to each other.

Nevertheless, the autonomous motivation of managers exerts a significant direct effect ($p \leq .01$) on pro-social behaviour. This direct effect of motivation is noteworthy also because of its effect size ($b = .418$). Motivation does not exert a direct effect on undesirable work behaviour.

¹¹However, the multiplicative nature of the interaction terms generally leads to an overestimation of the standard errors, causing a too frequent rejection of the effect (Jaccard 2003)

¹²PSB II's predictive power even decreases by .5%.

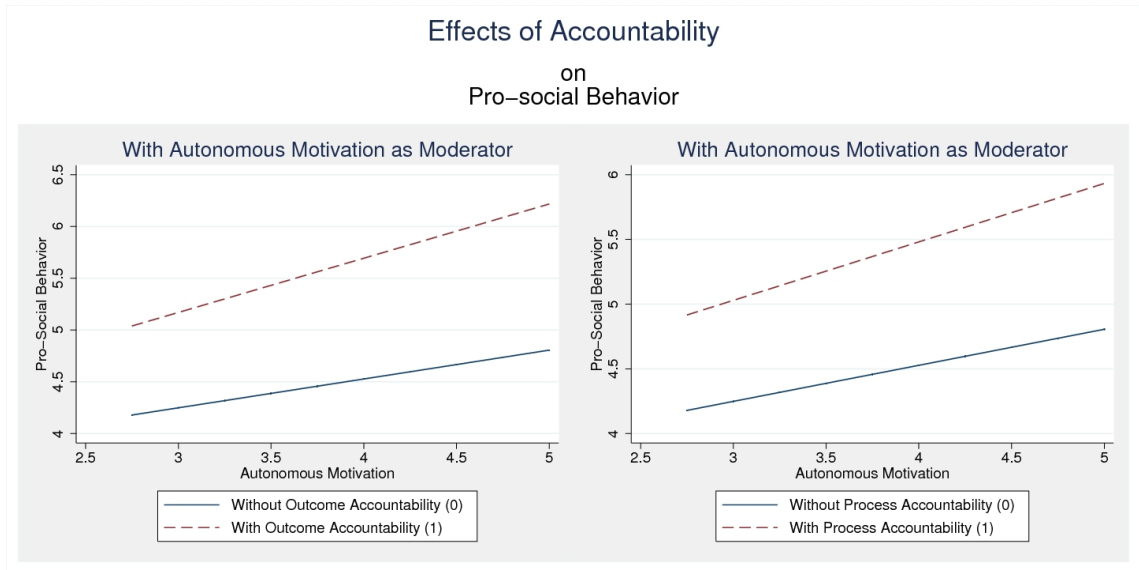


Figure 2: Interaction Effects on PSB

The professionalism of the relationship with the superior exerts a strong negative effect ($b = -.398$) on the tendency to engage in political behaviour, while not affecting pro-social behaviour at all. The age of the respondent does not exert any effect on work behaviour.

5 Discussion: Two Sides of a Coin

In line with the coin-metaphor, the empirical results show that all types of accountability studied clearly influence managers' behaviour in positive ("Head") as well as negative ("Tail") ways. Furthermore, motivation does not moderate the relationship but rather directly affects work behaviour.

5.1 "Head" – The Positive Effects

With regard to pro-social behaviour, process accountability exerts a stronger positive effect than outcome accountability. This finding is in line with the predictions of the suggested theoretical framework (Tetlock 2002). Process accountability cuts off cognitive shortcuts and thus strongly urges managers to engage in pro-social behaviour. In line with this argument Hypothesis 1 is confirmed.

On the contrary, outcome accountability leaves more discretionary space to the managers. It offers more potential shortcuts and allows managers to avoid pro-social behaviour (compared to process accountability). However, the small positive effect of outcome accountability still indicates an improvement compared to no accountability. Outcome accountability increases managers' pro-social behaviour compared to situations without accountability. This finding rejects Hypothesis 2. While the collected data does not allow for definite conclusions, one reason for this finding could be that outcome accountability does not increase stress among managers to the degree that would negatively affect their behaviour.¹³

These positive effects of accountability on PSB are generally in line with the intentions to use accountability and other means of organisational control to increase efficiency and to improve results (Noordegraaf & van der Meulen 2008). Given the thorough evaluations involved in PSB, accountability mechanisms stimulating this work behaviour is assumed to contribute to an effective and legitimate public administration.

Distinguishing between the different accountability mechanisms, however, empirical findings conflict with assumptions put forward in the NPM debate. NPM scholars propagate a shift from process accountability towards result- and outcome-based forms of control in order to increase performance. The increased flexibility of outcome accountability concerning how to achieve tasks is assumed to improve decision making processes unconstrained by procedural obligations. Notwithstanding, this study provides empirical evidence that the increased flexibility of outcome accountability does not necessarily contribute to a more thorough decision making. Rather, it indicates that outcome accountability offers more potential shortcuts to evade PSB overall. By contrast, process accountability leads to more desirable work behaviour. With its focus on work behaviour, this study only analyses one determinant of performance, leaving aside other factors such as potentially higher administrative costs associated with e.g. process accountability. Being aware of this study's focus on behaviour, findings strongly challenge the widely acknowledged NPM-postulate of the general superiority of outcome accountability over process accountability.

¹³Outcome might even decrease stress among managers given the provision of clear targets taking away ambiguity.

5.2 “Tail” – The Negative Effects

Political behaviour is stimulated by both process and outcome accountability to a similar degree, confirming Hypotheses 3 and 4. While the data at hand cannot explain why both types of accountability exert effects of nearly identical size, at least two arguments might hold. Firstly, while managers might distinguish between process and outcome accountability, the effects on political behaviour could just be perceived similarly (by the “coincidence” that the different characteristics trigger PB to the same degree). Secondly, managers might just perceive external accountability, regardless of whether it is on processes or outcomes. In this second scenario, managers just perceive one monotonous external stimulus and react to it. While the second explanation implies that other variations in the accountability setting would still yield the same effect on work behaviour, with the first explanation the effect sizes might vary.

Accountability exerts effects on both political and pro-social behaviour with the impact on the former being stronger than on the latter. While the effects of accountability on PSB still provide a strong argument in favor of accountability (independent from specific sub-types), its impact on PB does the contrary. Apparently, accountability stimulates undesirable behaviour to an even greater extent than desirable behaviour. These findings stress the apparent dysfunction in accountability (Pollit 2003) and confirm the “accountability paradox” (cf. Bovens 2006; Lerner & Tetlock 1999). Results are in line with former findings that managers may engage in strategic behaviour of various kinds once they face accountability demands (Smith 1995; de Bruin 2000).

Despite its merits, accountability should hence not be seen as “one of those golden concepts that no one can be against” (Bovens et al. 2008, 225). At least under specific circumstances accountability has negative implications, which can potentially counteract its positive goals. These ambivalent findings rise serious doubts as to whether (and to what extent) accountability can keep up in practice with its highly positive connotation in the normative debate.

5.3 Dependence on Motivation?

In addition, and contrary to the initial assumptions, empirical evidence does not support the moderating role of motivation. Therewith, H5 and H6 are refuted.

However, results show that autonomous motivation directly triggers managers to engage in more pro-social behaviour. This is in line with former empirical findings that, if autonomously motivated, “people are more deeply engaged and productive” (Ryan & Deci 2006, 1558).¹⁴ Contrastingly, autonomous motivation does not exert any effect on political behaviour. Whether a manager is more or less autonomously motivated apparently does not change his tendency to engage in self-promoting behaviour.

In addition, *professionalism* of the superior-relationship appears to exert a negative effect on political behaviour. A very professional and matter-of-fact based relationship seems to defer managers from thinking primarily in terms of self-promotion. Nevertheless, the conclusion that managers with a professional relationship engage in more evenhanded and complex evaluations is not supported. Despite preventing managers from engaging in political behaviour, a professional relationship with their superior does not stimulate them to engage in pro-social behaviour.

These latter empirical findings support the initial notion that both contingency factors and individual level characteristics influence the work behaviour of public managers. However, while accountability affects both behaviours studied, motivation and the superior-relationship only stimulate either of the two. These far-reaching consequences of accountability for behaviour stress the importance of the concept in administrative practice. At the same time, this study refrains from a detailed comparison of contingency and internal factors due to two reasons. Firstly, the study focuses on the effects of accountability on work behavior whereas motivation was only taken into account as a moderating factor (and not as a central independent variable). Therewith, a detailed comparison would exceed the focus of this study. Secondly, even by standardizing effect sizes the validity of comparing accountability and motivation on work behaviour seems questionable

¹⁴This finding indicates the potential to improve work behaviour by satisfying e.g. managers’ basic needs and therewith increase their autonomous motivation.

given the different nature of these concepts. As Achen already argued in 1977 (806), “replac[ing] the unmeasurable by the unmeaningful is not progress”. Nevertheless, empirical findings suggest that the both positive and negative effects of accountability on managers’ behaviour might be outweighed by their motivation or the superior-relationship, respectively. To what extent that is the case, however, remains in the dark.

6 Are we Better off Without Accountability?

Directly affecting middle managers work behaviour, accountability seems to have a strong say regarding the performance of their organisations. However, its role is not always in line with NPM-reasoning and, in addition, more heterogeneous than expected given the strongly normative scholarly debate (Bovens et al. 2008).

Findings create doubt with regard to the dominant NPM-perception that outcome accountability is superior to process accountability in a more general sense. At least for work behaviour, this study shows the contrary. Apparently, process accountability stimulates more desirable behaviour among public middle managers. Unfortunately, this study could not consider additional implications of accountability mechanisms related to performance (e.g. financial costs associated with process accountability). Moreover, findings are limited to public middle managers in their unique knowledge intensive work environment and therefore do not allow for general conclusions regarding all public managers or even all civil servants. Nevertheless, results render the widely accepted NPM-assumption questionable that accountability on outcomes *always* outperforms process-based alternatives. Further research in this direction is recommended.

Moreover, the role of accountability does not always need to be positive. While other scholars have come to similar conclusions (cf. Behn 2003; Smith 1995), this study applied a theoretical approach able to predict work behaviour well. The confirmation of H1, H3, and H4 emphasizes the appropriateness of the behavioural logic underlying the theory of the “intuitive politician” (Tetlock 2002). While the theory might face some critical assessment (e.g. regarding what “to please the audience” means), it surely is a promising approach *vis-a-vis* RC-theories. It could enrich and

advance the accountability research agenda in the field of public administration and beyond.

The same holds for the applied quasi-experimental research design. The merit of the approach is its applicability to real managers working in the public sphere. A potential downside of the factorial survey is the hypothetical nature of the accountability situations. While this method contributes to a high internal validity, it might potentially suffer from low external validity. However, by designing “realistic” accountability situations these potential flaws have been minimized in this study.

Based on this strong theoretical and methodological approach to real public middle managers, the empirical findings raise various questions regarding the role of accountability in public organisations. Given that negative effects of accountability might outweigh the positive ones (at least with middle managers), one could ask: Are we better off without accountability? This study cannot provide a definite answer to this question given the paramount of (both normative and empirical) arguments that have to be considered. However, results clearly show that the question is a necessary one to pose – and that the answer might not be as favorable for accountability as many would expect.

Despite its focus on accountability, some individual characteristics have been shown to affect work behaviour. Whole research programmes are built around these characteristics (e.g. public service motivation, Perry & Vandenabeele 2008). Nevertheless, no comparative approaches have been taken towards the relative effects of different contingency and individual level factors on work behaviour. As the R^2 s' range from 9 to 12% in this study indicates, future studies might go beyond the factors considered here. While other explanatory factors are not necessary to reliably assess the effects of e.g. accountability on behaviour, they may yet prove helpful to weigh the relative importance of accountability.

Despite its strong findings, this study only gives some initial hints on the role of accountability in the real organisational context. Results shed light on the effects of process and outcome accountability on the work behaviour of public middle managers. This focus triggers at least two

major issues. Firstly, despite the importance of process and outcome accountability in practice, they represent a mere scratch on the surface of the complex concept of accountability. Other facets of accountability are awaiting empirical exploration, e.g. the forum's power to sanction, accountability obligations towards fora other than the superior (e.g. peers), and within rather complex (inter-)organisational settings (cf. Brandsma 2010). Secondly, the focus on public middle managers reflects a very specific group of employees within public administration. It remains in the dark, whether accountability exerts the same effects on other public sector employees. Moreover, among other groups of civil servants different behaviours might be considered *desirable* or *undesirable*.¹⁵ To successfully tackle these and other arising questions and to overcome the current theoretical and methodological limitations in the field of public administration, the strongly interdisciplinary approach taken in this study might be a promising example to follow.

¹⁵In less knowledge-intensive environments, bureaucrats could e.g. be supposed to engage in less (reflective) pro-social behavior in order to increase work pace.

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Appendices

A Vignettes

Type of Accountability	Operationalization
No Accountability	U werkt als afdelingsmanager in uw organisatie. Tijdens een reorganisatie wordt u gevraagd door uw leidinggevende om het meest belovende project uit 5 geplande projecten te kiezen en versneld in te voeren. Dit is de eerste keer dat u een dergelijke opdracht doet. U weet niet welk project de voorkeur heeft van uw leidinggevende. U hoeft niet te rapporteren aan uw leidinggevende over de opdracht. Deze opdracht wordt niet meegenomen in uw jaarlijkse beoordeling.
Process Accountability	Beeldt u nu dezelfde situatie in, maar met het verschil dat u nu wel aan uw leidinggevende moet rapporteren over de regels en procedures die u heeft gevolgd. Deze rapportage zal wel worden meegenomen in uw jaarlijkse beoordeling.
Outcome Accountability	Beeldt u nu dezelfde situatie in, maar met het verschil dat u een paar maanden na het invoeren van het project wel aan uw leidinggevende moet rapporteren over de uitkomsten van uw gekozen project, niet over de regels en procedures. Deze rapportage zal ook worden meegenomen in uw jaarlijkse beoordeling.

Table 5: Vignettes (in Dutch)

B Survey Items

Construct	Item	Scale
Age	Wat is uw geboortejaar?	open
Professionality of Superior-Relationship	Hoe is de relatie met uw leidinggevende?	heel professioneel (1 - 7)
Pro-Social behaviour	Hoeveel moeite doet u voor deze opdracht?	(heel weinig (1) - heel veel (7))
	Hoeveel tijd besteedt u aan het vergaren van informatie over de verschillende projecten?	(heel weinig (1) - heel veel (7))
	Hoeveel tijd besteedt u aan het verwerken van informatie over de verschillende projecten?	(heel weinig (1) - heel veel (7))
	*Hoeveel tijd besteedt u aan het afwegen van de voor- en nadelen van de verschillende projecten?	(heel weinig (1) - heel veel (7))
Political behaviour	*Om te bewijzen dat ik grondig te werk ga, verzamel ik meer informatie dan ik nodig heb.	(heel weinig (1) - heel veel (7))
	Een belangrijke reden dat ik informatie verzamel, is dat ik kan bewijzen dat het niet mijn schuld is als er iets fout zou gaan.	(heel weinig (1) - heel veel (7))
	Ik verzamel informatie voornamelijk om indruk te maken op mijn leidinggevende.	(heel weinig (1) - heel veel (7))
	Op het werk probeer ik steeds mijn best te doen...	
Autonomous Motivation	... omdat ik het mijn plicht acht.	Helemaal niet (1) - Helemaal van toepassing (5)
	... omdat ik er plezier uit haal.	Helemaal niet (1) - Helemaal van toepassing (5)
	... omdat ik anders een slechte evaluatie krijg.	Helemaal niet (1) - Helemaal van toepassing (5)
	... omdat ik mijn werk leuk vind.	Helemaal niet (1) - Helemaal van toepassing (5)

*Items excluded from data-analysis are marked with a **

Table 6: Survey Items (in Dutch)

C Abstract

Public managers increasingly lament about negative effects of accountability. Despite these reports and the importance of accountability in public organisations, it is yet unknown when it has positive or negative effects on managers. Overcoming two major obstacles in current accountability research, this study therefore investigates ‘how accountability affects public manager’s work behaviour’.

Firstly, the study applies a cognitive theory. Rational choice theories so far were unable to explain individual behaviour in face of accountability demands. Cognitive theories, however, provide a promising pathway out of this theoretical ‘dead-end’. Secondly, the quasi-experimental research design in combination with the analysis of 65 ‘real’ public managers makes the complex concept of *accountability* more tangible and findings hence transferable to practice.

Results indicate that accountability exerts very heterogeneous effects on work behaviour. While under some circumstances accountability might improve managers’ performance, in others it is counterproductive. These findings strongly challenge the positive normative connotation of accountability – and furthermore offer challenging paths for future research.