

Integrated thinking for stakeholder engagement: A processing model for judgments and choice in situations of cognitive complexity

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Abstract

How is 'Integrated Thinking' implicated in stakeholder engagement? Framing engagement programmes poses serious dilemmas for decision-makers who, on the one hand, are increasingly asked to involve stakeholders in the development or implementation of corporate plans, but on the other, fall back on intuitive judgment (and its major biases) when it comes to making decisions. This chapter argues that integrated thinking can be thought of as a dynamic process in which judgments and choices are influenced by heuristics and biases constantly (re-)negotiated through active exchange with stakeholders. Drawing on Daniel Kahneman's (2012) work on decision-making, the chapter proposes a process model for judgments and choice that helps illustrate how integrated thinking can contribute more effectively to contemporary stakeholder engagement struggles.

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Introduction

The development of Integrated Reporting (IR) embodies a new approach to management reasoning; one based on the concept of integrated thinking. The International Integrated Reporting Council (2013) promotes integrated thinking as an approach aimed at helping companies address pressing social, environmental and governance issues in ways that enable them to create value over the short, medium and long term (IIRC, 2013). According to the IIRC, the ability of an organization to create value is strongly interrelated with its capacity to respond to stakeholders' legitimate needs and interests through a wide range of activities, interactions and relationships. A guiding principle that underpins the implementation of IR practice focuses on stakeholder relationships. This principle reflects the importance of stakeholder engagement because "value is not created by or within an organization, alone but is created through relationships with others" (IIRC, 2013, p. 17). Thus, integrated thinking provides a rationale for a 'stakeholder engagement perspective' to be instilled within organizations, which will also enrich organizations' relational capital.

As IR practices have become more widely adopted, a growing body of literature has begun investigating IR practice (de Villiers, Hsiao, et al., 2017, for a review of the rapidly emergent IR academic literature; de Villiers et al., 2014; de Villiers, Venter, et al., 2017; Dumay et al., 2016; Velte and Stawinoga, 2017), and an increasing number of studies have started to examine integrated thinking (Al-Htaybat and von Alberti-Alhtaybat, 2018; Dumay and Dai, 2017; Guthrie et al., 2017; Venter et al., 2017). This latter body of research has studied the practical challenges of implementing integrated thinking (La Torre et al., 2019) or its links with intellectual capital (Stacchezzini et al., 2018) and the broader value creation process (Adams, 2017), but has paid scant attention to the role of integrated thinking in framing the relationships between organizations and stakeholders.

The framing of engagement initiatives poses serious dilemmas for organizations. Decision-makers are increasingly asked to involve a wide range of stakeholders, such as employees, customers, suppliers, debt and equity providers, and governments, in the development or implementation of corporate programmes. These individuals often use highly complex methods for gathering information about problems and for formulating answers. However, when it comes to making decisions, they typically fall back on intuition (Martin, 2009). The

quality of their intuition sets an upper limit on the quality of the entire engagement and decision-making process.

The purpose of this chapter is to explore the role that the cognitive study of decision processes can play in fostering an integrated form of thinking and, in doing so, improve stakeholder engagement. A common theme in academic scholarship is that stakeholder engagement increases accountability (Bebbington et al., 2014). Indeed, several authors have evaluated and critiqued existing practices to structure an understanding of how specific engagement initiatives are effective in shaping an organization's accountability (Adams and Frost, 2006; Barone et al., 2013; Boesso and Kumar, 2009a; Brown and Dillard, 2013a; Gray, 2002). However, little is known about how decision-makers mobilize modes of thinking to frame engagement practices among stakeholders. This has recently led to a call for more research into the development of new theoretical models, seeking to provide novel understandings of the stakeholder engagement processes in the emerging field of IR (Rinaldi et al., 2018). This chapter explores this call by linking the notion of Integrated Thinking with organizational Stakeholder Engagement and Dialogue initiatives. We argue that integrated thinking can be thought of as the property of a dynamic process in which judgments and choice are influenced by heuristics and biases constantly (re-)negotiated through dynamic exchange with stakeholders. Drawing on Daniel Kahneman's (2012) work on decision-making, this chapter proposes a process model for judgments and choice that helps illustrate how integrated thinking can contribute more effectively to contemporary stakeholder engagement struggles.

To make the argument, the chapter proceeds as follows. First, we (briefly) examine existing research on stakeholder engagement and introduce a theoretical approach to decision-making by drawing on Kahneman's (2012) dual processing framework. The chapter then develops a process model conceptualizing how integrated thinking in situations of cognitive complexity can be achieved. Finally, we discuss the contribution and implications for the study, while proposing future lines of research.

Literature review and research gap

This section elucidates the notion of Stakeholder Engagement by clarifying its function, underlying mechanisms and key characteristics. It discusses the existing studies on SE in IR and clarifies the gap in the literature.

Stakeholder engagement is the process used by an organisation to engage relevant stakeholders for a clear purpose to achieve agreed outcomes. It is now also recognised as a fundamental accountability mechanism since it obliges an organisation to involve stakeholders in identifying, understanding and responding to sustainability issues and concerns, and to report, explain and answer to stakeholders for decisions, actions and performance (AccountAbility, 2015, p. 12).

The above quotation encapsulates what makes stakeholder engagement a crucial element of the sustainability accounting and accountability process within organizations. Engaging with stakeholders is increasingly regarded as an important part of corporate social, environmental, economic, and ethical governance and accountability mechanisms (Archel et al., 2011; Deegan and Unerman, 2011; O'Dwyer et al., 2011; Brown and Dillard, 2013; Barone et al., 2013). The relevance of stakeholder interaction is that only by consulting with potential stakeholders can organizations develop knowledge and understanding of their needs and expectations. Addressing these expectations should be the aim of 'good' corporate governance and accountability (Bebbington et al., 2007; Thomson and Bebbington, 2005; Unerman and Bennett, 2004).

Nonetheless, it is argued that for stakeholder engagement to lead to meaningful corporate accountability, mechanisms whereby stakeholder views can feed into the decision-making process have to be created, while techniques to hold management to account need to be established. Otherwise, organizations' stakeholder engagement and dialogue "risks representing only an exercise of power over non-financial stakeholders who are disadvantaged by means of a more or less sophisticated management tool" (Owen et al., 2001).

Organizations use a vast and heterogeneous set of channels to engage with their stakeholders, ranging from conversations to the written exchange of ideas, and physical meetings (Burchell

and Cook, 2008; Friedman, 2006). Some of these techniques focus on principles and mechanisms directed towards designing or implementing frameworks to engage with the various constituency groups (AccountAbility, 2015; Bebbington et al., 2007; Belal and Roberts, 2010; Boesso and Kumar, 2009b; Brown, 2009; UNEP, 2005), while other research has examined, evaluated and assessed the quality of such engagement (Freedman and Jaggi, 2006; Manetti, 2011).

These studies provided important insights into the process of developing and promoting stakeholder engagement. Given the centrality of stakeholder engagement for an organization's sustainability and accountability, it is important to understand the difference between high-grade and low-grade engagement. One of the key points that qualifies an engagement process as meaningful is the integration of stakeholder engagement into organizational governance and decision-making (Brown and Dillard, 2013a; Gray, 2002; Gray et al., 1997). However, as is the case with addressing the dimension of corporate governance in sustainability accounting and accountability processes more generally, there has been little if any debate in the academic literature regarding the decision-making process that shapes high-grade stakeholder engagement and dialogue. Specifically, little is known about how decision-makers mobilize modes of thinking to frame engagement practices with stakeholders.

The rapid evolution of Integrated Reporting (IR) has promoted a novel approach to management reasoning, based on the concept of integrated thinking. Integrated thinking is defined by the IIRC as *"the active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects"* (IIRC, 2013, p. 2). The aim of integrated thinking is to promote integrated decision-making and actions that consider the creation of value over the short, medium and long term.

The more integrated thinking is embedded in the business, the more likely it is that a fuller consideration of key stakeholders' legitimate needs and interests is incorporated as an ordinary part of conducting business. (IIRC, 2013, p. 18)

Given the complexities of today's social context, organizations' existing forms of accountability seem overly simplistic and unrealistic to an increasing number of scholars (Messner, 2009). At

the same time, creativity, innovation, and invention have become central topics for organizations scholars (Adler and Chen, 2011; Perry-Smith and Mannucci, 2017). This newer work emphasizes the importance of understanding how individuals, groups and organizations cognize the social context (Paisey and Paisey, 2011), enter situations where neither means nor ends are understood (Alvarez and Barney, 2005), and make judgments and choices in situations of cognitive complexity (Tversky and Kahneman, 1974, 1981). Understanding change, innovation, and entrepreneurship requires the ability to identify and understand the processes of judgment and choice, not just accountability. With this in mind, the following section presents the theoretical framing that has been used to inform the analysis in this paper.

Kahneman's dual processing framework

Integrated thinking has been conceptualized as the conditions and procedures that are conducive to an inclusive process of decision-making, which has a material effect on an organization's ability to create value over time (Busco et al., 2017; Guthrie et al. 2017). Integral to this managerial approach are two components. The first connects beliefs and attitudes: organizational values, strategy and performance. The second connects departments; the relationships between an organization's internal units, processes, and individuals, and their interactions (Dumay and Dai, 2017). This process requires resisting the simplicity and certainty that comes with conventional thinking and implies a continuous process of integrating intuition, reason and imagination, with a view to developing a holistic range of strategy, tactics, action and assessment (Martin, 2009).

This section introduces Daniel Kahneman's dual processing framework to show that this approach can offer innovative ideas to inform management reasoning and develop organizations' relational capital through ground-breaking stakeholder engagement practices. Daniel Kahneman is a psychologist and economist, notable for his work on the psychology of judgment and decision-making (Tversky and Kahneman, 1974). He was awarded the 2002 Nobel Memorial Prize in Economic Sciences for his pioneering work on the integration of psychological research into economic science. His research aimed to increase the understanding of how people make economic decisions, particularly the mental processes used in forming judgments and making choices. In contrast with previous research indicating

that people's decisions are determined by the expected gains from each possible future scenario multiplied by its probability of occurring, Kahneman's work demonstrated that irrational choices, based on giving more weight to some scenarios than to others (such as, for example, complex situations when the future consequences are uncertain), lead to decisions that are different from those predicted by traditional economic theory (Tversky and Kahneman, 1981). In these circumstances, Kahneman's experiments challenged the prevailing theory that people are rational actors, showing that only a few evaluated the underlying probability of complex scenarios, while most people relied on heuristic shortcuts (Kahneman, 2012).

Through his analysis of models of thought, Kahneman provided key insights into peoples' ways of thinking, arguing that there are two approaches that social actors use to think. This is 'dual processing theory' and postulates that judgment and choice occur via two very different ways of processing information that operate at the same time: the intuitive and the deliberative systems (Morewedge and Kahneman, 2010; Tversky and Kahneman, 1974).

The intuitive system is always active, operating automatically and quickly, "with little or no effort and no sense of voluntary control" (Kahneman, 2012, p. 20). The intuitive system relies on innate skills that individuals are born with to perceive the world around them, such as the ability to recognize objects, to orient attention and avoid losses. This system also depends on learned associations between ideas (e.g. revenues-minus-costs-equals-profit) and skills such as reading and understanding the nuances of social situations (e.g. detecting hostility or friendliness). This knowledge is stored in memory and accessed without intention and without effort, while other mental activities become fast and automatic through prolonged practice.

The operation of the deliberative system, in contrast, needs intentional activation. It is often associated with the subjective experience of agency, choice, and concentration. This system assigns attention to the effortful mental activities that require rational and logical responses, such as the assessment of complex situations. To do that, the deliberative system needs considerable energy in the form of focus and attention. Thus, it tires easily and cannot be maintained for long periods of time. A common feature of the diverse operations of the

deliberative system is that they require attention and stop when attention is drawn away (Kahneman, 2012).

While different in nature, the intuitive and the deliberative systems are profoundly related and constantly interact with each other. As Kahneman (2012, p. 24) argues:

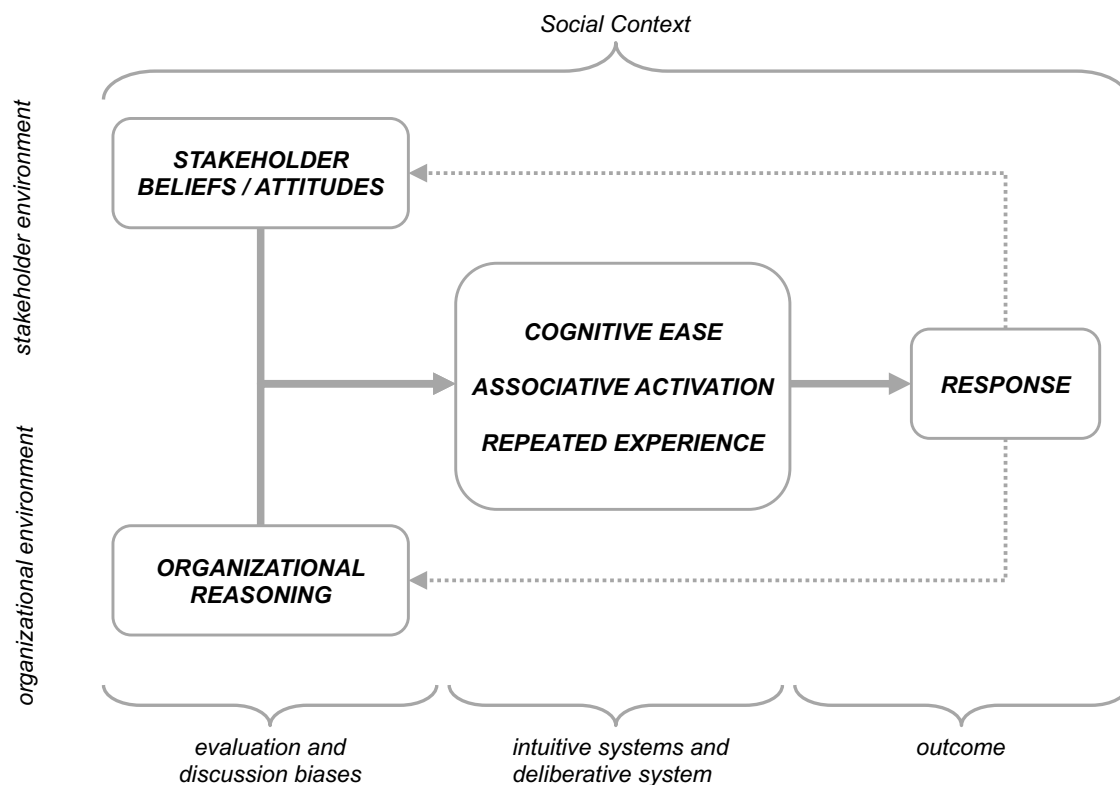
[intuitive and the deliberative systems] are both active whenever we are awake. [The intuitive system] runs automatically and [the deliberative system] is normally in a comfortable low-effort mode, in which only a fraction of its capacity is engaged. [The intuitive system] continuously generates suggestions for [the deliberative system]: impressions, intuitions, intentions, and feelings. If endorsed by [the deliberative system], impressions and intuitions turn into beliefs, and impulses turn into voluntary actions. When all goes smoothly, which is most of the time, [the deliberative system] adopts the suggestions of [the intuitive system] with little or no modification

At the same time, the deliberative system has some ability to change the way the intuitive system operates, by instructing the typically instinctive functions of attention and memory. This happens, for instance, when individuals are required to do something that does not come naturally to them, finding that its continuation requires effort. Building on Kahneman's insights, the next section develops a process model conceptualizing how integrated thinking in situations of cognitive complexity can be understood and framed.

Cognitive heuristics and biases: Towards a processing model of stakeholder engagement

Mainstreaming stakeholder engagement into decision-making is a pressing challenge in achieving transparent organizational processes with greater input from stakeholders, and in obtaining their support for the decisions that are taken (Brown and Dillard, 2013a; Owen et al., 2001; Rinaldi et al., 2014). Building on Kahneman's dual processing framework, this chapter develops a process model of how stakeholder engagement can be co-achieved with relevant stakeholders, which gives rise to different responses. Figure 19.1 summarizes the combined institutional and organizational factors central to the model.

Figure 19.1: Stakeholder engagement processing model for judgments and choice in situations of cognitive complexity



Organizations have access to a wide range of capabilities and practices. The organizational environment represents the forces within an organization that affect performance, operations, and resources (Felin et al., 2012). However, organizations are also exposed to stakeholder scrutiny. The stakeholder environment represents the set of institutional pressures that create canons of accountability and enforce legitimacy norms for organizational practices (Edelman and Stryker, 2005). These environments are reciprocally tied to each other and to the social context. Organizations operating in this arena, therefore, need to consider the adoption of engagement practices congruent with the dissimilar knowledge and expertise available in the field in order to promote cross-fertilization, innovation and, ultimately, high-quality group decisions. The objective is to stimulate the exchange and elaboration of information among decision-makers in order to minimize the evaluation and discussion biases that can steer the process away from the engagement goals. Evaluation bias addresses the individual level of information processing, and discussion bias addresses the group level of collective information processing during group discussion (Brodbeck et al., 2007). Both phases of the decision-making process are prone to being influenced by a range of heuristics and biases related to the

complexity of cognitive processes possessed by the social actors involved. Building on Kahneman's work, this chapter suggests that stakeholder engagement can use cognitive ease, associative activation, and repeated experience as forms of integrated thinking.

Engaging through cognitive ease

Cognitive ease is a process in the intuitive system that assesses the extent to which the deliberative system needs to operate. Kahneman (2012) argues that cognitive ease ranges along a continuum comprised of two extremes: easy and strained. *Easy* is the sign that there is no need to redirect cognitive attention towards pressures or problems. In contrast, *strained* indicates a situation requiring increased mobilization of complex cognitive tasks such as control and computation. Kahneman (2012) found that the cognitive state has an important influence on decision making. When subjects are in a state of cognitive ease, they tend to trust their intuition and believe what they see and experience. They are also casual and perfunctory in their thinking. When they feel strained, they are more likely to be alert, sceptical and invest more effort in what they are doing, yet be less intuitive and creative in this process (Tversky and Kahneman, 1981).

One way to engage with stakeholders is by implementing forms of thinking that integrate the key characteristics of the dual mental systems used in forming judgments and making choices: intuition, reason and imagination. The intuitive system appears to have a special aptitude for the construction and interpretation of stories about **active agents**; that is, agents who have personalities, habits and abilities. For example, if one quickly forms a good (or bad) opinion of a stakeholder, one would expect a good (or bad) attitude towards them. The deliberative system, instead, can follow rules, compare objects against several attributes and make deliberate choices between options. The intuitive system does not have this capability as it can only detect simple relations, such as basic similarities and differences. While the intuitive system is very good at integrating information about a single topic, it does not deal with multiple distinct topics at once and is not proficient in using purely quantitative information.

A crucial capability of the deliberative system is **executive control**, which consists of the adoption of **task sets** through which it can program memory to follow instructions that override routine responses (Kahneman, 2012). In the context of stakeholder engagement, consider the

following: an organization is involved in a consultation process in order to be able to construct an account of its corporate social and environmental impact. The process is aimed at obtaining a better understanding of which stakeholder seems to be most affected by the organization's actions and how responsibility within the company could be allocated to alleviate that impact. Setting up for this exercise can be challenging. Nonetheless, the organization improves over time with practice and structure. However, with this newly acquired tendency to focus on stakeholders, more intellectual resources – in the form of deliberative thought – will be required by decision-makers to perform it. Research has demonstrated that when the deliberative system is busy, the intuitive system has more influence on behaviour (Tversky and Kahneman, 1981). Consequently, decision-makers who are cognitively busy are also likely to make superficial judgments in social situations. For example, performance-focused stakeholder engagement initiatives that place too much emphasis on how organizations are doing in specific phases of the engagement process have the potential to disrupt results by loading decision-makers' cognitive systems with futile, anxious considerations.

How can organizations deal with cognitive ease within stakeholder engagement programmes? Kahneman's work (Kahneman, 2012) showed that one way of minimizing the bias in decision-making and addressing complex issues is to promote **intellectual engagement**. When social actors believe a conclusion is true, they are also very likely to believe arguments that appear to support it, even when those arguments are unsound. Difficult problems can be solved when decision-makers are not tempted to accept (or offer) superficially plausible answers that come readily to mind. More alert and intellectually active decision-makers, who are less willing to be satisfied with superficially attractive answers and are more sceptical about their intuition, are more likely to think through the problem rather than turn to standard operating procedures.

Research on cognitive strain has shown that there are severe limitations on peoples' ability to process sensory signals, and subjects who experience "cognitive strain" try to reduce it using simplification strategies (Slovic et al., 2014) such as associative activation and repeated experience. The following sections will explore these two forms of integrated thinking in more detail.

Engaging through associative activation

Another way to engage with stakeholders, arising from situations of cognitive complexity, is by taking into account the cognitive phenomenon known as associative activation. Associative activation is a process in which ideas that have been evoked trigger other ideas in a spreading cascade of activities that occur cognitively (Morewedge and Kahneman, 2010). The main feature of this set of events is **coherence**: each element is connected and supports and strengthens the others. This process happens rapidly and simultaneously, producing a self-reinforcing pattern of cognitive, emotional and physical responses that is associatively coherent. Social cognition studies have long researched the subtle and unanticipated effects of people's social environments on their thoughts and behaviours (Jacoby *et al.*, 1989). These studies have shown that mere exposure to socially relevant stimuli can facilitate, or *prime*, a host of impressions, judgments, goals, and actions, often even outside of people's intentions or awareness (Molden, 2014). The **priming effect** is the influence on an action of an idea. If an idea is currently on someone's mind (whether or not the individual is conscious of it) s/he will be quicker than usual to recognize a multitude of related ideas when they are presented. Primed ideas have the ability to prime other ideas, although in a weaker fashion. The activation of the primed idea spreads through a small part of a network of associated ideas.

Research has shown that the priming effect can occur in different stages (Carroll and Payne, 2014). For example, a set of words can prime thoughts of a phenomenon, which in turn primes behaviour associated with this phenomenon, without any conscious awareness. This particular form of associative activation, which consists of the reciprocal priming of an action and an idea, is known as the **ideomotor effect**. Reciprocal priming effects tend to produce coherent judgments and choices, and carry two important implications for corporate accountability studies. Firstly, priming is not restricted to concepts and words but also comprises attitudes, behaviour, thoughts, actions and emotions. Secondly, actions and emotions can be primed by events that we are not consciously aware of. Research findings of priming studies suggest that living in a culture that surrounds us with reminders of cooperation and mutual understanding may shape behaviour and attitudes in ways that could reduce the level of conflict between organizations and their various political, social, and economic stakeholders (Molden, 2014).

How can organizations promote associative activation with their stakeholders? Decision-makers who are serious about stakeholder engagement can embrace cognitive stances that prime cooperation and dialogue rather than those that promote counterproductive associative activations. Some organizations, for instance, provide a frequent reminder of the need for respect through value systems strategically located in the premises of the organization or published in the organizational disclosure; others prompt collegiality, conveying the feeling of shared responsibility, aiming to increase the appeal of democratic ideas. Kahneman's work (Kahneman, 2012; Morewedge and Kahneman, 2010; Tversky and Kahneman, 1981) showed that the effects of priming can reach quite far into social actors' lives. For example, just as money primed people to become more independent than they would be without the associative trigger (Kahneman, 2012), participation can be expected to prime shareholder behaviour and decision-making by associatively promoting collaborative work and dialogic forms of consensus, achieving actions (Barone et al., 2013; Brown, 2009; Brown and Dillard, 2013b; Thomson and Bebbington, 2005; Unerman and Bennett, 2004).

Engaging though the halo effect

The tendency to admire (or despise) everything about a situation or a person, including circumstances that have not been witnessed, is known as the '**halo effect**'. The halo effect depends on the intuitive system, which provides our conscious self with a representation of the world that is deliberately simpler and more coherent than the underlying reality. In the context of stakeholder engagement, consider the following example: an organization meets for the first time with several stakeholder groups to arrange and structure a consultation process. Most of the group representatives are pleasant and easy to talk to. During these meetings, one of these representatives is someone whose group is required to make major compromises to facilitate the pursuit of a long-term goal. What do decision-makers know about the propensity of this participant to compromise? There is little reason to believe that people who are personable in social situations are also prone to compromise in the context of a dispute. But the group representatives are cherished, like cooperation itself, and cooperating with people more broadly. While concrete evidence of the ability to compromise and the tendency towards cooperation is missing from this example, this association (halo effect) has the potential to bias our model of judgment and choice, leading us to believe that personable

people are also easy to compromise with. Evidence accumulates gradually, but its interpretation is shaped by the emotions attached to first impressions (Clark et al., 2014).

While the halo effect has the potential to influence decision-makers by reducing the total value of the information provided to them, it can be tamed by minimizing the effects associated with the reciprocal influence of the subjects involved in the process (Kahneman, 2012). This principle, known as **independent judgment**, aims not only at reducing collusion but also at preventing each source of information from influencing the others. The principle of independent judgement has immediate application for the conduct of stakeholder engagement initiatives, activities in which organizations and managers invest significant physical and intellectual resources. The standard practice of open discussion, for example, gives weight to the opinions of those who speak early and emphatically, increasing the potential for others to line up with them. For instance, before an issue is discussed, the different parties involved in the process could be asked to give a very brief summary of their position, independently from each other. In doing so, the diversity of knowledge and opinion in the group is valued and redundancy in the various sources of information is reduced. If engagement programmes are to derive the most useful information from a pluralistic environment and promote high-quality group decisions, they should try to make each source uncorrelated.

Contributions

As IR practices have become more widely adopted and a growing body of literature is investigating IR practice, more needs to be done to understand the role of integrated thinking in framing the relationships between organizations and stakeholders. The aim of this chapter was to explore the role that the cognitive study of decision-making processes can play in fostering an integrated form of thinking and, in so doing, improve stakeholder engagement. While existing research has criticized the extent to which stakeholder engagement practices are effective in shaping an organization's accountability, little is known about how decision-makers mobilize modes of thinking to frame engagement practices with stakeholders. Drawing on Daniel Kahneman's (2015) work on decision-making, we proposed a stakeholder engagement processing model for judgments and choice that helps illustrate how integrated thinking can contribute more effectively to contemporary stakeholder engagement struggles.

This chapter contributes to the integrated reporting literature in two ways. First, we extend existing studies of organizational accountability (Adams and McNicholas, 2007; Ahrens, 1996; O'Dwyer and Boomsma, 2015; Parker, 2005). In particular, we contribute to the debate around the somewhat neglected topic of organizational micro-foundations (Felin et al., 2012; Felin et al., 2015; Power, 2019) by suggesting that integrated thinking is a dynamic set of micro-processes in which judgments and choice are influenced by heuristics and biases, constantly (re-)negotiated through dynamic exchange with stakeholders. This has important implications for understanding how aspects of institutional complexity are framed. Rather than a universal approach to integrated thinking, the process of stakeholder engagement is multidimensional and contingent on different types of audiences, each of which requires different types of approach to decision-making.

Secondly, while prior work on integrated thinking remained silent on what constitutes the force of integration and assumed the notion of agreement, this chapter offers a systematic account of how organizations can formulate and take decisions while contemplating the multiple cognitive schemes of the types of audiences involved. That is, we bring together various elements of Kahneman's framework in a dynamic process model that distinguishes three types of reasoning that result from the interaction between the intuitive and deliberative system, each leading to different responses to stakeholder engagement.

In the following paragraphs, a set of integrated thinking/stakeholder engagement areas for which a cognitive approach can be particularly fruitful are identified and briefly discussed. While this agenda is not exhaustive, the extent of the empirical and theoretical challenges that surround the impact of integrated thinking, the scope of the research avenues, and the research questions indicated below, show that academic research still has much potential.

First, Kahneman's dual-processing framework is a way to focus on the understanding of how psychological attributes and biases affect strategic choices, an aspect that has been somewhat neglected in prior accountability research. More specifically, there is a need for future research into the foundations of integrated thinking in organizations.

Second, dialogic accountability has been an influential concept in explaining the organizational approach to stakeholder engagement (Unerman and Bennett 2004, Bebbington et al. 2007, Burchell and Cook 2008, van Huijstee and Glasbergen 2008, Brown 2009). However, most research on stakeholder engagement has overlooked the cognitive mechanisms behind dialogic engagement. In the emerging practice of integrated thinking, there is a need to advance the understanding of how specific biases and heuristics affect dialogic engagement, and the effect of such biases in organizations' accountability contexts.

Finally, stakeholder engagement research seems to assume that once the process is defined, a successful execution follows. However, more needs to be known about the conditions leading organizational actors and decision-makers to execute engagement with stakeholders. For example, future research could focus on the micro-level processes of organizational actors, the structures they are embedded in, and how the interactions between them influence the activities required to engage with stakeholders.

The more integrated thinking is embedded in organizations, the more likely it is that a fuller consideration of key stakeholders' legitimate needs and interests is incorporated as an ordinary part of conducting business. Future research could provide insight into these matters.

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