

READING *THE TECHNOLOGICAL SOCIETY* TO UNDERSTAND THE MECHANIZATION OF VALUES AND ITS ONTOLOGICAL CONSEQUENCES

Dirk Lindebaum
Grenoble Ecole de Management, France
mail@dirklindebaum.eu

Christine Moser
Vrije Universiteit Amsterdam, The Netherlands
c.moser@vu.nl

Mehreen Ashraf
Cardiff Business School, UK
AshrafM2@cardiff.ac.uk

Vern L. Glaser
University of Alberta, Canada
vglaser@ualberta.ca

Abstract

We review Jacques Ellul's book *The Technological Society* to highlight 'technique' – the book's central phenomenon – and its theoretical relevance for organizational and institutional theorists. Technique is defined as "the totality of methods rationally arrived at and having absolute efficiency . . . in every field of human activity" in society (1964: xxv, italics added). More than simply 'machine technology', technique involves the rational pursuit of standardized means or practices for attaining predetermined results. What makes Ellul both unique and relevant for organizational and institutional theorists is his historical analysis delineating the characteristics of, and the processes through which, technique has evolved into an autonomic and agentic force. We build on and mobilize Ellul's analysis to explore two aims in this essay. First, we aim to illuminate the process through which technique transforms values – a process we describe as the mechanization of values in organizations and institutions. Second, we identify the consequences of value mechanization for organizational scholarship. We discuss the wider ramifications of Ellul's work for management theory, practise, and education.

Acknowledgments: Various incarnations of this review essay benefitted from the thoughtful and insightful feedback from participants at several research seminars, including the ones run at Grenoble Ecole de Management (France), EM Lyon, Aalto University (Helsinki, Finland), and Vrije Universiteit Amsterdam (The Netherlands). Further thanks for reading and commenting on our essay goes to Thomas Roulet and the OTREG community at Judge Business School (Cambridge, UK), as well as Marcos Barros. Finally, we appreciate the excellent editorial steer by AE Donald Conlon, as well as the insightful and probing comments from the reviewer team.

Vern Glaser acknowledges the support of Canada's Social Sciences and Humanities Research Council, while Dirk Lindebaum gratefully recognizes the financial support from the Centre for Entrepreneurship and Family Enterprise and the University of Alberta School of Business as part of his visiting professorship.

Note: A practitioner-focused follow-up article based on this review essay is forthcoming in the *MIT Sloan Management Review* (Winter 2022 issue).

In this essay, we review Jacques Ellul's book *The Technological Society* to highlight 'technique' – the book's central phenomenon – and its theoretical relevance for organizational and institutional theorists. Technique is defined as "the totality of methods rationally arrived at and having absolute efficiency . . . *in every field of human activity*" in society (1964: xxv, italics added). More than simply 'machine technology', technique involves the rational pursuit of standardized means or practices for attaining predetermined results. For instance, technique is present when algorithms are designed to 'optimize' organizational routines by incorporating performance targets that guide human actions toward greater efficiency (Glaser, 2017)¹. For Ellul, technique constitutes a mental phenomenon that is both separate from, but also essential for, the application of machines. In fact, the machine "represents the ideal toward which technique strives" (p. 4), just as technique transforms everything it touches "into a machine" (p. 4). What makes Ellul both unique² and relevant for organizational and institutional theorists is his historical analysis delineating the characteristics of, and the processes through which, technique has evolved into an autonomic and agentic force. We build on and mobilize Ellul's analysis to explore two aims in this essay.

First, we aim to illuminate the process through which technique transforms values – a process we describe as the *mechanization of values* in organizations and institutions. We draw on the work of early institutionalists (especially Selznick, 1949, 1957) and other organizational theorists (Simon, 1978; Thompson, 1967) to observe that value plurality is essential for making social life possible (Kalberg, 1980; Selznick, 1992). However, technique induces a process that undermines this plurality, such that technique takes "over the traditional values of every society

¹ Further examples concern so-called "third wave" economics", which relies on "rapid-fire" data on retail prices, job vacancies, labour shortages, or commodity prices to offer a real-time "electrocardiogram of the economy" (Economist, 2021).

² Very briefly, while Weber and Marx hold diametrically opposed political views, both share a substantial interest in the problems associated with 'man' under bourgeois capitalism (Löwith, 2003). Weber elaborated on this through the idea of 'rationalization', while key to Marx's critique was the notion of 'alienation' (Löwith, 2003), the latter itself being influenced by rationalization processes. Whereas both Weber and Marx acknowledge the role of history in shaping the process of rationalization and alienation (and their outcomes), Ellul is much more interested in illuminating the path that technique has taken to become a fully evolved phenomenon; that is, "the technical phenomenon identical with the technical society" (p. xiii).

without exception, subverting and suppressing these values to produce at last a monolithic world culture” (Translator’s note in Ellul, 1964: 8). In so doing, technique reinforces formal rationality, or “means-end rational calculations based on universally applied laws, rules, or regulations” (Kalberg, 1980: 1158), as a dominant value in public and economic life (Simon, 1978; Thompson, 1967). This dominance emerges when rationality transitions from being a process to becoming a “product of thought” (Simon, 1978: 1), because rationality “is a means for the realization of values, and therefore cannot itself be placed on the same level with all the other values . . . rationality [is] the preferred . . . means for the realization of values, because it guarantees the ‘efficiency’ . . . of procedures” (Habermas, 1970/1976: 340). This portrayal of rationality resonates well with how values are defined, namely, as “enduring belief[s] that a particular mode of conduct or that a particular end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence” (Rokeach, 1968a: 550). This definition stresses preferable conduct (i.e., rational) and end-states (i.e., efficiency). Given the omnipotence of rationality, we treat rationality as a *proto-value*³. Doing so suggests the subordinate nature of everything that follows this dominant value (i.e., rationality). While Ellul includes rationality in his definition of technique, we believe it is crucial to theorize technique and rationality dialectically; technique cannot proceed without reinforcing formal rationality as a dominant value, which, in turn, strengthens the influence of technique in social life. Yet, with each application of technique, rationality advances as a product of thought closer toward its status as a proto-value, in which decisions are made “without regard to persons” (Kalberg, 1980: 1158) for the sake of greater efficiency.

Unpacking the mechanization of values is of theoretical significance for organizational and institutional theory, because it invites reconsideration of prior classifications of ‘formal’ organizations as involving concurrently distinct *technical* (pursuing economic goals) and *value-laden* entities (the pursuit of non-economic goals by members of organizations, see Besharov &

³ ‘Proto’ referring here to the original etymologic Greek meaning: ‘first’ or ‘original’ (*Etymological Online Dictionary*).

Khurana, 2015). Examining how ‘technique’ induces value mechanization opens up the possibility that the interaction between the technical and institutional over time leads to a situation in which institutional, value-laden entities are transformed into technical entities, as detailed later. Thus, the informal qualities, characteristics, and values of organizations are transformed into rational logics designed to increase the efficiency of organizations.

Motivated by this theoretical possibility, our second aim is to identify the consequences of value mechanization for organizational scholarship. Merton’s foreword to Ellul’s book is instructive here when he cautions that technique converts a spontaneous and unreflective outlook on life into one that is rationalized and deliberate. We suggest that this sets in motion a set of successive ontological consequences⁴, starting with *ontological monism*, followed by *ontological impoverishment*, and culminating in the need for *ontological re-invigoration*.

Ontological monism implies that the ontological properties of constructs converge rather than diverge (i.e., when the particular becomes universal, or when the local/contextual becomes global/abstract)⁵. This happens when constructs that concurrently describe and evaluate phenomena under investigation are transformed into value-free concepts through the application of ‘objectivity and rigor’. To illustrate, Selznick (1961: 87) observed that “the idea of friendship is left largely unanalyzed,” replaced by “sociometric studies of reciprocal choice or differential association” that “say little about the quality of the relationship”. Ontological monism can lead to an iteratively increasing ontological impoverishment in our theorizing. This is because the constructs we study are increasingly crowding out the conceptual diversity and pluralism (Petriglieri, 2020) that was central to early institutional theory (Barley, 2016). Taking the example of friendship again, ontological impoverishment occurs when other aspects of it, such as

⁴ We apply a common ontological perspective here; that is, ontology concerns the nature of reality and what we can know about it (Guba & Lincoln, 1994). With this focus, we also heed calls for greater ontological clarity in our theorizing (Laasch, Lindebaum, & Caza, 2022).

⁵ The mechanization of values results in all values being fundamentally transformed by rationality. This means that as researchers, when we study phenomena, there is a risk that we impose on a given phenomenon only the ontological version that is grounded in rationality, although said phenomenon – even if it has an identical label – can feature different ontological properties *not* grounded in rationality. Compare, for instance, how ‘judgement’ can be ontologically treated in different ways (e.g., contrast Agrawal, Gans, & Goldfarb, 2018 and Smith, 2019).

understanding its ‘felt’ evolution within different socialization experiences, or at different levels of analysis (e.g., how perceptions of friendship changes in groups vs one-on-one relationships), are neglected. Consequently, and in line with others (Cornelissen, Höllerer, & Seidl, 2021), we call for more ontological re-invigoration to limit the theoretical damage inflicted by technique⁶. Becoming aware of ontological monism and impoverishment triggered by value mechanization, as described above, allows us to embrace ontological reinvigoration in earnest; by understanding how we ended up with impoverished and monistic constructs, we can envision a way forward toward re-invigoration. Reinvigoration involves continually thinking about the reductions that are made through technique, and ‘undoing them’ by complexifying again our ontological thinking (e.g., by considering the ‘felt’ evolution of friendship or considering the nature of friendship in groups). This, in turn, can help us re-gain a sense of value plurality (see Figure 1).

Insert figure 1 about here

Practically, understanding both how technique mechanizes values, and grasping the consequences of said mechanization, is of significance given that rules, action, routines, and materiality are said to be ‘subordinate’ to values (Hinings & Greenwood, 2015). Hence, different degrees of value mechanization can influence different consequences in practice, both for better or worse, as we suggest later. Our essay is, therefore, also designed as a call for action to sensitize students and managers to more critically interrogate the mechanisms that make some values more dominant than others.

Below, we first provide a short biography on Jacques Ellul, followed by a review section of *The Technological Society*. Doing so also helps highlight areas where we disagree with Ellul, especially our more ‘hopeful’ departure from Ellul’s linearly pessimistic outlook on the future of

⁶ Of course, we recognize that technique or technology can be put to prosocial use, when, for instance, algorithms are used for early onset diagnosis of motor degenerative diseases (Nalls et al., 2015), or the computer-aided discovery of latent topics in a set of textual data (Hannigan et al., 2019; but also see Lindebaum & Ashraf, 2021), such as ethnic biases in public police statements about crime incidents (Eckert et al., 2021). However, unchecked, the relentless pursuit of technique and application of technology can cause massive individual and societal harm (cf. Dutch childcare scandal, Amnesty International, 2021), in addition to environmental harm (Banerjee & Arjaliès, 2021).

humanity (as indicated in the feedback loop in Fig. 1). Second, we fuse Ellul's insights with organizational and institutional theory, especially the work of Selznick and follow-up work (Kraatz & Flores, 2015b; Kraatz, Flores, & Chandler, 2020), to elaborate on the mechanization of values and the ontological consequences that it can entail. Finally, we discuss the theoretical and practical ramifications for management research, practice, and education.

JACQUES ELLUL AND THE TECHNOLOGICAL SOCIETY

In this section, we provide a brief biography on Ellul's intellectual life, followed by a review of *The Technological Society*. Born on 6 January 1912 in the village of Pessac, France, the life of Jacques Ellul spanned virtually the entire 20th century. He experienced its associated radical changes in the form of industrialization, World War II, technology proliferation, and the need for greater environmental protection (Ellul, 1981). Early in his career, he foresaw the long-reaching consequences of our values undergoing mutation. The one best way of doing things, which he termed a "technical intention" (Ellul, 1981: ix), soon became the norm in society. After studying law at the University of Bordeaux, he explored the phenomenon of technique by applying the lenses of theology, law, sociology, economics, and political theory, remaining deeply involved in these subjects until his retirement in 1980 (Ellul, 1981). Albeit initially inspired by Marx, Ellul also departed from him by claiming that capital was no longer the dominant force as it was in the nineteenth century. In a later autobiographical reflection, Ellul argued thus:

"I was certain. . . that if Marx were alive in 1940, he would no longer study economics or the capitalist structure. I thus began to study technique using a method as similar as possible to the one Marx used a century earlier to study capitalism" (Ellul, 1981: 155).

Perhaps the most prominent understanding of Ellul and his work has seen him cited as an anti-technological pessimist (Ferkiss, 1969; Winner, 1977), though his conception of technique clearly goes beyond technology proper and machines. This latter important nuance was somewhat lost in translation, because the French ‘Technique’ was translated, like the German ‘Technik’ Heidegger (1954/1977), into English as ‘Technology’ (see Schatzberg, 2006, for this complexity in translation). This is also one of the reasons critics conflate Ellul’s criticism of technique with technology proper and label him as a technophobic. This is probably the single most important aspect of Ellul’s work that needs to be clarified when engaging with Ellul’s work generally and his seminal work in particular—*The Technological Society* (which was published originally in French in 1954 as *La Technique ou l’enjeu du siècle*). This book sought to encourage thinkers to address technique as a theme for critical reflection. Ellul’s own study expanded on this topic, forming a succession of further discussions in *Le Système technique* (1977), *Le Bluff technologique* (1988), *Propagandes* (1962), and *Sans feu ni lieu* (1975).

Turning to the review part of this essay, Ellul (1964) adamantly posits that technique “does not mean machines, technology, or this or that procedure for attaining an end” (1964: xxv). Instead, Ellul sees technique evolving into an omnipotent and agentic force because “it shows ... how its subject in its lowest stage (technique as machine technique) develops dialectically through the various higher stages [i.e., economic, organization, human] to become at last the fully evolved phenomenon (the technical phenomenon identical with the technical society)” (p. xiii). Society becomes a ‘technological society’ that can no longer be said to have a “phenomenology of mind” but rather a “phenomenology of the technical state of mind” (Ellul, 1964: xiii). Together with the seven characteristics of technique discussed momentarily, what makes Ellul thus unique is his analysis of the process through which technique becomes ‘naturalized’, a product of thought that is both unquestioningly and unsuspectingly taken at face value, thereby enabling the evolution of technique into an omnipotent agentic force. It is this analytical angle that we believe distinguishes Ellul from the work of Weber, because a tendency can be discerned in Weber’s work that is less retrospective, and more current and forward-facing, such that the “fate of our times is

characterized by rationalization . . . and, above all, by the ‘disenchantment of the world’” (Weber, 1921/1946: 155). As such, while both Ellul and Weber are concerned with the development of a pervasive human attachment to rationality, Ellul helps us better understand the process that led to the status quo. Weber, by contrast, is said to offer more of a ‘diagnosis’ of said status quo (Löwith, 2003).

What follows is a summary of key arguments from Ellul’s book. In the first five chapters, Ellul covers the history of technique (Chapter 1), its characterology (or nature, Chapter 2), and technique’s effects on the economy (Chapter 3), the state (Chapter 4), and humanity (Chapter 5). In the concluding sixth chapter, Ellul looks into a ‘crystal ball’ and projects the future of a world in which technique prevails.

Chapter 1, entitled *Techniques*, begins by historically situating the phenomenon of technique in the modern world as being understood through its relationship to machines, to science, and to organizations. Ellul highlights that in primitive societies, material techniques that focused on efficiency (such as hunting or agricultural techniques) were counterbalanced by so-called magical techniques associated with the religious dynamics of the civilization. Although material techniques could pass from one civilization to another, and did feature in the pursuit of efficiency, magical techniques were of equal or greater importance, and were not transferred between civilizations—they died with the passing of a civilization. Even with the advent of more modern civilizations, technique was subordinated to other phenomena prior to the Industrial Revolution. For instance, the Greeks firmly separated science from technique, believing that too much focus on the latter would have damaging consequences. However, with the Industrial Revolution, technique was able to flourish with the introduction of the machine and the weakening of social ties: material techniques advanced, and magical techniques became less central to social life.

In *The Characterology of Technique* (Chapter 2), by first arguing that “today’s technical phenomenon . . . has almost nothing in common with the technical phenomenon of the past” (p. 78), Ellul establishes that the characteristics of modern technique have arisen in relation to the

needs of a society guided by a pervasive obsession with rationality – or psychosis as Kenneth Burke (1973) calls it. In the past, technique was always present, but never the focus of social life. The distinction that Ellul draws between technical operations and technical phenomena is of importance here as it helps clarify the prevalence of technique for and in organizations and institutions today. Where technical operations can be seen as traditional and limited by the diversity of contexts, technical phenomena, on the other hand, constitute a commitment to the comprehensive pursuit of efficiency. This is why Ellul states, for instance, that “the solution to the problems of technology [technique] is not less but more technology [technique]” (p. 2)⁷. Technique of the past functioned at well-defined times in specific areas that advanced human values, rather than focusing exclusively upon rational improvement. A simple example in the book talks about the idea of a ‘bee’, a communal meeting working towards a small economic goal. However, even in such a context, the goal of coming together was a pretext of sustaining social relations and human values. Consistent with Durkheim’s (1893/2014) notion of mechanistic solidarity, these values represented a ‘collective conscience’ that coincided with the outlook of different civilizations. Ellul contrasts this past technique with today, where technique is in most civilizations inherently regarded as the supreme authority. Hence, today almost all civilizations are on the same path, moving in the same direction of rationality, albeit at different paces and through different stages.

Chapter 2 is particularly relevant to our discussion because it shows how technique accomplishes its autonomous and agentic force. This can be understood through the seven characteristics of modern technique that Ellul presents. These characteristics can be seen as precursors of understanding why and how ontological monism emerges from the mechanization of values. The seven characteristics are (i) rationality, (ii) artificiality, (iii) automatism, (iv) self-augmentation, (v) monism, (vi) technical universalism and finally (vii) autonomy.

⁷ The term ‘technology’ here is the translated version of *La Technique* and does not refer to technology proper.

First, *rationality* of technique implies one single specific result promoting “rational systemization” (p. 74). This promotion of rational systemization often entails two distinct phases: “first, the use of “discourse” in every operation; this excludes spontaneity and personal creativity. Second, there is the reduction of method to its logical dimension alone. Every intervention of technique is, in effect, a reduction of facts, forces, phenomena, means, and instruments to the schema of logic” (p. 79). To achieve this rationality, *artificiality*, through a process of subjugation of nature, makes the symbiotic relationship of the natural world and the technical world impossible. *Automatism* follows redefining the role of humans from possessing agency to simply ‘choosing’ technique as an automatic option where technical means assert themselves according to calculated standards of efficiency. *Self-augmentation* refers to a self-generating process where technique is seen to “engender itself” (p. 87). And while the technical advances multiply at an alarming rate, so does the number of technicians needed. The interconnectivity of individual techniques that form a unified whole, acquiring a degree of independence, is denoted through *monism*. Here, the key features of technique share a commonality with positivism, the latter casting aside the diversity of the parts (Von Wright, 1971).

With *Technical universalism*, technique becomes a universal mediator affecting both geography (here, Ellul even anticipates globalization) and quality (life being subordinated to technical efficiency), achieving dominance over all aspects of society. And finally, *autonomy* frees technique of the shackles of economics, politics, ethics, or religion, and thereby establishes its hegemony. When technique becomes hegemonic, the social becomes trapped into rationality, where human, social values are ultimately de-humanized (Al-Amoudi, 2018; Boden, 1978). This characteristic is especially distressing as it implies that society and its organizations, as well as law and politics, are dominated by technique rather than social values; that is, values that reflect “desired conditions [e.g., health, wealth or freedom] that relate to a society, groups of individuals or individuals” (Tsui, 2016: 6). For instance, when journalists focus on maximizing the number of views of their articles or blogs rather than working towards traditionally important

civic/professional goals (Christin, 2017), or when editors privilege market objectives, such as market share or profit over traditional professional values (Thornton & Ocasio, 1999).

In combination, these seven characteristics help reinforce rationality as *proto-value* that can dominate other values, thereby guiding human choices concerning the ends of society in ever more limiting ways. In other words, rationality as the *proto-value* upends traditional societal *ends* by turning them into *means*.

Chapter 3, *Technique and Economy*, gives an insight into the properties of our economic system, where ubiquity of technical progress is highlighted and privileged in all spheres of life. Ellul argues that “the further economic technique develops, the more it makes real the abstract concept of economic man” (p. 219). Technique in this regard has not only reduced symbolism, but also radically limited the capacity of culture to produce meanings other than efficacy. In *Technique and State*, Chapter 4, Ellul further describes how the infiltration of technique becomes ubiquitous in the activities of the state. As an example, Ellul brings in the decisive role of journalism in boosting or undermining presidential candidates, foreshadowing contemporary events such as the US elections of 2016 and 2020, as well as the Brexit referendum.

Technique, based on the assumption that every element of society can be controlled, including human values and how these shape action and practices (Hinings & Greenwood, 2015), is regarded by Ellul’s critics to cast human agency into a distant background. However, that is not the case for Ellul. He believes that human participation can be seen to be guided by the monopoly of technique, where its values and priorities become our values and priorities, all in search for rationality⁸. Thus, the discussion that prevails in Chapter 5, *Human Techniques*, is of technique dialectically thriving on the value of rationality to achieve ever greater degrees of efficiency. Conversely, other kinds of values, like aesthetics, morality, or solidarity, are no longer assumed possible means for desired ends, because they are inconsistent with rules that are held to be stable

⁸ Ellul expands on our role in detail about this in his work *The Technological Bluff*: “[The bluff] intensifies the relationship between human and machines” (p. 16). This intensification, for Ellul, is in the form of the technological bluff enabling human participation in society to engender technique while “[creating] the assurance of human mastery over technique” (p. 144).

across time and space to enhance the predictability of phenomena. In Ellul's book, the concern with prediction implies a shift in worldview from human usages of tools (technique of the past) to a focus on mathematical laws as conceived as the offspring of positivism (see O'Neil, 2016, for relevant examples; and Von Wright, 1971, for a more abstract treatment of this issue). In consequence, this subsequently provides an 'objective' stamp of approval to all human activities that adapt to the structures of technique, without ever raising the question of whether such social adaptation is desirable or functional.

The sixth and final Chapter – *A look at the Future* – for Ellul serves as a crystal ball. He writes of a future where technique will oppress humanity by eroding not just their evolutionary traditions, but also their ability to imagine. Thus, humans acquire technical autonomy and political superfluity, which results in their (self-inflicted) loss of agency. Ellul's book is, therefore, not an optimistic book, because he makes it very clear that human dependency on technique cannot be completely reversed. In fact, Ellul himself admits of his own dependency on technique in his personal writings. It is this recognition at a personal level that has kept him from assuming a purely technophobic position, contrary to the claims of his critiques. Instead, his answer for such a dilemma lies in denying fatalistic assumptions by prescribing that we must view technique as just another means and, in doing so, recognize the genuine problems that technique brings forth.

We can see Ellul's prophetic dystopia realized in both mental and material dimensions of technique, where contemporary organizations strive to instill rationality as preferred mode of conduct and efficiency as preferred—if not exclusive—end state. By creating “impersonality” (p. 12), the *modus operandi* of organizations can move more and more towards efficiency as an end in itself. As a mental product of thought, technique can be applied, for instance, to behavioral control of individuals and groups in bureaucracies for specific ends (Curchod, Patriotta, Cohen, & Neysen, 2020; Gouldner, 1954; Kellogg, Valentine, & Christin, 2020). In terms of material dimensions, the role of technique can be seen in the manner in which credit rating agencies sought to rationalize and then automate the evaluation of risk of mortgage securities in the prelude to the financial crisis, (Omidvar, Safavi, & Glaser, 2022), algorithms designed for recommender

systems (Milano, Taddeo, & Floridi, 2020), or government calculations of income support (Henriques-Gomes, 2021).

In drawing this review section to a close, we need to point out those instances where we disagree with Ellul. For one, it seems to us that Ellul treats rationality and efficiency as values of equal significance in his book. We beg to differ, because efficiency (i.e., optimization of existing products, processes or capabilities for increased input-output ratios) cannot exist without assuming that social reality is conceived of as having been purged of all ambiguity, variability, and vicissitudes that characterize social life – that is, a reality premised upon formal rationality. Efficiency becomes the end to which rationality serves as the primary means – both psychologically and technologically. For another, Merton argues that “*with some critical modification*”, [Ellul’s book] can help us understand the forces behind the development of the technical civilization that is distinctively ours” (p. 5, italics added). We believe that said critical modification is required because Ellul’s pessimistic theorizing about the unstoppable and ultimately disastrous effects of technique is also met with counter-cultural movements (Odell, 2019). For instance, we witness successful social mobilization against the application of technique in government income support schemes, that have debilitating effects on individuals with lower income (Henriques-Gomes, 2021). In addition, more and more organizational and management scholars (Lindebaum, 2022; Lindebaum & Wright, 2021; Meyer & Quattrone, 2021; Pratt, Kaplan, & Whittington, 2020) have begun to again celebrate rather than stifle value plurality. Therefore, the unrelenting progress of technique - as Ellul would have it - is not a given. In the next section, we examine the process of mechanization of values and the ensuing ontological monism of constructs in the context of organizational and institutional theory.

VALUE MECHANIZATION AND ITS ONTOLOGICAL CONSEQUENCES

We start this section by describing the process of value mechanization, where we move from value plurality to the dominance of rationality as proto-value. To reiterate, we employ the term proto-value in the spirit of rationality being the ‘first’ or ‘original’ value that shapes all other values

(e.g., systemization, optimization, or standardization). But not only that; the mechanization of values initiates a series of ontological consequences already alluded to in the introduction, and further elaborated upon later in this section.

The process of value mechanization

As clarified from the start, the process of value mechanization poses a threat to value plurality. To understand this threat, we need to first understand what value plurality means in the context of organizational and institutional theory. This will then enable us show what the theoretical implications of loss of value plurality are in this discipline.

In terms of value plurality, Selznick argues that, even though “individuals feel that they are living in a world of valued modes of life, all ultimately integrated by a sense of kinship . . . this does not require that men should all believe [or value] the same thing” (1951: 330). In addition, the units of analysis (i.e., self, institution, and community) that feature consistently in Selznick’s work “are all thoroughly value-infused and are often fraught with tension and conflict”, yet at the same time able to “to incorporate, embody, and realize multiple values that may seem incommensurable or oppositional when viewed from a distant, external perspective” (Kraatz & Flores, 2015b: 371). This appreciation for value pluralism is also evident in his important book *The Moral Commonwealth* (1992), where Selznick advocates the idea of community, based upon pluralism and diversity in addition to social integration. Consider, for instance, that through ‘rational choice’ models certain ends might be accomplished, such as more water being supplied in arid land through building a dam. However, these models can come into conflict with values around the protection of wildlife and archaeological sites, as well as respect for local ethnicities to remain on their ancestral home land (Espeland, 1998; see also Porter, 1996). Seen in this way, value pluralism - if taken seriously - involves the possibility of fostering understanding and respect for persons or entities which hold different values (Selznick, 2008). However, key to Ellul’s thinking around technique is that it relentlessly subverts *all* values in the aspiration of a monolithic world culture. It does so by buttressing formal rationality as a dominant value and

mode of conduct in social and economic life (Meyer & Rowan, 1977; Simon, 1978; Thompson, 1967). In so doing, other values are increasingly suppressed. Once rationality has become a 'product of thought', the mechanization of values has been in motion for some time already.

Taking this point further into the realm of early institutional theory, this implies the theoretical possibility that the interaction between technical entities (i.e., the mechanized and formal structures involving formal roles, relationships, and tasks continuously refined to improve efficiency) and institutional entities (i.e., the value-laden dimension of organizations - Selznick, 1957) over time leads to a situation in which institutional, value-laden entities are transformed into technical entities through the mechanization of values. At a conceptual level, we can observe this possibility in the context of Thompson's (1967) 'closed-system' strategies, where "organizations are deliberately chosen for their necessary contribution to a [rational] goal, and the structures established are those deliberately intended to attain highest efficiency" as the ultimate economic criterion (p. 5). The Deepwater Horizon disaster in 2010 (Ingersoll, Locke, & Reavis, 2012), the current state of global environmental degradation (Banerjee & Arjaliès, 2021), and the recent Dutch child benefit scandal (Amnesty International, 2021) are examples of how aspirations for rationality and operational efficiency can overpower institutional values. These examples underline that, when the process of value mechanization is left unchallenged, rationality as proto-value and as a product of thought can gain dominance and eventually crowd out other values. This is because values are usually internalized and, therefore, subsequently become "a standard or criterion for guiding action" (Rokeach, 1968b: 16).

However, early institutionalists have posited that formal organizations are constituted by *both* institutional and technical entities (Selznick, 1957). That is, they are "simultaneously technical entities pursuing economic goals and value-laden entities pursuing non-economic goals arising from their members and their role in society" (Besharov & Khurana, 2015: 53) in formal and informal structure, the amalgamation thereof allowing for the continued existence of the system (King, 2015). Advocating a 'third way' between 'closed' (i.e., rational) and 'open' (i.e., natural) systems, Thompson (1967: 8) signals agreement with Selznick when he argues that:

The rational model of organizations directs our attention to important phenomena . . . in the sense that complex organizations . . . exhibit some of the patterns and results to which the rational model attends, but which the natural-system model tends to ignore. But it is equally evident that the phenomena associated with the natural-system approach [including informal organization] also exist in complex organizations . . . [there is] impressive evidence that complex organizations are influenced in significant ways by elements of their environments, a phenomenon addressed by the natural systems-approach but avoided by the rational. Yet most versions of the natural-systems approach treat organizational purposes and achievements as peripheral matters.

Yet, in light of sustained indoctrination in rationality as proto-value, and the elevation of economic efficiency as primary criterion, it is challenging to uphold commitment to those values that are central to ‘informal organization’ (e.g., friendship, compassion, fairness, or inclusion). Thus, achieving a balance between institutional values and operational goals can endanger, displace, or even corrupt institutional values (Goodstein, 2015; Hinings & Greenwood, 2015). However, it is this balancing of values and its effects that extensively preoccupied the work of Selznick as alluded to at the start of this section.

Consequences of value mechanization

Due to the dominance of the proto-value, the mechanization of values initiates a series of consequences which are vitally important for organizational research. The series starts with the ontological monism of constructs. Ontological monism can lead to, and is reinforced by, ontological impoverishment in our theorizing. Through their recursive relationship (see Fig. 1), our paradigmatic outlook on the world is dominated by the aspiration for prediction and explanation within a positivist framework, while the branch of social science research concerned with ‘understanding’ is marginalized (Von Wright, 1971)⁹. As an antidote to ontological impoverishment, we see emerging hints that ontological re-invigoration is already occurring, as detailed later. Of note, any step toward this re-invigoration also broadens the scope for value

⁹ However, understanding remains of vital importance given its emphasis on “openness rather than closure and the rejection of an ultimate authority [which] are the ground rules for scientific knowledge” (Meyer & Quattrone, 2021: 1373).

plurality to re-surface, hence the feedback loop in Fig. 1. These points are discussed in subsequent sections.

Ontological monism

Ontological monism is the result of technique-induced value mechanization reducing the various ‘possible’ ontological properties of constructs toward an aspired ideal of a ‘rational’ and positivist outlook on all aspects of social life. Constructs “are not reducible to specific observations but, rather, are abstract statements of categories of observations [and that] constructs are simply robust categories that distill phenomena into sharp distinctions that are comprehensible to a community of researchers” (Suddaby, 2010: 346). Thus, it is plausible to argue that ontological monism reinforces the robustness of (more dominant) categories through infusing them with the value of rationality, while at the same time suppressing ontological properties of constructs based on values other than rationality.

In the introduction, we have already alluded to Selznick’s concern about friendship as a quantifiable phenomenon that tells us little about how friendship ‘feels like’. It shall be understood, therefore, that friendship, either treated as a quantifiable phenomenon of association or considered more phenomenologically, can be investigated through the lens of different ontological properties. Since ontological monism results from the mechanization of values, we can also consider another example. For instance, a growing number of scholars (Balasubramanian, Ye, & Xu, 2020; Moser, den Hond, & Lindebaum, 2022; Newlands, 2020) express concern about the development wherein human judgment - “a form of dispassionate deliberative thought, grounded in ethical commitment and responsible action, appropriate to the situation in which it is deployed” (Smith, 2019: xv) - is increasingly substituted with algorithmic ‘reckoning’. This is defined as the “calculative prowess at which computer and AI systems already excel” (Smith, 2019: xvii). The concern is that “computers will continue to advance (ultimately far surpassing us in many cases . . .), but skills embodied in devices . . . lack the ethical commitment, deep contextual awareness, and ontological sensitivity of judgment” (Smith, 2019: xvii). The possible shift from judgment to reckoning risks that we (i) fashion ourselves in the image of the technology,

and (ii) that we employ reckoning decision-making frames in cases that require judgment (Smith, 2019). In the context of organizational and institutional theory, this transition from judgment to reckoning captures precisely our concerns about elements of ‘informal organization’ being transformed into ‘technical’ elements of formal-rational organizations (Selznick, 1957).

In sum, ontological monism, or reducing the ontological properties of constructs toward a rational ideal, can lead to a more positivistic outlook on research. This can lead to, and is reinforced by, ontological impoverishment in our theorizing. We unpack this in more detail in the next section.

Ontological impoverishment

Since ontological monism reflects a mostly positivistic outlook on research, it is our contention that monism can lead to ontological impoverishment in our theorizing. It is widely recognized that positivistic inspired research marks the dominant paradigm in management studies (Suddaby, 2014)¹⁰. In this paradigm, instead of a wide variety of approaches to understanding social life, management and organizational theories often embrace a narrow, positivist framework concerned with constructs amenable to measurements, predictions, and explanations (Von Wright, 1971). In consequence, we are concerned about a focus on constructs that privileges a positivistic incarnation on constructs under investigation. In so doing, this focus increasingly crowds out the conceptual diversity that can reside within single constructs (cf. examples of friendship, or when judgement becomes reckoning), and across constructs, when performance-related variables are key dependent variables in management studies (Thompson, 1967)¹¹. However, technique is also at play in qualitative research, when “qualitative methods are pushed in the direction of mimicking quantitative research . . . not just in terms of the way in which research is reported but also in aping the *style of theorizing* typically associated with quantitative methods” (Cornelissen, 2017:

¹⁰ Note that our essay should not be read as a reprimand of positivism *per se*. It has its place in the world in order to explain and predict social phenomena (Von Wright, 1971).

¹¹ This is reflected in the fact that, in an analysis of articles published in *AMJ* from 1958 to 2000, more than 70% of these articles centered upon performance-oriented outcomes, such as efficiency, productivity, profitability, market value, or innovation (Walsh, Weber, & Margolis, 2003).

369, italics added). In other words, a style of theorizing becomes dominant that is concerned with “abstract models and linear causal effects that is characteristic of quantitative research crowding out a qualitative concern with root causes, complexity and sequential patterns” in organizations (Cornelissen, 2017: 369, see also Pratt et al., 2020; Reay, Zafar, Monteiro, & Glaser, 2019). In short, our theorizing is potentially impoverished.

However, drawing on such impoverished theories is problematic for at least three reasons. First, scholars have made pressing pleas for a better integration of values in our theorizing to avoid value neutrality (Tsui, 2016). Value neutrality, or the assumption that research and theories should be value-free, “can fatally sever inquiry’s connection to the practical concerns that originally motivated it, and it can distort our understanding of those concerns by recasting them in a scientific mold” (Thacher, 2015: 317). It does not come as a surprise that in the context of ‘responsible management studies’, this value neutrality is strongly refuted for its neglect to incorporate ‘social values’ into the design and execution of research projects, as well as their practical ramifications (Tsui, 2016).

Second, and relatedly, there is the ““recalcitrance” of tools, the “tyranny” of means” that can diminish our understanding of the world, if we fail to pay attention to the role and influence of values in it (Krygier, 2015: 43). Segregating facts from values that follows from ontological monism can severely and negatively impact our research, because such segregation means that we can say little about the quality and meanings that are inherent to the phenomena we study (Thacher, 2015). In fact, in the worst-case scenario, it might even lead us to confuse cause and effect in the phenomena we study. For instance, Duster (2006: 1) takes issue with the “increasing authority of reductionist science” to examine “causes” of disparities in health and educational achievement through “markers and processes “inside the body”” (e.g., DNA sampling). In this specific example, the ‘tyranny of means’ implies that we can confuse the causes and effects of phenomena under investigation. Duster (2006: 6) cites classical epidemiological research that shows that “in general, the darker the skin color, the higher the rate of hypertension for American blacks”. However, “the issue of race in relation to heart problems is not biological or genetic in

origin but biological in *effect* due to stress-related outcomes of reduced access to valued social goods, such as employment, promotion, and housing stock”. In other words, “the effect was biological (e.g., hypertension) but the origin was social”. Still, policy makers decided at that time to locate the problem of hypertension primarily in the body (ibid.).

Finally, Thompson (1967) is explicit about the potential of theorizing to become impoverished when researchers focus on the discovery of universal elements *alone* – as a result of ontological monism and impoverishment – and thereby neglect the study of ‘patterned variations’. In his words, “we must begin to see some of the universal elements as capable of variation” (1967: vii). The next section, therefore, examines the potential of ontological reinvigoration as a way to study said variation.

Need for ontological re-invigoration

Recognizing that technique-induced ontological monism and impoverishment are already at play activates a normative commitment on our part to think about ‘how the world might be’. Hence, in this section, we advocate for ontological re-invigoration to limit the potential theoretical damage inflicted by an excessive focus of technique in organizational and societal life. By re-invigoration, we mean both a renewed engagement with the ontological starting and end points of our inquiries, and a recognition that there are *always* multiple start/end points to select from, contingent on the purpose of one’s research. Thus, embracing anew the ontological variety that underlies our research can have important implications for management and organizational research (Cornelissen, 2017; Laasch et al., 2022).

But how can we achieve such re-invigoration, and how might this be exemplified? At the abstract level, one way to foster such re-invigoration is by reinfusing values into organizational and institutional theory with a view to envisioning “what that future could look like” (Kraatz & Flores, 2015a: 2), but in ways that avoid the technological determinism and pessimism that shines through in Ellul’s treatment of technique. Specifically, we argue that ontological re-invigoration requires ‘de-naturalizing’ technique as a phenomenon whose accomplishment of autonomy goes hand in hand with at least a partial abdication of human agency (Ellul, 1964). The work of Odell (2019) is highly relevant in re-gaining this agency when she questions if *our* ‘value’ should be determined by productivity, such that “every last minute [is] captured, optimized, or appropriated as a financial resource by the technologies we use daily” (p. iv). In saying so, she writes for those readers “who perceive life to be more than an instrument and therefore something that cannot be optimized” (p. xi). Weaving an elaborate critique of what she calls “neoliberal techno manifest-destiny” for her implies nothing less than an “impatience with anything nuanced, poetic, or less-than-obvious” (p. x). Under this development, and the norms it produces, something as innocuous and yet vital as ‘observation’ or ‘contemplation’ is considered ‘unproductive’, be it for the writer, the thinker, the poet or the metaphysician (see also Bartunek, 2019).

Odell's (2019) critique about an impatience with anything more poetic resonates with cases in which social scientists attempt more experimental ways of inquiry (Mandalaki & Pérezts, 2020), while suffering from subsequent cyber-bullying (Mandalaki & Pérezts, 2021). In a way, the circumstance that *AMR* and many other leading management journals now feature dedicated 'essay' sections is testament to a renewed interest in intellectual experimentation, including the analysis of fiction, poetry, art, or movies as data to challenge or advance our substantive understanding of management-related phenomena (Contu, 2022; Suddaby & Trank, 2013). We interpret this development as the creation of an intellectual space in which ontological re-invigoration in the way we engage in theorizing can thrive again.

As one example, we can see ontological reinvigoration already at play in the reconceptualization of the nature of social actors and action through practice-theory inspired perspectives (Lounsbury, 2008). By conceptualizing the ontological basis of social action in terms of practices and/or processes (rather than practitioners or outcomes, see Nicolini, 2013), these theories enable scholars to better understand dynamics associated with materiality (Orlikowski & Scott, 2008), temporality (Hernes, 2014), or embodiment (Michel, 2011). This perspective involves interest in meaningful activity patterns and heterogeneous struggles in multidimensional spaces that account for practice variation, and it features in recent developments in institutional theory (Smets, Aristidou, & Whittington, 2017), organizational routines (Feldman et al., 2021), grand challenges (Gehman, Sharma, & Beveridge, 2022), technology (Glaser, Pollock, & D'Adderio, 2020), strategy (Golsorkhi, Rouleau, Seidl, & Vaara, 2015), and, interestingly, research on values (Gehman, Treviño, & Garud, 2013). It is, therefore, possible that practice variation, and the variety of ontological bases it involves, can affect organizations and institutions in ways that escape 'technique'. It is for this reason that Fig.1 includes the feedback loop from ontological re-invigoration to value plurality, because changes in the former inescapably affect changes in the latter. At this juncture, we can move toward a discussion of our analysis, including its theoretical and practical ramifications.

DISCUSSION

Inspired by *The Technological Society*, we set out to examine how technique induces the process of value mechanization, and what ontological consequences can follow from this. Value mechanization constitutes a threat to the value plurality that not only makes social possible (Kalberg, 1980), but which is also key to vibrant and relevant social science research (de Bakker et al., 2021; Van Maanen, 1995). We have situated the relevance of studying the mechanization of values in the early work of Selznick (1949), and subsequent studies inspired by him (Hinings, Greenwood, & Meyer, 2018; Kraatz et al., 2020), to suggest the possibility that the interaction between the technical and institutional over time leads to a situation in which institutional, value-laden entities are transformed into technical entities.

If unchecked, value mechanization proceeds to reinforce formal rationality as a proto-value and a product of thought. This can result in ontological monism and impoverishment. As such, our ontological critique raises the possibility that both monism and impoverishment potentially shift the properties of constructs toward a rational incarnation and positivist ideal as the dominant standard for organizational and institutional theory. We have theorized that this can imply (i) a focus on the quantifiable incarnations of phenomena rather than their phenomenological ones (see example of ‘friendship’)¹²; (ii) the transformation of ‘judgement’ in the phenomenological sense to ‘reckoning’ in the computational sense (Smith, 2019); and (iii) the *a priori* use of constructs infused with the idea of technique and rationality (e.g., efficiency, productivity, profitability, market value, or innovation), which dominate management studies (Walsh et al., 2003). However, our critique is broader in that we show that technique is also applied in qualitative research, not only to mimic quality standards of quantitative research (Pratt

¹² As a finer nuance of this argument, it is also worth pointing out that more phenomenological incarnations of phenomena can inherently resist ‘quantification’, in which case recourse is taken to what O’Neil (2016) refers to as ‘proxy’ measures. For instance, since measuring “learning, happiness, confidence, friendship [etc.] of a student’s four-year experience” proves tricky, journalists at *U.S. News* in charge of university rankings had to select “proxies that seemed to correlate with [student] success”, such as “SAT scores, student-teacher ratios, and acceptance rates” (p. 52). In so doing, we see the emergence of a metricized shadow of a given construct that can feature *several degrees of separation* from the ‘original’ and theoretical relevant construct. In the context of theory-driven science, we find this possibility alarming, because our ability to explain, predict, and understand phenomena is necessarily impoverished by these degrees of separation.

et al., 2020), but also to emulate styles of theorizing ordinarily linked with quantitative methods (Cornelissen, 2017). In combination, it is for these reasons that we have advocated the notion of ontological re-invigoration to curb the theoretical damage inflicted by technique. Ontological re-invigoration celebrates rather than stifles paradigmatic diversity and pluralism, and turns the criticism that organizational theory is “truly open and unstructured” (Pfeffer, 1993: 616) into an asset rather than liability. In what follows, we tease out the theoretical and practical ramifications of our analysis.

The first theoretical implication that flows from our analysis (as reflected in Fig. 1), and one that cuts across the mechanization of values and its ontological consequences, is the tendency of technique to shift attention to means rather than ends (with the exclusion of efficiency as a desired end state). Thus bemoans Selznick (1957), the distinct tendency in all social action – including administrative life – to both separate means and ends, and to stress means over ends. Selznick maps two pathways through which this is happening. First, by way of focusing on maintaining the image of a ‘smooth-running machine’, it diverts attention away from the more basic and challenging question of both stipulating and protecting the ends of an organization. Second, an excessive focus on ‘efficiency’ tends to emphasize ‘techniques’ of organization that are mainly neutral, which in turn, makes these techniques available for any goal¹³. Elsewhere, Selznick offers a related warning when he cautions against “self-annihilating abstractions” which cause “persons, groups, institutions and communities” to be “detached from the settings which give them distinctive qualities as well as support” (2008: 11). That is, becoming detached from the ends of institutional and communal life. However, by removing ‘ends’ from theoretical, empirical, and practical efforts, we have created conditions for “the tyranny of means and the impotence of ends” (Krygier, 2015: 38). Means can exercise this tyranny when they establish

¹³ Selznick’s astute insight here also forces us to consider our own role in cementing the dialectic relationship between technique and rationality that elevates the latter to the status of a proto-value. In other words, the status of rationality as proto-value has been elevated not only by practitioners, but also by theorists. Therefore, organizational theorists have not just ignored the problem, but actually made it worse. We thank Reviewer 2 for encouraging us to articulate this point.

commitments that distracts us from our goals and ends (Selznick, 1949). Theoretically, this tyranny can backfire when, as discussed before, we confuse cause and effect in the conclusions we offer. To locate a cause (for hypertension) in the biological realm with the aid of technology, whereas, in fact, hypertension is an effect that is social in origin, is just one example to this end (see Duster, 2006, for a critical analysis of this point)¹⁴. However, accurate causal claims are crucial in and for society, because confusing cause and effects is not just a matter of uninformative results, but can also be outright misguided and potentially harmful for practice. For instance, instead of addressing structural socio-economic conditions as causes for hypertension, there is a risk of treating an assumed cause pharmaceutically when such effort cannot amount to more than dealing with symptoms. All the more this raises the need for social scientists to know the empirical conditions under which causal claims can be offered (Antonakis, Bendahan, Jacquart, & Lalive, 2010), and an excessive focus on the means can constitute a condition under which we can confuse causes and effects. To counteract the impotence of ends (i.e., efficiency as the dominant end) requires upending their abstract and unspecified nature so as to permit principles of assessment and critique (Selznick, 1949) to emerge. In turn, abstraction and lack of specificity can be addressed through greater attention to (again) all things aesthetic, moral, and truthful (Frankena, 1973) for one thing, and/or care, compassion, and inclusion in work and society (Rynes, Bartunek, Dutton, & Margolis, 2012; Thatcher, 2021), for another. Our analysis helps clarify this fruitful and necessary focus on ends, and can serve as a stepping-stone toward future research that is sensitive to it.

Second, Ellul's notion of technique – and how it represents a fully evolved phenomenon ranging from lower (i.e., technique as machine technique) to higher stages (i.e., as apparent in economic and social life) - serves as a lens to reconsider the argument in organizational and

¹⁴ Another example concerns the use of neuroscientific methods to identify and develop inspirational leaders – leaders thought to be very effective at work (Waldman, Balthazard, & Peterson, 2011a). For advocates, the motivation of using neuroscientific methods is that enhanced methodological rigor can be gained compared with traditional questionnaires, which are subject to several perception biases (Waldman, Balthazard, & Peterson, 2011b). However, what is often ignored is that this emphasis on technical means for the sake of greater efficiency can create a raft of questionable consequences for individuals at work, such as pathologizing those who do not have the brain of an 'effective leader' narrowly defined (Lindebaum, 2013).

institutional theory that values are “largely invisible when we view choice only in its macro institutional context, and they are apt to be over-weighted when decisions are positioned only in the directly experienced, socio-historical realm of Selznick’s theory” (Kraatz & Flores, 2015b: 366). While Selznick underlined the need for a ‘dual focus’ on both macro and micro-institutional issues (a theme that has been recently taken up in contemporary institutional theory, see Steele, Hannigan, Glaser, Toubiana, & Gehman, 2020), our analysis of Ellul’s work shows that values can be made visible at the macro-level context when rationality evolves as a proto-value and product of thought that induces the mechanization of values. This macro-level perspective then also helps explain the strong influence of rationality on practices, routines and institutions¹⁵. We argue that rendering rationality as a value visible at the macro-level is a prerequisite for understanding how technique-induced mechanization of values shapes the human mind and gives rise to the application of technology in society that is often unreflexive (O’Neil, 2016), and outright harmful both individually and socially (Henriques-Gomes, 2021; Redden & Brand, 2020; Wolfangel, 2022). It is against this backdrop that Selznick wondered about “the capacity of values to retain their strength and subtlety in the face of widespread dehumanization of work and communication” (Jaeger & Selznick, 1964: 658).

A final theoretical implication from our analysis is that the topics ‘technique’ or ‘technology’ - and their immense influence on societies and organizations - are merely surface phenomena that cannot be understood and explained fully without recognizing the struggle through which some values obtain dominance vis-à-vis others. If routines, actions, practices, and artefacts are subordinate to values (Hinings & Greenwood, 2015), or if values can have causal effects (Kraatz & Flores, 2015b), and if the consequences of a given value in action are *dysfunctional*, then the theoretical and practical focus to find solutions should be *less* on solutions to these ‘symptoms’. Instead, the focus should be on a careful analysis of the process through

¹⁵ We recognise that institutional theory conceptualizes values both as possible causes and effects (Kraatz & Flores, 2015b). However, while we do not deny that values can also appear as effects, the theorizing presented here leans more toward the perspective of values as causes of practices, routines and institutions (see also Solomon, 1993).

which the dominant value that yielded these dysfunctional outcomes has come to dominate the value landscape. As such, we posit that one central battleground for future organizational and institutional theory should focus less on discrete topics (e.g., AI, automation, or cognitive enhancement), but on the mechanization of values that gives rise to these topics to begin with. The relevance of this argument connects well with renewed calls to ‘reinfuse values’ in organizational and institutional theory (Kraatz & Flores, 2015b).

In terms of practical and educational implications for management, we agree that Ellul’s book can be read as a deeply pessimistic if not dystopian book. Yet, as we have unpacked in some detail, there is reason to believe that he was both right and wrong. The latter, that Ellul was also wrong, serves as the main entrée to discuss the practical and educational ramifications for management flowing from our review. From a practical perspective, we can imagine the possibility of alternatives—to contemplate a new beginning (Arendt, 1958/1985)—that avoids us having to live in an eternally technical state of mind. Instead of striving for optimal rationality and efficiency *only*—a condition in which decisions are made without regard for people—there is a need to rediscover and reclaim values other than formal rationality alone (Lindebaum et al., 2022). The feedback loop in Fig. 1 underlines this thinking, as it highlights that through ontological re-invigoration we can re-establish a sense of value plurality previously lost to ‘technique’.

To do so, we find inspiration in Odell’s (2019) work. She offers an implicit advocacy of indeterminacy as a value to counter the perils of what she calls the ‘attention economy’, which has striking conceptual similarity with technique. Instead, she submits, we should “take a protective stance toward ourselves, each other, and whatever is left of what makes us human” and to “protect our *spaces* and our *time* for non-instrumental, noncommercial activity and thought, for maintenance, for care, for conviviality” (2019: 28, italics in original). Likewise, escaping the ‘technical state of mind’, and the values of rationality and efficiency that it reinforces, is of ever greater significance in the face of grave environmental challenges (climate change, deforestation,

pollution, loss of biodiversity) that affect the lives of millions of people and their ability to work and live in harmony with their local environment (Banerjee & Arjaliès, 2021; Savory, 1999).

For managers at work, escaping the technical state of mind can be fostered when they regularly doubt and interrogate the values they consider in their decision-making processes. It is clear that economic efficiency can no longer be the primary goal given the overwhelming evidence that it strains social systems (through wealth inequality for instance) and the environment. What follows is that a new beginning is rendered more likely when we bring in neglected values of cooperation (Haidt, 2008), solidarity (Durkheim, 1893/2014), respect and recognition for others (Honneth, 2012), pleasure (Moser, Deichmann, & Jurriens, in press), and appreciation of the environment as critical values back into the workplace – not as mere ‘add-ons’, but as integral parts of a wider value landscape that informs sustainable and responsible management practice (Laasch, Suddaby, Freeman, & Jamali, 2020).

From this follows that management education has a role to play too. First, by making ‘technique’ a prominent item in the curricula of business degrees, students can start to ‘see through’ the corrosive effects of technique. However, there is more to highlight about technique in the classroom due to its tension with the learning *per se*, defined “as the basic process of human adaptation” (Kolb & Kolb, 2009: 42), often with a view to learn from the “continuing reconstruction of experience” (Dewey, 1897). Learning is often understood beyond narrow cognitivism to include an integration of a person’s thinking, feeling, and behaving. Technique, by contrast, eliminates scope for learning and adaptation due to its focus on standardization and reduction of facts and phenomena (Ellul, 1964). Second, business schools need to be more proactive in mapping out alternatives to avoid the theoretical and practical fallout that technique inflicts on our discipline and society. Specifically, the search for continually optimized means to carelessly examined ends implies a ruthless transformation of ends into means by way of technique. It implies, in other words, a shift to *know-how* and away from *know-why* when, for instance, we understand *how* to program algorithms, but are not fully aware *why* we program them

in the way we do. In this case, we can no longer speak of ends (*know-why*) justifying the means (*know-how*).

To conclude, we hope that this review essay serves as a looking glass for both researchers and practitioners to better understand the temptation behind technique, as well as its corrosive effects if we succumb to that temptation. Now more urgently than ever do we need new and inclusive ways of theorizing to both combat the dominance of technique, while at the same time being able to imagine solutions to the social, economic, and ecological crises we face.

REFERENCES

- Agrawal, A. K., Gans, J. S., & Goldfarb, A. 2018. Prediction, judgment and complexity: a theory of decision making and artificial intelligence. *NBER Working Paper No. 24243 - retrieved from https://www.nber.org/system/files/working_papers/w24243/w24243.pdf on 16 November 2021.*
- Al-Amoudi, I. 2018. Management and dehumanization in late modernity. In I. Al-Amoudi, & J. Morgan (Eds.), *Realist Responses to Post-Human Society: Ex Machina*: 182-194. London: Routledge.
- Amnesty, I. 2021. Dutch childcare benefit scandal an urgent wake-up call to ban racist algorithms. *Retrieved from <https://www.amnesty.org/en/latest/news/2021/10/xenophobic-machines-dutch-child-benefit-scandal/> on 30 May 2022.*
- Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. 2010. On making causal claims: A review and recommendations. *The Leadership Quarterly*, 21(6): 1086-1120.
- Arendt, H. 1958/1985. *The Human Condition*. Chicago: Chicago University Press.
- Balasubramanian, N., Ye, Y., & Xu, M. 2020. Substituting Human Decision-Making with Machine Learning: Implications for Organizational Learning. *Academy of Management Review*.
- Banerjee, S. B., & Arjaliès, D.-L. 2021. Celebrating the End of Enlightenment: Organization Theory in the Age of the Anthropocene and Gaia (and why neither is the solution to our ecological crisis). *Organization Theory*, 2(4): 26317877211036714.
- Barley, S. R. 2016. 60th Anniversary Essay: Ruminations on How We Became a Mystery House and How We Might Get Out. *Administrative Science Quarterly*, 61(1): 1-8.
- Bartunek, J. M. 2019. Contemplation and Organization Studies: Why contemplative activities are so crucial for our academic lives. *Organization Studies*, 40(10): 1463-1479.
- Besharov, M. L., & Khurana, R. 2015. Leading amidst competing technical and institutional demands: revisiting Selznick's conception of leadership. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 53-88. Bingley, UK: Emerald Group Publishing Limited.
- Boden, M. A. 1978. Human Values in a Mechanistic Universe. In G. Vesey (Ed.), *Human Values*: 135-171. Sussex: Harvester Press.
- Burke, K. 1973. Permanence and change, *The Philosophy of Literary Form*. California: University of California Press.
- Christin, A. 2017. Algorithms in practice: Comparing web journalism and criminal justice. *Big Data & Society*, 4(2): 2053951717718855.
- Contu, A. 2022. Antigone: On Phronesis And How To Make Good and Timely Leadership Decisions. *Academy of Management Review*.

- Cornelissen, J., Höllerer, M. A., & Seidl, D. 2021. What Theory Is and Can Be: Forms of Theorizing in Organizational Scholarship. *Organization Theory*, 2(3): 26317877211020328.
- Cornelissen, J. P. 2017. Preserving Theoretical Divergence in Management Research: Why the Explanatory Potential of Qualitative Research Should Be Harnessed Rather than Suppressed. *Journal of Management Studies*, 54(3): 368-383.
- Curchod, C., Patriotta, G., Cohen, L., & Neysen, N. 2020. Working for an Algorithm: Power Asymmetries and Agency in Online Work Settings. *Administrative Science Quarterly*, 65(3): 644-676.
- de Bakker, F. G. A., Bapuji, H., Brown, J. A., Higgins, C., Rehbein, K., & Spicer, A. 2021. From the Editors: Introducing Business & Society Commentary. *Business & Society*, 60(6): 1255-1257.
- Dewey, J. 1897. My pedagogic creed. *The School Journal*, LIV(3): 77-80.
- Durkheim, E. 1893/2014. *The Division of Labor in Society*. New York: Free Press.
- Duster, T. 2006. Comparative Perspectives and Competing Explanations: Taking on the Newly Configured Reductionist Challenge to Sociology. *American Sociological Review*, 71(1): 1-15.
- Eckert, S., Strozyk, J., Bafas, I., Harlan, E., Khamis, S., Schnuck, O., & Schöffel, R. 2021. Polizei nennt Nationalitäten regional sehr unterschiedlich [Big differences in police reports on nationalities]. *Panorama 3 [German news series] - Retrieved from <https://www.ndr.de/fernsehen/sendungen/panorama3/Polizei-nennt-Nationalitaeten-regional-sehr-unterschiedlich,polizeimeldungen102.html> on 23 March 2021.*
- Economist. 2021. Enter third-wave economics - How the pandemic reshaped the dismal science. *Retrieved from <https://www.economist.com/briefing/2021/10/23/enter-third-wave-economics> - accessed on 18 Januray 2022*, 23rd of October
- Ellul, J. 1962. *Propagandes*. Paris: Armand Colin.
- Ellul, J. 1964. *The Technological Society*. New York: Vintage Books.
- Ellul, J. 1975. *Sans feu ni lieu: Signification biblique de la Grande Ville*. Paris: Gallimard.
- Ellul, J. 1977. *Le système technicien*. Paris: Calmann-Levy.
- Ellul, J. 1981. *À temps et à contretemps*. Paris: Centurion.
- Ellul, J. 1988. *Le bluff technologique*. Paris: Hachette.
- Ellul, J. 1988/1990. *The Technological Bluff*. MI: Eerdmans: Grand Rapids.
- Espeland, W. N. 1998. *The Struggle for Water - Politics, Rationality, and Identity in the American Southwest*. Chicago: University of Chicago Press.
- Feldman, M. S., Pentland, B. T., D'Adderio, L., Dittrich, K., Rerup, C., & Seidl, D. (Eds.). 2021. *Cambridge Handbook of Routine Dynamics*. Cambridge: Cambridge University Press.
- Ferkiss, V. 1969. *Technological Man: The myth and the reality* New York: George Braziller, Inc.
- Frankena, W. K. 1973. *Ethics*. Englewood Cliffs: Prentice-Hall.
- Gehman, J., Sharma, G., & Beveridge, A. 2022. Theorizing Institutional Entrepreneurship: Arborescent and rhizomatic assembling. *Organization Studies*, 43(2): 289-310.
- Gehman, J., Treviño, L. K., & Garud, R. 2013. Values Work: A Process Study of the Emergence and Performance of Organizational Values Practices. *Academy of Management Journal*, 56(1): 84-112.
- Glaser, V. L., Pollock, N., & D'Adderio, L. 2020. The biography of an algorithm: Performing algorithmic technologies in organizations. *Organization Theory*, 2(2): 1-27.
- Golsorkhi, D., Rouleau, L., Seidl, D., & Vaara, E. (Eds.). 2015. *Cambridge Handbook of Strategy as Practice*. Cambridge (UK): Cambridge University Press.
- Goodstein, J. 2015. Philip Selznick and the problems of organizational integrity and responsibility. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 175-197. Bingley, UK: Emerald Group Publishing Limited.

- Gouldner, A. W. 1954. *Patterns of Industrial Bureaucracy - a case study of modern factory administration*. New York: Free Press.
- Guba, E. G., & Lincoln, Y. S. 1994. Competing paradigms in qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research*: 105-117. Thousand Oaks: Sage.
- Habermas, J. 1970/1976. Theory and practice in a scientific civilization. In P. Connerton (Ed.), *Critical Sociology*: 330-347.
- Haidt, J. 2008. Morality. *Perspectives on Psychological Science*, 3(1): 65-72.
- Hannigan, T. R., Haans, R. F. J., Vakili, K., Tchalian, H., Glaser, V. L., Wang, M. S., Kaplan, S., & Jennings, P. D. 2019. Topic Modeling in Management Research: Rendering New Theory from Textual Data. *Academy of Management Annals*, 13(2): 586-632.
- Heidegger, M. 1954/1977. *The Question Concerning Technology and Other Essays*. New York: Harper & Row.
- Henriques-Gomes, L. 2021. Robodebt: court approves \$1.8bn settlement for victims of government's 'shameful' failure. *Guardian*, 11 June - Retrieved from <https://www.theguardian.com/australia-news/2021/jun/11/robodebt-court-approves-18bn-settlement-for-victims-of-governments-shameful-failure>. on 30 May 2022.
- Hernes, T. 2014. *A Process Theory of Organization*. Oxford, UK: Oxford University Press.
- Hinings, C. R., & Greenwood, R. 2015. Missing in action: the further contribution of Philip Selznick to contemporary Institutional theory. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 121-148. Bingley, UKL: Emerald Group Publishing Limited.
- Hinings, C. R., Greenwood, R., & Meyer, R. 2018. Dusty Books? The Liability of Oldness. *Academy of Management Review*, 43(2): 333-343.
- Honneth, A. 2012. *The I in We: Studies in the Theory of Recognition*. Cambridge, UK: Polity.
- Ingersoll, C., Locke, R. M., & Reavis, C. 2012. BP and the Deepwater Horizon Disaster of 2010. *MIT Sloan Management Case Study - retrieved from <https://mitsloan.mit.edu/teaching-resources-library/bp-and-deepwater-horizon-disaster-2010> on 28 January 2022*.
- International, A. 2021. Dutch childcare benefit scandal an urgent wake-up call to ban racist algorithms. Retrieved from <https://www.amnesty.org/en/latest/news/2021/10/xenophobic-machines-dutch-child-benefit-scandal/> on 28 January 2022.
- Jaeger, G., & Selznick, P. 1964. A Normative Theory of Culture. *American Sociological Review*, 29(5): 653-669.
- Kalberg, S. 1980. Max Weber's Types of Rationality: Cornerstones for the Analysis of Rationalization Processes in History. *American Journal of Sociology*, 85(5): 1145-1179.
- Kellogg, K. C., Valentine, M. A., & Christin, A. 2020. Algorithms at Work: The New Contested Terrain of Control. *Academy of Management Annals*, 14(1): 366-410.
- King, B. G. 2015. Organizational Actors, Character, and Selznick's Theory of Organizations. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 149-174. Bingley, UKL: Emerald Group Publishing Limited.
- Kraatz, M. S., & Flores, R. 2015a. Introduction. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 1-7. Bingley, UKL: Emerald Group Publishing Limited.
- Kraatz, M. S., & Flores, R. 2015b. Reinfusing values. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 353-381. Bingley, UKL: Emerald Group Publishing Limited.
- Kraatz, M. S., Flores, R., & Chandler, D. 2020. The Value of Values for Institutional Analysis. *Academy of Management Annals*, 14(2): 474-512.
- Krygier, M. 2015. Selznick's Hobbesian Idealism: its nature and its origins. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 21-52. Bingley, UKL: Emerald Group Publishing Limited.

- Laasch, O., Lindebaum, D., & Caza, A. 2022. Constructing Ontological Foundations for Management Learning and Education Research. *Academy of Management Learning & Education*.
- Laasch, O., Suddaby, R., Freeman, R. E., & Jamali, D. 2020. Mapping the emerging field of responsible management: domains, spheres, themes, and future research. In O. Laasch, R. Suddaby, R. E. Freeman, & D. Jamali (Eds.), *Research Handbook of Responsible Management* 2–39. Cheltenham, Uk: Edward Elgar.
- Lindebaum, D. 2013. Pathologizing The Healthy But Ineffective: Some Ethical Reflections On Using Neuroscience In Leadership Research. *Journal of Management Inquiry*, 22(3): 295 - 305.
- Lindebaum, D. 2022. Demystifying Essays as an “A-Typical” Publication Format. *Business & Society*, 61(4): 845-850.
- Lindebaum, D., & Ashraf, M. 2021. The ghost in the machine, or the ghost in Organizational theory? A complementary view on the use of machine learning. *Academy of Management Review*.
- Lindebaum, D., den Hond, F., Greenwood, M., Chamberlain, J. A., & Andersson, L. 2022. Freedom, work and organizations in the 21st century: Freedom for whom and for whose purpose? *Human Relations*, 75(10): 1-22.
- Lindebaum, D., & Wright, A. L. 2021. From the editors: Imagining scientific articles and essays as productive co-existence. *Academy of Management Learning & Education*, 20(2): 127-132.
- Lounsbury, M. 2008. Institutional rationality and practice variation: New directions in the institutional analysis of practice. *Accounting, Organizations and Society*, 33(4): 349-361.
- Löwith, K. 2003. *Max Weber and Karl Marx*. London: Routledge.
- Mandalaki, E., & Pérezts, M. 2020. It takes two to tango: Theorizing inter-corporeality through nakedness and eros in researching and writing organizations. *Organization*: 1350508420956321.
- Mandalaki, E., & Pérezts, M. 2021. Abjection overruled! Time to dismantle sexist cyberbullying in academia. *Organization*.
- Meyer, J. W., & Rowan, B. 1977. Institutionalized Organizations: Formal Structure as Myth and Ceremony. *The American Journal of Sociology*, 83(2): 340–364.
- Meyer, R., & Quattrone, P. 2021. Living in a Post-truth World? Research, Doubt and Organization Studies. *Organization Studies*, 42(9): 1373-1383.
- Michel, A. 2011. Transcending Socialization: A Nine-Year Ethnography of the Body’s Role in Organizational Control and Knowledge Workers’ Transformation. *Administrative Science Quarterly*, 56(3): 325-368.
- Milano, S., Taddeo, M., & Floridi, L. 2020. Recommender systems and their ethical challenges. *AI & Society*, 35(4): 957-967.
- Moser, C., Deichmann, D., & Jurriens, M. in press. Business before pleasure? Bringing pleasure back into work. In A. Gerbasi, C. Emery, & A. Parker (Eds.), *Being connected: Understanding the antecedents and outcomes of workplace relationships*. London: Palgrave Macmillan.
- Moser, C., den Hond, F., & Lindebaum, D. 2022. Morality in the age of artificially intelligent algorithms. *Academy of Management Learning & Education*, 21(1): 139–155.
- Nalls, M. A., McLean, C. Y., Rick, J., Eberly, S., Hutten, S. J., Gwinn, K., Sutherland, M., Martinez, M., Heutink, P., Williams, N. M., Hardy, J., Gasser, T., Brice, A., Price, T. R., Nicolas, A., Keller, M. F., Molony, C., Gibbs, J. R., Chen-Plotkin, A., Suh, E., Letson, C., Fiandaca, M. S., Mapstone, M., Federoff, H. J., Noyce, A. J., Morris, H., Van Deerlin, V. M., Weintraub, D., Zabetian, C., Hernandez, D. G., Lesage, S., Mullins, M., Conley, E. D., Northover, C. A. M., Frasier, M., Marek, K., Day-Williams, A. G., Stone, D. J., Ioannidis, J. P. A., & Singleton, A. B. 2015. Diagnosis of Parkinson's disease on the basis of clinical and genetic classification: a population-based modelling study. *The Lancet Neurology*, 14(10): 1002-1009.

- Newlands, G. 2020. Algorithmic Surveillance in the Gig Economy: The Organization of Work through Lefebvrian Conceived Space. *Organization Studies*.
- Nicolini, D. 2013. *Practice Theory, Work, and Organization: An Introduction*. Oxford, UK: Oxford University Press.
- O'Neil, C. 2016. *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. New York, NY: Broadway Books.
- Odell, J. 2019. *How to Do Nothing - Resisting the Attention Economy*. Brooklyn, NY: Melville House Printing.
- Omidvar, O., Safavi, M., & Glaser, V. L. 2022. Algorithmic Routines and Dynamic Inertia: How Organizations Avoid Adapting to Changes in the Environment. *Journal of Management Studies*.
- Orlikowski, W. J., & Scott, S. V. 2008. 10 Sociomateriality: Challenging the Separation of Technology, Work and Organization. *Academy of Management Annals*, 2(1): 433-474.
- Petriglieri, G. 2020. F**k Science!?! An Invitation to Humanize Organization Theory. *Organization Theory*, 1(1): 2631787719897663.
- Pfeffer, J. 1993. Barriers to the advance of organizational science: paradigm development as a dependable variable. *Academy of Management Review*, 18(4): 599-620.
- Porter, T. M. 1996. *Trust in Numbers*. Princeton: Princeton University Press.
- Pratt, M. G., Kaplan, S., & Whittington, R. 2020. Editorial Essay: The Tumult over Transparency: Decoupling Transparency from Replication in Establishing Trustworthy Qualitative Research. *Administrative Science Quarterly*, 65(1): 1-19.
- Reay, T., Zafar, A., Monteiro, P., & Glaser, V. L. 2019. Presenting findings from Qualitative research: One size does not fit all! In T. B. Zilber, J. M. Amis, & J. Mair (Eds.), *The Production of Managerial Knowledge and Organizational Theory: New Approaches to Writing, Producing and Consuming Theory (Research in the Sociology of Organizations)*, Vol. 59: 201–216. Bingley, UK: Emerald.
- Redden, J., & Brand, J. 2020. Data Harm Record. Retrieved from <https://datajusticelab.org/data-harm-record/> on 8 March 2021.
- Rokeach, M. 1968a. The role of values in public opinion research. *Public Opinion Quarterly*, 32(4): 547-559.
- Rokeach, M. 1968b. A Theory of Organization and Change Within Value-Attitude Systems. *Journal of Social Issues*, 24(1): 13–33.
- Rynes, S. L., Bartunek, J. M., Dutton, J. E., & Margolis, J. D. 2012. Care and compassion through an organizational lens: Opening up new possibilities *Academy of Management Review*, 37(4): 503-523.
- Savory, A. 1999. *Holistic Management: A New Framework for Decision Making*. Washington, DC: Island Press.
- Schatzberg, E. 2006. "Technik" Comes to America: Changing Meanings of "Technology" before 1930. *Technology and Culture*, 47(3): 486-512.
- Selznick, P. 1949. *TVA and the grass roots; a study in the sociology of formal organization*. Berkeley, CA: University of California Press.
- Selznick, P. 1951. Institutional Vulnerability in Mass Society. *American Journal of Sociology*, 56(4): 320-331.
- Selznick, P. 1957. *Leadership in administration: A sociological interpretation*. Evanston, IL: Row Peterson.
- Selznick, P. 1961. Sociology and natural law. *Natural Law Forum*, 6: 84-108.
- Selznick, P. 1992. *The Moral Commonwealth: Social Theory and the Promise of Community*. Berkeley: University of California Press.
- Selznick, P. 2008. *A humanist science: Values and ideals in social inquiry*. Stanford, CA: Stanford University Press.
- Simon, H. 1978. Rationality as Process and as Product of Thought. *The American Economic Review*, 68(2): 1-16.

- Smets, M., Aristidou, A., & Whittington, R. 2017. Towards a Practice-Driven Institutionalism. In R. Greenwood, C. Oliver, T. B. Lawrence, & R. Meyer (Eds.), *The Sage Handbook of Organizational Institutionalism*: 384–411. London: Sage.
- Smith, B. C. 2019. *The Promise of Artificial Intelligence - Reckoning and Judgment*. Cambridge, MA: MIT Press.
- Solomon, R. 1993. *Ethics: A short Introduction*. Dubuque, IA: Brown & Benchmark.
- Steele, C. W. J., Hannigan, T. R., Glaser, V. L., Toubiana, M., & Gehman, J. 2020. Macrofoundations: Exploring the Institutionally Situated Nature of Activity. In C. W. J. Steele, T. R. Hannigan, V. L. Glaser, M. Toubiana, & J. Gehman (Eds.), *Macrofoundations: Exploring the Institutionally Situated Nature of Activity*, Vol. 68: 3-16. Bingley, UK: Emerald Publishing Limited.
- Suddaby, R. 2010. Editor's Comments: Construct Clarity in Theories of Management and Organization. *Academy of Management Review*, 35(3): 346-357.
- Suddaby, R. 2014. Editor's Comments: Why Theory? *Academy of Management Review*, 39(4): 407-411.
- Suddaby, R., & Trank, C. Q. 2013. Reinventing the Book Review at AMR. *Academy of Management Review*, 38(2): 316-318.
- Thacher, D. 2015. Perils of Value Neutrality. In M. S. Kraatz, & R. Flores (Eds.), *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*, Vol. 44: 317-352. Bingley, UK: Emerald Group Publishing Limited.
- Thatcher, S. M. B. 2021. Editor's Comments: Intentional Inclusion of Diverse Voices and Global Perspectives at AMR. *Academy of Management Review*, 46(1): 1-5.
- Thompson, J. D. 1967. *Organizations in action - Social science bases of administrative Theory*. New York: McGraw-Hill.
- Thornton, P. H., & Ocasio, W. 1999. Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958-1990. *The American Journal of Sociology*, 105(3): 801–843.
- Tsui, A. S. 2016. Reflections on the so-called value-free ideal: A call for responsible science in the business schools. *Cross Cultural & Strategic Management*, 23(1): 4-28.
- Van Maanen, J. 1995. Crossroads - Style as Theory. *Organization Science*, 6(1): 133-143.
- Von Wright, G. H. 1971. *Explanation and Understanding*. New York: Cornell University Press.
- Waldman, D. A., Balthazard, P. A., & Peterson, S. J. 2011a. Leadership and Neuroscience: Can We Revolutionize the Way that Inspirational Leaders are Identified and Developed? *Academy of Management Perspectives*, 25(1): 60-74.
- Waldman, D. A., Balthazard, P. A., & Peterson, S. J. 2011b. Social cognitive neuroscience and leadership. *The Leadership Quarterly*, 22(6): 1092-1106.
- Walsh, J. P., Weber, K., & Margolis, J. D. 2003. Social issues and management: our lost cause found. *Journal of Management*, 29(6): 859-881.
- Weber, M. 1921/1946. Science As a Vocation. In H. Gerth, & C. W. Mills (Eds.), *From Max Weber*. New York: Oxford University Press.
- Winner, L. 1977. *Autonomous Technology*. Cambridge, MA: MIT Press.
- Wolfangel, E. 2022. KI first, Bedenken second. *Die Zeit*, Retrieved from <https://www.zeit.de/digital/2022-01/url-kuenstliche-intelligenz-bundesregierung-risiken-enquete-kommission> on 25 January 2022.

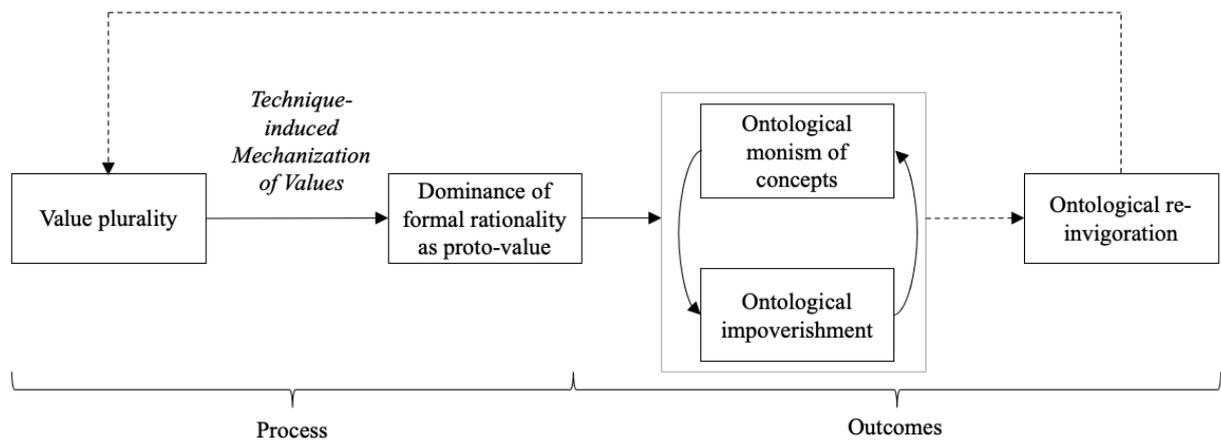


Figure 1: The process and outcomes of value mechanization

Author Biographical Statements

Dirk Lindebaum is Senior Professor at Grenoble Ecole de Management (France), and a Visiting Professor at the University of Alberta School of Business (Canada). He is curious about ‘values’ as meta-theme in his research, particularly in relation to theory building, technology and emotions at work.

Christine Moser is Associate Professor of Organization Theory in the department of Management & Organization at the Vrije Universiteit Amsterdam. Her research is on corporate social responsibility, knowledge flows in social networks, and the role of technology in social interaction.

Mehreen Ashraf is a doctoral student at Cardiff Business School, Cardiff University. Her research explores how our substantive understanding of organisational control has changed in light of algorithmic technologies, with a focus on AI systems.

Vern Glaser is Associate Professor in the Department of Strategy, Entrepreneurship and Management at the University of Alberta. His research explores how organizations strategically change practices and culture by using algorithms, arguments, and analogies.