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Value Plurality and Multifunctional Commensuration in Organisation: A Systems-Theoretical Approach

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ABSTRACT

This article aims to challenge the prevailing economic bias in studies of organised valuation and commensuration by exploring the broader plurality of values that organisations must manage. The article draws on social systems theory in the tradition of German sociologist Niklas Luhmann to conceptualise organisations as multifunctional systems of decisions that pertain to and commensurate a plurality values associated with a diverse set of value domains, also known as ‘function systems’. The utility of the proposed framework is demonstrated through cases related to carbon rationing and legal issues during the coronavirus crisis. A key finding is that commensuration is not limited to processes dominated by financial metrics, as political and educational metrics, among others, can also serve as primary drivers of commensuration processes, effectively guiding organisational decision-making. The paper demonstrates how organisations can effectively commensurate diverse value systems without relying solely on financial metrics and concludes that future research in non-/financial of valuation and commensuration will be crucial for developing more nuanced and multifaceted strategies and concepts, including multifunctional approaches to the formation, justification, and management of moral judgements and values.

1 | Introduction

The attribution of value to social and environmental events or factors is becoming a popular area of interest in sustainability research as much as in business and management studies, where this stream of valuation research is characterised by a perceived conflict between economic *value* and social or environmental *values*. Sustainability reporting, the public disclosure of an organisation's environmental, social and corporate governance (ESG) performance, for example, is often seen as a quantification of social and environmental values that subordinates these values to economic value (Parfitt 2020, 2024; van Bommel, Rasche, and Spicer 2023). Other prominent topics include the commodification of environmental factors (Fourcade 2011; Kallis, Gómez-Baggethun, and Zografos 2013) or the financialisation of virtually everything (Zelizer 1994), two processes thought to

reduce ‘deep’ or ‘intrinsic’ moral values (Donaldson 2021) to aspects of economic profitability.

Although the field puts significant emphasis on the difference between the moral qualities of environmental and social values as compared to the allegedly less moral economic value, it has not placed equally high value on studying the diversity of values within social and environmental domains so far. Neglecting the importance of the *plurality of values* (Arjaliès and Bansal 2018; Arjaliès, Laurel-Fois, and Mottis 2023) within these domains, however, is problematic because organisations must not only bridge the gaps between them (Gao and Bansal 2013) but also manage increasingly diverse and often conflicting expectations within each domain to achieve sustainability. Sustainability tensions (Carmin and De Marchi 2023; Hahn et al. 2018) therefore emerge not only

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because operations that are beneficial for an organisation's economic sustainability might be detrimental for its social or natural environment but also because organisations are confronted with diverse sets of stakeholders (Corbett, Webster, and Jenkin 2018; Hahn et al. 2015; Neesham, Dembek, and Benkert 2023; Pies, Beckmann, and Hielscher 2014; Pies and Valentinov 2024; Valentinov 2022a, 2023), each representing different and potentially conflicting environmental and social values. Whereas some stakeholders might expect organisations to protect their natural environment from negative externalities, others might expect them to go further and 'restore-preserve-enhance' (Hahn and Tampe 2021) it. Yet, other stakeholders might be more concerned with issues of social sustainability as they align with their preferred value domain, such as the political, scientific, educational or religious one. Though incommensurable in nature, however, these domains have remained subsumed within the category of the 'social', which is moreover morally and conceptually opposed to the economic domain, as if economic value and social or environmental values were located in 'hostile worlds' (Zelizer 2010, 277), where 'contact between those separate worlds corrupts in both directions', rather than representing different dimensions of a plurality of social values. As a result, the perceived conflict between seemingly *amoral* economic value on the one hand and seemingly *moral* social and environmental values on the other hand has overshadowed the importance of value plurality within social and environmental domains.

The aim of this article is to address this artificial and morally charged separation, as well as the associated neglect of research in social value plurality, by exploring how both economic and other social values are commensurated in organisational contexts.

To this end, Section 2 explores the concept of valuation as the social construction of value, also showing that key concepts of valuation studies, such as quantification and commensuration, have been overidentified with financialisation and other forms of economic quantification.

To challenge this economic bias in research on organised quantification and commensuration, Section 3 then presents a systems-theoretical perspective that views organisations as systems of decisions that relate to a plurality of economic, political, scientific, religious, legal and further social values. This approach maps (a) the plurality of values within the social domain and (b) the plurality of both economic and environmental values onto the social. Based on the resulting framework, the section further demonstrates how organisations operate commensurations between values associated with a plurality of incommensurable social value domains, which social systems theory refers to as function systems.

Section 4 then discusses two examples where organised commensuration between selected function systems was performed without resort to financial metrics or where financial metrics were subordinated to non-financial ones, respectively.

The final section of this article not only suggests several avenues for future research into the plurality of values and forms of valuation, including various forms of non-financial/financial

commensuration, but also emphasises that this plurality necessitates new, 'multifunctional' approaches to the formation and justification of moral value judgements.

2 | Value, Valuation and Commensuration

The concept of valuation refers to the social construction of value (Lamont 2012; Zuckerman 2012) and corresponding definitions of objects or events that count as such. Though valuation may also be a matter of tradition rather than decision, most works in valuation studies have focused on deliberate forms of value creation in contexts such as the evaluation of art (Plante, Free, and Andon 2021; Plante, Maire, and Pucci 2022), the commodification of nature (Fourcade 2011), the assetisation of baseball players (Nappert and Plante 2023) or the unresolved challenge of valuing assets and calculating adequate 'transfer prices' not only with regard to sports and other domains of society but also within the economic domain itself (Agafonow and Perez 2024a). With some exceptions (e.g., Chong 2013), most works in this sample focus on cases of economic valuation, that is, processes by which non-economic objects or events are ascribed economic value, which typically takes the form of financial quantification. Though quantification is not limited to prizing and other forms of financialised valuation (Arjaliès, Laurel-Fois, and Mottis 2023; Islam 2022) but also occurs in the non-economic realm (as shown not least in Section 4 of this article), quantification has become firmly associated with economic valuation as 'financialization has permeated all types of organizations, making financial numbers the dominant calculative device of contemporary societies' (Arjaliès and Bansal 2018).

Recently, Espeland and Yung (2019) have identified three aspects of quantification that might raise moral concerns. Numbers steer attention, determining what is considered relevant and what remains outside its scope. This implies that statements about what should be measured *can* be regarded as moral value statements (see also Espeland and Sauder 2007; Kornberger 2017). Quantification also serves as a means of control and compliance which asserts power over persons or organisations, thereby turning it into a matter loaded with concerns regarding ethical exercise of power. As quantification is a way to keep things under control, it can also serve educational purposes by determining compliance with certain expectations and allocating rewards to compliant actors or entities. It is therefore only consequential that ranking and reward systems are extensively applied in and to institutions of higher education (Alvesson, Einola, and Schaefer 2022; Jemielniak and Greenwood 2015; Espeland and Sauder 2007).

Interestingly, however, the concerns related to political power and education implied in these critiques of quantification reflect a plurality of value domains that challenges the dominant focus on quantification as financialisation. This observation also aligns with earlier work in which Espeland and Stevens (1998) have problematised practices of commensuration inherent in many processes of quantification. By utilising quantification, otherwise incomparable, incommensurable factors are made comparable and commensurable (see also Agafonow and Perez 2024b). Through this 'transformation of different qualities into a common metric' (Espeland and

Stevens 1998, 314), quantification acts as a universal scale, levelling the playing field for all factors to be assessed on an equal footing. This is the case when, for example, rating agencies combine environmental, social and corporate governance factors into one single score (Crace and Gehman 2023), a practice that might appear as problematic if these agencies act as moral black boxes (Esposito and Stark 2019) that do not disclose information regarding the relative value they have ascribed to the different ESG factors.

Concepts and critiques of commensuration, therefore, imply a plurality of values that transcends the prevalent over-identification of quantification with financialisation, in which context economic and non-economic values are treated as hostile worlds.

In the subsequent section of this article, the article presents a systems-theoretical framework for valuation and quantification studies that is neither biased to translations of non-economic values into economic value nor based on the tacit assumption that environmental or social values are morally superior to economic ones.

3 | Commensuration in Organisation: A Systems-Theoretical Approach

If valuation studies in management and organisation research consider valuation a matter of decision rather than tradition, then the question arises of how decisions relate to the plurality of values that shape valuation processes.

A social systems-theoretical answer to this question can build on shared constructivist foundations of both valuation studies and social systems theory. As values and valuations are social constructs in valuation studies, so too are decisions in social systems theory in the tradition of Niklas Luhmann (2008, 2013, 2018) not mental operations of individual human beings, but specific forms of communication (Ahrne, Aspers, and Brunsson 2015; Blagoev 2024; Cooren 2020; Hernes and Bakken 2003; Knudsen 2011; Rasche and Seidl 2020; Tekathen and Dechow 2020).

It is not the case that decisions are first made and then communicated; decisions are communications, which, in contrast to 'ordinary' communications, are described as 'compact communications' (...) that consist of two parts. While the ordinary variant communicates only the selected content, a decision communicates also *that* a selection has been made; i.e., that there were alternatives to the selected content that could have been—but were not—selected. (Seidl and Mormann 2014, 139)

Value communication is an even more compact form of communication insofar as values are preferences for selected alternatives that tacitly present themselves as alternativeless. If we refer to justice as value, then we imply a preference for justice over injustice. If justice is one of our values, and we are confronted with the choice between a just and an unjust

alternative, we do not have much of a choice. Thus, values prevent decisions. At the same time, values trigger decisions. 'Like stars in the heavens there are countless values', yet there is 'no firm hierarchical (transitive) order of such a type that certain values are always preferable to certain other ones, for instance, that freedom is more important than security in every case, peace always more important than freedom, justice always more important than peace, etc. The question of preference is only decided in advance when a value refers to its opposite (peace is better than war), but not when it refers to the contradictory demands of various distinctions between value and non-value' (Luhmann 2008, 28f).

Thus, such contradictory demands between different values constitute precisely 'those questions that are in principle undecidable', which (von Foerster 1992, 14) famously identified as prerequisites for decisions. In other words: 'decisions are always and only due when values pose conflicting demands (because if not, the decision would already be decided)' (Luhmann 2008, 29).

If we further concede with Luhmann (2018) that organisations are systems of decision communication, it follows that organisations systematically refer to a broad scope of values as they seek to manage conflicts between them. Organisations do so by using past decisions as premises for future ones, thus forming complex structures, including organisational programmes that define whether decisions are made correctly.

Evidently, an organisation's programmatic orientation to values is aligned with its specific purpose. As shown by a recent stream of research (La Cour and Højlund 2017; Roth, Sales, and Kaivo-oja 2017; Roth et al. 2020; Sales et al. 2022; Sales, Mansur, and Roth 2023; Roth 2023; Valentinov, Roth, and Will 2019; van Assche, Valentinov, and Verschraegen 2022; Will, Roth, and Valentinov 2018), however, organisations are less one-dimensional in their value orientation than commonly assumed. True, organisations pursue specialised mission. Most governments, for example, are less concerned with managing contradictory demands of religious values than most churches are. Yet, regardless of their core mission or purpose, most organisations are to some degree oriented to a broad scope of social domains. Both churches and governments, beyond their primary religious or political missions, engage in activities such as managing finances, educating staff, complying with legal requirements and interacting with the media. In total, the authors identify approximately 10 social domains or 'function systems' (including politics, art, science, religion, education, health, law, the mass media and the economy, the latter of which social systems theory views as one functional subsystem of society, among others) and demonstrate that most organisations refer to most of these function systems. Consequently, organisations are described as fundamentally 'multifunctional' systems of decision.

As organisations refer to and manage the different values associated with these different function systems, they also need to make them commensurable. Such commensurations are often not merely necessary side operations that support the pursuit of the core mission; instead, they frequently constitute the core mission itself. The *Contergan Foundation for People with Disabilities* is a case in point.

As outlined by Roth (2014), between 1957 and 1961, the German pharmaceutical company Grünenthal GmbH distributed the now notorious tranquilliser Contergan (thalidomide). When taken by pregnant women, Contergan caused severe birth defects. In 1961 alone, Grünenthal received over 1600 urgent warnings about the drug. Moreover, the company did not deny that by 16 November 1961, it was fully aware of the drug's harmful effects. Despite this, Contergan continued to be distributed until 26 November 1961, a day after the German newspaper *Welt am Sonntag* published a relevant article. By this time, at least 5000 children had been born with severe birth defects, not to mention an unknown number of prenatal deaths. The criminal case against the company was concluded in 1970 after 283 days in court. Eight months earlier, Grünenthal and the parents of affected children had reached a private settlement: The company paid a lump sum of 100 million German marks (DM), leading to the creation of a *Foundation for the Relief of Handicapped Children*, later renamed the *Contergan Foundation for People with Disabilities*. The foundation's purpose was to coordinate the distribution of compensation for birth defects according to the scheme outlined in Table 1.

Table 1 provides an overview with the first column listing a quantitative indicator (*Schadenspunkte*, literally 'damage points' in the German original) of a child's deformity, categorised into 14 levels ranging from relatively mild (1–4.99) to the most severe (80 and above). The second and third columns then assign specific monetary compensation to each category, including both a lump sum and a monthly pension. This quantification goes beyond merely putting a price on a moral issue. Instead, it reveals that quantification and monetisation are two distinct processes. Initially, the individual issues related to Contergan were subjected to medical classification. Only after this medical ranking was established could the conversion between medical assessment and economic valuation occur. In other words, Table 1 provides a tabular representation of the core decision programme

of an organisation whose purpose is to translate a health issue into an economic one in order to address a legal problem. Thus, the Contergan Foundation is a prime example of an organisation where commensuration is its core mission.

Although it highlights the difference between quantification and financialisation, the present case shares a certain economy bias with the broader discourse on valuation and commensuration, as it is once more a financial metric that serves as 'the dominant calculative device of contemporary societies' (Arjaliès and Bansal 2018).

To address this bias, in the subsequent section of this article, the focus will be on cases where financial metrics play a different role, or no role at all.

4 | Coronavirus, Carbon and Credits: Three Cases of Non- or Transeconomic Commensuration

In the coronavirus crisis, individual rights such as the freedom of movement were severely limited. In the later course of the crisis, some of these individual rights were graciously returned to individuals who complied with certain health measures. In autumn 2021, for example, two German federal states decreed that persons who had received a so-called booster vaccination were exempt from the requirement to undergo a COVID test before entering certain spaces that were accessible to tested and vaccinated individuals but restricted for unvaccinated persons. Restaurants, bars, discotheques, museums, cinemas, shops and many other organisations were therefore compelled to implement and enforce compliance with the following simple programme (see Table 2).

Table 2 presents a political programme that defines a person's legal status based on their health status. Such programmes

TABLE 1 | Quantification and economisation of pain (Translation from German Bundesanzeiger N° 189, 06.10.1973).

Damage points	Compensation payoff	Monthly pension
1–4,99	2.500,- DM	—
5–9,99	5.000,- DM	—
10–14,99	7.500,- DM	100,- DM
15–19,99	7.500,- DM	150,- DM
20–24,99	15.000,- DM	200,- DM
25–29,99	15.000,- DM	250,- DM
30–34,99	12.500,- DM	300,- DM
35–39,99	12.500,- DM	350,- DM
40–44,99	15.000,- DM	400,- DM
45–49,99	15.000,- DM	450,- DM
50–59,99	17.500,- DM	450,- DM
60–69,99	20.000,- DM	450,- DM
70–79,99	22.500,- DM	450,- DM
80–...	25.000,- DM	450,- DM

Source: Roth (2014).

TABLE 2 | Legal status as a function of health status. A common subroutine during the coronavirus crisis (own table).

Health status	Legal status
Booster vaccination	Freedom of movement without test
Two vaccinations (or documented recovery)	Freedom of movement with test
No vaccination	No freedom of movement

were common during the coronavirus crisis and installed as a subroutine in many organisational contexts. As a result, many organisations routinely translated health issues into legal ones. Although not devoid of quantification, the programme outlined in Table 2 is free of any reference to financial metrics, making it a clear case of non-economic commensuration.

Another example where financial metrics are not the dominant calculative device involves the concept of personal carbon allowances (PCA). Referring to PCA as a form of commensuration not dominated by financial considerations may initially seem counterintuitive. The idea of PCA typically entails the allocation of an individual carbon allowance, which is deducted whenever the person engages in carbon-intensive consumption. Persons with a carbon-neutral or carbon-conscious lifestyle accumulate a surplus of PCA, which they can sell to persons with more carbon-intensive lifestyles or, as discussed in the context of a similar scheme of tradeable energy quotas (Starkey 2012, 9), foreigners who have not been allocated PCA in a certain country or region. As the allowance would be constantly reduced in line with environmental policies, carbon-intensive lifestyles would become increasingly costly over time, thus incentivising individuals to transition to environmentally sustainable lifestyles.

Except for some pilots, PCA trading schemes have not been implemented yet mainly due to anticipated public acceptability issues (Bristow et al. 2010). Since the coronavirus crisis, however, a growing number of voices have called for revitalisation of the concept. This statement from a perspective article in *nature sustainability* is a case in point:

In particular, during the COVID-19 pandemic, restrictions on individuals for the sake of public health, and forms of individual accountability and responsibility that were unthinkable only one year before, have been adopted by millions of people. People may be more prepared to accept the tracking and limitations related to PCAs to achieve a safer climate and the many other benefits (for example, reduced air pollution and improved public health) associated with addressing the climate crisis. (Fuso Nerini et al. 2021, 1027)

This line of argumentation was prominently supported, not least by the World Economic Forum, and interest in the concept has been growing again (see, e.g., Tan Roth 2023).

Although the potential roll-out of a scheme of tradable PCA may seem like a prime example of the financialisation of everything (Zelizer 1994), including climate change, PCA trading ultimately is a form of carbon rationing, and thus a political market intervention rather than a case of economic marketisation. This assessment is further supported by discussions about purchase limits for individual carbon allowances to ‘avoid excess personal use of carbon’ by affluent individuals and to prevent speculation (Bristow et al. 2010).

The ultimate purpose of a still-fictitious organisation or organisational ecosystem charged with the implementation of a PCA allocation, deduction and trading scheme would hence be a political one. Much like in the case of the coronavirus crisis, this purpose would be the causation of politically desired levels of scientifically measured values and their eventual reduction to zero.

If the reduction of carbon emission metrics is the actual goal of PCA schemes and similar policies, then a potentially emerging PCA trade would only be a transitory and certainly not the ultimately desired policy outcome (see Table 3).

As shown in Table 3, the ultimate outcome of carbon rationing policies, such as PCA schemes, would be that individuals avoid the costs associated with exceeding their carbon ‘consumption’ ration and rather perform lifestyle changes that lead to the desired reduction of the total carbon emissions attributed to a given population. The more individuals comply with these lifestyle expectations, the less significant the economic dimension of this politically enforced artificial shortage of a superabundant gas becomes, and the clearer that the purported end of this rationing policy is, in fact, educational.

The two cases presented in this section show that commensuration is not limited to processes where financial or other economic metrics are the dominant calculative device. But in the case of carbon rationing, economic metrics play a role only if individual behaviour fails to stay within a politically defined range of scientific metrics, which primarily serves an educational purpose, the commensuration of health status into legal rights during the coronavirus crisis operated entirely without reference to economic metrics.

TABLE 3 | Political commensuration of carbon emission metrics and potential policy outcomes (own table).

Scientific quantification of carbon emissions	Political carbon rationing	Potential policy outcomes
Higher	Above declining ration	Economy: carbon pricing and trade
Lower	Within declining ration	Education: lifestyle change
Zero	No ration	End of policy?

The concept of value plurality is also increasingly relevant in a globalised and technologically driven society where the pervasive influence of algorithms in rating and evaluating behaviour is evident the everyday digital interactions experienced globally (Tække 2011). Platforms like Uber use customer ratings to influence driver behaviour and access to work opportunities, whereas social media platforms such as Instagram and Facebook quantify social value through likes, shares and comments. These systems rely on algorithmic governance to manage and commensurate diverse values—ranging from economic behaviour to social and moral conduct—within a unified framework. This trend reflects what Luhmann described as the increasing functional differentiation within society, where different value systems, such as those in the economy, law and social media, develop their own logics and criteria for success. The integration of these value domains through algorithmic systems underscores a broader move towards the quantification and management of behaviour in both public and private spheres.

To date, perhaps the most extreme example is China's Social Credit System (SCS), which integrates a diverse range of societal values within a single governance system, managed by the state.

The SCS is deeply rooted in China's long tradition of bureaucratic governance, where systems like the Dang'an (personnel dossier) have historically been used to document and control the behaviour of individuals and officials (Jiang 2020; Malaurent and Mehrpouya 2024). These practices laid the groundwork for the modern SCS, which has significantly expanded in scope and technological sophistication. The SCS now integrates digital technologies to manage and evaluate a broad spectrum of behaviours across multiple societal domains, including legal, social and political values (Mistreanu 2018; Tække 2022; Tække and Paulsen 2020; Zou 2021). It integrates diverse value domains—economic, social, legal and political—into a coherent system that assigns scores to individuals and entities based on their behaviour (Ohlberg, Ahmed, and Lang 2017). For instance, the system rewards financial compliance and social responsibility with access to favourable loan terms and public services while penalising legal infractions and antisocial behaviour with travel restrictions and public blacklisting (Zou 2021).

Initially conceived to improve financial creditworthiness, the SCS has evolved into a more comprehensive system that includes social behaviours, legal compliance, political loyalty and other variables (Creemers 2018). This expansion reflects the system's multifunctional nature, wherein various societal values are commensurated and integrated into a single evaluative framework. Luhmann's idea of functional differentiation helps us understand how the SCS, like other modern systems, is engineered to manage the complexity arising from diverse value systems within a single societal framework.

This multifaceted approach to commensuration illustrates the system's ability to integrate and quantify a wide array of values within a unified framework. However, the SCS's reliance on algorithmic rationality raises ethical concerns, particularly regarding the reduction of complex moral and social behaviours to quantifiable metrics. In this context, 'it is worthwhile to recall

that the notorious Chinese social credit system started as financial credit scoring system similar to those in place in many Western countries, and that it has long been focused mainly on organisations', before it was extended to include 'to non-financial aspects of social life and an increasing detailed monitoring of individual behaviour [which] has given rise to the concerns commonly associated with the system today' (Roth 2023, 101278).

5 | Outlook: Multifunctional Studies of Organised Valuation and Commensuration

The present article drew on the social systems-theoretical concept of functional differentiation to emphasise the complexity and plurality of values that organisations are confronted with in different societal contexts. Its main contention is that commensuration—the process of making different values comparable—extends beyond economic or financial metrics and encompasses a broader range of social values, including political, legal, religious, scientific and health- or mass media-related ones. In particular, this article highlights how different functions within organisations and societies often require managing these diverse value systems. To illustrate this point, the article discussed cases such as the management of carbon emissions, the health statuses-based policies during the coronavirus crisis and the SCS in China. These examples demonstrate how the commensuration processes can operate effectively without relying solely on economic metrics, showing that political, educational, and even algorithmically driven metrics can serve as primary drivers of commensuration. The case of the Chinese SCS, in particular, underscores the challenges and ethical dilemmas associated with consolidating a plurality of values within a single evaluative framework. The system's reliance on algorithmic governance to integrate economic, legal, social and political values reflects the complexities organisations face when attempting to navigate and manage multiple, often conflicting, value domains. This case also serves as a cautionary example of the potential consequences of over-reliance on any one metric or system of valuation, whether economic, ecological or otherwise.

Thus, the present paper not only underscores the importance of acknowledging and managing a plurality of values within decision-making processes but also challenges the bias to financial and other economic forms of commensuration, whose analyses prevail and motivate criticism in valuation studies and management and organisation studies alike (Arjaliès and Bansal 2018).

In drawing on cases such as carbon rationing, health status-based policies during the coronavirus crisis and the Chinese SCS, this article demonstrated that commensuration processes can operate effectively without, or without a predominance of, economic metrics, also showing how political and educational algorithmic metrics can serve as primary drivers of commensuration.

In proposing a systems-theoretical framework for understanding how organisations navigate the commensuration of various values, this article moreover showed that organisations, as systems of decision communication, inherently deal with multiple and sometimes conflicting value domains. To go one step

further, one might even suggest that commensuration of ultimately incommensurable perspectives is a key function organisations have in modern society. Function systems are not only incommensurable but also interdependent, and this interdependency ultimately requires commensuration. At the same time, the incommensurability of function systems requires mediation, which is provided by organisations in terms of commensuration. This argument directly ties into Heinz von Foerster's and Niklas Luhmann's ideas about how organisational decisions can only decide the undecidable, and it also connects with the work of Chester Barnard, who explicitly held the reconciliation of incompatible perspectives to be a key task of management (see Valentinov 2022b; Valentinov and Roth 2021, 2022).

Another major take-away of this article is that moral judgements and ethical considerations about the adequacy of organisational attempts at managing these multiplicities and conflicts must themselves reflect the complexity of the matter. This implies that these judgements and considerations clearly flag out their own preferences for one or several function systems of society or otherwise represent the plurality of perspectives within the process of their formation and justification. One such approach is presented in Table 4.

Table 4 shows that moral judgements about and ethical considerations around an issue or concept such as PCA trading strongly depend on the functional value domains such judgements are associated with. From a political perspective, PCA trading might appear as a necessary and feasible strategy to achieve certain policy goals. From an economic perspective, however, the judgement might be more ambivalent as PCA policies might not only open up new opportunities for investment and trade but also curb economic development in certain industries. From a scientific perspective, the issue might appear similarly ambivalent as even if there were a unanimous scientific consensus regarding the need for urgent and radical climate mitigation measures, there would still be need for discussion as to whether PCA trading qualifies as one such measure or rather creates undesirable side effects such as large-scale reactance or new forms of inequality and thus be bad from a legal justice-perspective. As we consider artistic or sportive perspectives on PCA, we also find that some function systems might be rather indifferent if it comes to the implementation of a PCA scheme in a given country or region.

The cases provided in the paper therefore also highlight the potential challenges in implementing non-economic/economic commensuration processes, which may depend on different stakeholders' identifications with values associated with the various function systems of society.

Developing a broader understanding of management and organisation in terms of commensuration requires the analysis

of larger scales and scopes of cases, particularly those involving non-financial forms of commensuration. The empirical challenge associated with this endeavour is then the identification of pertinent cases. To facilitate their detection, one might assume that most representations of commensuration adopt a tabular format. Therefore, the quest would be for commensuration tables. Potential avenues for future research therefore include explorations of additional contexts where tacit or apparent tabulations of non-economic metrics play a central role, such as in the realms of social justice, environmental conservation or public health. In these contexts, investigating the plurality of values and factors that influence public acceptance of non-economic/economic commensuration schemes could provide valuable insights into how these processes can be better implemented. This also implies a need for further studies that examine how the inclusion of non-/economic values in commensuration affects organisational decision-making processes, particularly in terms of multifunctional concepts of long-term sustainability and stakeholder management.

Given the complexity of non-economic/economic commensuration processes, interdisciplinary research that combines insights from sociology, economics, political science and environmental studies could offer a more holistic understanding of how diverse value systems interact within organisations and society. The case of the SCS, with its far-reaching implications, underscores the need for such interdisciplinary approaches to fully grasp the ethical and practical challenges involved.

Last but not least, comparative research across different countries, cultures or industries should shed light on how different societal contexts influence the commensuration of values and the resulting outcomes.

Similar to the case of the coronavirus crisis, where public focus was directed to a small set of now largely irrelevant health indicators, the pressing concern with climate change risks driving us towards over-reliance on yet another narrow set of metrics or values such as carbon emissions or 'planetary health' to which all other metrics or values should subordinate. Whereas the issues surrounding the perceived financialisation of all social domains have been widely discussed, the potential dangers of replacing financial metrics with natural scientific indicators, health metrics or algorithmically driven measures have remained underexplored. This lack of scrutiny is partly due to the morally charged separation between economic value and social and environmental values. Although economic metrics, such as those developed by financial experts like Damodaran (2012), are indispensable for corporate valuation and financial analysis, they also exemplify the broader trend of reducing complex social and organisational values to monetary terms. This approach, while rigorous, often overlooks the multifaceted nature of value in modern society, where non-economic values such as social

TABLE 4 | Ethical considerations in the context of functional differentiation (own table).

	POL	ECO	SCI	ART	REL	LAW	HEA	SPO	EDU	MME
+	1	1	1	0	1	0	1	0	1	1
-	0	1	1	0	0	1	0	0	0	1

responsibility, environmental impact and cultural significance play crucial roles. However, a society in which every aspect of social life is assessed solely on its carbon footprint—even to the extent of influencing decisions about bringing new life into the world—is no more inherently better than a society ruled by financial indicators or religious doctrines.

Reckwitz (2020) highlights this tension in his discussion of the ‘society of singularities’, where contemporary culture increasingly values uniqueness and distinction. This societal shift towards singularisation poses a direct challenge to the homogenising tendencies of systems like the SCS and other algorithmic governance frameworks. Luhmann’s (1995) theory of functional differentiation further contextualises this challenge by illustrating how modern societies manage complexity through autonomous systems that commensurate values according to their internal logics. However, Reckwitz’s focus on singularisation suggests that the current cultural emphasis on uniqueness resists such systemic reductions, underscoring the importance of maintaining a plurality of values. Taking value plurality seriously, therefore, requires consideration of whether our future lies in a society of organisations—each pursuing their economic, political, legal, artistic, religious or other social missions with the corresponding strategies of commensuration—or in an organised society dominated by one sufficiently universal metric or standard of commensuration, defined by a priestly caste, a Politburo, a club of global healers or a subfield of the natural sciences.

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