



Ignorance in organisations – a systematic literature review

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Abstract

This study is linked to previous research that approaches organisations as systems of shared meaning where ignorance is created and sustained, either unintentionally or deliberately, through various social interactions, symbolic processes, and organisational structures. While previous studies have touched upon organisational ignorance, there is a lack of systematically conducted research on its many forms and its many sources. This study analyses the causes, characteristics, and consequences of organisational ignorance. By reporting a systematic review of the literature, the paper contributes to the theory of organizational ignorance by developing a framework of organisational ignorance comprising the manageability (intentional or unintentional) and dynamics (bounded or expanding) of ignorance. Instead of framing ignorance as something that should be avoided, the study adopts an advanced approach to the organisation of ignorance.

Keywords Ignorance · Organisational ignorance · Non-knowledge · Systematic literature review

1 Introduction

This study is linked to previous research that approaches organisations as systems of shared meaning where *ignorance* is created and sustained, either unintentionally or deliberately, through various social interactions, symbolic processes, and organisational structures (Smithson 1989, Proctor and Schiebinger 2008, McGoey 2014, DeNicola 2018). The study builds on well-recognised knowledge that organisations may succumb to behaviour that is not in their interests, at least not in the long run. For example, organisations may reward dysfunctional behaviour (Kerr 1975), make

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irrational choices (Brunson 1982), show mindlessness (Ashforth and Fried 1988), allow organisational silence (Morrison and Milliken 2000M), accept malicious leadership (Padilla et al. 2007), encourage knowledge hiding (Connelly et al. 2012) and even develop functional stupidity (Alvesson and Spicer 2012). In this paper, all these examples represent symptoms of ignorance in organisations.

Approaching ignorance and various forms of knowing that ‘have not come to be, or disappeared, or have been delayed or neglected’ (Proctor and Schiebinger 2008, p. vii) is a challenging endeavour. Therefore, it is not surprising that ignorance has not attracted notable interest in management studies, bar a few exceptions (Roberts et al. 2013, Shaefer 2019, Scharzkopf 2020, Essén et al. 2022, Alvesson et al. 2022). While previous studies have touched upon organisational ignorance, there is a lack of *systematically* conducted research on its many forms and its many sources. This study contributes to the research gap by analysing the *causes*, *characteristics*, and *consequences* of organisational ignorance. The study also provides several implications for practitioners and discusses the avenues for further research.

While both the academic research and practical experience speak in favour of the benefits of knowledge (e.g., Barney 1991, Grant 1996), there are several counterforces that could weaken the factual use of knowledge in organisations. On the *individual level*, there are various types of *cognitive bias* that limit peoples’ ability to acquire and apply knowledge (e.g., Nickerson 1998). Bias explains how interpretation is never undertaken in isolation or in a vacuum but always in a spatial and temporal context, where there are both factors that open and limit the horizon of interpretation. The causes of misinterpretations are manifold, but they result in activities in which phenomena are not objective facts but perspectives on reality produced and accepted in interaction. On a *group level*, research shows that social dynamics create behaviour that limits the knowledge produced. Groupthink, as conceptualised by Janis (1972), portrays a social phenomenon that suppresses dissent and strives for consensus in decision-making. Social dynamics and the importance of information motivate people to strategically withhold information that they know to be useful for the group. Apparently uninformed decisions may have a rational and intelligible basis when interpreted as politically motivated acts undertaken to deliver legitimacy. At the *organisational level*, it appears that knowledge not only provides the basis for rational behaviour but also induces symbolic and ritualistic actions. Feldman and March (1981, p. 171), for example, suggested that organisations ‘systemically gather more information than they use’. The behaviour can be depicted as *systematic* because organisations initiate various information collection processes knowing that the information is not intended to be used for the stated purpose. Information has a symbolic value for the decision-maker as it helps to manage the blame game (Roulet and Pichler 2020). Rituals around information can be used to create an illusion of organisational transparency, which itself provides a safeguard for decision-makers in case something dysfunctional happens after decisions have been taken. Consequences of social dynamics and symbolic actions suggest that ignorance is embedded in organisations (Bakken and Wiik 2018) and can take several different forms within them.

While knowledge is intuitively perceived as virtue and ignorance as evil, this study builds on the idea that ‘accruing new knowledge does not dispel ignorance,

but rather compounds it, as new discoveries magnify awareness of what remains unknown' (McGoey 2014, p. 3). Just as we cannot 'expect to understand everything about drought simply by understanding rainfall' (DeNicola 2018, p. 18), it is argued here that knowledge and ignorance are inextricably connected. The juxtaposition of knowledge and ignorance is unnecessary, as it is not a dichotomous matter but two fruits of the same tree.

The current study seeks to expose the causes, characteristics, and consequences of organisational ignorance. By reporting a systematic review of the literature, the study also aims to advance the *theorising of organisational ignorance* by 'exposing emergent perspectives' (Post et al. 2020). It does so by developing a framework of organisational ignorance comprising the *manageability* (intentional or unintentional) and *dynamics* (bounded or expanding) of ignorance. The study thus reflects the notions of the 'honesty of nonknowledge' and the celebration of 'the truthfulness of limitless ignorance' (Bataille 2001, p. 201). Leaning on McGoey (2014, p. 3–4) this study declines to address ignorance as the opposite of knowledge, preferring to view it as a productive force in itself and a twin of knowledge.

2 Studying ignorance

Ignorance has intrigued philosophers and epistemologists since the dawn of time. Scholars have, for example, pondered, 'how can the unknown become known – and still be the unknown?' (DeNicola 2018, p. 10). Several scholars have pointed out that no matter how much we pursue knowledge, we are always surrounded by ignorance (Proctor and Schiebinger 2008, McGoey 2014, DeNicola 2018), whether vicious (e.g., Ungar 2008) or virtuous (e.g., Vitek and Jackson 2008). There is no shortage of metaphors for ignorance. For example, McGoey (2014) depicts ignorance as emancipation, commodity, and pedagogy, whereas DeNicola (2018) addresses it in terms of place, boundary, limit and horizon.

However, compared to knowing, ignorance is far less studied, especially as an organisational phenomenon. This is both confusing and regrettable. It is confusing because ignorance is more common than knowing (Congleton 2001) and regrettable because ignorance could help understand the challenges and opportunities of managing knowledge in a new way (Roberts 2013). When organisations are defined as 'systems of coordinated action among individuals and groups whose preferences, information, interests, or knowledge differ' (March and Simon 1993, p. 2), those same differences can be seen as reflecting the differences concerning ignorance that reside in an organisation. Limiting management to what is known provides a form of picture of organisational reality, while focusing on ignorance can reveal completely new aspects of that reality. However, in management studies, knowledge has often been seen quite uncritically as a neutral resource that helps organisations to perform better (e.g., Bogner and Bansal 2007). Knowledge is considered equal to 'capital', and the more of it an organisation has, the better. Particularly in the positivist research tradition, individuals and organisations have been addressed as rational actors who deliberately weigh different options and make decisions based on judgement (e.g., Congleton 2001). This despite the long-held view that decision-makers' rationality

is bounded (Simon 1955) and organisations' behaviour is often irrational (Brunsson 1982).

There is, however, increasing awareness of the importance of ignorance in organisational life. Ignorance is depicted as an elusive concept, and it has been addressed from different epistemological angles. Proctor and Schiebinger (2008) suggest that agnotology provides a useful lens for studying ignorance. The assertion is based on the notion that instead of asking the question *how we know*, it focuses on *why we don't know what we don't know*. Agnotology is a specific form of not-knowing, namely deliberate and culturally-induced ignorance. The concept has been used to study the uses of ignorance in science and the commercial sphere to understand several industries' efforts to foment doubt and uncertainty over certain businesses. Similarly, McGoey (2012a) deploys the concept of strategic ignorance to refer to an organisational asset that can be used to either deny liability in situations where something has gone wrong or assert expertise in the face of uncertainty. Galison (2004) approaches ignorance from an anti-epistemological standpoint, asserting that anti-epistemology helps comprehend the art of how knowledge is deflected, covered, and obscured. It can be said that agnotology, strategic ignorance, and anti-epistemology represent a *pessimistic reading of ignorance*. That is to say that knowledge is manipulated to create ignorance. Nonknowledge, in turn, manifests as a lack of knowledge or *that not yet known* (e.g., Gross 2007). While the non-known may be frustrating, it comes without the intention to utilise the situation for any purpose other than acquiring that missing knowledge. Focusing on the non-known provides a basis for an *optimistic reading of ignorance*. There is no shortage of studies presenting knowledge management as a remedy for organisational ignorance, and there is an emerging field of study on ignorance management. Academics have cautioned that an organisation predominantly focused on what it knows risks being unprepared for the unexpected, whether in the form of opportunities or threats (e.g., Roberts 2013, Israilidis et al. 2016).

Perhaps the view that ignorance is dysfunctional is too narrow and its potential is underestimated. This kind of thinking is in line with Moore and Tumin (1949, p. 795), who argued that 'ignorance must be viewed not simply as a passive or dysfunctional condition, but as an active and often positive element in operating structures and relations'. In a rather similar way, Merton (1957, p. 191) proposed a concept of functional ignorance, which he refers to as the 'specified ignorance as the express recognition of what is not yet known but needs to be known in order to lay a foundation for still more knowledge' and continues that the specific ignorance is 'often a first step toward supplanting that ignorance with knowledge' (Merton 1957, p. 417). Leaning on Smithons (1989), Roberts (2013) identifies two approaches to ignorance management. Ignorance management can be applied to maintain an organisation's cognitive order by suppressing perceptions and interpretations that threaten the status quo. This type of ignorance management may produce organisational efficiency, but does so at the expense of creativity. In contrast, ignorance management can also be used to encourage the exploration of the unknown. The rationale is to nurture curiosity and increase the organisation's ability to question the dominant views. It is believed that what an organisation may lose in the short term in terms of efficiency can be regained in the long term in innovation. In other words, ignorance can be emancipatory (McGoey 2014). Instead of sowing insecurity, the emancipatory dimension of

ignorance might help organisations to act on their limited knowledge and continue learning along the way (Pfeffer and Sutton 2006, p. 96–97).

The research literature provides several taxonomies that aim to represent a systematic organisation of ignorance. For example, Roberts (2013, p. 227–229) identifies three main sources of organisational ignorance. The first is *absence of knowledge* which can manifest as either ‘unknown unknown’ (what I don’t know I don’t know) or ‘known unknown’ (what I know I don’t know). The second is *ignorance about existing knowledge* and can take three forms: ‘knowable known unknown’ (I’m aware of my ignorance and I’m able to reduce it), ‘unknown known’ (what I don’t know I don’t know), and ‘error’ (I fail because of I misjudge the situation). The third form, *ignorance from suppressing knowledge* manifests as ‘taboos’ (I ignore an issue I assess to be suspicious or delicate) or ‘denial’ (I ignore an issue I find painful or harmful on a personal level).

In addition to taxonomies, researchers have scoped various types of ignorance. For example, Harvey et al. (2001) discuss four types of organisational ignorance. The first, *pluralistic ignorance* is essentially a psychological phenomenon that materialises as erroneous reasoning. This happens when group members mistakenly believe that their private thoughts, views, and behaviours differ from those of other members. Individuals motivated to behave according to norms are ignorant about other group members’ social motives to identify with the group. Pluralistic ignorance is due either to the fact that individuals do not know how much their own behaviour is affected by their need to belong to a group or to the fact that individuals do not understand that the behaviour of other group members is also socially motivated. The second, *populist ignorance* arises, intensifies, and spreads in interpersonal relationships. That means shared and accepted patterns of thought in the community feed a one-sided or erroneous interpretation of phenomena. Where pluralistic ignorance manifests itself as biased interpretations made by individuals, populist ignorance represents a systemically distorted interpretation of information. Third, *probabilistic ignorance* arises when individuals’ knowledge and experience produce an inability to interpret changes in the operating environment. Unlearning is difficult, and therefore, individuals tend to see patterns and regularities even where they do not exist. *Pragmatic ignorance* refers to the need to make choices based on uncertain and ambiguous information. It is typical in rapidly changing and complex decision-making situations where there is no time or other resources to devote to thorough information acquisition and analysis.

It is fair to state that ignorance in organisations has been addressed in different literature streams using different terms. For example, *uncertainty* has been a rather frequent theme in organisational studies for several decades (e.g., March and Simon 1993). This is notably the case with innovations whose value may or may not be realised in the future. Uncertainty results from the fact that events in the future do not follow past events, while knowledge of the future is always incomplete. It is therefore a process involving stepping into the unknown (Hurst 1982). Uncertainty manifests as a lack of information on the expectations and requirements of individuals and/or organisations that will ultimately adopt the innovation (Rogers 2003). Innovation also involves the renegotiation of power within and between organisations. For example, Katz and Allen (1982) investigated not-invented-here (NIH) syndrom, referring to

the tendency of organisations or individuals to avoid adopting external knowledge, technologies, or solutions, preferring instead to rely on their own internal resources and capabilities. The adoption of new ideas and technologies can be hindered by NIH, which can impede collaboration and information sharing. Similarly, Christensen (1997) argues that even successful organisations can struggle to adopt new technology or business models that disrupt their current industry. What is termed the ‘innovator’s dilemma’ results from organisations investing heavily in their current systems and strategies, meaning changing course can jeopardise current profits and market position. Consequently, organisations might opt to stick with their existing strategies rather than risk adopting new technologies, even if the innovations have the potential to be more successful in the long run. In other words, firms might resist information that might be useful if they deem it threatens their interests. In addition to uncertainty, *ambiguity* has been the subject of much research in organisation studies (e.g., Pondy et al. 1988, Alvesson 2001). Alvesson and Sveningsson (2003, p. 978) claim that ‘a high degree of ambiguity in organization may undermine the very idea or essence of leadership’. One major consequence of ambiguity is reduced efficiency and productivity, as leaders cannot communicate their roles and responsibilities to employees, or how tasks should be completed. Additionally, ambiguity can foster misunderstanding and miscommunication among employees and thus increase conflict and tension (Julmi 2021). The situation can then undermine morale and job satisfaction. Ambiguity can also damage an organisation’s reputation, as customers and stakeholders may perceive it to be disorganised and unreliable (Petkova et al. 2014). The *suppression of knowledge* has also been a topic of investigation within organisation studies for several decades. One of the main conduits of investigation has been the concept of organisational secrecy (Anand and Rosen 2008; Costas and Grey 2014), which refers to the methods organisations employ to protect sensitive information from employee, stakeholder, and public scrutiny. Research confirms that individuals with greater power and status are more likely to have their ideas and perspectives heard, while those with less power have their ideas dismissed or ignored. Overall, instead of ignorance, management studies literature has discussed various aspects of unknowing, referring either to situations that are naturally difficult to comprehend or identifying practices that are deliberately mobilised to inhibit knowledge sharing.

Intuitively it is obvious that every organisation faces ignorance, however, much less is known about the shapes of not-knowing and the concept’s impact on organisations. DeNicola (2018, p. 21) argues that understanding ignorance requires the specification of ignorance; by which he means that there is a need to focus on ‘*who* is ignorant of *what* and *when*’. In this study, the axes for the structure of ignorance will be organisations’ members’ ways of enacting ignorance (who), ignorance concerning tasks and processes relevant to organisations (what), and ignorance emerging in situations where decisions are made (when).

3 Research design

A systematic literature review is a rigorous and auditable method for evaluating and interpreting previous research relevant to a particular phenomenon of interest (Xiao and Watson 2019). The systematic literature review reported in this study integrates existing information and provides a holistic perspective on organisational ignorance.

Data collection: Three strategies were used to identify eligible articles. First, an electronic search in the Web of Science, Scopus and ProQuest databases was carried out focusing on the title, abstract and keywords of articles. The term [ignor*] was searched for along with the synonyms and closely-related terms for ignorance: [unknown* OR non-know* OR not-know* OR negligen* OR negligenc* stupid* OR fool* OR irrational* OR absurd* OR mad*]. The following terms were used to define the context of ignorance: [organiz(s)ation* OR company OR firm OR manage* OR leader* OR administra*]. The total number of articles meeting the selection criteria was 1,435. Second, a search of full texts was conducted, focusing on journals covering management, leadership, and organisations that were ranked as high-quality under the SCIMAGO Journal Rank. The same term strings were searched for in the title, abstract, keywords, and the full text. This strategy produced 786 studies. The third phase of the search consisted of asking three experts in the area of knowledge management to review the draft list of articles and to highlight additional studies, which led to a further 26 studies being included.

Selection criteria: The *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) approach (Moher et al. 2009) requires that articles should meet the following six criteria to be included in the review: (1) Field: Articles should study ignorance in *organisational contexts*. Aware of issues around delimiting the scope of the review, the author read the abstracts of each article in the initial dataset to identify articles that engaged convincingly with organisational ignorance. The process led to the exclusion of sociological studies on agnotology and psychological studies on personal traits. On the other hand, reading the abstracts and scanning the texts when necessary facilitated including studies addressing organisational ignorance while not exclusively focusing on it (e.g., organisational silence). (2) Topic: The studies included should focus on *organisational ignorance*. Studies that mainly investigated individuals' cognitive biases and limitations in human thinking were excluded. Drawing a line between organisational ignorance and associated organisational behaviour (e.g., irrational decision-making) was occasionally difficult. Borderline cases were resolved through discussions between author and research assistant. (3) Study design: quantitative and qualitative studies with primary or secondary data and reviews were included. Purely theoretical and conceptual studies were excluded. Language: only articles written in English were eligible. 5) Year of publication: articles were included that were published by the end of February 2022. 6) Publication types: only international peer-reviewed articles were included. Figure 1 describes the study selection method and process.

Data analysis. The first stage included an electronic search and the removal of duplicate articles. In the second stage, the articles were assessed to determine whether they met the eligibility criteria. The abstracts of 1989 articles were read, and short notes on the articles composed. In the third stage, an examination of the

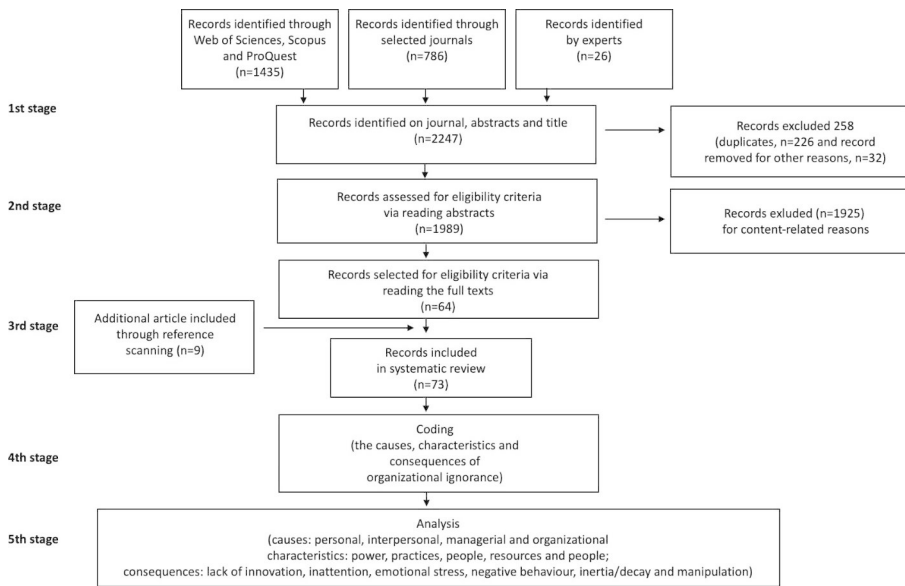


Fig. 1 Literature review process (PRISMA model, see Moher et al. 2009).

abstracts reduced the number of articles. Sixty-four additional articles were incorporated following reference scanning. An additional nine articles were included through reference scanning. In the third stage, all 73 articles were read in full. The fourth stage consisted of coding the articles included in the review. Each article was coded by identifying the causes, characteristics, and consequences of the organisational ignorance in question. *Cause* here refers to one who, or that which, acts, happens, or exists in such a way that some specific thing happens as a result; *characteristic* stands for pertaining to, constituting, or indicating the character or peculiar quality of a thing; *consequence* means the effect, result, or outcome of something occurring earlier (Webster's 1996). In the final stage, abductive reasoning (Aliseda 2006) was employed to elaborate on the findings. A sample of studies was analysed to derive some hunches (Sætre and Van de Ven 2021, p. 684), which were subsequently used as a basis for grouping the data into inductively derived sub-categories. Personal, interpersonal, managerial, and organisational factors were sub-categorised as causes of organisational ignorance. Power, practices, people, resources, and culture-related issues were labelled the characteristics of organisational ignorance. Lack of innovation, inattention, negative behaviour, inertia, and decay and manipulation served as sub-categories of the consequences of organisational ignorance.

4 Results and synthesis

Before offering a detailed discussion, some general features of the reviewed literature are presented here. The reviewed studies were published in various high-impact journals, including the Academy of Management Journal, Strategic Management

Table 1 Causes, characteristics, and consequences of organisational ignorance

Cause	Characteristic	Consequence
Personal (31 studies)	Power (39 studies)	Lack of innovation (13 studies)
Interpersonal (20)	Practices (29)	Inattention (15)
Managerial (15)	People (10)	Emotional stress (5)
Organisational (22)	Resources (15)	Inertia/decay (22)
	Culture (14)	Manipulation (19)

Journal, Academy of Management Review, and Journal of Management. The Journal of Organisational Behaviour (n=7), Journal of Knowledge Management (n=7) and Organisation Studies (n=6) were the most popular journals. *The purpose* of the studies varied from identifying various manifestations of organisational ignorance (e.g., knowledge hiding and hoarding) to investigating reasons (e.g., individual and relational factors) and outcomes (e.g., organisational myopia and forgetting) of ignorance. While the reviewed studies featured diverse *theoretical underpinnings*, the most common theoretical basis was organisational behaviour (e.g., social exchange theory and organisational citizenship behaviour). The reviewed studies investigated *various industries*, such as manufacturing, finance, and high technology. While most studies focused on the private sector, public sector organisations were covered too. The *size of organisations* varied from SMEs to multinational companies. *Methodologically*, the studies reviewed included qualitative studies (n=41), quantitative studies (n=22), mixed methods forms (n=4) and reviews (n=2). Examining the *publication year* reveals that the popularity of studying organisational ignorance has increased recently; 68% of the studies reviewed were published after 2010.

Table 1 summarises the frequency of causes, characteristics and consequences of organisational ignorance identified in the literature. The details of the reviewed studies can be found in Appendix 1.

4.1 Causes of organisational ignorance

Personal motives manifest as something that prompts individuals to act in a certain way that may contribute to organisational ignorance. First, the *fear* of being labelled negatively and a *wish to avoid criticism and conflicts* lead many employees to remain silent, negatively affecting organisations' ability to spot issues and concerns (Milliken et al. 2003; Bari et al. 2020). According to Kish-Kephart et al. (2009, p. 168–172), a fear reaction is triggered when individuals process threat cues in their environment. Individuals react to the severity and immediacy of the threat and develop various defensive responses to fear including non-deliberative (automatic and non-conscious psychological retreat), deliberative (intentional and conscious choices to try to protect oneself) or schema-driven silence (a cognitive structure that quickly determines the appropriate course of action). Fear can also be felt by managers; for example, Morrison and Milliken (2000, p. 708) find that organisational silence is an outcome that owes its origins to managers' fear of negative feedback and a set of implicit beliefs often held by managers.

Second, organisational ignorance can be traced back to *vested interests*; as when individuals' knowledge behaviour is motivated by an aspiration to increase their

power and influence in the organisation. Hernaus et al. (2018) identified the detrimental relationship between personal competitiveness and evasive knowledge hiding. Evans et al. (2015) observed that individuals' job performance can be enhanced through knowledge hoarding. Toma and Butera (2009) found that protecting one's preferences leads to concealing information. Yan et al. (2020) showed that individuals may prefer to maintain their knowledge advantage by hiding their core knowledge. A vested-interests perspective represents the strategic use of ignorance. Davies and McGoe (2012, p. 66), for example, note that sometimes ignorance can '[prove] to be an asset rather than a liability'. This happens when individuals nurture and exploit ignorance for their own purposes, instead of focusing on reducing ignorance. The approach can be justified as a way of diverting liability for one's actions in the aftermath of a crisis (McGoe 2007, 2012a).

Third, individuals can develop *psychological knowledge ownership* that can lead to knowledge hiding. Peng (2013), Anand et al. (2020) and Garg et al. (2021) explain how individuals who acquire and create knowledge relevant to their tasks can develop a sense of proprietary ownership of their knowledge; in other words, the knowledge in question becomes part of the individual's 'extended self' (Peng 2013, p. 401). It is worth noting that individuals who feel psychological knowledge ownership are not motivated by wishing to harm others but by a desire to protect themselves (e.g., Connelly et al. 2012). Self-protection can also be evoked by ignoring issues framed as someone else's responsibility or otherwise inappropriate (Essén et al. 2022, p. 732–733).

Interpersonal relations relates to something that existed or occurred between individuals. First, several studies report that *distrust* within organisations contributes to negative knowledge behaviour. Connelly et al. (2012), for example, demonstrate that distrust is one of the main reasons for various forms of knowledge-hiding behaviour, such as evasive hiding, rationalised hiding, and playing dumb. Similarly, Fong et al. (2018) identified detrimental behaviour caused by distrust. The study reveals that distrust between employees encourages them to share unimportant knowledge but hide vital knowledge (ibid., p. 333).

Second, the biased perceptions of others' doing and thinking may prompt behaviour that paves the way for organisational ignorance. Harvey et al. (2001), Westphal and Bednar (2005), Zhu and Westphal (2011), and Zhu et al. (2019), among others, argue that *social comparisons* tend to increase behavioural conformity in an organisation, which manifests as a hesitancy to express concerns until at least some other person expresses the same concerns.

Third, it has been demonstrated that *reciprocal acts* between individuals can create vicious circles (Masuch 1995). A vicious circle appears when individuals do things that are interpreted by others in a way that has unintended and undesired outcomes for all (or most) of the participants. Fourth, as knowledge is not owned by organisations but by individuals, there is always a dilemma around when people should share what they know. According to Rhee and Choi (2017, p. 813), the *knowledge-sharing dilemma* arises 'because once knowledge is shared, it becomes public goods that can be accessed and used freely by others, including competitors'. The sharing dilemma can be shown to be enduring, particularly when a conflict between individuals 'turns

information pooling into an arena of motivated, strategic behaviour’ (Steinel et al. 2010, p. 85).

Managerial practices pertains to acts or the manner of managing, handling, directing, or controlling. First, a tendency to reject *dissent information* was found to be a typical managerial practice that may contribute to organisational ignorance (Morrison and Milliken 2000). The practice effectively diminishes an organisation’s ability to spot threats and opportunities emerging in its environment. When managers limit their attention (Desai 2010), narrow their focus (Meckler and Boas 2020), or do not convey what is expected to their subordinates, they simultaneously direct energy away from finding answers to relevant problems ‘to protect(...) their interests’ (Nutt 1999, p. 75). To paraphrase Rayner (2012, p. 108–111), it is a question of uncomfortable knowledge which is actively excluded because it is seen as threatening organisational arrangements and the organisation’s ability to pursue its goals.

Second, managerial practices can be *symbolic*. Schaefer (2019) introduces an interesting concept of “wilful managerial ignorance”, describing it as behaviour that supports symbolic work and manifests as ‘the active and continuous separation of verbal activity and concrete practices’ (ibid., p. 1387). While symbolic work plays in the hands of managers by providing legitimacy (Brown 1994), it has been suggested that managers should resist wilful ignorance because it can lead to organisations becoming stuck in the past (Shaefer 2019, p. 1402).

Third, sometimes managers undertake *malicious leadership behaviour* that puts their subordinates in impossible situations. Julmi et al. (2021), for example, investigate what they term a ‘paradoxical leadership’, which is based on a communication strategy utilising double-bind rhetoric. Paradoxical leadership cultivates situations where ‘followers are trapped in a paradox: they have no possibility of doing what is right, but can always be made responsible by their leaders for wrong decisions’ (ibid., p. 631). In addition to emotional stress felt at the individual level, double-bind situations contribute to a culture of silence at the organisational level increasing the risk of functional stupidity, which manifests as ‘an absence of reflexivity, a refusal to use intellectual capacities in other than myopic ways, and avoidance of justifications’ (Alvesson and Spicer 2012, p. 1194). Rather similarly, Padilla et al. (2007) developed a concept of ‘the toxic triangle’ to refer to the combination of destructive leaders, susceptible followers, and a conducive environment.

Organisational factors appear as acts, processes, or structures of organising. First, several studies identified various *organisational performances* that allowed ignorance to emerge. Essén et al. (2022), for example, identified profession-specific norms that legitimised not interfering in another’s business. This kind of ‘laissez-faire professionalism’, as the study refers to it, effectively blocks views that potentially challenge the dominant view of the profession. One rationale for the dominance of certain views, is provided by Knudsen (2011, p. 963), who argues that ‘information is not only something organisations need, but may also be something they protect themselves against’. Knudsen asserts that organisations tend to develop ‘category-related blindness’, which arises as an inevitable side effect of observation. The conceptualisation is also in line with Schwarzkopf’s (2020, p. 198) findings that organisational ignorance can manifest as the absence (apousia) of information and the excessive presence (parousia) of information. In many cases, detrimental organisational per-

performances result from incentives that reward maladaptive knowledge behaviour. Ordóñez et al. (2009) reports that flawed goal-setting contributes to organisational ignorance by producing a narrow focus that neglects non-goal areas. Similarly, Cerne et al. (2014) unveiled a performance climate that incentives for individuals to hide, not share, knowledge. Feldman and March (1981) and (Essén et al. 2022), among others, suggest that incentives can encourage people to gather more information than is optimal in a given situation. Producing more information than is needed is one way of cultivating strategic ignorance (McGoey 2007, 2012a).

Second, organisations' *structural arrangements* limit their knowledge behaviour. Giabuschi et al. (2011, p. 958) suggest that when different organisational units lack not only relevant knowledge but also do not know what knowledge is required, they suffer from 'sheer ignorance'. This happens, for example, when an organisation's headquarters intervenes in 'subsidiary innovation processes *despite* its lack of knowledge, rather than *because of* its possession of relevant knowledge' (ibid., p. 959). Morrison and Milliken (2000, p. 709) argue that organisational silence can be traced back to the centralisation of decision-making and the lack of formal upward feedback mechanisms. In addition, Kish-Kephard (2009) and Azevedo (2020) point to the role of organisational hierarchies. According to Azevedo (2020), for example, hierarchical structures maintain social status, which may lead to 'a self-fulfilling prophecy, the power captured by those who control information often justifies the very existence of the hierarchy that legitimates their privileged access to the information' (ibid., p. 393).

Third, organisations may succumb to *non-learning activities*. Organisations can then ignore both problems and the solutions to them (Brunsson 1998, p. 421). Non-learning happens when organisations alienate themselves from issues that must be attended to in the future. Different kinds of issues prompt different kinds of non-learning. To adapt Bansal et al. (2018), it can be argued that the likelihood of organisational non-learning increases the greater the temporal and spatial scale of the underlying processes related to the issues. The scenario occurs because limited attention resources narrow the organisational gaze to those issues that are temporally and spatially close. A possible consequence is being vulnerable to surprises that result from 'a lack of attention rather than a lack of knowledge per se' (Cunha, 2006, p. 318). Non-learning can also happen when an organisation loses its memory. Research work suggests the concepts of 'institutional amnesia' and 'organisational forgetting' (Pollitt 2000; Stark and Head 2019), referring to the situation where an organisation is unable to make use of knowledge it has accumulated.

4.2 Characteristics of organisational ignorance

Power-related issues manifest as formal and informal power relations within and outside organisations. First, *knowledge hiding* results from distrust between individuals, but it was also identified as a major example of power in action within organisations. Evans et al. (2015), Fong et al. (2018), Burmeister et al. (2019), and Anand et al. (2020) are among those reporting several situations where individuals, co-workers, subordinates, or superiors deliberately deployed some form of knowledge hiding for personal gain (examples include evasive hiding, rationalised hiding, bullying hiding

or playing dumb, see Connelly et al. 2012, Yan et al. 2020). Instead of individual cases, knowledge hiding worked as an act for generating processes of retaliation and escalation. It was found that individuals who were victims of knowledge hiding tended to withdraw and retaliate in response to rejection (Connelly and Zweig 2015, p. 486).

Second, the reviewed studies identified *strategic ignorance*, which arose when ignorance was deliberately produced and curated. Scheel and Ustek-Spilda (2019) investigate the politics of expertise and identify four tactics for producing strategic ignorance: omission appears as a behaviour where something relevant was dismissed; compression manifests as an inappropriate reduction of diversity of knowledge; deflection is used to divert attention away from any knowledge seen as threatening dominant interests; and sanitisation occurred when knowledge was not transferred among epistemic communities. McGoey (2007, p. 229–231) categorises strategic ignorance into three dimensions: liminal ignorance refers to presenting half-knowledge and chimerical knowledge; factual ignorance manifests as exploiting the political usefulness of conditionality; and defensive ignorance arises from errors and difficulties in the interpretation of conflicting facts and is used for exoneration.

Third, individuals' perceptions of their power influence their knowledge behaviour, thus contributing to organisational ignorance. The instrumental value of (non) knowledge was found to be one of the key factors enabling individuals to play *power games*. This scenario is most typical in organisations using 'performance-prove goal orientation' (Zhu et al. 2019), the 'power-politics of not-knowing' (Lange 2016), and 'organisational cynicism' (Jiang et al. 2019). The perception of losing bargaining power was seen as an obstacle to knowledge sharing. Relatedly, Offergelt et al. (2019, p. 828) show that leaders can signal their expectation that knowledge withholding is acceptable.

Practice-related activities pertain to official procedures and enacted habits that guide knowledge behaviour in organisations. First, several studies focused on organisations' inability to handle *uncomfortable knowledge*. Applying Festinger's (1962) definition of cognitive dissonance (information that contradicts the beliefs, ideas, or values that people hold), Chong et al. (2018, p. 291) identified the regulatory tactic of simplifying complexity by lumping "all unknowns into the same category, making it easier to displace". Although this kind of displacement of uncomfortable knowledge can happen both deliberately and unintentionally, many studies also identified specific tactics. Rayner (2012), for example, described four strategies for holding uncomfortable knowledge at bay. Organisations rely on a denial strategy when they refuse to acknowledge information that could disrupt their established practices (ibid., p. 115–116). When they apply a dismissal strategy, organisations recognise the existence of uncomfortable knowledge, albeit they reject it by claiming its unreliability, questioning its relevance, and arguing against its applicability (ibid., p. 116). Diversion rests on a decoy strategy that distracts attention from an issue in a way that knowledge about it is not created or shared (ibid., p. 118). Organisations that apply a displacement strategy rely on activities and practices designed to inform management about real-world events, which instead become objects of management, a kind of 'manageable surrogate' (ibid., p. 120). Similarly, Kutsch and Hall (2010) identify practices for creating irrelevance. The practices involve framing an issue as

untopical, undecidable, taboo, or useless. Organisations developing habits to handle uncomfortable knowledge resonates with the idea that ignorance can be a commodity used for emancipatory purposes (McGoey 2012b).

Second, *organisations' processes of directing their attention* can be biased. Knudsen (2011) addresses forms of inattentiveness by identifying 'organisational blindness' arising for political reasons, limited capacities, categories used in observation and self-imposed blindness to potentially destructive information. Cunha et al. (2006) point out that organisational surprises do not happen only owing to their characteristics but due to organisations' tendency to direct attention towards those issues that can be predicted and controlled. Bansal et al. (2018), recognise that critical issues can go unnoticed either due to their magnitude or their smallness. Meckler and Boal (2020) suggest that how organisations manage their attention correlates with decision errors, which may, in turn, lead to 'iatrogenesis outcomes' (unintentional and adverse outcomes of well-intended actions).

Third, several studies report *learning habits* that paved the way for organisational ignorance. De Holan and Phillips (2004, p. 1606), for example, addressed organisational forgetting defining it 'as the loss, involuntary or otherwise, of organisational knowledge'. Forgetting undermines an organisation's ability to absorb new knowledge and makes it inclined to stick to old routines (ibid., p. 1607). Levinthal and March (1993) identify three forms of learning myopia, that is, the tendency to overlook distant times (temporal myopia), distant places (spatial myopia) and failures (failure myopia). Brunsson (1998, p. 421) argues that non-learning organisations have 'developed a proficiency for ignorance', which allows them to 'ignore problems and solutions to problems'. Ganz (2018) approaches organisational (non) learning through the lens of 'educated inertia' and explains that it occurs when 'environmental variability is high, when learning about existing policies does not also teach about potential policy alternatives, and when organisation members are risk averse' (ibid., p. 40).

Fourth, several studies discuss the role of *misguiding incentives* for gathering and sharing information. A common theme of these studies is that incentives produce unintentional and harmful knowledge behaviour. Feldman and March (1981), for example, suggest that organisations systematically gather more information than they use. This happens either because the costs and benefits of information behaviour are not 'incurred at the same place in the organisation' or because post-hoc accountability encourages individuals 'to have information that is not needed than not to have information that might be needed' (ibid., 175–176). Feldman and March view incentives as a key factor in using information in organisations as a signal and symbol.

People-related factors relate to assumptions and flaws that influence people's thinking and actions. First, an inability or unwillingness to engage with the *unknown* was reported in many studies. Israilidis et al. (2015), for example, find a direct relationship between employees' ignorance (i.e., 'lack of knowledge, ignorance or education which implies lack of awareness about something and not the ability to understand', p. 1110) and their participation in knowledge-sharing activities. The more ignorance, the less participation there was. O'Dell and Grayson (1998) highlight ignorance at both poles of knowledge sharing. The study identifies many cases where 'neither the "source" nor the "recipient" knew someone else had knowledge

they required or would be interested in knowledge they had' (ibid., p. 155). In addition, a limited absorptive capacity of the recipient and a poor relationship between the actors were reported as obstacles to knowledge sharing. Envisioning the practices of evidence-based management, Pfeffer and Sutton (2006) identify the management of half-truths and nonsense. One cause is people's reluctance to confront disturbing facts (ibid., p. 80).

Second, several studies reported ignorance stemming from individuals' assumptions that their private thoughts differ from those of others. *Pluralistic ignorance*, as it is called (e.g., Harvey et al. 2001), was reported among others by Westphal and Bednar (2005) and Zhu and Westphal (2011). Pluralistic ignorance becomes a problem when it contributes to behavioural conformity in an organisation in a context where diversity is needed. Investigating corporate boards, Westphal and Bednar (2005) found that pluralistic ignorance produces strategic stubbornness by reducing the odds that board members will express their concerns. Ignoring the signals of deteriorating performance also decreased the likelihood that boards would initiate strategic change.

Resource-related matters materialise as the distribution and allocation of tangible and intangible means. First, many studies emphasise the *intangible nature of knowledge*. In contrast to physical goods, knowledge is a fluid and constantly changing element in the organisation and can only partially be stored. Cunha (2006, p. 320), for example, described the impossibility of storing knowledge by defining knowledge as 'an emergent property of interaction', which also implies that ignorance is an intrinsic element in social organisations (Robertson 2013, p. 216, see also Mooren and Tumin, 1949). This argument is supported by the findings of Harvey et al. (2001), who conclude that pragmatic ignorance appears when a course of action or inaction is required in a rapidly changing and complex situation where knowledge cannot be acquired in a timely manner (ibid., p. 456–457).

Second, *organisational design* was found to be potentially problematic for managing knowledge and opposing ignorance. O'Dell and Grayson (1998), for example, point to the organisational silos that consciously or unconsciously create an atmosphere that encourages hoarding information and suboptimal behaviour. For Pfeffer (1996), organisational silos and hierarchical barriers explain why even smart organisations occasionally do dumb things. Garrett (2004), in turn, suggests that the core nature of problems in modern organisations reflects differences in knowledge between executives, managers, and workers. Applying the concept of 'knowledge analytic', Garret (2004, p. 391) shows how compatibility problem arises when "executives know the ideal product, managers know the means as objects, and workers work" but no one has an overall view of what is happening. Differences in the knowledge situation between organisational units produce behaviour akin to "groping in the darkness" (Giabuschi et al. 2011, p. 962).

Third, several studies report challenges finding a balance between available information and an *organisation's capacity to absorb and interpret the information*. Schwarzkopf (2020, p. 210), for example, identifies the paradox of ignorance as 'the fact that accumulating ever more data, information and knowledge actually heightens people's sense of ignorance, hence creating the need to gather yet more data, requires us to acknowledge ignorance as a dialectic process in which absence, lack and dearth

can beget an overflowing presence and vice versa'. Desai (2010) highlights the limits of organisational resources by analysing how complaints were used to improve organisational behaviour. The study reports that a lack of resources adversely affects the organisation's ability to direct attention away from experience with complaints about focal issues. Similarly, Bansal et al. (2018) identified that organisations' limited attentional resources limited their ability to spot temporally or spatially distant issues.

Culture-related aspects appear as the cumulative deposit of experience, beliefs, values, attitudes, and meanings that determine how the organisation works. First, various *myths and rituals* provided organisations with a means to use knowledge – deliberately and unintentionally – and for purposes other than improving the quality of decisions. Brown (1994), for example, identifies that symbolic actions and myth-building are used to manipulate other parties' understanding of complex organisational events and create a rational façade for irrational and uninformed decisions. Similarly, Feldman and March (1981) pointed out the ritualistic use of information. Instead of a rational assessment of the costs and benefits of information activities, Feldman and March (1981, p. 171) argue that 'organisations systematically gather more information than they use'. Irrational aspects of organisational behaviour also appear as nonsense (Azevedo 2020) and taboos (Schoemaker and Tetlock 2012), and wilful ignorance (Schaefer 2019), which limit organisations' ability to identify threats and opportunities.

Second, several studies observe an *organisational climate* that paves the way to organisational ignorance. O'Dell and Grayson (1998) identify a culture supporting not-invented-here syndrome and discouraging learning among others. Morrison and Milliken (2000) and Milliken et al. (2003) report a culture of silence that manifests as a shared perception that voicing concerns is unwise. Cerne et al. (2014) analyse a motivational climate that contributes to knowledge hiding by fomenting distrust between actors. Chong et al. (2018) identify a culture where ignorance is socially constructed through negotiations between researchers and practitioners.

4.3 Consequences of organisational ignorance

Lack of innovation and creativity manifests as a deficiency or lack of something new, necessary, and desirable. The situation results from either an unwillingness to share new ideas or adherence to old knowledge. Cerne et al. (2014), Rhee and Choi (2017), Fong et al. (2018), and Bari et al. (2020) address the relationship between innovation and knowledge-sharing behaviour. All show how knowledge hiding contributed to decreasing organisational creativity. Cerne et al. (2014, p. 175) argue that organisations suffer a lack of creativity because of knowledge hiding engendered by distrust among organisational members. Rhee and Choi (2017, p. 815–823) approach the relationship from different goal orientations and find that avoiding a goal orientation (individuals fear that their incompetence may be revealed) and a performance-prove goal orientation – where individuals compete to register higher performance than their colleagues – were positively related to knowledge hiding and manipulation (ibid., p. 815–823). Applying Cohen's and Levinthal's (1990) study, Fong et al. (2018, p. 331–332) explain the relationship by way of the narrowing of an organisation's absorptive capacity. Bari et al. (2020, p. 2184–2185) identify that a psychologi-

cal contract breach acted as a mediator between knowledge hiding and organisational silence, which severely damaged the creativity and innovation of the organisation. Some studies also reveal knowledge behaviour that was not intended to hide or hoard knowledge but more resembles an over-reliance on existing knowledge resources. De Holan and Phillips (2004), for example, emphasise the role of organisational forgetting, in which purposeful forgetting is critical for innovation to occur, but difficult to execute because of ‘deeply embedded pieces of organisational knowledge are held in place by various other pieces of organisational knowledge that depend on them’ (ibid., p. 1608).

Inattention refers to neglecting something important, whether opportunities or threats. Inattention can take various forms. Some studies argue that inattention manifests in organisational myopia or blindness (e.g., Levinthal and March 1993, McGoey 2007, Knudsen 2011). Levinthal and March (1993) describe how organisations aim to balance developing new knowledge and exploiting current competencies by using two mechanisms of learning – simplification and specialisation. The study reports that while simplification and specialisation improved organisational learning, the same mechanisms also lead to three forms of learning myopia, the tendency to overlook distant times, distant places, and failures (ibid., p. 101–105). Levinthal and March conclude that learning myopias hamper organisations’ ability to maintain an appropriate balance between explorative and exploitative activities, particularly at the expense of adequate exploration (ibid., p. 110). Knudsen (2011) argues that blindness can result from incapacity to see and comprehend or from deliberative actions. He documents three different types of blindness: organisational power games cause political blindness, and restrictions in human cognition produce limited-capacity blindness. The third form, category-related blindness, is contrasting, in that it arises as a side effect of categories applied in observation (ibid., p. 965). In addition to myopia and blindness, the reviewed studies reported the problem of missing issues (Bansal et al. 2018), pathologies of organisational learning and educated inertia (Gantz, 2018), systemic silence (Morrison and Milliken 2000), habituated silence (Kish-Kephart et al. 2009) and organisational fetishes (Schwarzkopf 2020).

Emotional stress arises when individuals perceive that they cannot cope adequately with the demands working in an organisation places on. Burmestier et al. (2019, p. 295) found that knowledge hiding evokes guilt and shame, while Offergelt et al. (2019, p. 822) showed how knowledge hiding reduces job satisfaction and weakens perceptions of psychological empowerment. Yan et al. (2020, p. 3264) identified the connection between knowledge hiding and knowledge requesters’ self-esteem and self-confidence. Julmi (2021, p. 647) report paradoxical leadership leads to feelings of powerlessness, role conflicts, depression and burnout. Kish-Kephart et al. (2009, p. 167) suggests that individuals tend to remain silent due to the risks of negative labelling, retaliation, or loss of social capital. Gabriel (2012, p. 1137) takes a step further by arguing that individuals can suffer from organisational miasma which manifests as a paralysis of resistance, feelings of pollution and uncleanness, and of disgust, worthlessness, and corruption.

Inertia and decay refer to an organisation’s inability to make changes that prevent organisational decline. Unsurprisingly, several studies linked organisational ignorance with flawed decision-making. Scholars argue (e.g., Feldman and March 1981,

Brown 1994, Nutt 1999, Westphal and Bednar 2005, Meckler and Boal 2020) that ignorance manifests as stupid, irrational, and failed decisions. Mathiesen and de Haas (2021) addressed the irrationality of decision-making using the concept of superfluous work, that is, a kind of hidden waste, determined by assessing the gap between necessary work and work actually performed. Masuch (1995) reasoned that organisational ignorance can foster vicious circles of different types leading to various structural flaws in organisations, such as underperformance and stagnation. Pollitt (2000, p. 6) reports on institutional amnesia, meaning the ‘declining ability or willingness of public sector institutions to access and make use of possibly relevant past experiences’. Stein (2003) and Cunha et al. (2006) find that organisational ignorance exposes organisations to surprises that can cause organisational catastrophes. Several studies document detrimental changes in organisational citizenship behaviour. Some articles identify (e.g., Davies and Connelly 2015, Burmestier et al. 2019, Arain et al. 2020) that deceptive knowledge hiding contributes to a reduction in employees’ pro-social and ethical behaviour, which in turn adversely affects knowledge co-creation. Similarly, Evans et al. (2015) and Holten et al. (2016) reasoned that withholding behaviour such as knowledge hoarding happens because it engenders a reduced justice experience and enhances an individual’s bargaining power and influence.

Knowledge manipulation refers to the strategic use of nonknowledge to influence a course of events. Brunsson (1998) addressed ignorance as a precondition for non-learning and stated that non-learning manifests in organisational procedures involving ‘problems...passed on to somebody else and moved into the future’ (ibid., p. 428). While the connotation of non-learning implies unproductive behaviour, Brunsson (1998, p. 430–431) concludes that non-learning creates the tolerance of contradictions, enables organisational discretion, and works as an emancipatory force. Similarly, McGoey (2007, 2012a, 2012b), Lange (2016), and Scheel and Ustek-Spilda (2019) discuss the strategic advantages of curating ignorance. Strategic ignorance can take several forms including liminal ignorance (the public dissemination of non-knowledge), factual ignorance (the political use of conditionally), defensive ignorance (using nonknowledge to exonerate someone) (McGoey 2007, p. 229–231), and knowledge alibis (the ability to defend one’s ignorance by mobilising the ignorance of higher-placed experts) (McGoey 2012a, p. 564–564). Manipulative use of ignorance does not always have to be directed at others. Essén et al. (2022), for example, analysed how actors explain and justify ignoring the knowledge they produced. By using the concept of self-inflicted ignorance they identified present-oriented rationales (it’s not my job – it’s someone else’s; it wouldn’t be right – who am I to interfere?) and future-oriented rationales (it may become useful in the future for someone out there; the system protects me – worse things could happen if we question it) for ignoring knowledge they have been involved in producing (ibid., p. 732–735). Whether directed at others or oneself, the strength of ignorance arises from its limitlessness (Davies and McGoey 2012, p. 80).

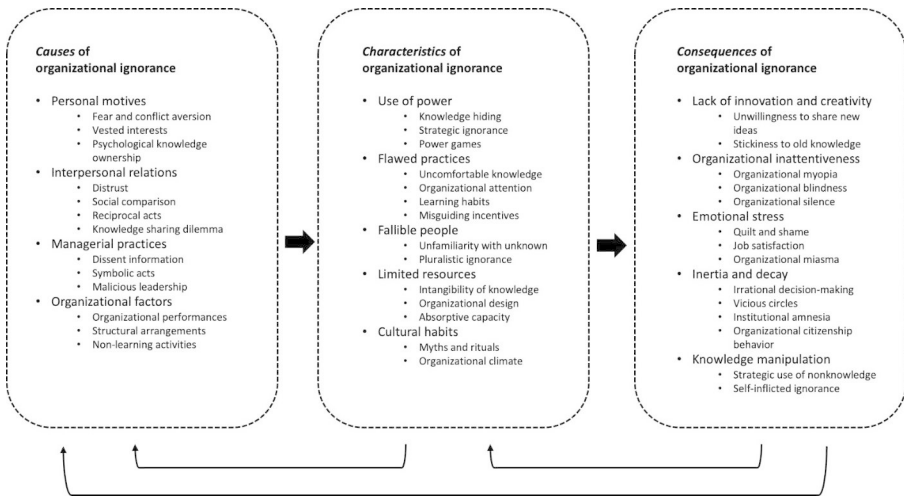


Fig. 2 The causes, characteristics, and consequences of organizational ignorance.

5 Discussion and conclusions

Ignorance maybe easy to recognise in practice, but difficult to define exhaustively. This study analysed the *causes*, *characteristics*, and *consequences* of organisational ignorance. Figure 2 summarises the key findings of the review. Personal motives, interpersonal relations, managerial practice, and organisational factors were identified as sources of organisational ignorance. Organisational ignorance manifested in the use of power, flawed practices, fallible people, limited resources, and cultural habits. Lack of innovation and creativity, organisational inattentiveness, emotional stress, inertia and decay, and knowledge manipulation were some of the consequences of organisational ignorance.

While the causes, characteristics, and consequences are depicted as separate elements, the reviewed studies suggest some interdependence. For example, leaders' personal motives (*a cause*) enabled managerial practices (*a cause*) that manifested as the use of power (*a characteristic*) and produced manipulative knowledge behaviour (*a consequence*). Similarly, many organisational factors (*causes*) feed into cultural habits (*characteristics*), leading to organisational inattentiveness (*a consequence*). Organisational ignorance seems to epitomise an action structure where 'the basic element is the action loop, not the singular act' (Masuch 1995, p. 15). Organisational ignorance typically occurs when causes are linked to each other, thus paving the way for various forms of not-knowing; a usage that in turn has several consequences.

It has been said that 'ignorance is not such a bad thing if one knows how to use it' (Peter Drucker in Cohen 2007, p. 59). Analysing various causes, diverse characteristics and multiple consequences of organisational ignorance can be seen as an endeavour to 'tame' ignorance. In addition to analysis of prior research, systematic reviews should aim to influence the conversation in the field. For example Post et al. (2020, p. 353) encouraged researchers to 'condense the wealth of information that they have learned through the review into an interesting, meaningful, and potentially actionable

		MANAGEABILITY	
		INTENTIONAL	UNINTENTIONAL
DYNAMICS	EXPANDING	DESIGNED IGNORANCE Ignorance as resource Manufactured knowledge	EMERGENT IGNORANCE Ignorance as contagion Complex non-knowledge
	BOUNDED	DEFENSIVE IGNORANCE Ignorance as excuse Uncomfortable knowledge	CONTINGENT IGNORANCE Ignorance as limit Simple non-knowledge

Fig. 3 The dynamics and manageability of organizational ignorance.

format'. While the transformation of knowledge on ignorance into 'praxis' is reminiscent of squaring the circle, it can be supported by 'exposing emergent perspectives' (ibid., p. 358). Below that has been done by reflecting on how the ignorance is embedded in organisational processes and discussing various modes of organisational ignorance. Figure 3 depicts four modes of ignorance – *defensive*, *designed*, *contingent*, *emergent* – based on the *dynamics* and *manageability* of ignorance. Dynamics – the pattern of evolution – varies from bounded deliberation to expanding circles, whereas manageability – the opportunity of control – ranges between intentional acting and unintentional repercussions.

When the dynamics are seen as bounded and ignorance as an intentional tactic, it is reasonable to speak of *defensive ignorance*. It is governed by behaviour through which individuals exonerate themselves from unpleasant situations. Ignorance is rationally and wilfully invoked as an *excuse*. Typically this happens when individuals face *uncomfortable knowledge* that threatens their interests in some way. Defensive ignorance produces a cognitive comfort zone that helps individuals avoid unwelcome issues. If ignorance is intentionally crafted and the dynamics are expanding, the question is one of *designed ignorance*. The manageability of designed ignorance is based on individuals' ability to nurture ignorance in their favour. Ignorance is used not to exonerate individuals but strategically and tactically to advance their agendas. Ignorance becomes a *resource*. Typically this is a case where knowledge is *manufactured* by intentionally producing doubt over an issue. While defensive ignorance provides a kind of discharge of liability, designed ignorance represents a strategic ploy activated when there is a need for obfuscation. The implementation of designed ignorance varies from keeping secrets to exposing rumours. As a consequence, the combination of hiding and sharing tactics creates an information environment where relevant knowledge is buried in irrelevant information. In *contingent ignorance*, the dynamics are bounded, but ignorance is an unintended result. Contingent ignorance appears as *simple nonknowledge* and limits individuals' behaviours. The terms *simple* and *simply* as used here are not intended to suggest that ignorance is easily manageable, but that the frontiers of knowledge are 'natural'. Something is not known due either to the unknowability of things or to individuals' lack of cognitive ability. In contrast to the defensive and designed forms of ignorance, the boundaries of con-

tingent ignorance are not deliberately drawn. Those boundaries appear contingently based on the self and the world. Consequently, contingent ignorance can encourage curiosity but can also lead to a culture where individuals play safe and do not admit their ignorance. *Emergent ignorance* signifies a situation where the dynamics are expanding and the ignorance is unmanageable. Nonknowledge is *complex* because of the interdependencies between people and the clusterisation of events. While in the case of designed ignorance, the dynamics of ignorance are used tactically for certain purposes, in emergent ignorance, the dynamics happen in a *contagion* process. Contagion is an unguided process producing ignorance that cannot be reduced to the ignorance of individuals. As ignorance emerges through a cyclical process and self-reinforcing feedback loops, it may also trigger vicious circles. The division of organisational ignorance into four modes represents a kind of ‘organisational archaeology’ (Harvey et al. 2001) revealing the cognitive structures and informal mechanisms of organisations limiting their perception and interpretation of events.

Roberts suggested that ‘the negative connotations that accompany the concept of ignorance no doubt go some way to accounting for its neglect’ (2013, p. 216). However, the study of ignorance in organisations can be valuable for practitioners in several ways. First, understanding it would help practitioners comprehend the causes and consequences of ignorance and how it can impact decision-making and organisational performance. This understanding can then be used to identify and address sources of ignorance within the organisation, which, in turn, can be seen as a necessary, but not adequate, condition for the ‘knowing organisation’ envisaged by Grant (1996), Choo (1996) and many others. In practice, the knowledgeable organisation must implement processes and structures that encourage the identification of ignorance. Hence, this study suggests that both organisations and knowledge brokers (e.g., Meyer 2010) could benefit from establishing the position of ‘ignorance arbitrator’ whose task would be to mitigate the schisms related to not knowing. In contrast, to facilitate the creation, sharing, and use of knowledge (Sverrison 2001), the ignorance arbitrator could apply the behavior described by March (1976) as ‘the technology of foolishness’. The technology of foolishness contrasts with reason and logical thinking by utilizing ‘playfulness and the rejection of accepted knowledge and practices in favour of the irrational and unknown’ (Roberts 2013, p. 221).

Second, the study of ignorance in organisations can help practitioners foster a culture of curiosity and learning (cf. ‘exploitation v exploration’, March 1991). By recognizing that there will always be areas where they do not have all the answers, practitioners could encourage a more open and exploratory approach to problem-solving and decision-making. Doing so could help organisations remain agile and adaptable and create a more positive and engaging work environment for employees. It is also possible that a more nuanced view of ignorance could contribute to organisations’ knowledge management practices.

Third, research on ignorance in organisations enables practitioners to develop strategies to mitigate its effects. For example, practitioners can use scenario planning or other analytical techniques to anticipate sources of ignorance. A constructive scenario planning process should be a collective endeavour where all stakeholders have a role (Schoemaker 1995, p. 38). Otherwise, there is a danger that scenario planning

declines to ‘surface the organization’s collective ignorance, blind spots or vulnerabilities’ (Schoemaker 2022, p. 14).

Finally, the study of ignorance in organisations can help practitioners recognise the limitations of their own knowledge and the importance of seeking out diverse perspectives. This can be particularly valuable in complex or rapidly changing environments (‘VUCA world’, Bennett and Lemoine 2014), where the consequences of ignorance can be significant. Actively considering a wide range of viewpoints and sources of information could help practitioners comprehend the various factors that impact their organisation, and make more informed decisions. The method is valuable because individuals are vulnerable to selfish behavior that encourages their colleagues to suppress knowledge practices.

Intuitively, it makes sense to assume that ignorance is destructive for organisations. That is the case, for example, when distrust (due to interpersonal relations) produces knowledge hiding (showing the use of power) which turns into as organisational blindness (a manifestation of inattention). When organisational ignorance emerges unintentionally and/or produces negative consequences, it is reasonable to view ignorance as a *failure* that should be avoided. However, it is also possible to imagine situations where ignorance produces something useful, such as when ignorance generates curiosity and increases an organisation’s ability to question the dominant views. For example, Smithson (1993, p. 147) notes that ‘consciously acknowledged and constructed ignorance is a prerequisite to learning or discovery’ and its toleration ‘facilitates a climate of creativity’. When organisational ignorance induces an exploration of the unknown, ignorance can be an *asset* that should be encouraged. The tricky thing is that knowledge sharing is far easier than revealing ignorance. Because organisational conventions are based on gathering and managing knowledge, and acknowledging ignorance is seen as a risky venture for individuals because it is often interpreted as incompetence. The dilemma can encourage a management discourse in which ignorance is ignored and aspects of the unknown are discussed using neutral and more acceptable concepts such as uncertainty, complexity and ambiguity (Roberts 2013).

Every study has its limitations, and this one is no exception. The key challenge related to organisational ignorance as a *phenomenon*. The literature describes organisational ignorance, for example, as something that is ‘more than a void’ (Proctor and Schiebinger 2008, p. 2), ‘beyond one’s knowledge’ (DeNicola 2018, p. 10–11) and lurking in the shadows (Alvesson 2022, p. 1). The ambiguity of the phenomenon continuously forces scholars to draw lines between ignorance and its close concepts such as stupidity, unreason, forgetting, and secrecy. On a practical level, setting and adhering to the inclusion criteria was more difficult than expected. Therefore, this review and analysis may be limited by an incomplete retrieval of studies and the interpretations of the author.

6 Avenues for further research

Every study also opens up new research avenues. The research agenda presented below outlines a number of key areas where further research could illuminate the multifaceted phenomenon of ignorance in organisations.

First, while research has proposed various definitions of ignorance – including the absence of knowledge, awareness, understanding, or attention to certain information or perspectives – the fundamental question remains what exactly is meant by ignorance in organisations. Is ignorance simply the absence of knowledge, or is it something more complex and multifaceted? Research on the topic relies on the continuation of the work of operationalising ignorance. That work must be linked with both the negative reading of ignorance (i.e., the deliberate and strategic production of ignorance to maintain control) and the positive reading of ignorance (i.e., ignorance potentially contributing to curiosity and creativity). A robust operationalisation of the ignorance in organisations will help ensure the concept is understood and measured consistently in different fields and the reliability of research results. Operationalisation is also important for the replication of research.

Second, it would be useful to study the prevalence of ignorance in different types of organization and in different roles or positions within them. Those research aims might involve surveying employees to assess their knowledge levels and identifying areas where ignorance is particularly prevalent. It would be particularly interesting to examine situations that induce employees to deploy ignorance. For example, to what extent do people claim ignorance to exonerate themselves following failure? Or to what extent is ignorance employed as a strategic ploy during negotiation?

Third, it is necessary to examine how ignorance interacts with other factors that contribute to organisational performance, such as trust. For example, does ignorance lead to a lack of trust within an organisation because individuals are unaware of the purposes or actions of colleagues? The function of trust is to balance risk and contingency related to social interaction. It has been suggested that every system tests trust first, and only subsequently is it possible to process information (Luhmann 1995, p. 112). Perhaps trust is even more important when it is necessary to reveal one's ignorance, a situation intrinsic, for example, to the innovation process. A key question concerns how organisations construct agreements about ignorance to create trust-based relations and an innovation-friendly culture.

Fourth, ignorance is unevenly distributed within organisations. Referencing 'trans-active memory', Roberts (2013) argues that group knowledge is more than the sum of the individual members' knowledge. If that is true, it is feasible that 'the ignorance of individual organizational actors can be overcome when they are brought together' (Roberts 2013, p. 222). This notion resonates with that of organisational diversity. For example, Holland (1995) describes the importance of diversity, suggesting that without it, there is no difference that makes a difference. However, the relationship between ignorance and diversity is complex. Instead of nurturing the ability to see things differently, diversity can lead to misunderstandings and conflicts, as individuals may be unaware of cultural differences or their colleagues' perspectives. Hence, we should question how ignorance could be addressed through fostering inclusion

in organisations, simultaneously avoiding ascribing negative consequences of being different.

Fifth, research is warranted on how organisations might effectively manage ignorance. What are the most effective strategies and interventions to reduce ignorance, and when are those strategies most effective? For example, do certain types of training reduce ignorance more effectively than others, and what role do leadership and culture play in fostering an organisational climate conducive to reducing ignorance? Answering these questions would catalyse developing practical tools and techniques to address ignorance in organisations. That process could encompass leadership styles, communication practices, and decision-making processes.

Sixth, research on the role of technology in managing ignorance in organisations would be welcome. That would involve scrutinising the potential unintended consequences of such technologies for ignorance. Research on ignorance in organisations could explore technology's role in promoting and mitigating ignorance. It might for instance examine the ways in which technology, such as social media and collaboration tools, unintentionally contributes to knowledge hoarding and hiding within organisations, as well as the potential negative consequences of an over-reliance on technology.

Seventh, research is merited concerning the ethical implications of ignorance in organisations. That would involve examining the responsibility of organisations and their leaders to seek out and address ignorance, as well as the ethical implications of ignoring or denying ignorance. Therefore, one of the key issues to be addressed would be how deliberate and intentional non-knowing affects organisational culture. Building on the widely adopted notion that ignorance is a socially constructed phenomenon (Smithson 1989, Proctor and Schiebinger 2008), it would be useful to explore the processes of making 'ignorance claims' (Stocking and Holstein 1993) and analyse their effects on motivation, commitment and engagement in organisations.

Finally, ignorance can sometimes benefit organisations. For example, if an organisation faces a problem that requires a creative solution, ignorance of certain facts or assumptions may encourage open-minded and innovative thinking. Additionally, if an organisation is trying to disrupt a traditional industry, ignorance of industry norms and best practices might encourage it to challenge the status quo and generate novel ideas. Against this backdrop, it would be useful to empirically study how the four modes of ignorance identified in this study (defensive, designed, contingent and emergent) – or even just some of them – could be used ethically to *benefit* an organisation. The duality of ignorance calls for scholars of management and organisations to explore the causes, characteristics and consequences of ignorance from both negative and positive perspectives.

7 Appendix 1. Reviewed studies

Authors	Year	Journal	Purpose of the study	Cause: 1 = personal motives, 2 = interpersonal relations, 3 = managerial practices, 4 = organisational factors	Characteristic: 1 = power, 2 = practices, 3 = people, 4 = resources, 5 = culture	Consequences: 1 = lack of innovation, 2 = inattention, 3 = emotional stress, 4 = inertia/decay, 5 = manipulation
Anand et al.	2020	Journal of Organizational Change Management	To identify and illustrate the many knowledge hiding events conducted by employees within organisations.	1, 2, 4	1, 2,	5
Arain et al.	2020	Journal of Business Ethics	To examine the direct and indirect relationships between supervisor knowledge hiding and supervisee organisational citizenship behaviour directed at the supervisor.	2	1	4
Azevedo	2020	Journal of Management Inquiry	To study how and why organisational nonsense happens.	4	5	5
Bansal et al.	2018	Academy of Management Review	To shed light on the underexplored question of why some issues are not noticed.	4	2, 4, 5	2
Bari et al.	2020	Journal of Knowledge Management	To examine the relationship between knowledge-hiding behaviours and employees' silence.	1, 2	1	1

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Brinsfield	2013	Journal of Organizational Behaviour	To examine the motives for employee silence.	1	2,3	4
Brown	1994	Organization Studies	To illustrate the social, symbolic and political processes in organisations which may lead to apparently irrational and uninformed decisions.	2	1, 5	4
Brunsson	1998	Scandinavian Journal of Management	To examine organisational non-learning and to identify techniques for non-learning.	4	2	5
Burmestier et al.	2019	Journal of Occupational and Organizational Psychology	To understand the link between knowledge hiding and self-conscious moral emotions.	1	1	3, 4
Cerne et al.	2014	Academy of Management Journal	To study the relationship between employees' knowledge hiding and distrust.	4	1, 5	1
Chong et al.	2018	Journal of Environmental Management	To explore practices of negotiated ignorance.	2	2, 5	5
Connelly & Zweig	2015	Journal of Organizational Behaviour	To explore the harmfulness of different types of knowledge hiding.	1	2, 5	4
Connelly et al.	2012	Journal of Organizational Behaviour	To investigate knowledge hiding and identify several predictors of knowledge hiding in organisations.	2, 4	1	4, 5

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Cunha et al.	2006	British Journal of Management	To investigate and provide a typology of organisational surprises.	4	2, 4	4
Davies & McGoey	2012	Economy and Society	To explore how ignorance can be used as a commodity and an institutional alibi.	1	1	5
de Holan & Phillips	2004	Management Science	To explore how and why organisations forget.	4	2,4	1
DeLeo & Duarte	2022	Policy Studies Journal	To explore whether changes in problem indicators or data documenting the scale and scope of a problem can direct attention to previously ignored issues.	1	1	5
Desai	2010	British Journal of Management	To examine how multiple forms of complaint experience inter-actively influence organisational outcomes.	3	4	2
Essén et al.	2022	Organization Studies	To explore self-inflicted ignorance following acts of ignoring.	1, 4	2	5
Evans et al.	2015	Organization Science	To investigate knowledge hoarding and perceived hoarding.	1	1, 4	4, 5

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Feldman & March	1981	Administrative Science Quarterly	To explain how the use of information is embedded in social norms, making it highly symbolic.	4	2, 5	4
Fong et al.	2018	Management Science	To investigate the relationship between knowledge hiding and team creativity.	2	1	1
Gabriel	2012	Organization Studies	To develop a theory of organisational miasma, a concept that describes a contagious state of pollution that afflicts all who work in certain organisations that undergo sudden and traumatic transformations.	3	1	3
Gantz	2018	Organization Science	To develop a formal model that introduces political conflict into a theory of organisational learning.	4	1, 2	2, 4
Garg et al.	2021	Journal of Knowledge Management	To investigate the role of knowledge hiding on academic performance.	1	1	5

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Garrett	2004	American Review of Public Administration	To develop a theoretical approach that delves into multiple forms of knowledge in organisations; known as the 'knowledge analytic'.	2	4	
Giabuschi et al.	2011	Journal of International Business Studies	To explore the relationship between headquarters' knowledge of and headquarters' involvement in innovation processes at the subsidiary level and the impact of this potential involvement on innovation processes performance.	4	4	1
Harvey et al.	2001	Journal of Managerial Psychology	To document how different forms of ignorance may evolve in different organisational dialogues and become embedded in the organisational context.	1, 2	2, 3, 4, 5	1
Hernaus et al.	2018	Journal of Knowledge Management	To understand the personal and situational factors that affect knowledge hiding within academia.	1	1	5

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Holten et al.	2016	Journal of Knowledge Management	To investigate whether and how knowledge hoarding functions as an antecedent and consequence of work-related negative acts.	2	3	2
Israilidis et al.	2015	Journal of Knowledge Management	To identify individual variables impacting knowledge sharing and explore the employees' ignorance.	1	3	1
Jiang et al.	2019	Journal of Organizational Behavior	To examine how and when knowledge hinders struggle to thrive at work.	1	1	4
Julmi et al.	2021	Leadership	To introduce the concept of paradoxical leadership and explains how paradoxical leadership spurs dysfunctional outcomes for the individual and the organisation. Also, to discuss ways to prevent and resolve instances of paradoxical leadership.	3	1	1, 3

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Kish-Kephart et al.	2009	Research in Organizational Behaviour	To introduce new directions for future research on silence and to encourage further attention to the powerful and pervasive role of fear.	1	1	2, 3
Knudsen	2011	Organization Studies	To study how relevant but problematic information is ignored and hidden in decision processes.	1, 4	1, 2	2
Kutsch & Hall	2010	International Journal of Project Management	To investigate deliberate ignorance in project risk management.	1, 2	2	2
Lange	2016	Economy and Society	To investigate the strategic use of ignorance and not-knowing.	2	1	5
Levinthal & March	1993	Strategic Management Journal	To examine the myopia of learning.	1	2	2
Masuch	1995	Administrative Science Quarterly	To explore vicious circles in organisations.	1	2	4
Mathiesen & de Haas	2021	Journal of Industrial Integration and Management	To investigate superfluous in highly complex decision-making.	1	2	4

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McGoey	2007	Economy and Society	To examine the 'will to ignorance' within regulatory bureaucracies, which works to circumvent a regulator's ability to carry out its explicit aims and goals.	1	1, 2	5
McGoey	2012	The British Journal of Sociology	To explore the ways that ignorance serves as a productive asset.	1, 4	1, 2	5
McGoey	2012	Economy & Society	To explore how the cultivation of strategic unknowns remains a resource.			
Meckler & Boal	2020	Academy of Management Perspectives	To offer a framework for understanding how management decision errors may lead to iatrogenic outcomes.	3	2	4
Milliken et al.	2003	Journal of Management Studies	To shed light on the types of issues that employees are reluctant to raise and identify why employees sometimes decide to remain silent rather than voice their concerns.	1	1, 2, 4, 5	2

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Morrison & Milliken	2000	Academy of Management Review	To identify contextual variables that create conditions conducive to silence and explore the collective sensemaking dynamics that can create the shared perception that speaking up is unwise.	1, 2, 3, 4	1, 5	2
Nutt	1999	Academy of Management Executive	To investigate failures in decision-making.	3	1	4
O'Dell & Grayson Jackson	1998	California Management Review	To identify and transfer internal best practices.	1, 2	2, 3, 4, 5	2
Offergelt et al.	2019	Journal of Organizational Behavior	To investigate what happens when leaders signal to employees that knowledge hiding is practised, tolerated and expected.	1, 3	1, 2	3
Ordonez et al.	2009	Academy of Management Perspectives	To identify specific side effects associated with goal-setting.	4	2	1, 2, 4
Padilla et al.	2007	Leadership Quarterly	To develop a definition of destructive leadership that emphasises negative outcomes for organisations and individuals linked with and affected by them.	3, 4	1	4

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Peng	2013	Journal of Knowledge Management	To examine why and when employees hide knowledge.	1	3	
Pfeffer	1996	Organizational Dynamics	To examine why organisations do not do what they know they should.	3, 4	1, 4, 5	4
Pfeffer & Sutton	2006	California Management Review	To investigate how to practice evidence-based management.	1, 3	1	5
Pollitt	2000	Prometheus	To set out the character, causes and likely consequences of institutional memory loss in the contemporary public sector.	4	3, 4, 5	1, 2
Rayner	2012	Economy and Society	To describe implicit strategies institutions use to keep uncomfortable knowledge at bay.	3	2	2
Rhee & Choi	2017	Journal of Organizational Behavior	To examine the social dilemma of knowledge behaviour.	2	1, 2	1
Roberts	2013	Research in Organizational Behavior	To bring organisational ignorance to the attention of management scholars and practitioners and thereby initiate the development of a managerial perspective on the unknown.	3	1, 2, 4	5

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Schaefer	2019	Organization Studies	To analyse managing creativity through wilful managerial ignorance.	3, 4	2	1
Scheel & Ustek-Spilda	2019	Environmental and Planning: Society & Space	To investigate how tensions are negotiated through the production of strategic ignorance.	3	1	5
Schoemaker & Tetlock	2012	California Management Review	To examine the role of the sacred, profane, and taboo in society.		1, 5	2
Schwarzkopf	2020	Organization Studies	To outline the contours of the ontology of organisational ignorance.	4	1, 2, 4	2
Stark & Head	2019	Journal of European Public Policy	To propose an agenda for institutional amnesia in public policy.	5	4	4
Stein	2003	Human Relations	To propose a psychoanalytic theory of organisational narcissism as a means of explanation.	4	4	4, 5
Steinel et al.	2010	Organizational Behavior and Human Decision Processes	To introduce a research paradigm that combines aspects of the traditional information sampling paradigm with aspects of a public-good dilemma: the information pooling game.	2, 3	1	

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Toma & Butera	2009	Personality and Social Psychology Bulletin	To examine concealed information in strategic information sharing and its use in group decision-making.	1	1, 3	
Westphal & Bednar	2005	Administrative Science Quarterly	To examine how a social psychological bias referred to as pluralistic ignorance may occur in corporate boards and how it could contribute to strategic persistence in response to relatively low firm performance.	2	3	4
Wilkesmann	2016	VINE: Journal of Information and Knowledge Management Systems	To investigate how professionals, such as doctors, deal with their ignorance.	2	1	
Yan et al.	2020	Journal of Knowledge Management	To examine the relationships among knowledge attributes, interpersonal distrust, knowledge hiding and team efficacy.	1	1	3
Zhu et al.	2019	Journal of Organizational Behavior	To investigate the relationship between performance feedback and knowledge hiding.	2	1, 2	1

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Zhu & Westphal	2011	Organization Science	To investigate how a social psychological bias referred to as pluralistic ignorance occurs among security analysts and how this bias may lead to behavioural conformity and isomorphism in analysts' reactions to the adoption of a particular organisational policy.	2	3	2, 4

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Declarations

Competing interests The author declares that he has no conflict of interest.

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