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Joining Decision-Making, Moral Thinking, and Collective Action: Grand Challenges as a Phenomenology of Deliberation

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ABSTRACT This conceptual article argues that the mutual relevance of *grand challenges* and organization and management studies is best approached phenomenologically. Rather than constituting objects to be theorized or denoting special empirical contexts, grand challenges structure researchers' attention and shape their interpretations of the processes and systems of deliberation through which collective action is coordinated. From this perspective, grand challenges require researchers to innovate their understandings of deliberation and to ensure that newly generated knowledge is redirected towards management and policymaking. The article integrates the Carnegie School theory of organization with French pragmatic sociology's theory of justification, or *economies of worth*, to develop a phenomenological model of situated deliberation that links decision-making with moral reasoning. This model highlights deliberation's articulated, evaluative, contestable, and trans-institutional character, as well as its grounding in the cognitive capacities and sociality of actors and observers – regardless of the scale, scope, or stratification of the underlying coordination problems. Building on this framework, the article advocates that grand challenge researchers adopt the standpoint of *entrepreneurial observers*: actors anchored by socio-economic and scientific commitments who envision the integration of previously disjointed social systems of deliberation to orient collective action.

Keywords: Carnegie School, decision-making, economies of worth, grand challenges, morality, phenomenological models

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INTRODUCTION

The idea of *grand challenges* is both a success story and a source of difficulty in organization and management studies. The term typically denotes large-scale, complex problems, such as global poverty and climate change, which affect human development and social justice and demand coordinated, multilevel responses (Ferraro et al., 2015; George et al., 2016). This framing has inspired a growing body of scholarship aimed at producing societally impactful research. However, recent reviews (Carton et al., 2023; Dorado et al., 2022; Howard-Grenville and Spengler, 2022; Seelos et al., 2022) suggest that the scientific status of the idea remains uncertain. The conceptualization of grand challenges is marked by dispersion and disjointedness, hindering cumulative theoretical development. Researchers often use the term rhetorically to justify studies across diverse contexts rather than treat it as an analytical lens. Without greater substance and cohesion, the idea risks devolving into a transient academic fashion and even an 'empty signifier' (Carton et al., 2023, p. 3).

This conceptual article argues that grand challenges and organization and management studies remain mutually relevant – the former as a stimulus towards scientific innovation and the latter as a source of impactful knowledge – but this relevance is best articulated from a phenomenological perspective. Taking a phenomenological standpoint involves specifying how grand challenges enter researchers' attention and contribute to their perceptions, experiences, interpretations, and representations of organizations and management processes. Such an approach addresses grand challenges neither in purely theoretical terms as a novel conceptual category, nor as a mere empirical motivation to conduct studies in non-habitual contexts, but in terms of the idea's capacity to produce interpretations and understandings that would otherwise remain unavailable. Existing work has attempted to specify properties of grand challenges such as scale, complexity, interdependence, and need for distributed, multilevel, and pluralistic forms of collective deliberation, and to document their manifestations across social and institutional settings (e.g., Chatterjee et al., 2023; Ciambotti et al., 2025; Cloutier et al., 2025; Ferraro et al., 2015; Gehman et al., 2022; George et al., 2016; Giamporcaro et al., 2023). Yet these efforts have not resolved whether grand challenges constitute a distinct class of coordination problems or merely an umbrella label for heterogeneous phenomena (Howard-Grenville and Spengler, 2022; Seelos et al., 2022). Rather than attempting to further refine this boundary, the article adopts an alternative analytical strategy and treats the idea of grand challenges as a perspective: a standpoint that structures how coordination problems are identified, conceptualized, and actioned. From this standpoint, grand challenge issues function not as objects of inquiry, but as orienting horizons that encompass and frame multiple phenomena of situated deliberation and coordination, amenable to study and intervention.

This reversal promises two main benefits. The first is a more forceful stimulus for innovation in theory, methods, and field organization. Theoretical progress often follows from adopting novel perspectives on physical or social reality (Alvesson and Sandberg, 2024; Anand et al., 2020; Daft and Lewin, 1990; Godfrey-Smith, 2021; van Krogh et al., 2012). New or distinct phenomena can prompt researchers to develop

concepts and methods, thus sharpening the precision of broad ideas and enabling coordinated research efforts. In this direction, the relevance of grand challenges lies in the idea's potential to motivate and orient new, generative framings of real-world deliberation and coordination.

The second benefit is enhanced interactions between research and practice. Scholars are increasingly urged to generate positive societal impact through engagement with business leaders and policymakers (e.g., Gümüsay et al., 2022; Reinecke et al., 2022; Wickert et al., 2021). To do so, they must convey the urgency and distinctiveness of socio-economic problems in terms aligned with practitioners' perceptions, expertise, jurisdiction, and constraints. Without such integration, grand challenges risk becoming reified as idealized, decontextualized issues that practitioners may feel neither equipped nor compelled to address. In this direction, the relevance of organization and management studies for grand challenges lies in these fields' capacity to connect theoretical and practical knowledge through multiple channels, such as education, advocacy, and advisory.

To handle the proposed phenomenological reversal analytically, it is necessary to represent the deliberative processes and structures through which coordination problems are addressed in terms of actors' experiences, cognitive and social capacities, frames of reference, and acts, and to relate this representation to broad aims of scientific advancement and socio-economic improvement. These considerations motivate three interrelated questions addressed in the remainder of this article: How can deliberation be represented phenomenologically? What distinguishes a grand challenge perspective on deliberation? What are the theoretical and methodological implications of adopting such a perspective?

To address the first question, the article integrates two classic theories: the Carnegie School theory of organization (Cyert and March, 1963; March and Simon, 1993; Simon, 1997) and the theory of justification, or *economies of worth*, from French pragmatic sociology and the economics of conventions (Boltanski and Thévenot, 2006). Together, they offer a coherent phenomenological view of how situated actors navigate coordination problems shaped by complexity and normative pluralism. Both perspectives approach deliberation as situated decision-making grounded in shared cognitive and normative models (Frère and Jaster, 2019; Weick, 2019). Justification theory builds on key assumptions developed in the Carnegie School (Favereau, 1989a; Koumakhov, 2006, 2009, 2025) and complements its articulation of how actors search for actionable options with a distinctive account of the collective construction and contestation of action norms.

To address the second question, the article redefines grand challenges phenomenologically in terms of how they can structure the perceptions and representations of an *entrepreneurial observer*: an actor capable, by virtue of standpoint, intent, and knowledge, of relating socio-economic problems to specific and actionable conditions of deliberation and coordination. Finally, in response to the third question, the article discusses how a pragmatic and capacious scientific pluralism can support this standpoint.

The article offers three contributions. First, by integrating the Carnegie School and justification theory it develops a novel model of organizational decision-making co-constituted by actors' natural cognitive capacities and sociality and by the normative pluralism and structural complexity of collective action problems. The model

suggests that deliberations around ordinary or grand challenge coordination problems, rather than being sharply distinguished, represent observers' selections from a continuum of deliberative dynamics. This can enable researchers to approach them using a unified conceptual vocabulary, with implications for studies of justification, decision-making, management, and organization-building in everyday practice as well as in responses to large-scale societal problems. Second, the article advances the debate on the significance of grand challenges by shifting the focus from conceptual or empirical categories to the integration of researchers' analytical capacities, societal commitments, and embedding in scholarly fields. This can reinforce the orientation of research and theory towards actionable problems and societal impact. Third, the article outlines a methodological framework to support this orientation by coordinating diverse theorizing stances and methodological tools through phases of detection, diagnosis, and design.

INTEGRATING AND MAKING OPERATIONAL THE IDEA OF GRAND CHALLENGES

Two versions of the concept of grand challenges have gained currency in organization and management studies. Although not mutually exclusive, each emphasizes a different dimension: scientific relevance or socio-economic impact.

The scientifically focused version emerged first. Howard-Grenville and Spengler (2022) credit Colquitt and George (2011) with introducing the term to the field in an editorial on improving the quality of journal submissions. Colquitt and George associate the idea with mathematician David Hilbert, who, at the turn of the 20th century, articulated 23 key problems to guide mathematical inquiry and ensure the discipline's continued relevance (Seelos et al., 2022). Similarly, Colquitt and George encourage researchers to address 'large, unresolved problems in a particular literature or area of inquiry' using boldness and imagination and suggest that such efforts could yield 'new paradigms' (p. 432).

Although Colquitt and George do not cite Kuhn explicitly, their framing aligns with a Kuhnian conception of scientific problems, in which the latter arise from anomalies that cannot be explained within an existing paradigm – that is, a field's shared understandings and practices (Godfrey-Smith, 2021). Addressing such problems requires new analogies, examples, heuristics, and ontologies (Anand et al., 2020). For instance, Colquitt and George reference the slow diffusion of evidence-based innovations in healthcare, contrary to predictions from linear-diffusion models. The study they cite (Ferlie et al., 2005) addresses this problem by theorizing that innovation diffusion is hindered by social and cognitive separation between practitioner communities.

The later, societally focused version of grand challenges, by contrast, conceives them first of all as complex socio-economic problems. The two most cited articles in the field, based on a Web of Science search (as of May 2025), identify examples such as 'poverty alleviation … climate change [in its socioeconomic aspects] … and exploitative labor' (Ferraro et al., 2015, p. 364), as well as the United Nations Sustainable Development Goals (SDGs) (George et al., 2016). Colquitt and George

had already mentioned the earlier Millennium Development Goals as an example of the widespread use of the term 'grand challenges' in different domains. In time, such broad socio-economic aims became a focus also for organization and management research.

In this version, grand challenges are defined as 'formulations of global problems that can be plausibly addressed through coordinated and collaborative effort' (George et al., 2016, p. 1880). They 'extend beyond the boundaries of a single organization or community … significantly and adversely affect human welfare … [and] are seemingly intractable' (Ferraro et al., 2015, p. 365). From this perspective, grand challenges manifest primarily as coordination problems to be addressed through collective deliberation, that is, reasoned decision-making that redirects action (Dewey, 1998a, 1998b, 1998c). Accordingly, scholars have theorized deliberative strategies and practices such as *robust action* (Ferraro et al., 2015; Gehman et al., 2022), an approach that aims to generate widespread creativity and sustained commitment through the establishment of appropriate social structures, interpretive processes, and exploratory practices. Other examples include *moral work* (Cloutier et al., 2025), a system of practices for constructing norms of collective action in pluralistic settings, as well as *double weaving* (Chatterjee et al., 2023) and *deliberative boundary work* (Giamporcaro et al., 2023), representing practices for coordinating deliberations across multiple actors and scales. Researchers may examine deliberation in diverse empirical contexts and ensure the integration of insights by referencing shared organizing frameworks of grand challenge action (George et al., 2016).

Although the two versions of grand challenges are compatible, both suffer from a common limitation: neither is sufficiently 'bounded' to be operational. The scientific version lacks normatively pluralistic criteria for selecting interesting scientific problems that are also societally relevant; the societal version provides no scientific criterion to orient theoretical innovation. This leaves scholars to rely on intuition to judge significance, novelty, ambition, and actionability (Colquitt and George, 2011) and hampers the mobilization of research, business, and policy around grand challenges (Carton et al., 2023; Dorado et al., 2022; George et al., 2016). Scholarship has yet to offer practitioners 'a more precise understanding of the grand challenges construct' to help them 'grasp grand challenges in terms of what they are – namely, very different from the problems we typically solve through the application of reductionist, linear thinking' (Howard-Grenville and Spengler, 2022, p. 292).

This article proposes to integrate these two approaches and make them operational by adopting a phenomenological orientation. Such an orientation examines how reference to grand challenges can structure the perceptions and representations of researchers, enable them to relate action on organizational structures and management practices to societal and scientific aspirations, values, and norms, and supply the operational boundaries that prior takes on grand challenges lack.

A phenomenological approach promises the twin benefits of advancing theory while enhancing the socio-economic impact of research. Newly perceived and newly framed phenomena can signal opportunities for substantive scientific innovation and serve as rallying points for action (van Krogh et al., 2012). Their recognition can prompt researchers to adopt a theoretically open, methodologically flexible stance from which to develop 'new grammar, new variables, and new definitions' (Daft and Lewin, 1990, p.

5) that reduce equivocality early in theory development and support the emergence of innovative analytical frameworks and research practices.

Constructing, comparing, and revising vocabularies is a central mechanism through which actors address real-world problems (Talisse and Aikin, 2008). This pragmatist epistemological stance, frequently invoked in grand challenge scholarship (e.g., Cloutier et al., 2025; Ferraro et al., 2015; Gümüsay and Reinecke, 2024), applies to both research and practice. The ability to articulate reality in terms that bridge management, policymaking, and research is especially consequential for the complex, multilevel coordination problems associated with grand challenges (Howard-Grenville and Spengler, 2022) – witness calls for organization and management scholars to shape practice through diverse communicative efforts anchored by emancipatory, performative, problem-driven, and intervention-driven theorizing, alongside theory co-production, education, and scientific activism (Bridoux et al., 2024; Gray, 2023; Reinecke et al., 2022; Wickert et al., 2021).

To be actionable and support the ambition of jointly advancing theory and effecting social change, the phenomenological approach to grand challenges must meet requirements of distinctiveness, feasibility, and communicability. Distinctiveness demands enabling perceptions and representations unavailable from other standpoints. Feasibility requires excluding assumptions that would place unrealistic demands on the observers. Communicability ensures that the reality being observed is made intelligible to relevant audiences. These requirements motivate this article's tasks of conceptualizing deliberation in terms of actors' and observers' experiences and capacities and articulating a distinctive grand challenge perspective on it.

THEORIZING APPROACH

Adopting the view that existing theories can contribute to the construction of novel framings of reality (Alvesson and Sandberg, 2024), this article approaches deliberation simultaneously through two classic theoretical traditions. The first is the Carnegie School theory of organization (CS), developed in Simon (1997), March and Simon (1993), Cyert and March (1963), and related works before and after these foundational texts. CS has been widely influential, both directly and through its impact on subsequent organizational theories (Anderson and Lemken, 2019; Bromiley et al., 2019; Gavetti et al., 2007).

The second is justification theory (JT), represented mainly in Boltanski and Thévenot (2006). JT is a cornerstone of French pragmatic sociology and the economics of conventions, two fields that emerged from a transdisciplinary movement attracting sociologists, economists, and other scholars from the 1980s onwards (Diaz-Bone and de Larquier, 2022a; Jagd, 2011; Wilkinson, 1997). Beyond Boltanski and Thévenot's *economies of worth* framework, this article also draws on concepts from these fields and from a growing body of JT-informed organization, management, and business studies (Cloutier et al., 2025; Grattarola et al., 2024).

The joint mobilization of CS and JT is warranted in terms of theoretical proximity, compatibility (Okhuysen and Bonardi, 2011), and complementarity. Both theories recognize

a phenomenological dimension in action and socio-economic coordination (Frère and Jaster, 2019; Weick, 2019): actors address relevant problems by constructing representations of their circumstances that combine factual and normative elements. Reasoned approaches to socio-economic problems are grounded in such situated constructions, rather than in universally valid models or criteria. As March and Simon (1993) note, 'from a phenomenological viewpoint, we can only speak of rationality relative to a frame of reference' (p. 159). This applies equally to actors and to observers assessing their procedures, including scientists, who are granted neither superior rationality nor special critical faculties. Even in everyday situations, actors formulate judgments and critiques that 'translate states of mind that act like scientific inquiries' (Frère and Jaster, 2019, p. 148).

In both perspectives, frames of reference are products of social processes (Koumakhov, 2025). Complementarily, CS acknowledges the function for decision-making of social norms and moral evaluations that represent the focus of JT, while JT draws from CS key notions such as *bounded rationality* and composite organizational systems that extend decision-making over space and time (Favereau, 1989a; Koumakhov, 2009, 2025; Simon, 1952). Yet each theory emphasizes different aspects of cognition and organization, thus jointly offering an articulated conceptual toolkit for approaching deliberation along processual and structural dimensions. To anticipate key elements, CS focuses on how actors equipped with bounded rationality *search* for actionable options among which to realize a choice; in organizations, this process is *orchestrated* through organizational *programs*. JT, in turn, emphasizes how actors make *situated judgments* about the normative constraints of action, exercising *critical capacity* and coordinating through *emergent conventions*. Integrating CS and JT therefore enables a unified account of how situated actors construct coordination problems rationally and critically and extend coordination across spatial and temporal scales, and how observers, in turn, build higher-order representations of these constructions.

Building on this premise, the paper adopts a four-step theorizing approach. First, it examines in greater detail the *conceptual materials* drawn from CS and JT and their areas of proximity, compatibility, and complementarity. Second, it develops a model of a generalized *deliberative process* by following a coevolutionary form of process theorizing (Cloutier and Langley, 2020). This involves integrating search and situated judgment conceptualized in CS and JT by means of constructs that capture their interactions. Third, it transitions from a processual to a structural representation by articulating how networks of deliberative processes constitute observed *social systems of deliberation*. Finally, it establishes the standpoint from which observers can envision opportunities to extend and connect these systems to address coordination problems over a wider scope: a *grand challenge perspective on systems change*.

CONCEPTUAL MATERIALS

The phenomenological viewpoint of CS and JT rests on a methodological critique of earlier economic and sociological theories. At one pole, this critique addresses approaches grounded in methodological individualism such as neoclassical, game-theoretic, and contractual economics (Boltanski and Thévenot, 2006; Diaz-Bone, 2011; Favereau, 1989a, 1989b; Simon, 1955; Wilkinson, 1997), which posit that socio-economic coordination arises

from the independent, rational decisions of autonomous individual or corporate agents endowed with effectively unlimited foresight and information-processing capacities.

At the opposite pole, it challenges methodologically holist theories, including economic perspectives that portray firms as instruments for safeguarding entrenched interests or reproducing higher-order power structures such as capitalism, as well as structuralist and critical sociologies (Boltanski and Thévenot, 2006; Cloutier et al., 2017; Diaz-Bone, 2011; Favereau, 1989c). In these accounts, socio-economic coordination is seen as the product of cognitively embedded social structures, with actors adopting beliefs, values, interests, goals, and rules of action from their social environments and biographical trajectories, as exemplified by Bourdieu's (1977) notion of *habitus*.

For CS and JT theorists, these assumptions are challenged by empirical insights into both cognition and coordination. From a cognitive standpoint, psychological research shows that individuals exhibit *bounded rationality*, with evident constraints on foresight and information processing (Simon, 1955, 1976). At the same time, socio-anthropological studies reveal that actors are not confined to unreflective, structurally determined dispositions but possess a natural *critical capacity* that enables them to reflexively and creatively assess the fairness of socio-economic arrangements based on an assumption of common humanity (Boltanski and Thévenot, 2006).

Regarding coordination, research shows that organizations largely rely on constitutive rules that specify modes of collective action, such as business models and formal organization designs, rather than transactional mechanisms like prices, game payoffs, or contracts. These constitutive rules function as cognitive devices that delimit and simplify coordination problems (Favereau, 1989a). Their variation across industries, firms, and time points to endogenous mechanisms of local differentiation that unfold within broader socio-economic contexts (Salais and Storper, 1992).

By assuming bounded rationality and critical capacity, and by linking these to the elaboration of differentiated constitutive rules, CS and JT establish the premise that actors neither ignore the uncertainty inherent in coordination problems nor allow it to be entirely absorbed by existing social architectures. Instead, they engage with such problems through behaviours oriented towards specific situations.

In Simon's (1955) account of bounded rationality, a decision-maker is situated within an environment from which information is extracted, filtered, and organized through the decision-maker's perception and cognition. This process produces a mental mapping of goals, constraints, actionable options, and foreseeable outcomes that limits the decision problem in space and time while simplifying it to a level manageable by bounded rationality. The decision-maker proceeds by mental and physical activities for manipulating information, constituting a form of *search* behaviour. In search, the decision-maker uses heuristics such as hierarchical problem decomposition, rules of thumb, and familiar paradigms (March and Simon, 1993), examining actionable options sequentially to identify satisficing ones – that is, actions expected to clear a subjectively defined attainment threshold – before settling on a final choice.

When action involves coordination with others, decision-makers' representations of problems incorporate common models of relevant social circumstances, along with the ethical, moral, and appropriateness norms that accompany them, which are created, acquired, and modified through social interactions (Koumakhov, 2009, 2025; Simon, 1952).

JT, adopting from CS the assumption of bounded rationality (Favereau, 1989a; Koumakhov, 2025), focuses specifically on how this is achieved. According to Boltanski and Thévenot (2006), actors attend to cues about the relations among persons and objects in a situation and examine them by exercising critical capacity – first to identify the situation as an instantiation of a general type of practice oriented towards a legitimate form of value, morality, or common good, and then to determine whether it is properly ordered and conducive to the common good in question. These cognitive operations draw on subjective selections and combinations from a limited number of culturally available models ('common worlds'), yet the resulting representations conform to a 'grammar' that renders them generally intelligible during *situated judgment*. This is an intersubjective behaviour that actors enter at critical moments when contingencies disrupt an explicit or implicit agreement about the nature of a situation, prompting its reconstruction, or when such agreement must be constructed anew. In situated judgment, actors report, compare, evaluate, critique, and revise their assessments of the situation, resolving or assuaging differences through various communicative acts such as 'tests' and 'compromises'. Debates are concluded by a judgment, that is, a performative act of 'conventional character' (p. 353) that stabilizes a shared representation. Because situated judgments are costly and uncertain, actors may seek to avoid them by framing disruptions as marginal or by reaching opaque private agreements.

Although bounded-rationality actors address coordination problems in specific situations, coordinated action as exhibited by organizations extends across space and time. To explain this extension, CS conceptualizes organizations as near-decomposable or loosely coupled systems (the more current term) composed of nested, specialized, and relatively independent components, a structure that enables a system's extension and evolution through component addition and change (Simon, 1996). Loosely coupled organizational systems ensure a degree of continuity and consistency in decision-making across various contingent situations. The relevant components are *programs* (Cyert and March, 1963; March and Simon, 1993; Simon, 1997). A program specifies activities, often involving search, to be performed in response to stimuli arising from environmental change, the passage of time, or the initiation or completion of other programs. For instance, a firm may launch a strategic review when the industry structure shifts, prepare budgets and financial reports at fixed intervals, or execute a settlement program once a trading program concludes. Programs combine into a nested hierarchy. At lower levels, search becomes increasingly specific and constrained, and may ultimately disappear leaving only pre-determined rules of action. Strategy development, for instance, may involve extensive search, whereas entering a transaction into accounts may be strictly automated.

Although JT adopts from CS the idea of organizations as systems of relatively independent components (Favereau, 1989a), it conceptualizes them differently as configurations of *conventions* (Thévenot, 2001, 2003). This concept has an articulated history, originating from Keynes's theory of decisions in financial markets and from philosophical studies of language and game theory (Favereau, 2008). In JT, conventions are regularities of belief and representation that make possible regularities of behaviour (Diaz-Bone and de Larquier, 2022b; Favereau, 2008). They encompass unobservable 'mental model[s] of a common world' (Favereau, 2008, p. 125), observable representations of such

models, and behaviours such as customs and routines, often supported by technical artefacts (Gomez, 2024). For example, business models function as conventions by representing beliefs among entrepreneurs and investors about how firms in an industry create value (Kaplan and Murray, 2010); double-entry bookkeeping is a convention because accountants are expected to follow its principles and perform accounting routines correspondingly.

Programs and conventions overlap substantially. Both function as devices that limit the cognitive load of bounded-rationality actors by establishing relevant information formats and action rules. Many features of programs are convention-like. A strategic planning program, for instance, may be developed under the assumption that a business model must reflect investors' conventional beliefs about value creation, while an accounting program may be designed in accordance with conventional principles of double-entry bookkeeping. Conversely, many aspects of conventions are program-like, as they presuppose or incorporate standard templates for context-appropriate coordinated actions, such as investor communication or periodic financial reporting.

Despite these similarities, an important difference lies in how programs and conventions acquire force. Programs are designed, explicit, attributed to a legal, formal, or de facto entity such as an organization or its subunits, and backed by authority, control, or influence. Conventions, by contrast, gain force by justifying actors' reasons and preferences for acting in particular ways, even when alternatives exist, definitions are non-canonical, sources are indeterminate, or institutional enforcement is absent.

The coordinating mechanisms through which these forces operate are, respectively, *orchestration* and *emergence*. Orchestration serves here as a catch-all term for planning, organizational design, governance, control, and other managerial processes through which, according to CS, organizations develop and integrate their systems of programs. Through planning (March and Simon, 1993; Simon, 1997), an organization constructs broad representations of coordination problems at higher levels of generality (e.g., at the level of the entire firm) and recursively decomposes them hierarchically and functionally until locally manageable actions can be defined (e.g., for specific activities). Higher-level programs provide context for lower-level ones by offering simplified representations of the relevant environment. At all levels, planning is guided by heuristics: prioritizing readily available information and knowledge, examining alternative courses of action sequentially, and expanding search only when existing options appear unsatisfactory. By mapping coordination problems onto a hierarchy of relatively independent programs and assigning them to subunits in the organizational formal structure, the organization enables a collective analog of satisficing: subunit decisions are acceptable as long as they do not prevent other subunits from pursuing their goals.

Other orchestration activities include *initiation*, that is, the process of innovating programs; *bargaining–learning*, through which actors reciprocally discover and adjust goals and aspirations; and multiple *control processes* that reduce uncertainty in internal interactions. Among these, identification, training, and incentivization promote the psychological alignment of individuals with the values, goals, and knowledge of the organization and its subunits. Organizational design establishes lines of authority, control, and communication, while 'uncertainty absorption' establishes shared information, methods, and knowledge, distributed through the system of programs and

representing legitimate premises for search. Collectively, orchestration activities ensure the coherence and adaptability of the organizational system of programs, maintaining appropriate relations between generalized and particularized representations of coordination problems.

JT-based research examines analogous processes (although CS is rarely cited), but emphasizes bottom-up, lateral, and external influences, whereby critique can counteract the top-down dynamics of orchestration. These influences are visible in phenomena such as subversion of hierarchical decisions, heterarchical (low-hierarchy) organizational designs, controversies, governance contests, and institutional entrepreneurship (e.g., Barros and Michaud, 2020; Demers and Gond, 2020; Gond et al., 2016; McInerney, 2008; Patriotta et al., 2011; Ramirez, 2013; Stark, 2009; Wright and Nyberg, 2022).

JT-based research also introduces a distinct bottom-up mechanism of coordination: *emergence*. Emergence refers to the formation of stable patterns through non-orchestrated interactions (Chalmers, 2006; Kozlowski et al., 2013). Its operation can be inferred in the self-reinforcing development of conventions such as business models, voluntary industry regulation, or motivations for innovation adoption, arising from exchanges in which entrepreneurs, investors, customers, and regulators construct reciprocal expectations and shared meanings (Anesa et al., 2024; Kaplan and Murray, 2010; McInerney, 2008; Miranda et al., 2015). Although critique and emergence may act independently of, or even against, orchestration, they also contribute to the overall coherence and adaptability of systems by relating conventions of varying scope and generality. The broadest scope is captured in the common worlds of JT, representing top-level conventions that actors use to ultimately anchor situated judgments (Thévenot, 2001).

DELIBERATIVE PROCESS

The second step in this paper's theorizing approach combines the conceptual materials provided by CS and JT into a unified model of the *deliberative process* through which situated actors address coordination problems (Figure 1).

The model presupposes a situation and actors attending to it. The situation constitutes the context for ongoing or future coordinated action. Actors recognize that the nature and arrangement of the situation are uncertain. From their perspective, the situation thus appears as a problematic case requiring interpretation and resolution.

As actors attend to the situation, they may engage in search, situated judgment, or both. In organizations, this occurs for all decisions that theorists and practitioners would describe as strategic and for many operational ones as well. The alternance of search and situated judgment, in any sequence, constitutes *deliberative decision-making*.

The inputs to deliberative decision-making are *premises*: representations of the situation held by decision-makers. In organizational contexts, these include information formatted through programs and conventions. In addition to premises, decision-makers may tacitly draw on knowledge of the broader socio-economic context in which a situation is embedded, such as political dynamics, stakeholder preferences, laws, corporate

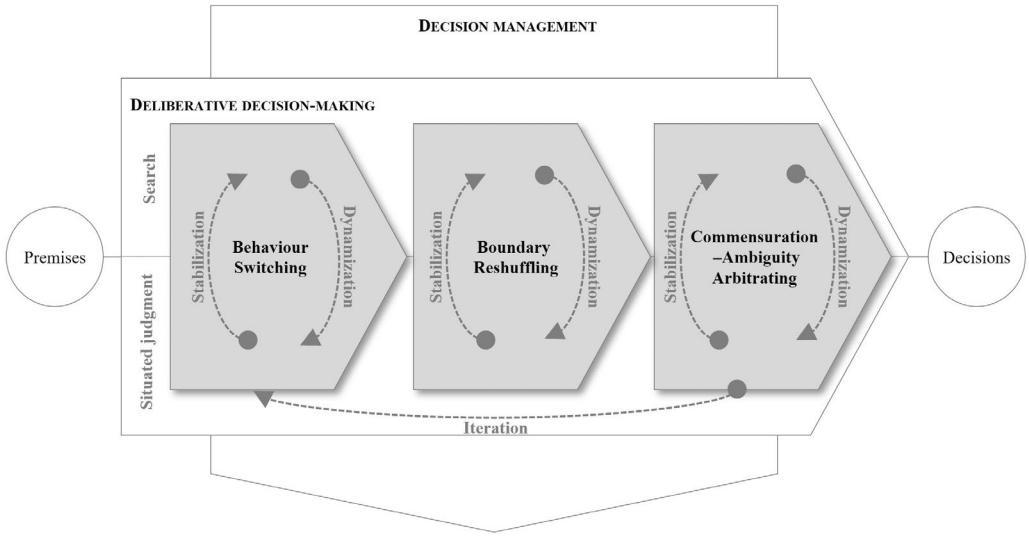

Figure 1. Deliberative process. Actors attending to a situation engage in deliberative decision-making by elaborating premises into decisions through behaviours of search and situated judgment. These are interrelated by events of behaviour switching, boundary reshuffling, and commensuration–ambiguity arbitrating that can iteratively stabilize and dynamize premises. These events are induced by various decision management processes. Orthogonal to deliberative decision-making, decision management is performed by actors who attend to the second-order situation in which deliberative decision-making unfolds

governance principles, or organizational systems (Favereau, 2024; Gomez, 2024; March and Simon, 1993). Premises and other knowledge may be shared among decision-makers to varying degrees.

The outputs of deliberative decision-making are *decisions*, each defined as 'a conclusion drawn (though not in any strict logical sense) from premises' (Simon, 1952, p. 1132). To draw a decision from premises, decision-makers coordinate the latter through operations such as combining, separating, prioritizing, ordering, filtering, adding, reshaping, or connecting. These 'world making' operations (Goodman, 1978) construct a shared meaning of the situation. In CS terms, premises are coordinated in a choice; in JT terms, premises are coordinated in a judgment. Within the model, a decision combines both a choice and a judgment. Decisions can be 'taken as premises for subsequent decisions' (Simon, 1952, p. 1132), thereby linking distinct deliberative decision-making processes.

To interconnect search and situated judgment, three events are layered across them, respectively marking transitions between behaviours, redefinitions of decision-makers' attention boundaries, and redefinitions of premises.

Behaviour switching represents the transition between search and situated judgment (or vice versa) as the decision-makers' attention shifts between factual and normative premises. Actors may switch from situated judgment to search after tentatively fixing norms (i.e., common models), and switch back to situated judgment when persistent failure to identify satisficing options triggers a crisis (Boltanski and Thévenot, 2006) and compels them to reassess goals and satisficing criteria (Cyert and March, 1963). For instance, a steelmaker seeking to reduce both production costs and environmental externalities may,

after failing to identify viable production technologies, question the premise that both goals are simultaneously achievable. In other cases, exploration (March, 1991) during search may reveal actionable options that call for the construction of new norms (e.g., the discovery of technological innovations that enable firms to reconceive efficiency and sustainability as synergistic rather than conflicting).

Boundary reshuffling refers to the redefinition of decision-makers' attention domains that may accompany shifts in focus vis-à-vis decision-making snags. The concept draws on *boundary work* (Gieryn, 1983), denoting efforts to regulate participation and content in social practices, and *boundary shuffling* (Giamporcaro et al., 2023), denoting boundary work practices that sustain democratic deliberations. Distinct from both (and requiring a slightly different label), boundary reshuffling is conceptualized as an event rather than a self-contained practice or activity. It is marked by changes in the identity of decision-makers and the structure of their interactions, leading to different contributions to deliberative decision-making. March (1991) notes that such variations promote group learning by redrawing the limits of available knowledge, even when knowledge quality itself does not improve. For instance, the steelmaker struggling to identify a jointly efficient and sustainable technology could involve consultants and local administrators in the process, thereby enriching deliberation with technical and political expertise.

Finally, *commensuration–ambiguity arbitrating* denotes an event in which the outcomes of search and situated judgment are integrated in a provisional decision-supporting device that re-enters deliberative decision-making. Commensuration is an uncertainty-absorbing compression of information that involves 'the transformation of different qualities into a common metric' (Espeland and Stevens, 1998, p. 314). Such compression facilitates search, which involves the identification of satisficing options likely to exceed a specific performance or attainment threshold (Cyert and March, 1963; Simon, 1955). In contrast, ambiguity entails the avoidance of clarification about the relative weights of different qualities and often arises in situated judgment, where plural values require compromise (Boltanski and Thévenot, 2006). Arbitration between commensuration and ambiguity occurs when evaluative devices that define trade-offs and format decisions are introduced in deliberative decision-making. For example, the steelmaker might create investment valuation models that express both production costs and ecological externalities in monetary terms (commensuration), maintain separate financial and environmental evaluations (ambiguity), or implement a multidimensional scoring system (a midpoint between the two).

By leading to modified premises, behaviour switching, boundary reshuffling, and commensuration–ambiguity arbitrating can dynamize or stabilize deliberative decision-making, orienting it towards both innovation and routinization (Gomez, 2024). They represent actuation points for the orchestration and emergence processes outlined in CS and JT, which the model collectively labels *decision management*. The introduction of this component, orthogonal to deliberative decision-making, indicates that actors can occupy two distinct roles in the deliberative process. As decision-makers, they attend to a problematic situation that constitutes the context for coordinated action. As decision managers, they attend to a second-order problematic situation – namely, the context in which decision-makers themselves operate and communicate. Different actors may occupy each role, or the same actors may alternate between them. For

example, a CEO acts as a decision-maker when participating in a strategic planning process and as a decision manager when organizing or directing that process. (In some cases, a decision-maker may deliberate alone while also reflecting on actual or possible decision-making contexts. For instance, a CEO may privately evaluate a policy while anticipating arguments that might arise in an upcoming executive committee meeting.) Roles are independent of job titles and formal affiliation: a decision-maker is any actor who can mobilize premises, and a decision manager is any actor who can influence which premises are mobilized.

SOCIAL SYSTEMS OF DELIBERATION

The third step in the theorizing approach consists in extending the processual view of deliberation into a structural one. Deliberative processes are situated, yet coordinated action can span multiple situations, giving rise to conceptions of organizations in CS and JT. In the present model, this phenomenon is captured by the concept of *social systems of deliberation*, defined as functionally bounded networks of deliberative processes. This notion aligns with the CS and JT view of loosely coupled systems while avoiding reified conceptions of organizations or other institutional structures. By mobilizing as systems components deliberative processes rather than programs or conventions, the model integrates the structural and dynamic dimensions of deliberation.

Deliberative processes form the nodes of a network connected through communication. The information conveyed consists of premises–decisions, and its movement depends on behaviour switching, boundary reshuffling, and commensuration–ambiguity arbitrating induced by decision management. Communication may be mediated by objects that inscribe premises–decisions and render them available for multiple deliberative processes distributed across space and time.

Social systems of deliberation are constructed by observing such networks, forming phenomenological artefacts shaped by observers' perception and cognition. This notion introduces a third role alongside decision-maker and decision manager – namely, the observer. Like others, it is defined by a distinct focus of attention rather than by special abilities. Observers, socially embedded and equipped with bounded rationality and critical capacity like all actors, direct their attention not to particular situations or deliberative decision-making but to entire deliberative processes and their connections and thus construct higher-order representations.

The model attributes three interdependent operations to the observer, grounded in interests, declarative ('know-that'), and procedural ('know-how') knowledge. First, the observer delimits a region of interest within the network by applying a grid of variable scope and granularity, a necessary step given that networks can extend indefinitely and deliberative processes can be recursively nested. For example, the observer may select processes of multiyear strategic planning and annual divisional budgeting in a firm, consider the planning processes of multiple firms, or analyse a single process such as divisional budgeting in terms of sub-components such as sales forecasting and objectives negotiation.

Second, the observer determines whether the selected region is functionally bounded by identifying the orchestrated or emergent coordination effects produced by the complex of deliberative processes. This allows the observer to qualify the region as a coordination-producing system, as when a coherent investment program results from planning and budgeting processes, supply levels stabilize through interactions among the plans of producers, suppliers, and customers, or sales objectives are fixed by integrating forecasts and budget negotiations.

Finally, the observer re-presents the system as a social network. This involves attributing deliberative processes, premises-decisions, and the system as a whole to entities: theoretical, legal, formal, or conventional constructs such as institutions, organizations, organizational subunits, project teams, advocacy groups, or communities, linked by power, influence, authority, or contractual relations. For instance, the system of planning and budgeting processes may be attributed to the firm and its components to subunits, and the system of production and purchasing decisions may be attributed to an industry, market, or cartel. Attributive operations enable communication, evaluation, and critique, as they allow the observer to refer to entities as if they were actors (King et al., 2010) capable of intentions, decisions, responsibility, and accountability.

A GRAND CHALLENGE PERSPECTIVE ON SYSTEMS CHANGE

The model developed thus far, grounded in an integrated reading of CS and JT, provides a phenomenological account of deliberation based on empirically supported assumptions about cognition and intersubjectivity. Actors address coordination problems by mobilizing socially constructed cognitive devices that link concrete situations to models of collective action, thereby enabling coordination across levels of generality, space, and time. These engagements unfold within second-order situations shaped by top-down, lateral, and bottom-up mechanisms that structure decision premises and procedures. Out of networks of such processes, connected by circulating premises-decisions, observers can construe social systems of deliberation via selection, inference, and representation. These systems appear distributed, loosely coupled, contestable, and indefinitely extensible. Crucially, the nature, scale, and complexity of coordination problems do not define social systems of deliberation as such; rather, they can explain particular system configurations (e.g., organizational forms) from a given observer's standpoint. Social systems of deliberation are thus not fixed entities but constructions-in-perspectives to which the observer attributes a function. They constitute for observers a higher-order – and potentially problematic – situation to attend to, interpret, and represent.

Building on this visual analogy, a perspective is defined by elements chosen by an observer and external to the phenomena being observed: a horizon that orients observation by delineating a space of possible movement and change, and vanishing points that anchor it. The idea of grand challenges and commitments to socio-economic and scientific aspirations, values, and norms can represent these elements and define the standpoint of an *entrepreneurial observer*: an actor who adopts a distinctive frame of reference to address coordination problems rationally, critically, and purposively. This

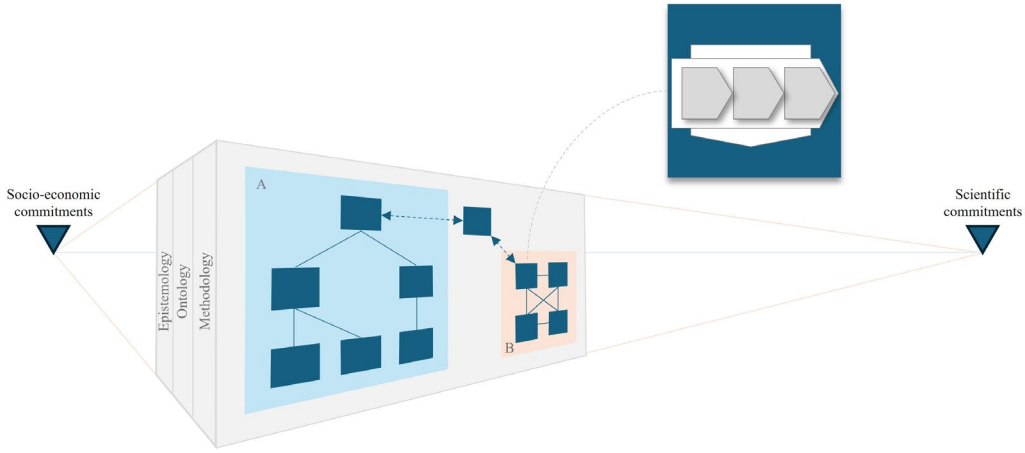

Figure 2. A grand challenge perspective on systems change. On the horizon of a grand challenge, an observer situated in space and time envisions and designs a desirable future state of deliberation for coordinated action. Two previously unconnected social systems of deliberation A and B, each comprising (part of) a network of deliberative processes, will be linked by additional processes, resulting in a system capable of coordinating premises–decisions over a broader – or just different – scope. The observer's vision is anchored by the twin vanishing points of socio-economic and scientific commitments, each based on pluralistic standards for assessing the design and its premises

perspective (Figure 2) completes the model by representing a pragmatic approach to grand challenge action, aiming at a distant horizon while advancing by situated, distributed, contingent, and provisional interventions. The grand challenges literature acknowledges these conditions as inherent to collective action in this domain (e.g., Ferraro et al., 2015; Sele et al., 2024); the present model further shows that they follow from the characteristics of deliberation and its grounding in actors' and observers' experiences, capacities, and sociality.

In this light, grand challenges can be defined in two complementary steps:

1. *Grand challenges are urgent, diffuse, and undirected demands for coordination*.
2. *Action on grand challenges consists in specifying these demands and attempting to meet them by interconnecting social systems of deliberation*.

Definition 1 reframes grand challenges in phenomenological terms, foregrounding actors' and observers' perceptions of crisis and uncertainty. These recur throughout the grand challenges literature as self-evident conditions of absence, urgency, broad relevance, and indeterminate attribution of coordination (e.g., Ferraro et al., 2015; George et al., 2016; Gümüsay and Reinecke, 2022; Mair and Seelos, 2021; Tihanyi, 2020). As perceived demands rather than observable coordination problems, grand challenges indeed differ from 'business-as-usual' cases, which originate from identifiable bearers, target specific entities, and generate legitimate expectations of fulfilment – for example, calls for strategic change to remedy corporate underperformance or for monetary intervention to curb inflation. In such cases, social systems of deliberation are in place, and they are observable, attributable, susceptible of critique, and amenable to functional reform.

By contrast, grand challenges lack identifiable systems. The bearers and recipients of coordination demands remain only generically defined, and the communicative processes and structures through which coordination may occur are absent or indeterminate. Consequently, mechanisms of systems repair – epitomized by Hirschmann's (1970) exit, voice, and loyalty – have no concrete referents and purposeful action remains elusive. In the visual analogy developed here, grand challenges confront observers with a horizon that spans a space fragmented in the near field and largely unstructured at a distance.

Definition 2 specifies what acting on grand challenges entails: removing their uncertainty by structuring diffuse demands through the attribution of boundaries, actors, and relationships. This work requires an observer positioned outside existing systems and capable of identifying the gaps between them – zones in which coordination mechanisms do not operate. Such gap identification is precluded to actors within systems, not because of different cognitive capacities, but because of standpoint- and knowledge-based constraints. External observers can therefore envision new deliberative processes that bridge specific gaps and interconnect previously separate systems into configurations of broader scope. For instance, a grand challenge such as climate change could be specified in terms of gaps between systems attributed to firms, industries, markets, or fields. Huault and Rainelli-Weiss (2011) show how a market for weather derivatives failed to materialize because participants relied on incompatible cognitive models and lacked organizational mechanisms for integrating them. Similarly, Jarzabkowski et al. (2019) reference a case in which persistent disagreement over flood-risk insurance valuation among stakeholders was resolved only after governmental actors instituted a new deliberative process. In both cases, gap-bridging interventions by external observers were required to address coordination failures that exceeded the capacity of existing systems. Within the visual analogy, these interventions correspond to the construction of new structures in the space defined by a grand challenge horizon.

Seen in this light, invoking grand challenges in research signals a focus on effecting purposive close-range change through intersystem brokerage. Such change can build on cumulative empirical evidence and theory development, but it ultimately results in situated interventions on deliberative processes and structures. Coordination problems deserving such interventions can be identified through researchers' intuition, sustained engagement with management and policymaking, and interaction with adjacent disciplines such as economics, sociology, and political science. Proposed organizational, managerial, or business practice solutions, and the premises on which they rely, must be justified along two dimensions: their effectiveness in advancing broad socio-economic aims and values, such as the UN SDGs (Cloutier et al., 2025; George et al., 2016), and their conformity with standards of scientific relevance and rigour (Gümüsay and Reinecke, 2024; Seelos et al., 2022). These constitute twin and equally indispensable vanishing points, which must be rendered explicit and exposed to critical scrutiny by relevant academic and practitioner communities.

DISCUSSION AND IMPLICATIONS

This article's premise is that the idea of grand challenges and organization and management studies remain mutually relevant, respectively as a stimulus for theory and research

and as sources of impactful knowledge. This premise can now be examined by referring to the article's contributions.

Relevance of Grand Challenges for Organization and Management Studies

The article has contributed a novel model of organizational decision-making that intersects the domains of JT and CS. The model highlights the entanglement between general norms and practically achievable values in deliberation, the political and entrepreneurial nature of management, and the dependence of collective action on trans-institutional decision-making structures. It suggests that these conditions, although often presented as distinctive to grand challenges, apply broadly and should be treated as baseline assumptions when studying organizations, management, and business practices. Being especially salient and complex, grand challenge issues magnify these conditions and motivate their integration in novel conceptions of the relationships between normativity and action, management and activism, and institutional jurisdiction and decision-making capacity. This has implications for studies of justification, decision-making, and the construction of organizational systems.

CS and JT provide a basis for theoretical development through their distancing from methodologically individualist and holist standpoints that risk either sidelining socially situated deliberation or reifying deliberative structures as stable ontological categories (e.g., organizations, industries, or civil society) rather than historical, contingent formations. The properties of dynamism, distribution, loose coupling, contestability, and extensibility that the model attributes to deliberative processes and social systems of deliberation have emerged from an inter-theoretical exercise that has mobilized these classic theories jointly. This exercise has employed CS more extensively than is typical (see Anderson and Lemken, 2019; Gavetti et al., 2007), incorporated its fundamental but often overlooked insights about the interdependence of cognitive structures and sociality (Bromiley et al., 2019), recalled the adoption of the CS assumptions of bounded rationality and composite organizations in JT, explicitly linked situated judgment with search, and built new concepts on this connection.

The integration of CS and JT suggests that in deliberative decision-making actors entangle general values with the specific satisficing value they expect to realize. They do so by coordinating factual and normative premises in situ and treating both as provisional stipulations subject to testing, critique, and revisions. This aligns with sociological studies highlighting the co-presence of provisional norm construction and practical valorization (Lamont, 2012; Vatin, 2013). It also suggests that research on organizational processes and practices of justification, critique, and evaluation (Cloutier et al., 2017, 2025; Jagd, 2011), and on the interplay between normative principles and realized value (e.g., Reinecke, 2010; Stark, 2009), could be advanced through empirical studies of deliberative decision-making joining situated judgment and search (e.g., Pohler, 2020).

In the model, dynamics of valuation and evaluation are powered by situated acts of decision management. These exploit the contestability and openness to entrepreneurship of value-dependent social systems of deliberation, which can foster adaptation, learning, and organizational intelligence (Gavetti et al., 2007; March, 1988), as well as both counter and supplement formal structures and authority relationships (e.g., Demers and Gond, 2020; Gibson et al., 2019; Gkeredakis, 2014). This conception builds on a CS-rooted view of managerial action as shaping the flow of issues and solutions

through decision-making, reconfiguring participation, offering concessions, finding compromises, injecting or removing uncertainty at selected points, keeping intentions and meanings fluid, and evading binding commitments (Alvarez, 1998; Cohen et al., 1972; Padgett, 1980). Labelled 'robust action', this form of control has been linked to political entrepreneurship (Padgett and Ansell, 1993) and a pragmatic management style (Alvarez, 1998), before being reconceptualized as a strategic approach towards grand challenges (Ferraro et al., 2015; Gehman et al., 2022). The concept of decision management extends this view to encompass the trans-institutional and trans-organizational processes examined in JT-based research, such as institutional entrepreneurship, controversy, and institutional repair (e.g., McInerney, 2008; Patriotta et al., 2011; Ramirez, 2013). Correspondingly, the category of decision managers expands beyond a professional cadre to include stakeholders in coordinated action. This opens possibilities for studying decision management as a *techne*: a practical, rule-governed discipline that links means and ends, presupposing but not reducible to conventional models of rational decision-making or formal organization.

The interaction between deliberative decision-making and decision management generates events through which extensive deliberative structures can emerge. This conceptualization does not require the ex-ante theorization of organizations, contexts, or coordination problems (e.g., a firm, its industry, and its strategy). Consistent with CS and, by extension, JT, the construction of wide-ranging structures can be explained based on attention dynamics, actors' social embedding, and loose coupling (Gavetti et al., 2007). From this standpoint, organizational forms and institutionalized practices and contexts are features of social systems of deliberation dependent on the observer's epistemic objectives and operations. Likewise, coordination problems depend on, rather than precede, the social systems of deliberation in which they are constructed. The relationship between coordination problems and their solutions is historical and contingent, reflecting the recursive dependence of present actions and deliberations on the accumulated consequences of prior ones (March, 1988; Sele et al., 2024). This highlights the value of retrospective reconstructions and prospective simulations of social systems of deliberation for the development of organization and management theories.

Relevance of Organization and Management Studies for Grand Challenges

Organization and management studies are natural sources of knowledge relevant to grand challenges, given their disciplinary mandate to examine intra- and inter-organizational phenomena as well as the relationships between organizations and broader social systems (Mair and Seelos, 2021; Stern and Barley, 1996). They also possess multiple avenues for producing societal impact (Gümüsay et al., 2022; Reinecke et al., 2022; Wickert et al., 2021). This article has contributed an actionable framing of such aspirations to relevance and impact by introducing the notion of entrepreneurial observers: researchers who adopt a perspective oriented by a grand challenge issue, take a standpoint from which to leverage their knowledge of deliberative processes and social systems of deliberation, and manage the paradox of being simultaneously

analysts of and actors within the systems they study (Gümüsay and Reinecke, 2024) by affirming socio-economic as well as scientific commitments (rather than pursuing the equivocality of 'classic' robust action).

In setting such commitments, researchers acknowledge and address scientific as well as socio-economic pluralism. Widely advocated in the grand challenges literature (e.g., Colquitt and George, 2011; Gray, 2023; Gümüsay and Reinecke, 2022; Seelos et al., 2022), pluralism in research principles and approaches has been shown to foster increasingly mature theories through the accumulation of insights generated by diverse designs applied to the same phenomenon (van Krogh et al., 2012). Under norms of scientific responsibility grounded in shared procedures for critique, strengthened by reflexivity, and guided by evaluative standards of generativity, transparency, and plausibility, pluralism can be sustained without jeopardizing field cohesion (Gümüsay and Reinecke, 2024; Luoma and Hietanen, 2025; Rolin, 2011; Wickert et al., 2021).

Yet, pluralistic scientific norms represent only one of the anchors of grand challenge engagements. While reference to general research principles and values is essential to orient researchers, so is the actionability of knowledge (Colquitt and George, 2011; Seelos et al., 2022). This consideration leads to the article's third contribution: a high-level framework for impact-oriented grand challenge research through which to coordinate diverse approaches across phases of *detection*, *diagnosis*, and *design*.

Detection concerns how researchers define 'interesting' problems (Davis, 1971). In grand challenge research, justifications for the selection of phenomena and empirical contexts remain often unspecific (Howard-Grenville and Spengler, 2022; Seelos et al., 2022). The model suggests that to identify interesting organization and management problems, researchers can focus their attention towards areas where actors' representations remain uncoordinated. This suggestion aligns with other phenomenologically oriented approaches to grand challenges. For instance, following Smith and Lewis (2011), Jarzabkowski et al. (2019) advocate for the detection and analysis of paradox, defined as 'a persistent contradiction between interdependent elements' (p. 121). They offer guidelines for observing paradoxes through multi-site longitudinal data collection, shifting focus between scales and generality levels, mapping stakeholder networks, and attending to events that redraw social boundaries. Cloutier et al. (2025) approach grand challenges from the perspective of alignment, juxtaposition, and variation among actors' representations of collective-action problems, using the *economies of worth* framework in JT for the purpose of 'operationalizing pluralism' (p. 2). Gümüsay et al. (2020) advocate for applying an institutional logics lens and attending to variations in actors' representations across analytical levels, time, and contexts.

Diagnosis concerns justifying why selected problems are not only interesting but also 'important' (Tihanyi, 2020) and in need of action. It involves demonstrating how a focal case instantiates a grand challenge and theorizing alternative states of affairs aiming towards socio-economic improvement. In the literature, this stance is reflected in emancipatory and performative research seeking to direct scholarly attention towards pressing socio-economic issues and to articulate desirable futures and improved human experiences (Bridoux et al., 2024; Gehman et al., 2022; Gümüsay and Reinecke, 2022). The model's grand challenge perspective adds the notion that possibilities of long-range socio-economic improvement, rather than constituting the direct object of research, anchor

the researchers' vision. In this sense, they can be articulated also from domains outside organization, management, and business studies. Once adopted as vanishing points, they enable researchers to locate close-range desirable future states of social systems of deliberation that particularize and situate socio-economic aspirations.

Lastly, design entails specifying such desirable future states and outlining a path to their realization. Whereas detection may be largely pre-theoretical or abductive, and diagnosis depends on emancipatory and performative theorizing about futures contingent on yet-undetermined actions, design is anchored in explanation and prediction. Although envisioning desirable futures can itself be seen as a design activity (Gümüsay and Reinecke, 2024), vision in design is constrained by requirements including shared representations of the design problem, clarity on material and informational constraints, precise and specific (though not necessarily complete) causal models, criteria for assessing data reliability, propositions expressing action scenarios and outcome ranges, and feedback mechanisms (Simon, 1996). In the proposed model, the structure and dynamics of social systems of deliberation are amenable to explanation and prediction through the observation, reconstruction, and simulation of regularities and causal pathways. These features can be interpreted as boundary conditions under which the performative potential of design-based theories is actualized as consolidated shifts in practices (Marti and Gond, 2018). Porter et al. (2020) exemplify such interpretation in an application of the robust action framework (Ferraro et al., 2015) to the study of a crowdsourcing initiative for marine conservation. By analysing the evolution of participation and communications in platform interactions, they contribute to outlining the boundary conditions under which a deliberation-support technique such as crowdsourcing can produce virtuous results.

Greater uptake of explanatory and predictive theorizing could help position grand challenge research at a generative midpoint between normative frameworks and empirical accumulation, through the development of middle-range theories built on precisely bounded concepts and specific hypotheses (Merton, 1949; Mutz, 2008) and capable of constituting a knowledge base for design. This shift could benefit from the adoption of the parsimonious social ontology articulated in the model. Streamlined ontological assumptions may help refocus analysis on evolving patterns of coordination (Sele et al., 2024). They could also alleviate the methodological problems of grand challenge research, such as accessing global contexts and conducting multi-level, multi-loci analyses (George et al., 2016; Wickert et al., 2021), by enabling comparisons between empirical settings at different scales. One possibility is to study epistemically localized issues (Dittrich, 2022) as proxies for epistemically globalized ones. For instance, while actors in a rural community may construct climate change-related water scarcity differently than those in a national parliament, studying the response of deliberative decision-making to decision management in one context may offer insights applicable in the other. Another possibility is to use physically local phenomena as scale models for physically global ones. For example, while country-wide efforts of water conservation may involve larger networks of deliberative processes than those of a single rural community, research in local contexts may reveal structural and dynamic patterns to guide inquiry in global contexts. Finally, by focusing on networks and communicative interactions, researchers could draw on data-intensive

methods in computational social science, leveraging the digital traces left by real-world systems or simulating them in silico.

LIMITATIONS AND CONCLUSION

This article has argued that CS and JT are proximate and compatible. Drawing on prior interpretations, it has deployed them from a pragmatist and phenomenological stance. Nevertheless, some distinctions and shifts have not been discussed, such as the attribution of logical positivism to Simon (Miller, 2008), Boltanski's integration of justification theory within a critical perspective (Gond et al., 2025), or the positioning of convention theory between pragmatism and structuralism (Favereau, 2024; Gomez, 2024). It must therefore be acknowledged that a model based on the conjunction of CS and JT may remain, to some extent, a hybrid and may require further conceptual refinement to serve as a robust reference point for future research.

The proposed model also draws on ideas from social systems theory (Luhmann, 2006, 2013, 2018). These influences are acknowledged only at this stage, as addressing them earlier would have required constructing the model from theoretical first principles rather than following a phenomenological orientation. Yet, by employing concepts such as social systems and observers in an intuitive manner, the article has not assessed whether these borrowings are theoretically warranted or sustainable, particularly in relation to a pragmatist epistemology or with emancipatory and performative forms of theorizing. Nor has it engaged with organizational theories inspired by systems sociology (Schneider et al., 2017; Seidl and Becker, 2006) and alternative accounts of systems in relation to grand challenges (e.g., Bansal and Birkinshaw, 2025; Kimsey et al., 2025; Lock, 2023; Mair and Seelos, 2021), to identify overlaps and compare assumptions. These limitations point to opportunities to further develop and refine a social systems approach to deliberation.

This article has argued that the idea of grand challenges and organization and management studies remain mutually relevant, and that their relationship is best approached from a phenomenological standpoint. By integrating and leveraging two classic theories, it has modelled deliberation around coordination problems as a situated and socially embedded interlocking of decision-making, moral thinking, and contestation through managerial action. It has further extended this processual account into a structural one by linking deliberative processes into networks from which observers construe social systems of deliberation. Such constructions can be performed from a perspective in which grand challenge issues, rather than constituting a special class of coordination problems, provide a horizon for socio-economically engaged and scientifically rigorous research oriented towards purposive systems change. Conceived in this way, the idea of grand challenges can orient and stimulate theoretical innovation towards more dynamic and expansive accounts of decision-making, management, and organization building, while the resulting knowledge can inform pragmatic engagement with managers and policymakers. Beyond the unease associated with perceptions of socio-economic deterioration and injustice, the idea of grand challenges may thus also convey a sense of intellectual promise and practical possibility.

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