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Employees' perception of management control systems as a threat: effects on deliberate ignorance and workplace deviance

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ABSTRACT

We examine the impact of employees' perceptions of management control systems (MCS) as a threat on two forms of misconduct: deliberate ignorance and workplace deviance. Drawing on the theory of cognitive dissonance, we predict that a perceived threat is associated with a decrease in workplace deviance but may also trigger unintended consequences, such as deliberate ignorance. Hypotheses are tested using survey data from three large hospitals. Taken together, our results suggest that employees' perceptions of MCS as a threat have (1) a negative curvilinear effect on workplace deviance and (2) a positive linear association with deliberate ignorance. Additionally, we find that the need for professional autonomy shapes the effect of employees' perception of MCS as a threat on both forms of misconduct. Overall, by providing new empirical evidence on how employees perceive MCS and their (un)intended consequences, we add to the growing body of research on the effects of control systems on employees' behaviour.

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1. Introduction

Nurses were threatened with the sack because of the number of breaches of target [...]. Relatives came forward to report nurses shouting at patients, staff failing to treat patients with compassion or dignity and respect, the lack of help with meals or drinks, and failures to treat bed sores. [...] There was a reluctance to acknowledge or even consider that the care of patients was poor (The Telegraph, Smith, 2009).¹

Management control systems (MCS) are procedures and processes used by managers to set goals, monitor and evaluate progress, provide feedback and encourage employees to conform to organisational expectations (de Harlez & Malagueño, 2016). Previous

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¹This quote is related to the scandal of the Mid Staffordshire NHS hospital trust. The National Health Service (NHS) is the publicly funded healthcare system of the United Kingdom. An official report found that up to 1,200 people may have needlessly died between January 2005 and March 2009 due to deficient standards of care. A threatening control system was explicitly cited as a key reason for this shocking behaviour (Francis, 2013).

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literature recognises that despite the initial intended objectives of MCS, employees may perceive these forms of control as either a motivator or a threat (Alvesson & Kärreman, 2004; Tessier & Otley, 2012). The consequences of employees' perception of MCS as a motivator have long been associated with behaviours that support organisational goals (Abdel-Maksoud et al., 2021; Chen et al., 2012; Choi, 2014), while the consequences of employees' perception of MCS as a threat are still an open question that deserves further investigation (Franco-Santos & Otley, 2018).

On the one hand, a stream of literature indicates that employees' perceptions of MCS as a threat (i.e. oriented to restrict actions, monitor and punish) can be an effective deterrent of free-riding and misconduct because they clearly signal low tolerance for behaviours that do not conform to social and organisational expectations (Lourenço et al., 2018; Van der Stede et al., 2020). Thus, MCS discourage deviance by cultivating a perception that wrongdoers can be discovered and sanctioned, decreasing the expected utility of deviant behaviours (Kobayashi & Kerbo, 2016).

On the other hand, a less developed stream of literature is sceptical about the effectiveness of MCS being perceived as a threat (e.g. Stansbury & Barry, 2007), suggesting that their perception as a threat may have unintended effects on employee behaviour (e.g. acts of misconduct). However, empirical evidence reporting dysfunctional collateral effects is scarce (Carmona et al., 1997; Conrad & Uslu, 2012; Van der Stede et al., 2020). We argue that the apparently contradictory findings of the relationship between employees' perception of controls as a threat and misconduct are due to its inherent complexity (Lawrence & Robinson, 2007). To unravel this complexity, we propose a multidimensional approach to analyse misconduct by considering both observable and unobservable actions (Zolotoy et al., 2018). The growing body of research examining the unintended consequences of MCS (Franco-Santos & Otley, 2018; Gomez-Conde et al., 2022) has mainly focused on observable acts of misconduct while mostly disregarding unobservable deviant behaviours.

Given the above discussion, we examine the consequences of employees' perceptions of MCS as a threat to workplace deviance and deliberate ignorance. Workplace deviance is an observable "voluntary behaviour that violates significant organisational norms and in so doing threatens the well-being of an organisation, its members, or both" (Robinson & Bennett, 1995, p. 556). It comprises behaviours such as absenteeism, withholding effort, and rule-breaking, including actions that lead to injustices and theft (Litzky et al., 2006; Robinson & Bennett, 1995). Contrary to workplace deviance, deliberate ignorance is mostly an unobservable behaviour. Deliberate ignorance is a complex concept that goes beyond the lack of knowledge and consists of intentionally being blind to or unaware of something that is likely to be well known.² It can result from action, e.g. refusing information that is offered, or from inaction, i.e. not searching for further information (Gigerenzer & Garcia-Retamero, 2017).³ Deliberate ignorance is a

²Deliberate ignorance is also known as Nelsonian knowledge, wilful blindness, wilful ignorance or contrived ignorance (Walker, 2021).

³Essén et al. (2021) show that most studies on organisational ignorance focus on the use and production of ignorance relative to others. In this context, ignorance (not knowing) should be kept distinct from the act of ignoring what is known. For instance, when individuals use their power to conceal information from others, they make them ignorant. This is different from an individual who ignores what is (partially) known. Our study focuses on deliberate ignorance that is self-inflicted, which happens when individuals make themselves ignorant not using available knowledge to guide action.

pervasive and unobservable behaviour that exists through all domains of social life, including the workplace.⁴ Both workplace deviance and deliberate ignorance have costs and pose a real economic hazard to organisations. Our study provides new evidence to advance our understanding of the underlying mechanisms that trigger such behaviours.

Drawing on the theory of cognitive dissonance, we predict an effect of employees' perceptions of MCS as a threat on both workplace deviance and deliberate ignorance. First, we postulate that the perception of control as a threat makes employees less likely to engage in workplace deviance. Second, we posit that if an organisation benefits from a direct reduction in workplace deviance resulting from a perceived threat, it may come at a cost that is reflected in an increasing level of deliberate ignorance. A perception of threat engenders frustration and distrust (Lawrence & Robinson, 2007); therefore, it could be expected that employees would seek to regain control over their jobs by lowering efforts on tasks out of the scope of control, i.e. unobservable behaviours.

To develop in-depth research and obtain valid results, we restrict the empirical focus of this study to a limited number of organisations. In particular, we have chosen the healthcare sector due to its multifaceted environment and complexity of intrinsic organisational characteristics, which provide an unsurpassable setting for research on this topic given that the agency implications⁵ and management control difficulties⁶ within this context are particularly evident (Cardinaels & Soderstrom, 2013; Grafton et al., 2011; Yan et al., 2010). Since professional autonomy has potential implications for the level and nature of cognitive dissonance in the hospital context (Ilie & Turel, 2020), we also analyse its effect in our hypotheses as an open question. To test our theoretical model, we use survey data from hospital employees (administrative staff, nurses, pharmacists, and physicians). The results partially support our predictions. While we show that employees' perception of MCS as a threat increases deliberate ignorance, the effect on workplace deviance is not significant. As an additional analysis, we show that the effect of employees' perception of MCS as a threat on workplace deviance follows an inverted-U relationship.

The contribution of this study is twofold. First, we add to the literature on the unintended consequences of MCS (Campbell et al., 2011; Conrad & Uslu, 2012; Franco-Santos & Otley, 2018) by examining different dimensions of misconduct. Previous research, based on cognitive psychological theories, considers MCS as knowledge

⁴Criminology literature has argued three elements must be present to establish that an individual is deliberately ignoring an issue: (1) to have suspicions about the fact in which knowledge is required; (2) to purposely refrain from investigating the matter, and (3) to have a particular motive for remaining in ignorance (Sarch, 2014). An illustration of this situation can be seen in the case of United States of America (USA) v. Rochester Drug Cooperative (RDC). Two top executives of RDC (a pharmaceutical distributor) who, in order to maximise personal gains, preferred to remain ignorant about the final destination of controlled substances and avoided reporting information to the respective Drug Enforcement Administration. On April 2019, they faced criminal charges for ignoring warnings of wrongdoing while they "continued to distribute controlled substances to customers that were illegitimately dispensing [...] narcotics" (US v RDC Statement of Facts, 2019, p. 17).

⁵Different levels of high-qualified professional staff, the need for professional autonomy, types of compensation and labour contracts, governance models, and ownership structures may be found within the same organisational environment (Cardinaels & Soderstrom, 2013).

⁶A few examples of MCS scandals in healthcare include the 2015 inquiry into deaths of babies and mothers at University Hospitals of Morecambe Bay NHS Foundation Trust, the 2013 Robert Francis inquiry into failures at Mid Staffordshire NHS Foundation Trust, and the 2001 landmark public inquiry into children's heart surgery at Bristol Royal Infirmary. All of the above cases revealed systemic management control failings such as tolerance to poor standards, failure to assess risks, and repeated failures to identify and investigate serious incidents (Vize, 2019).

management practices that affect individual behaviour by means of eliminating ignorance (Franco-Santos et al., 2012). Apart from some exceptions that acknowledge the existence of deliberate ignorance (e.g. Kilfoyle et al., 2013; Radcliffe, 2008; Schäffer et al., 2014; Walker, 2021), previous research in management control is largely constrained to the study of ignorance that is beyond the reach of the systematic and cognitive influence of the individual (Kutsch & Hall, 2010). More specifically, prior studies indicate that particular control systems assist organisational participants in coping with diverse and inevitable knowledge-processing problems,⁷ such as uncertainty (Ditillo, 2004), complexity (Grafton et al., 2011), ambiguity (Hall, 2008) and equivocality (Burney et al., 2009; Burney & Widener, 2007), where MCS offer clarification (Hall, 2008), guidance (Bisbe & Otley, 2004), and correction (Burney et al., 2009; Burney & Widener, 2007). Thus, our focus on deliberate ignorance, as another dimension of misconduct, is a novel approach. Individuals can deploy considerable power over knowledge that they reject deliberately, and this, in turn, may impact information flows as well as on both individual and organisational performance (Kutsch & Hall, 2010).

Second, we contribute to the strand of management control literature that analyses the influence of control systems on employee attitudes by taking the perspective of *perception* rather than intention (Kennedy & Widener, 2019). The mainstream management accounting research has mainly adopted a managerial perspective, therefore treating the influence of control systems on employees' attitudes through the lens of managerial intentions (Tessier & Otley, 2012). The consequences of control systems from that perspective can be considered "indirect and peripheral" (Jiao & Zhao, 2014, p. 780). Thus, there is a need in the literature to consider employees' perception of control to avoid ambiguity regarding the behavioural effects of control systems (Tessier & Otley, 2012).

2. Theoretical framework

2.1. Perception of control

Employees' perceptions of organisational issues are widely considered to be a key factor in explaining the success or failure of plans within an organisation (Kennedy & Widener, 2019). Tessier and Otley (2012) focus on explicitly separating managerial intention for control from employee perception of control. Managerial intention refers to the purpose of implementing MCS, while employees' perceptions bring up to the interpretation of what the MCS is for.

Managers design and implement MCS with the intention of ushering employees in the direction of organisational objectives (Englund & Gerdin, 2015) while encouraging desirable behaviours and defining organisational boundaries. Accordingly, MCS aim to facilitate coordination and assist communication and are implemented as mechanisms to motivate and reward employees, promoting organisational effectiveness (Davila & Ditillo, 2017; Sharma & Frost, 2020). Through norms, rules, codes of conduct and standardised procedures, MCS define clear expectations for performance and their

⁷Roberts (2013, p. 216) identifies and defines four knowledge-processing problems: uncertainty is "not having enough information"; complexity is "having to process more information than one can manage or understand"; ambiguity is "not having a conceptual framework for interpreting information"; and equivocality is "having several competing or contradictory conceptual frameworks".

consequences at work. Additionally, MCS can monitor employees' activities, unveil incidents, identify perpetrators, and elicit perceptions of potential punishment.

Assuming that employees and managers share the same understanding and feelings about an implemented control system is problematic (Donnelly et al., 2021). An employee can perceive the same control differently than managers and co-workers due to the influence of several personal realities (e.g. past experiences, age, education or tenure) and contextual realities (e.g. job tasks, departmental characteristics or number of implemented controls) (Heinicke & Guenther, 2020; Lopez-Valeiras et al., 2018). However, the extent to which an employee's perception of control influences behaviours, rather than the intention of control, has yet to be fully explored (Corduneanu & Lebec, 2020; Tessier & Otley, 2012).

In this study, we focus our attention on an employee's perception of MCS as a threat. Since one of the main objectives of MCS is to direct employee behaviour, thus constraining individual freedom and inducing certain activities and courses of action (Long, 2018), it is likely that some employees perceive MCS as a threat at work. Such perception takes place when an employee (or a group) gets the impression that MCS aim to restrict, punish, and control (Tessier & Otley, 2012).

On the one hand, a stream of literature on management control suggests that MCS that lead to punitive consequences are commonly used by organisations to guide individual behaviour in the direction of organisational objectives (Englund & Gerdin, 2015). This is not without costs. Prior research has found that MCS, when perceived as a threat, can lead to a working environment of distrust and demotivation (Cardinaels & Yin, 2015; Lawrence & Robinson, 2007). Free (2007) and Hartmann and Maas (2011) provide evidence showing important links between the coercive perception of controls, the communication of organisational boundaries (e.g. organisational policies), and the punishments associated with an unforeseen result.

On the other hand, another stream of management literature has associated an employee's perception of threat with desirable managerial outcomes. Despite the negative impact that perceiving MCS as a threat has on work climate, this line of research suggests that negative incentives (e.g. coercion and punishment) are effective deterrents of undesirable observable behaviours (Lourenço et al., 2018) as they are matched to the perceived seriousness of an employee's deviant act (Robinson & Bennett, 1995). This perception of threat decreases the expected utility of deviant behaviours since wrongdoers can be easily discovered and sanctioned (Kobayashi & Kerbo, 2016).

Therefore, according to previous literature, employees' perception of MCS as a threat can be associated with two apparently competing forces: (1) the alignment of employees' actions with organisational goals and (2) employees' distrust and dissatisfaction at work. Distrust and dissatisfaction at work are two of the main drivers of misconduct (Cardinaels & Yin, 2015; Walsh, 2014).

2.2. Misconduct: workplace deviance and deliberate ignorance

Misconduct at the workplace has traditionally been studied as workplace deviance and is reflected in explicit acts of employees' hostility, theft, and sabotage (Bennet & Robinson, 2000). Regardless of how this behaviour is manifested, it is observable, known or detectable by organisational members, and it harms the organisation and/or its employees. Evidence shows that 73% of employees have observed this type of misconduct at work,

which has elevated the managerial need to enhance the ability to effectively monitor and manage employees' misconduct (KPMG, 2013, 2019).

Although conceptualisations of workplace deviance have varied over the years, two distinguished dimensions of deviance are mostly recognised: interpersonal and organisational (Mackey et al., 2021). Interpersonal deviance refers to deviant behaviours directed toward individuals (e.g. bullying, verbal abuse, harassment), while organisational deviance refers to deviant behaviour directed toward the organisation (e.g. stealing or damaging company property, arriving late to work, taking unauthorised breaks) (Bennet & Robinson, 2000). As MCS are designed at an organisational level, we expect employees' deviant behaviours to be directed toward the organisation and not toward other employees. Therefore, our focus in this study is on workplace deviance toward the organisation.

Contrary to workplace deviance, deliberate ignorance is mostly an unobservable form of misconduct. From an organisational point of view, deliberate ignorance can adopt different forms.⁸ First, it may be materialised through a self-restriction on certain knowledge, either of internal or external origin, which can be considered risky, inappropriate, potentially destructive, or corruptive (Kutsch & Hall, 2010). The existence of this knowledge can create nervousness, anxiety or discomfort between co-workers and, as a result, can be considered a taboo. Roberts (2013) mentions several examples of taboos, such as the compatibility of colleagues' external activities and discriminatory attitudes that damage the working climate. Second, deliberate ignorance can also be materialised through the denial of information or evidence that is incompatible with the reigning values of decision-makers within an organisation (Schaefer, 2018). Through this emotional reaction, employees may attempt to be unanimous so they can maintain their status quo. Third, deliberate ignorance can also be materialised through a self-restriction of the ability to access certain knowledge that can be considered secret or private. Roberts (2013) mentions operational secrets or personal information as examples of this.

Deliberate ignorance has frequently been behind organisational scandals, such as with Enron (Craig & Amernic, 2004), where participants avoided liability by tiptoeing around suspected organisational activities, steered clear of damaging information and communicated ambiguously to avoid implicating themselves in any wrongdoing. Therefore, deliberate ignorance can also block new external knowledge or the development of transformative practices (Schaefer, 2018; Walker, 2021), curbing organisational adaptation to contextual circumstances.

3. Hypothesis development

We draw on the theory of cognitive dissonance to propose expectations about the effects of employees' perceptions of MCS as a threat on workplace deviance and deliberate ignorance. The theory of cognitive dissonance (Festinger, 1957) is one of the most prevalent theories in social psychology, and it is also extensively used in the economic

⁸For example, survey evidence shows that one out of every four employees recognise a willingness to look the other way if they suspect misconduct from other colleagues (KPMG, 2013). In this line, Société Générale managers claimed to be not aware of the unauthorised trades made by a single trader that led to massive fraud in 2008 (Baker et al., 2017).

literature (Dierick et al., 2019). This theory suggests that individuals hold several cognitions about themselves and the context they live and work in; when those cognitions clash, a discrepancy is evoked, resulting in a state of dissonance. A state of cognitive dissonance is unpleasant, so individuals manage to reduce this discomfort by adapting their cognitions. In other words, individuals can reduce dissonance by changing a behaviour or expectation, or even by undertaking actions, so that experience fits expectations (Hinojosa et al., 2017).

Fear of punishment increases cognitive dissonance among employees (Dedahanov et al., 2016). In the case of MCS, employees are on the one hand continuously confronted with expectations that MCS are beneficial to organisations and employees and are an important element for their compensation, while on the other hand, they experience MCS, which are mechanisms to monitor and restrict behaviour and punish non-conformance. When perceptions about the restrictive, monitoring and punitive attributes of MCS become strong, positive and negative messages embedded in MCS become unbalanced and drive contradictory evaluations about the validity and purpose of such systems (van der Kolk & Kaufmann, 2018). This disjunction between employees' experiences and their beliefs and expectations about MCS creates a state of cognitive dissonance.

We argue that in attempting to reduce the dissonance caused by the perception of MCS as a threat, employees will develop two behavioural responses. First, the perception of control as a threat makes employees less likely to engage in workplace deviance. Employees weigh the trade-off between the expected gain and potential costs of being detected and punished when engaging in observable deviant behaviours (Ewelt-Knauer et al., 2020). Employees will behave in ways that are in conformance with the monitoring scope of MCS even if doing so they accept the unempowering, non-motivational and non-compensatory nature of the system. Second, employees will attempt to restore consistency by lowering efforts on tasks out of the scope, engaging in unobservable forms of misconduct such as deliberate ignorance. Prior literature suggests that to reduce dissonance, employees may ignore relevant information and avoid having to make certain decisions (van der Kolk & Kaufmann, 2018). Therefore, we expect that an employee's perception of MCS as a threat negatively influences workplace deviance and positively influences deliberate ignorance.

3.1. Employees' perception of MCS as a threat and workplace deviance

A perception of MCS as a threat constrains employees' actions and initiatives, lowering their levels of empowerment. This is associated with job disaffection, frustration, and distrust (Cardinaels & Yin, 2015; Lawrence & Robinson, 2007). However, at the same time, employees' perception of MCS as a threat motivates them to conform to organisational goals because such perceptions convey a persuasive message of negative consequences to behaviours that are not congruent with organisational interest (Englund & Gerdin, 2015). Employees understand that with clearly defined norms and responsibilities, observable deviant behaviours are easily identified and, consequently, punished. Put differently, the threat of formal sanctions by supervisors is a deterrent of workplace deviance.

The perception of MCS as a threat additionally promotes organisational learning among employees by triggering the need for information on which behaviours are

punishable (Van der Stede et al., 2020). In this context, employees are promptly familiarised with the consequences of observable misconduct. Generally, employees refrain from behaviours that may be perceived by superiors as a form of misconduct to avoid the expected distressing consequences (Harmon-Jones & Mills, 2019), such as pressures to justify their behaviours and how they are in line with organisational goals, disciplinary actions or even job dismissal.

Prior work largely suggests that employees' perceptions of MCS as a threat preclude observable deviant behaviours. However, we acknowledge that the management accounting literature reports anecdotal evidence on employees perceiving MCS as mechanisms for social domination and oppression (Macintosh & Quattrone, 2010), which may lead some individuals to act against organisational interests through observable behaviours (e.g. sabotage) that are motivated by revenge (Burney et al., 2017). Despite this view, we expect that, on average, an employee's perception of MCS as a threat may prevent, rather than cause, observable employee deviance.

Based on the preceding arguments, we propose the following hypothesis:

H1: An employee's perception of MCS as a threat is negatively associated with workplace deviance.

3.2. Employees' perception of MCS as a threat and deliberate ignorance

As noted above, employees' perception of MCS as a threat is associated with dissatisfaction and negative emotions, major contributing factors for misconduct at work (Litzky et al., 2006). This previous reasoning raises a question about the effect of employees' perception of MCS as a threat on unobservable forms of misconduct. We postulate that the benefits from a direct reduction in workplace deviance resulting from a perceived threat may bring about collateral consequences that are reflected in unobservable forms of misconduct, such as deliberate ignorance.

Deliberate ignorance is a low intensity form of unobservable misconduct that facilitates employees to reduce dissonance by regaining control over their jobs (Walsh, 2014). Employees may perceive deliberately ignoring an issue as being explicitly non congruent with organisational interest; however, by ignoring certain knowledge, as an ambiguous intent to harm the organisation, dissatisfied employees reduce the discomfort generated by the perception of MCS as a threat. Deliberate ignorance is one of the most frequent responses that individuals use as a coping mechanism to reduce the discomfort, stress, and anxiety generated by a situation involving cognitive dissonance (Hinojosa et al., 2017). When individuals have knowledge or suspect to know something that is perceived to be uncomfortable, awkward, and potentially destructive, they refrain from this knowledge or from investigating it further, hence searching for more desirable cognitive states. Nonaka (1994) analyses why individuals decide to deliberately ignore a particular issue, asserting that "individuals recreate their own systems of knowledge" (p. 18) and, as a defensive mechanism, may avoid information that is inconsistent with or contradictory to other cognitions (van der Kolk & Kaufmann, 2018). Furthermore, individuals act guided by negative reciprocity beliefs whereby they believe that when organisational norms and control mistreat them, it is acceptable to retaliate in return (Hertwig & Engel, 2016). In this vein, ignorance is a comfortable and safe position from which to

reach cognitive consistency, as it is considerably difficult for organisations to identify and attribute responsibilities to individuals. This reasoning is in line with previous literature suggesting that a powerful motive to maintain cognitive consistency can give rise to irrational and sometimes maladaptive behaviours (Festinger, 1957).

The Mid Staffordshire NHS Foundation Trust (Francis, 2013) provides a very insightful example of how employees' perceptions of MCS as a threat drive deliberate ignorance. This report examines the causes of failings in care at Mid Staffordshire (UK) between 2005 and 2009. According to the report, the board placed a high priority on compliance with nationally set targets and, in particular, the "four-hour" accident and emergency (A&E) target.⁹ At Mid Staffordshire NHS Trust, many employees and middle managers perceived that breaching the targets could lead to people losing their jobs. The report presents examples of the consequences that this perception of threat had on the organisational environment, which include distrust, dissatisfaction, demotivation, and disengagement. It describes instances of nurses crying in hospital wards, A&E staff pressuring colleagues to speed up patient processing time to hit the targets regardless of patient welfare and service quality. Surprisingly, some professionals claimed to be ignorant about the difficulties and problems within the hospital. One particular clinician said, *"I do my job. I put my head down. Do the job and get on with it. Personally, I was not totally aware of the difficulties, that is all I am saying"* (Francis, 2013). That is, this clinician resolved to reduce the discomfort caused by holding conflicting cognitions (the expectation that the use of MCS is beneficial to the organisation, patients and employees vs. the perception experienced that MCS are mechanisms to monitor and restrict behaviour and punish non-conformance) by deliberately ignoring his or her suspicions of low standards of care delivered by colleagues. This form of misconduct helped this physician adjust to a frustrating situation by regaining control over his or her job. Inasmuch as deliberate ignorance is an unobservable behaviour, if managers were to blame the employee for not exploring issues against organisational interests, this employee would be able to dismiss responsibility by claiming to have been unaware. In this regard, patient groups have been concerned that clinicians "who should have spotted the failings at the trust but failed to raise the alarm have now been promoted to key jobs in the NHS and healthcare regulation" (Smith, 2009).

Employees' perception of MCS as a threat reduces their incentives to "rock the boat" (Free, 2007), and it may even lead some individuals to act against organisational interests as an emotional means to regain control over their jobs (Walsh, 2014). This perception of control induces employees to deny information about controversial activities of colleagues and/or managers that have been traditionally considered a taboo or that are incompatible with the reigning values within the organisation. This perception also motivates employees to reconsider and attenuate their reactions to controversial matters (e.g. co-workers' behaviours, job demands, managerial decisions, organisational policies) that have been previously antecedents of cognitive discomfort.

Based on the preceding reasoning, we state the second hypothesis as follows:

⁹NHS England (2013) established a standard target where at least 95% of patients attending A&E should be admitted, transferred or discharged within four hours.

H2: An employee's perception of MCS as a threat is positively associated with deliberate ignorance.

Our argumentation above raises the question of the extent to which these effects are extensive across all groups of professionals (Heinicke & Guenther, 2020). The empirical setting of our paper contains idiosyncrasies that potentially open new research avenues, such as the use and effectiveness of bureaucratic control mechanisms in hospitals, which may differ considerably across employees and jobs (Abernethy et al., 2007; de Harlez & Malagueño, 2016). Prior literature shows that clinicians are usually subject to autonomous practices and unique professional work arrangements, requiring greater autonomy and control over the pace and the content of clinical work (King & Clarkson, 2015; Naranjo-Gil & Hartmann, 2006). For those professionals, job satisfaction is highly associated with professional autonomy¹⁰ (Friedberg et al., 2013), and MCS are commonly perceived to be barriers that constrain their autonomy (Carr & Beck, 2020; Kurunmaki et al., 2003). In contrast, employees requiring low professional autonomy, such as administrative staff, do not see conflicting demands on complying with MCS that are perceived as threatening. In other words, they may not feel cognitive discomfort when conforming to MCS. Thus, ultimately, the effect of professional autonomy on MCS perception is also a question of interest in our setting.

4. Methodology

4.1. Research setting

Data for this study were collected through a cross-sectional questionnaire sent to employees of three large hospitals (two of them public, and one private) in Santa Catarina, Brazil. The healthcare sector was specifically chosen to test our hypotheses. Hospitals conform to a complex institutional environment (see Table 1), with multiple stakeholders and often ambiguous objectives (Abernethy et al., 2007; Aguiar-Díaz et al., 2019; Cardinaels & Soderstrom, 2013; Labro & Stice-Lawrence, 2020). Conflicts between the professional and organisational objectives and those of clinical and nonclinical staff over the deployment of resources provide a particularly relevant setting for an analysis of the perception of control systems in the workplace (Naranjo-Gil et al., 2008; Naranjo-Gil & Hartmann, 2007). Consequently, hospitals have also been the object of several studies on management accounting (e.g. Abernethy et al., 2020; de Harlez & Malagueño, 2016; Labro & Stice-Lawrence, 2020).

Due to potential variations between different national healthcare systems, the target sample is geographically restricted to one country. The Brazilian healthcare sector is an appropriate research setting to test the relationships among the perceptions of control systems and misconduct. This setting ensures that the key issues in the study are relevant to the population, with the expected positive effect of their willingness to collaborate. These expectations were sustained in an early pilot study carried out in a subset of the sample, which followed previous studies conducted by Naranjo-Gil and Hartmann (2006; 2007). According to Aguinis et al. (2020), the social, cultural, and economic characteristics of this region create an ideal natural laboratory to test management

¹⁰Professional autonomy refers to employees' control over conditions, processes, procedures, and judgments in the workplace in accordance with their professional body's knowledge and expertise (Donnelly et al., 2021; Lin, 2014).

Table 1. Institutional healthcare environment.

Internal actors	External actors/forces
<i>Professional groups and their primary focus</i>	<i>Governmental bodies</i>
Physicians; cure	Federal, state/provincial, local government
Nurses and clinical support staff;	Legal system
care Administrative staff; support	<i>Ownership structure</i>
CFO, CEO, medical director; management	Public
Board of directors or supervisors; oversight	Legislative body, community
	Private
	Founders, shareholders, donors, charities, religious entities
	<i>Healthcare market</i>
	Health insurers/third-party payers
	Patient groups
	Other hospitals/competition
	Community

Source: adapted from Cardinaels and Soderstrom (2013).

theories. Specifically, the overcrowding in Brazilian public health and the growing emergence of private healthcare provide a relevant and useful testing ground to examine the effects of control systems on employee behaviour. The Brazilian healthcare system consists of public and private organisations. The public unified health system offers free universal health coverage to the entire country's population. Approximately 80% of Brazilians rely exclusively on this system, and the remainder of the population uses a healthcare system provided by private organisations (Iwaya et al., 2013). The private healthcare system includes private organisations that do not belong to the Brazilian public unified health system. Patients who use this system take responsibility for their own medical bills. Private nonprofit hospitals represent approximately 38% of the hospitals in Brazil and dedicate at least 60% of their capacity to attend patients from the public sector (Greca & Fitzgerald, 2019).

4.2. Sampling procedure and characteristics

Members of the top management team of the three hospitals in our sample were first contacted to allow the researchers to understand the context and the potential conditions necessary to launch our survey. First, we contacted a university hospital (228 beds) that had previously collaborated with members of the research team. Second, we contacted another public hospital (329 beds) relying on the alumni network of a Brazilian university that supported our research project. As some studies (e.g. Heinicke & Guenther, 2020) have suggested that employees' perceptions of management practices might vary between public and private organisations, the sampling procedure also involved a private hospital (198 beds). Contact was facilitated by an academic who had previously worked in the hospital. After the initial talks with top management teams, the chief executive officers of the three hospitals were formally invited to participate in the study.

To fully understand our setting and the idiosyncrasies that could affect our research, we initially conducted a series of visits and informal interviews with managers and employees of two of those hospitals. Specifically, in line with previous literature in the sector (e.g. Abernethy et al., 2020; Chiang, 2009), we observed that performance measurement systems and compensation systems were some of the most relevant

control systems implemented in hospitals. With the information collected, we designed a questionnaire by following Dillman et al. (2009). Measuring instruments were carefully chosen (see Section 4.3), and a draft was made for the purpose of pretesting. Six academics from the field of management (two of them with expertise in healthcare management) and three members of the target population participated in testing the survey. At this point, the participants made some suggestions, and the survey was slightly modified. These changes were mainly wording issues that emerged from the translation of the measuring instruments from English to Portuguese. Minor adaptations were made to the wording of the questionnaire before it was used in the survey. The ethics committees at each of the three hospitals reviewed and validated the questionnaire before it was administered. Finally, the questionnaire was sent out to 455 employees of the three hospitals. A contact person in each hospital was involved to administer the paper survey. Each package included a cover letter along with the questionnaire. To promote the completion of the questionnaire, we ensured the confidentiality of the participants. The questionnaires were collected and put into a box that was only used for their return with no trace of identification to avoid external pressures on the respondents.

This procedure yielded an initial sample of 135 responses (response rate of 29.67%). We excluded 26 observations of individuals who were in management positions. We also removed nine responses from our sample because of missing data in the main variables. A satisfactory response rate was attained with 100 (22.47%) usable questionnaires. Table 2 provides additional information on the relevant demographic data.

We investigated whether there were statistically significant differences between early and late respondents. A comparison of the main survey constructs between the first and last 10% of responses received shows no significant differences (see Table 2, Panel A). We employed several remedies to alleviate the potential undesirable effects

Table 2. Test of early and late response and demographic data of the sample (N = 100).

Panel A. Comparison of main constructs for early and late respondents			
Construct	Mean of early respondents (first 10%)	Mean of last respondents (last 10%)	F-Levene
Deliberate ignorance	2.775	2.660	0.271 ($p = 0.607$)
Workplace deviance	1.700	1.380	0.099 ($p = 0.755$)
MCS as a threat	2.862	2.306	0.430 ($p = 0.518$)
Panel B. Demographic data of the sample			
	Percentage		
Professional groups			
Physician	26%		
Nurse	23%		
Administrative staff	45%		
Clinical pharmacist	6%		
Ownership structure			
Public	58%		
Private	42%		
Fixed-term employment	65%		
External employee	13%		
Gender (male)	37%		
PhD education	5%		
	Mean	SD	
Tenure (months)	112.490	104.387	
Full-time (hours worked per week)	35.000	14.038	
Age (years)	37.770	10.319	

of common method bias (Podsakoff et al., 2003). We applied several *ex ante* procedures to control for method biases, namely, we allowed anonymous responses, assured respondents that there were no right or wrong answers, avoided complicated syntax, used differently scaled endpoints, and avoided the use of bipolar numerical scale values. Two *post hoc* techniques were also conducted to test for common method variance. First, all the variables were simultaneously entered into an exploratory factor analysis to check for the presence of single-source bias by means of Harman's single-factor test. A single factor did not emerge from the data since the first factor explains less than 50% of the variance (Podsakoff et al., 2003). Second, we partitioned out a general factor score test through the addition of the highest factor from the unrotated exploratory factor analysis test to the regression models as a control variable. This factor comprised the best approximation of the common method variance (Podsakoff et al., 2003). The findings indicated that the original results were not significantly affected by the inclusion of this factor. Overall, the results of both *post hoc* techniques suggested that common method variance did not jeopardise the quality of the data.

4.3. Variable measurement

Deliberate ignorance is measured based on descriptions by Roberts (2013) and Kutsch and Hall (2010). The instrument includes eight items on a seven-point Likert scale. The respondents were asked about the extent to which they preferred not to know some activities and behaviours. The lower end of the scale is anchored by strongly disagree, while the upper end of the scale is anchored by strongly agree (see Appendix for questionnaire items).

Workplace deviance is measured using the organisational deviance instrument developed by Bennet and Robinson (2000). Based on their descriptions, we ask respondents, on a seven-point Likert scale (from 1 = never to 7 = daily), about the extent to which they engage in those behaviours. An initial exploratory factor analysis reveals the existence of five different factors in our data. We retain the following six items which load in the first factor: (i) spend too much time daydreaming instead of working, (ii) taken an additional or a longer break than is acceptable, (iii) told about lousy workplace, (iv) not follow instructions, (v) intentionally worked slowly and (vi) put little effort into work.¹¹

Employees' perception of MCS as a threat refers to the subjective evaluation of the threat contained in two MCS used in the surveyed hospitals. It is measured using six items based on the features described by Tessier and Otley (2012) and Adler and Borys (1996) (see Appendix for questionnaire items). To guide respondents to think about the reasons underlying their past behaviours in the organisational context that derive from the perception of MCS, we ask respondents for the extent to which compliance with organisational goals emanated from MCS that are perceived as restrictive,

¹¹To avoid potential bias in our findings, we perform our main analyses (untabulated) with different specifications of the construct: (i) formative rather than reflective, using loadings of 0.4 as a cut-off, then maintaining eight items; (ii) formative rather than reflective but using loadings of 0.3 as a cut-off, then maintaining eleven items; and (iii) modelling workplace deviance as a higher-order construct, using the first six items as the first lower-order factor and the remaining items as the second lower-order factor. In all specifications, our results remain unchanged. Our results are in line with findings from the meta-analysis by Mackey et al. (2021), which showed no substantive differences between the results from studies using the full-length measures developed by Bennet and Robinson (2000) and those that used shorter measures. We are grateful to the reviewers for pointing out this issue.

fearful, and controlling. The question thus explicitly refers to perception, recreating a setting in which MCS pressures emerge as a result of this perception. The items are ranked on a seven-point Likert scale from 1 = strongly disagree to 7 = strongly agree. In light of the evidence obtained during visits and interviews in hospitals, we decided to focus on two different control systems: (i) performance measurement systems (PMSs) and (ii) compensation systems (Bedford, 2015; Bisbe & Malagueño, 2012; Li & Srinivasan, 2011). An employee's perception of MCS as a threat is modelled as a second-order construct with two first-order reflective dimensions (one for each control system) that are measured by six reflective items, with three in each control system.

To test the potential effect of professional autonomy in our hypotheses, we split our sample into clinical staff (e.g. physicians, nurses, and clinical pharmacists) and nonclinical staff as a proxy for *professional autonomy*.^{12,13} We include the following *control variables* in the analysis due to their expected association with deliberate ignorance and workplace deviance: (i) fixed-term employment contract (a dummy variable that equals 1 if the employee has a fixed-term employment contract, otherwise it is 0); (ii) gender (a dummy variable that equals 1 for male, otherwise it is 0); (iii) age (measured by the age in years of the employee); (iv) private hospital (a dummy variable that equals 1 for a private hospital, otherwise it is 0); and (v) tenure (months in the hospital).

Descriptive statistics for control variables are presented in Table 2 (Panel B), while descriptive statistics for the main variables used in this study are displayed in Table 3.

5. Results

We use the partial least squares (PLS) technique with a bootstrap procedure with 5,000 replacements to test the hypotheses. PLS estimates the model parameters based on the ability to minimise the residual variances of dependent variables. Furthermore, PLS allows for the estimation of path models involving latent constructs that are indirectly measured by multiple items. Moreover, this technique is appropriate for estimating models with small sample sizes and does not make distributional assumptions about the data used for modelling. SmartPLS statistical software was used to analyse the survey data.

5.1. Measurement model

The measurement model is evaluated by assessing the reliability of individual items and constructs and the convergent and discriminant validity of the constructs. Table 3 displays the results of the measurement model. For first-order reflective constructs, construct reliability is assessed based on the factor loadings (Table 3). All items load on their respective reflective constructs with factor loadings above 0.7 except for item 1 of the perception of the compensation system as a threat and two items of workplace deviance in which one of them was well above 0.6, and the remaining item is well

¹²We perform a robustness analysis with an alternative definition of professional autonomy (physicians vs. non-physicians). Even with the use of this more restrictive definition, the results remain qualitatively unchanged, despite being slightly weaker.

¹³Untabulated results show that our findings remain unchanged if we also include this as a dummy control variable.

Table 3. Questionnaire items, descriptive statistics, validity and reliability measures.

Construct	Mean	SD	Theoretical range	Loading	Cronbach's alpha	CR	AVE
<i>Deliberate ignorance</i>					0.930	0.942	0.672
Item 1. Prohibitive nature	2.980	1.985	1–7	0.817			
Item 2. Hazard	3.050	1.982	1–7	0.803			
Item 3. Painstaking	2.810	1.875	1–7	0.796			
Item 4. Not in line with current understanding	3.060	1.870	1–7	0.744			
Item 5. Contradict group decision	3.380	1.984	1–7	0.867			
Item 6. Secrets	3.420	2.150	1–7	0.851			
Item 7. Information restriction	3.840	2.080	1–7	0.886			
Item 8. Privacy	3.550	2.061	1–7	0.782			
<i>Workplace deviance</i>					0.802	0.856	0.507
Item 1. Daydreaming instead of working	1.580	0.874	1–7	0.587			
Item 2. Additional breaks	2.100	1.245	1–7	0.787			
Item 3. Told about lousy workplace	1.667	1.005	1–7	0.744			
Item 4. Not follow instructions	1.410	0.776	1–7	0.701			
Item 5. Work slow	1.510	0.943	1–7	0.782			
Item 6. Little effort	1.500	0.922	1–7	0.622			
<i>PMS as a threat</i>					0.714	0.840	0.639
Item 1. Restriction	3.370	1.971	1–7	0.782			
Item 2. Punishment	2.378	1.723	1–7	0.878			
Item 3. Monitoring control	2.939	1.848	1–7	0.730			
<i>Compensation system as a threat</i>					0.670	0.818	0.603
Item 1. Restriction	2.652	1.755	1–7	0.675			
Item 2. Punishment	2.270	1.526	1–7	0.868			
Item 3. Monitoring control	3.144	1.838	1–7	0.774			
<i>MCS as a threat (Second-order construct)</i>					0.765	0.837	0.506
PMS as a threat	2.689	1.363	1–7	0.875			
Compensation system as a threat	2.896	1.437	1–7	0.863			

above 0.5. For each of the constructs, the composite reliability is above 0.7, which demonstrates acceptable construct reliability. Given this satisfactory composite reliability, the previous items with loadings below 0.7 are maintained in the analysis.

Convergent validity was assessed through average variance extracted (AVE) statistics. Our analyses reveal adequate convergent validity, as none of the constructs exhibits an AVE lower than 0.5 (Table 3). To establish discriminant validity, we examine the cross-loadings and square root of AVE. Table 4 reports cross-loadings, and it shows that each construct shares more variance with its measures than with other constructs in the model. Table 5 presents the correlation matrix between the constructs in the model. For each construct, the square root of the AVE is greater than the correlation with other constructs. Combined, these results provide support for adequate discriminant validity. Additionally, all correlations among the main constructs are below 0.4. None of the pairwise correlations among the independent variables included in our model are high enough to suggest the existence of multicollinearity problems. Inner variance inflation factor (VIF) values across models are well below 5, providing additional evidence for the absence of multicollinearity concerns in our results. Overall, the psychometric properties of the instruments are adequate to support the interpretation of the model.

5.2. Results

Table 6 shows the results of the proposed model to test H1 and H2.¹⁴ H1 posits a negative association between MCS as a threat and workplace deviance. The results show a non-

Table 4. Cross-loadings.

	Deliberate ignorance	Workplace deviance	PMS as a threat	Compensation system as a threat
<i>Deliberate ignorance</i>				
Item 1. Prohibitive nature	0.817	0.082	0.279	0.413
Item 2. Hazard	0.803	0.195	0.072	0.216
Item 3. Painstaking	0.796	0.088	0.223	0.234
Item 4. Not in line with current understanding	0.744	0.236	0.272	0.214
Item 5. Contradict group decision	0.867	0.304	0.087	0.187
Item 6. Secrets	0.851	0.228	0.151	0.269
Item 7. Information restriction	0.886	0.298	0.219	0.274
Item 8. Privacy	0.782	0.229	0.173	0.191
<i>Workplace deviance</i>				
Item 1. Daydreaming instead of working	-0.239	0.587	0.018	0.028
Item 2. Additional breaks	-0.373	0.787	0.112	0.165
Item 3. Told about lousy workplace	-0.253	0.744	0.111	0.143
Item 4. Not follow instructions	-0.098	0.701	0.002	0.065
Item 5. Work slow	-0.280	0.782	0.115	0.011
Item 6. Little effort	-0.255	0.622	0.036	0.111
<i>PMS as a threat</i>				
Item 1. Restriction	0.145	0.050	0.782	0.366
Item 2. Punishment	0.153	0.151	0.878	0.493
Item 3. Monitoring control	0.253	0.022	0.730	0.344
<i>Compensation system as a threat</i>				
Item 1. Restriction	0.130	0.140	0.224	0.675
Item 2. Punishment	0.185	0.062	0.432	0.868
Item 3. Monitoring control	0.378	0.103	0.485	0.774

Table 5. Correlation matrix.

	1	2	3	4	5	6	7	8	9
1. Workplace deviance	0.712								
2. Deliberate ignorance	0.260	0.820							
3. MCS as a threat	0.130	0.311	0.711						
4. Professional autonomy	-0.261	-0.278	-0.170	-					
5. Fixed-term employment	0.168	0.303	0.158	-0.327	-				
6. Gender	-0.090	-0.139	0.023	-0.223	0.041	-			
7. Age	-0.368	-0.019	0.046	0.019	0.146	0.105	-		
8. Private hospital	0.254	0.075	-0.042	-0.248	0.285	0.229	0.001	-	
9. Tenure	-0.260	-0.115	0.008	0.058	0.221	0.028	0.562	-0.021	-

The diagonal of the correlation matrix reports the square root of AVE. Off-diagonal elements are the correlations among the variables calculated in PLS.

significant effect of MCS as a threat on workplace deviance. Thus, our evidence does not provide support for H1. H2 proposes a positive association between MCS as a threat and deliberate ignorance. The results in Table 6 show a positive and significant effect, providing support for H2.

Due to the lack of significance in the relationship between MCS and workplace deviance (H1), we further explore this association, drawing on a scarcely developed line of research in the management literature that suggests that this association could

¹⁴Prior work recognises potential effects of deliberate ignorance on workplace deviance. The perception of the employee is that the inconsistency in deliberately ignoring and allowing some questionable acts shows a certain tolerance to deviant behaviours in the workplace (Litzky et al., 2006). Therefore, for completeness, we include this control effect in the testing model.

Table 6. Results from the PLS analysis to test H1 and H2.

	Workplace deviance β (t-stat)	Deliberate ignorance β (t-stat)
MCS as a threat	0.107 (0.933)	0.266*** (3.108)
Deliberate ignorance	0.163** (1.714)	
Fixed-term employment	0.096 (0.975)	0.297*** (3.083)
Gender	-0.090 (0.982)	-0.170* (1.727)
Age	-0.364*** (3.373)	0.107 (0.933)
Private hospital	0.239** (2.339)	0.035 (0.337)
Tenure	-0.014 (0.143)	-0.248** (2.256)
R ²	0.277	0.226
R ² adj.	0.222	0.176
Max. inner VIF value	1.934	1.855

Full sample. Standardised coefficients are presented. *** and ** denote 1% and 5% significance levels (one-tailed when the coefficient sign is predicted, two-tailed otherwise), respectively.

be more accurately described by a quadratic rather than a linear trend (Zoghbi-Manrique-de-Lara, 2011). Some studies in this stream find that employees' decisions to engage or not engage in workplace deviance could be driven by the alignment of MCS with internal employee values and by the role of MCS as a deterrent mechanism that influences behaviour through rationalisations (Kidwell & Bennett, 1994; Lee et al., 2004). On the one hand, low levels of perception of MCS as a threat are consistent with employees' values and expectations that MCS are beneficial to employees rather than oriented to punish them. As a consequence, employees with low levels of perception of threat are less likely to engage in deviant behaviours against the organisation. Moreover, employees also act rationally by weighing the potential cost of deviance. Thus, high levels of perception of MCS as a threat could also act as a deterrent mechanism against workplace deviance. On the other hand, intermediate levels of perception of threat could be seen as indiscriminate, illegitimate, unfair, confusing, or superficial, therefore not acting as an effective mechanism to deter deviant behaviour directed toward the organisation (Mackey et al., 2021).

This approach implies that employees' perceptions of MCS as a threat may have a nonlinear effect on workplace deviance. Hence, we tested this quadratic effect in Table 7. The results indicate that the quadratic term representing the effect of employees' perception of MCS as a threat on workplace deviance is significant and exhibits an inverted-U relationship.¹⁵ We further discuss this result in Section 6.

We also analyse the extent to which a high or low need for professional autonomy explains the effects of an employee's perception of MCS as a threat on workplace deviance and deliberate ignorance. Previous studies recognise that clinical staff requires higher levels of professional autonomy than nonclinical staff (Kurunmaki et al., 2003). The results in Table 8 show non-significant effects of MCS as a threat on workplace deviance in both groups. That is, employees' perception of MCS as a threat does not have a different effect on workplace deviance among employees with a lower need for professional autonomy compared with employees with a higher need for professional autonomy. The results in Table 8 also indicate that the effect on deliberate ignorance is concentrated in the clinical staff subsample. These findings show that employees' perception of MCS as a threat has a more positive effect on deliberate ignorance among

¹⁵We also test the quadratic effect of MCS as a threat on deliberate ignorance. Untabulated results show non-significant effects ($\beta = 0.005$, $p > 0.10$).

Table 7. Results from the PLS analysis to test the quadratic effect of MCS on workplace deviance.

	Workplace deviance β (t-stat)	Deliberate ignorance β (t-stat)
MCS as a threat	0.192** (2.265)	0.266*** (3.117)
MCS as a threat x MCS as a threat	-0.154** (2.120)	
Deliberate ignorance	0.164** (1.679)	
Fixed-term employment	0.080 (0.795)	0.297*** (3.115)
Gender	-0.110 (1.223)	-0.170* (1.705)
Age	-0.294*** (2.686)	0.107 (0.933)
Private hospital	0.243*** (2.422)	0.035 (0.332)
Tenure	-0.075 (0.748)	-0.248** (2.252)
R ²	0.321	0.226
R ² adj.	0.261	0.176
Max. inner VIF value	2.019	1.855

Full sample. Standardised coefficients are presented. *** and ** denote 1% and 5% significance levels (one-tailed when coefficient sign is predicted, two-tailed otherwise), respectively.

Table 8. Additional results from the PLS analysis to test H1 and H2.

	Clinical staff		Nonclinical staff	
	Workplace deviance β (t-stat)	Deliberate ignorance β (t-stat)	Workplace deviance β (t-stat)	Deliberate ignorance β (t-stat)
MCS as a threat	0.091 (0.806)	0.259** (2.167)	0.047 (0.222)	0.255 (1.202)
Deliberate ignorance	0.289*** (2.328)		0.143 (0.763)	
Fixed-term employment	-0.095 (0.775)	0.449*** (3.864)	0.140 (0.665)	-0.075 (0.429)
Gender	-0.216 (1.484)	-0.152 (1.454)	-0.120 (0.716)	-0.148 (0.938)
Age	-0.307** (1.974)	0.019 (0.117)	-0.387** (2.041)	0.185 (1.250)
Private hospital	0.448*** (3.417)	-0.222* (1.670)	0.079 (0.405)	0.298** (2.321)
Tenure	-0.046 (0.299)	-0.141 (0.800)	-0.001 (0.299)	-0.264 (1.603)
R ²	0.385	0.376	0.205	0.215
R ² adj.	0.294	0.298	0.055	0.091
Max. inner VIF value	2.204	2.172	1.854	1.765

Subsamples based on professional autonomy: clinical staff (n = 55) and nonclinical staff (n = 45). Standardised coefficients. *** and ** denote 1% and 5% significance levels (one-tailed when coefficient sign is predicted, two-tailed otherwise), respectively.

employees with a higher need for professional autonomy than among employees with a lower need for professional autonomy.

We also tested the quadratic effect of MCS on workplace deviance for both groups. The results in Table 9 indicate that the quadratic term for MCS as a threat has a significant effect on workplace deviance in the nonclinical staff group and shows an inverted-U relationship, which is non-significant in the clinical staff group.¹⁶ This result is consistent with our conjecture that the effect of employees' perception of MCS as a threat on workplace deviance follows a curvilinear pattern.

6. Discussion and conclusions

We analyse the unintended and dysfunctional behaviours that are associated with an employee's perception of MCS as a threat (i.e. instruments of restriction, punishment, and monitoring). We began this research paper by noting that the apparently

¹⁶For completeness, we also test the quadratic effect of MCS as threat on deliberate ignorance. Untabulated results show non-significant effects in both subsamples ($\beta = 0.006$, $p > 0.10$ for clinical staff; $\beta = -0.018$, $p > 0.10$ for nonclinical staff).

Table 9. Additional results from the PLS analysis to test the quadratic effect of MCS on workplace deviance.

	Clinical staff		Nonclinical staff	
	Workplace deviance β (t-stat)	Deliberate ignorance β (t-stat)	Workplace deviance β (t-stat)	Deliberate ignorance β (t-stat)
MCS as a threat	0.149 (1.247)	0.259** (2.172)	0.196 (0.986)	0.255 (1.202)
MCS as a threat x MCS as a threat	-0.107 (0.972)		-0.206* (1.365)	
Deliberate ignorance	0.290*** (2.345)		0.135 (0.693)	
Fixed-term employment	-0.093 (0.746)	0.449*** (3.767)	0.128 (0.592)	-0.075 (0.427)
Gender	-0.212 (1.447)	-0.152 (1.451)	-0.155 (0.916)	-0.148 (0.942)
Age	-0.278* (1.789)	-0.019 (0.120)	-0.276 (1.296)	0.185 (1.231)
Private hospital	0.428*** (3.168)	-0.222* (1.689)	0.127 (0.652)	0.298** (2.267)
Tenure	-0.078 (0.512)	-0.141 (0.807)	-0.084 (0.427)	-0.264 (1.587)
R ²	0.402	0.376	0.281	0.215
R ² adj.	0.297	0.298	0.122	0.091
Max. inner VIF value	2.267	2.172	1.944	1.765

Subsamples based on professional autonomy: clinical staff (n = 55) and nonclinical staff (n = 45). Standardised coefficients. *** and ** denote 1% and 5% significance levels (one-tailed when coefficient sign is predicted, two-tailed otherwise), respectively.

contradictory and scarce management accounting literature about the negative consequences of employees' perception of MCS as a threat is mainly concentrated on observed forms of misconduct. Therefore, the literature mostly neglects unobserved behaviours such as individuals deliberately ignoring issues that could have relevant effects on organisational interests (Merchant & White, 2017).

Drawing on the theory of cognitive dissonance and on previous research on how control systems affected individual behaviour, we examined the relationship between the perceptions of control on observable and unobservable misconduct in terms of workplace deviance and deliberate ignorance, respectively. Two hypotheses are developed to predict that (H1) employees' perception of MCS as a threat is negatively associated with workplace deviance and that (H2) employees' perception of MCS as a threat is positively associated with deliberate ignorance.

Our results support the idea that a perception of threat increases the predisposition to deliberately ignore a conflicting cognition. We show evidence that ignorance, therefore, is a comfortable and safe position that threatened employees may use to attain cognitive consistency. In contrast, a positive linear association between employees' perception of MCS as a threat and workplace deviance is not sustained. Further analysis, based on the management literature (Zoghbi-Manrique-de-Lara, 2011), reveals a negative curvilinear effect (inverted-U shape). This result suggests that MCS that are perceived as a threat by employees are effective deterrents of workplace deviance if used in proper doses, i.e. only when the level of perception of MCS as a threat is low or high. At intermediate levels, employees' perception of MCS as instruments to restrict, punish, and monitor does not reduce observable misconduct, such as workplace deviance.

MCS are associated with the autonomy of controlled employees by specifying expected behaviours and activities, with implications for trust, cooperation (Christ et al., 2008) and motivation (Donnelly et al., 2021). Hence, as an additional analysis, we investigate the extent to which the need for professional autonomy explains the effects of employees' perceptions of MCS as a threat to misconduct. Our results show that the need for

professional autonomy moderates the effect of employees' perception of MCS as a threat on workplace deviance and deliberate ignorance. Specifically, we find that the effect of MCS on deliberate ignorance is concentrated in employees with a high need for professional autonomy, i.e. clinical staff. Conversely, the perception of MCS as a threat has a significant effect on workplace deviance in nonclinical staff and shows an inverted-U relationship. This result is consistent with our conjecture that the effect of MCS as a threat on workplace deviance follows a curvilinear pattern.

From a theoretical perspective, this study extends the research employing the theory of cognitive dissonance to explain the behavioural consequences of management control (Abernethy et al., 2010; van der Kolk & Kaufmann, 2018). We illustrate how MCS perceived as a threat could trigger cognitive dissonance and their effect on employees' reactions, focusing on the unintended consequences of those perceptions (Franco-Santos & Otley, 2018). In this regard, this work is one of the first attempts to advance the understanding of the consequences of MCS on different forms of misconduct and their underlying mechanisms. Specifically, the concept of "deliberate ignorance" as an unobservable form of misconduct in the workplace has received scant attention in the management control literature. To date, understanding the relation between MCS and ignorance in organisations is largely constrained to the study of an involuntary lack of knowledge (e.g. bounded rationality).

Furthermore, our setting provides an important opportunity to obtain valuable insights about the role of professional autonomy. The management accounting literature pays significant attention to the conflicts emerging from the need for professional autonomy, how that autonomy affects the design of MCS, and the overall implications on organisation outcomes (Carr & Beck, 2020). Previous studies suggest that the need for professional autonomy associated with job titles and tasks influences the effectiveness of MCS (de Harlez & Malagueño, 2016), and the lack of autonomy is associated with discomfort and diminishing efficiency (Thomas & Hewitt, 2011). In contrast, there are relatively few empirical studies in the management accounting literature that assess the effectiveness of MCS in supporting the activity of specialised professionals who require considerable professional autonomy (Fiordella et al., 2016; King & Clarkson, 2015). This is despite clear evidence that the use and effectiveness of bureaucratic control mechanisms in certain organisational settings (e.g. hospitals, consulting firms, universities) differ considerably across employees and jobs (Abernethy et al., 2007).

From a practical perspective, our findings have implications for managers of healthcare organisations who traditionally consider coercive forms of MCS as mechanisms to improve coordination and organisational efficiency (Fiordella et al., 2016). Our study suggests that employees' perception of MCS as a threat inhibits observable forms of misconduct at the cost of promoting unobservable forms of misconduct among certain employees. Additionally, the results have the potential to assist healthcare managers in understanding that clinical staff, who commonly require a high level of professional autonomy, may use unobservable forms of misconduct (e.g. deliberate ignorance) as a way to regain a feeling of control and to reduce cognitive dissonance when faced with threatening MCS. Hence, managers of healthcare organisations should be aware of the costs and consequences of employees' perceptions of MCS, and the design of MCS should be customised for different types of employees.

This research is subject to a few limitations. First, our research design relies on cross-sectional data used to test associations among self-reported instruments that measure both the independent and dependent variables. This approach has a number of limitations, including the possibility of demonstrating causality. Second, our findings can also be conditioned by the research setting. The highly specialised type of labour in healthcare, the limited number of professionals available in the market, the difficulty in measuring performance, the outstanding recognition and status of these professions and the high degree of autonomy that healthcare workers have regarding their duties may spark low levels of trust and procedural justice (DeCamp et al., 2014); thus, their perception of control may be different from employees in other industries. Third, this study focuses on examining the perception of control rather on the intention or design of MCS. With the introduction of new public management, public hospitals worldwide have imported organisational mechanisms, including MCS, from the private sector. Future research could explore such variations in design and managerial intentions between public and private organisations (van Elten et al., 2019). Fourth, the workplace deviance construct is measured with a limited number of items from the original scale, and although the construct shows adequate validity and reliability measures, it may contain idiosyncrasies that have been overlooked. In addition, to ensure that our main findings are not biased by this issue, we perform several sensitivity checks with different specifications of the construct. The results remain unchanged. Finally, our focused interest on the consequences of employees' perceptions of MCS as a threat limits the scope of this research to a few key variables. Evidence from previous literature reveals that employees' feelings of guilt and embarrassment for noncompliance with organisational rules may decrease the expected utility of deviant behaviours (Kobayashi & Kerbo, 2016). Further research is required to complete and extend our findings by incorporating other motivational factors that may explain the effects of MCS on misconduct.

Further research may also focus on how the perception of control influences the emergence of whistle-blowers (Latan et al., 2018; Stolowy et al., 2019). The ongoing debate on the legitimisation of whistle blowers within an organisation may be a challenging opportunity to gain a better understanding of this topic (Culiberg & Mihelič, 2017; Stolowy et al., 2019). Further development in management control and deliberate ignorance may show how top managers use MCS to influence a decrease in workplace deviance among employees while simultaneously supporting the emergence and legitimisation of whistle blowers to allow the distribution of knowledge. There is a large body of literature in the field of management that describes the high level of anxiety and discomfort suffered by potential whistle blowers and the factors that may influence their decision to act (e.g. Hinojosa et al., 2017; Latan et al., 2018). However, the existing management control literature has largely overlooked this issue.

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Appendix. Survey questions for main constructs

Deliberate ignorance

Q: I deliberately ignore (prefer not to know) some activities or behaviours performed by colleagues/superior managers (1-strongly disagree; 7- strongly agree):

- ... due to their socially prohibitive nature
- ... because they are viewed as being hazardous or polluting for the department or any of its employees
- ... because they are too painstaking
- ... because they are not in line with my own or my group's current understandings of reality
- ... because they contradict the validity of a group decision
- ... due to the existence of departmental and individual secrets, that only benefit a specific group or an individual
- ... due the ability of an individual or group to restrict access to themselves or any sort of information on themselves
- ... because it allows for high levels of autonomy and privacy in both work and personal practices

Workplace deviance[†]

Q: To what extent had you engaged in each of the behaviours in the last year (1-never; 7- daily):

- Spent too much time fantasising or daydreaming instead of working
- Taken an additional or a longer break than is acceptable at your workplace
- Told someone about the lousy place where you work
- Neglected to follow your boss's instructions
- Intentionally worked slower than you could have worked
- Put little effort into your work

MCS as a threat

Q: I recognise my behaviour sometimes complied with the instructions that explicitly or implicitly emanate from PMS (Compensation system) because I perceive that [MCS] (1-strongly disagree; 7- strongly agree):

- ... restricts my actions
- ... creates fear of punishment
- ... is a type of monitoring control

Professional autonomy

Q: Job position:

- Administration-related top manager
- Administration-related middle manager
- Clinical-related top manager
- Clinical-related middle manager
- Physician
- Nurse/pharmacist
- Administrative staff

[†]The original version of the questionnaire comprised the items developed by Bennet and Robinson (2000). Additional items included: worked on a personal matter, took property from work, falsified a receipt, come in late to work, littered your work environment, discussed confidential company information, left work early without permission, left your work for someone else to finish, used an illegal drug, dragged out work to receive overtime.