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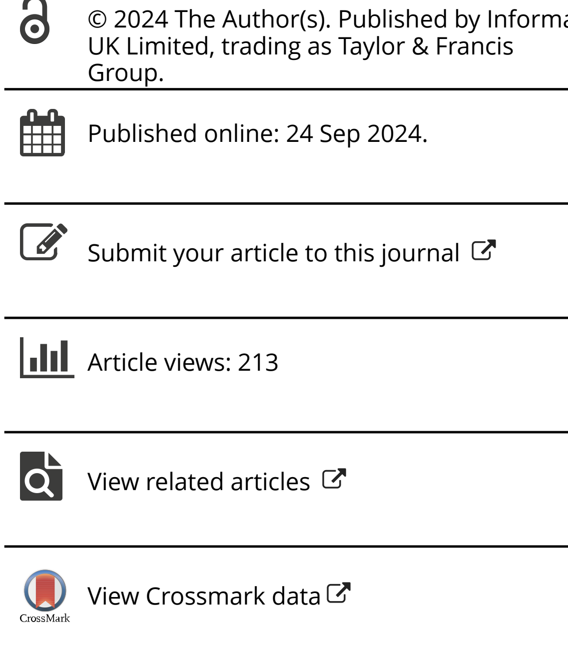

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Normative Paradigms and Interdisciplinary Research

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ABSTRACT
Interdisciplinary collaboration is often seen as the approach to deal with wicked problems, which are problems that involve both scientific uncertainties and normative uncertainties, meaning that there is no consensus on the problem definition and the best course of action. One of the reasons for the difficulty in establishing effective interdisciplinary collaboration is that the normative assumptions of academic disciplines are usually left unarticulated. This paper presents four ideal-typical characterisations of the normative paradigms that are maintained by different disciplines. These paradigms can be sketched out as follows: the moral positions that are considered legitimate are ignored ('moral denialism'); located at the level of the individual ('aggregated subjectivism'); located at the level of the community ('moral collectivism'); or found at a transcendental level ('transcendental realism'). Each of these paradigms brings about its difficulties for dealing with wicked problems. The paper will also present a heuristic framework that guides interdisciplinary research in dealing with normative plurality by aligning the different scales of contextualisation that appear to underlie the four normative paradigms.

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1. Introduction

Societal challenges such as climate change, immigration policies, disruptive innovations, and pandemics come with a plurality of understandings about various descriptive and normative aspects. They are 'wicked problems', issues that cannot be solved, while they need to be tackled by policies and interventions (McConnell 2018; Pesch and Vermaas 2020; Rittel and Webber 1973). These ill-defined problems not only involve scientific uncertainties (Mampuys 2022) but also encompass a *plurality of normative positions*, meaning there is no consensus on the problem, how to evaluate different measures, and what the right course of action should be.

To cope with wicked problems, *interdisciplinary approaches* are usually promoted (Hackett and Rhoten 2009; Klein 1990, 2004; Nissani 1997). A host of approaches and labels have been developed to integrate different forms of knowledge (Huutoniemi et al. 2010), carrying labels that are often used interchangeably, such as 'interdisciplinarity', 'multidisciplinarity', and 'transdisciplinarity' (Newman 2024; Rutgers 1993). Here, we will focus on collaboration between researchers from the social sciences and humanities, as this is the type of collaboration that attends to wicked problems that are characterised by both descriptive and normative plurality and cannot be addressed by a singular disciplinary outlook.

In this, there has been ample scholarly attention to how researchers from different academic disciplines can work together to jointly understand and study problems and the epistemological

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issues that may emerge from such collaboration (Petrie 1976; Rhoten and Parker 2004), while also the lack of appropriate incentive structures is shown in the literature (Ledford 2015; Turner et al. 2015; Välikangas 2024), but the role of contrastive normative starting points appear to be left unattended. It is telling that Aagaard-Hansen (2007) identifies a range of challenges in disciplinary research that spans different disciplines but does not list differences in normative starting points, while Piso (2016) addresses 'ethical prejudices' in a footnote, framing these as issues of an epistemological nature. However, in the context of research that recommends intervention strategies to address societal problems, the importance of normative issues appears to go further than mere prejudice that can be reframed as conflicting epistemological assumptions. Disciplines may differ distinctively not only about their implicit assumption of what is the 'good' but also on what the ontological status of the 'good' is (cf. Steinert 2023). This latter question is of particular interest because it determines how to understand normative plurality in the sense that it informs what moral disagreements mean and how they can be addressed. In other words, what is considered the 'locus of moral reality' will differ, and with that, the nature and normative pluralism will also be perceived differently.

We will introduce an ideal-typical classification of different 'paradigms' of normative starting points in relation to wicked problems to show the fundamental differences regarding the status of normative claims in different academic disciplines. It is not the aim of this paper to prioritize or discredit any of these positions; instead, we will explore how researchers can engage in interdisciplinary collaboration while acknowledging their contrastive moral starting positions. To do so, this paper will introduce an exploratory framework in which the four normative paradigms are connected to different levels of contextualisation, allowing collaborating researchers to understand how their distinct normative and descriptive qualities can complement each other so as to make more sense of wicked problems.

2. The Implicitness of Normative Assumptions within Disciplines

Any discipline can be distinguished based on a collection of starting points, such as the methodologies that are used, the research object, the epistemological foundations, and normative starting points (Bornemann and Christen 2020; Schikowitz 2020). Especially this last category is often left unarticulated, which makes it hard to address normative plurality. Each discipline has its distinct 'paradigm' with which scholars engage with reality (Kuhn 1962). Some of these starting points are obvious, like the concepts, frameworks, methods, and research object (cf. Bourdieu 2004; Mitroff and Kilmann 1979). However, other assumptions are maintained implicitly and can be said to be 'gatekeepers' used to decide whether a scholar's work is acceptable or not (Nästesjö 2021). A scholar submitting a manuscript to a journal or participating in a conference must give the right 'cues' to show that she is an 'insider' to the discipline. For instance, there are rhetorical styles that need to be followed, frameworks that need to be used, and key authors and texts that not only need to be named but also need to be represented in a certain way. Probably any scholar who has tried to enter a new discipline has first-hand experience with the tendency of academic disciplines to figure as 'tribes' that have their own 'territories' (Tellmann 2022; also see; Becher and Trowler 2001; Pautasso and Pautasso 2010).

This sketch suggests that scientific disciplines can be studied ethnographically, which, for instance, has been the venture of Latour (1987), especially in his early works. Michèle Lamont (2010) has made an ethnographic exploration of interdisciplinary evaluation of grant applications and she has shown how researchers from different fields maintain their specific, implicit criteria about what establishes the quality of research. An ethnography about the moral assumptions within academic disciplines is hard to find, as ethicists tend to refrain from empirical research, and social researchers tend to stay away from moral reasoning – a finding that is also observed by Lamont. This paper aims to bridge this gap by identifying the unarticulated moral assumptions that figure as implicit gatekeeping factors. It will do so by proposing a typology motivated by the consideration that disciplines tend to assume different

starting points about the ontological level at which moral positions are taken to be legitimate. A first point of entrance here can be derived from the field of ethics, in which a distinction is made between *ethical subjectivism*, which contends that morality resides in the beliefs or preferences of people, and *moral realism*, which maintains that the moral question about what is good exists independently from people. This opposition appears to be not fine-grained enough to fully grasp the workings of the social sciences, and we will propose that subjectivist approaches can be further divided into an *individualist* and a *collectivist* type. It also needs to be acknowledged that there are (still) scholars and decision-makers who deny the role of morality in academia and policy. This brings us to four ideal-types of normative paradigms, which will be elaborated in the next section.

3. Four Ways to Engage with Normativity

This section describes four normative paradigms in relation to wicked problems. For each of the paradigms, we will (a) give a short description, (b) present examples of disciplines that can be connected to this paradigm, and (c) sketch out the problems in engaging with normative plurality. As said above, our analyses have an ideal-typical character; the normative paradigms are analytical reconstructions of empirical phenomena. Usually, ideal types do not coincide with empirical descriptions, as their role is mostly to have explanatory leverage. The ideal types are not categories that scientific disciplines neatly fit in; rather, they represent different views on normativity in academic disciplines, which is useful in the context of fostering interdisciplinary research.

Table 1 provides an overview of the main characteristics of the normative paradigms.

Table 1. Characteristics of the normative paradigms.

	Locus of moral reality	How to come to the 'good'	Typical academic disciplines	Moral pluralism
1. Moral denialism	Not relevant	Accessible via more scientific knowledge	Policy science; design thinking	Solutions based on science and technology circumvent normative pluralism
2. Aggregated subjectivism	Moral positions at the individual's level	Aggregating individual values in a process (legitimacy)	Psychology; political science; economics	Agreement to disagree (on rules that are to be followed)
3. Moral collectivism	Moral positions at the collective level			
(a) Constitutionalist approach	Moral positions emerge via deliberative processes	Outcome of deliberation	Deliberative theories in political theory and philosophy	No well-developed account
(a) Organic approach	They emerge within society and are corrupted by institutions (strong/ populist) or hindered by institutions (weak)	The eradication of power structures; Restoring power inequalities	Critical theory; feminist philosophy; cultural geography; STS	False consciousness and alienation; Inclusion of minority perspectives
4. Transcendental realism	Moral positions are objective ideals.	A methodological postulate that constitutes a search for what is good via logic, argumentation, and reasoning.	Philosophy; Ethics	Normative pluralism is seen as a theoretical problem; Theory-based moral uncertainties

3.1. Moral Denialism

We will label the first ideal type as *moral denialism* because, with regard to collective decision-making, its key characteristic is that the relevance of normative issues is circumvented. One version of this paradigm assumes that normative controversies would disappear if people only knew the 'facts'. The researcher takes on the role of a neutral, objective scholar, and research outputs point society toward what ought to be done. This take can be recognized in policy debates on issues like climate change and COVID-19, in which scientific knowledge is often seen as enough motivation to embark on certain policy courses (Rainey et al. 2021). However, ignoring the normative character of these cases can be counterproductive as it increases the chance for polarisation within society (Markowitz and Shariff 2012). The reluctance of policymakers and experts to acknowledge the normativity of policies developed to cope with these problems shifts societal debates towards whether scientific knowledge is true or not – confounding moral and epistemological issues.

Next to such outright technocratic policies, there are more intricate manifestations of moral denialism, for instance, by placing the role of normative aspects outside of the scope of interest. This paradigm assumes a clear institutional divide between politics and administration, in other words, between the ends (or goals) and the means to realise them, and only the means are seen as open for discussion (Schreurs 2000). This has been characterised as a 'means-ends rationality' (Simon 1997). Within the context of wicked problems, an instrumental means-ends rationality is impossible to maintain, as there is no consensus on the ends that should be pursued nor on the means that should be deployed. As such, an instrumental approach will obscure the existence of wicked problems instead of coping with them (cf. Mormina 2022).

The fundamental problem of moral denialism is that it refutes the very existence of wicked problems. Such problems are seen either as epistemological issues or as problems that can be solved by bypassing their normative nature altogether. With that, moral denialism can be seen as the practical substantiation of what is called the 'naturalistic fallacy' in moral philosophy, which holds that what is morally right, an 'ought', cannot be derived from an existing situation, an 'is' (Frankena 1939).

3.2. Aggregated Subjectivism

The second paradigm that we will discuss here has been given the name of 'aggregated subjectivism'. The reason to use this label is that this paradigm assumes that moral outlooks, including values, principles, and ideologies, are individual properties that have no independent status at the collective level. In this paradigm, moral properties can be said to resemble matters of taste; they are strictly individual, subjective, and not transferrable to others (Blanshard 1949). To a significant extent, the presence of normative pluralism – and, as such, the existence of wicked problems – is derived from this starting point: individuals are entitled to moral standpoints, giving rise to groups of individuals that have contrastive normative ideas. To overcome normative plurality, *procedures* need to be constructed and maintained that allow the aggregation of individual standpoints (Rosanvallon 2008). Here, we can think of the democratic arrangements, such as majority vote, or of institutional realms, such as the market, which allow individuals to pursue their individual goals (e.g. see Dahl 2008).

Academic disciplines that assume this perspective study the processes by which actors – which may be individuals, citizens, stakeholders, customers, or even organisations – pursue their goals within a given institutional domain. This paradigm is very much dominant in disciplines like economic theory, psychology, and political science. Within this approach, any form of collective behaviour or collective morality is an expression of the aggregate of individual decisions because the assumed legitimacy of explanations is derived only from individual motivations and behaviour. As insights derived from such influential disciplines spill over into policy decisions and societal debates, aggregated individualism becomes

confounded with the political ideology of liberalism, reproducing the ideological assumption that democratic decision-making can be reduced to the sum of individual preferences. The confounding of ideology and methodology is most notably found in economics and psychology, two fields that maintain a highly formalised account of the behaviour of individual agents.

The starting point of aggregated subjectivism raises a first problem for this paradigm with regard to normative pluralism, namely that it may have 'disciplining' effects (cf. Foucault 1976). This is, for instance, the case in nudge theory or other incentive schemes that foster effective policies by conditioning aggregated reflexes (e.g. see Kahneman 2011; Thaler and Sunstein 2009). Another manifestation of these disciplining effects can be found in the classifications used in statistics that designate certain types of behaviour or choices as 'normal' while others are considered 'deviant'. Quantifying methods such as statistics help governments control society but also come with a strong disciplinary power (cf. Scott 2020). Methods to aggregate results over a large population usually create a singular outcome that hides or marginalizes underlying differences, with the normative plurality intrinsic to wicked problems being taken from eyesight. This characteristic also relates to the problem of the 'tyranny of the majority' already introduced by J.S. Mill (1985). For Mill, such a tyranny meant that values and voices not supported by the majority of the population were not taken into consideration; statistical methods bring about the same kind of tyranny but in a more subtle way.

A second problem of this paradigm emerges within the context of fields like political science and policy studies that are concerned with the decision-making arrangements that allow for the aggregation of individual moral positions or preferences. The validity of these positions is usually taken at face value; what is of interest are the processes by which these are translated into collectively binding decisions. Here, we can think of elections and the workings of a representative parliament, but also the influence of stakeholder organisations such as unions, NGOs, advocacy groups, and lobbyists on political decisions. In this, an antagonistic starting point is assumed: societal factions compete to maximise their interests and goals. The academic question then is how actors and organisations engage in this competition, or, in the words of Fritz Scharpf (1997), these actors play a 'game' with the rules being set by the institutional context; they all play to win based on already given goals. It can be said that at the level of the collective, this paradigm is *nihilistic* because the normative load of positions does not play a role any longer when decisions need to be taken. If a majority votes for policy A, then policy A should be done, regardless of the content of that policy. The collective level becomes a mere matter of strategically defending these positions in collective decisions.

Underlying this paradigm is the assumption that people 'agree to disagree', meaning that the institutions and arrangements to settle conflicting positions are not in themselves subject to societal contestation. Indeed, institutions can be seen as nothing else as contexts designed to resolve conflicting normative claims (Pesch 2021b; Wong 1992). However, universal agreement on their legitimacy may have never existed. Within democratic states, there always have been antagonists pursuing anarchy, communism, or fascism. Recently, we have seen violent outbursts of crowds that discredited electoral results in Washington (January 2021) and Brasilia (January 2023). The paradigm of aggregated subjectivism cannot cater to such anti-democratic individuals or groups that deny the legitimacy of aggregation procedures – raising a third problem for this paradigm.

A fourth problem of scholarly approaches that can placed within this paradigm is that they assume a *static* account of normative positions. Statistical methods are very capable of capturing a snapshot of moral positions at a certain time, but like personal taste in art or food, moral positions may change over time. Moral positions are dynamic, and especially with regard to the context of wicked problems, this is an important consideration as what appears to be societally accepted at a given moment may be found to be undesirable in the future. When normativity is considered as an aggregate of individual beliefs at a given time, it is difficult to anticipate value change (Pesch 2019).

3.3. Moral Collectivism

The third paradigm considers moral positions to be real at the level of the collective, meaning that what is good at the aggregate level cannot be reduced to the sum of individual preferences. What establishes morality is something that is shared and maintained within the setting of collective; it is relational instead of individualistic. It is helpful to distinguish two versions of this paradigm that, in many ways, are completely opposed to each other. On the one hand, there is the *constitutionalist approach*, which assumes that collectives shape their shared moral position via existing political structures; on the other hand, there is the organic approach, which considers shared moral positions to evolve organically within a community.

3.3.1. The Constitutionalist Approach

The constitutionalist approach considers morality to emerge via deliberative processes embedded within institutions. This approach can be recognized in Hegel's view of the state as the culmination of moral action (Taylor 2015) but also in Aristotle's assertion that the state as a political community aims at 'good in a greater degree than any other, and at the highest good' (Aristotle 1905).

To effectuate this potential of the state, deliberative theories have been proposed (Dryzek 1994; Fischer 1999). Through the participation of citizens in collective decision-making, a common morality that transcends individual positions is established (Arendt 1958; Taylor 1995). Deliberation presupposes the availability of arrangements and participatory structures. Without such institutions, there would be no way to come to a shared morality.

A metaphor that is often used within this approach is that of 'public space'. The physical infrastructure of a city should be accessible to all its inhabitants who enter this space with their motivations and preferences but who are willing to meet and develop new shared understandings and collective outlooks (Pesch 2021a; Sennett 1993). Transferred to the realm of politics, this means that every citizen is fundamentally able to join deliberative practices to exchange input on how to progress as a collective. These deliberative practices are organised in a heterogeneity of ways, participatory events and debates in the media (Arendt 1958; Barber 1984; Dryzek 1994). The emphasis on what is shared does not mean that disagreement cannot be accounted for in this approach, as societal contestation can be seen as a deliberative method in itself: it provokes citizens and groups to forward their positions so these can become part of the collective morality (Cuppen 2018; Stirling 2011).

A basic problem in the context of wicked problems is that the constitutionalist approach we have outlined here is usually presented as a *supplement* to dominant democratic practices that reside under the paradigm of aggregated subjectivism (Lövbrand, Pielke, and Beck 2011). Practices and arrangements that are described are presented as 'add-ons' that make existing decision-making schemes more participatory. This means that literature tends to have an idealistic character that aims to adjust the workings of democracy instead of reflecting what the best policy might be. For the proponents of the constitutionalist approach, deliberation is a goal in itself and not a method to come to conclusions about the right policies. The limited relevance of the outcome of deliberative processes contrasts strongly with the sense of urgency that comes with wicked problems.

One may also find other points of critique in the literature, also from authors who will endorse the principles of deliberative democracy. For instance, deliberative theories have been criticised for ignoring and reproducing misrecognition and power relations (see, for example, Fraser (2000) and Honneth (1992)). The goal of inclusiveness is easily countered by exclusionary mechanisms, which may bar the participation of those who do not have the right background, training, linguistic skills, and so on (Allen 2018; Fricker 2007).

Added to that is the conservative assumption of a closed community, implying the exclusion of outsiders. It is especially this point that causes problems within the context of wicked problems, which are invoked by the volatility of modern society. In fact, many wicked problems emerge precisely out of the fact that new groups demand access to democratic

structures; they challenge the status quo, which prevents them from having equal status. Rittel and Webber wrote about the social movements of the 1960s that came with emancipatory claims that resemble the claims of groups in contemporary society, such as the LHBTIQ+ community that pursues equality or the lower economic classes that do not feel represented or recognized in the current democratic system. The wicked question is how to reach a consensus if the collective is made up of fluid, heterogeneous communities with multiverses of meaning instead of just a universe, as assumed by the constitutionalist approach.

3.3.2. The Organic Approach

A second approach to moral collectivism considers valid moral claims to 'organically' emerge within communities (Benn and Gaus 1983). Social groups are seen as moral entities that are unified by language, practices, and norms. As a descriptive starting point, this approach can be recognised in fields like sociology and anthropology, which assume cultures develop a coherent set of meanings that are reproduced by the communities themselves (Berger and Luckmann 1991; Geertz 1973). Often, this descriptive starting point spills over into a normative stance that prescribes that communities *should* develop such a set of meanings in an autonomous way. Collective self-determination that is not intervened by existing institutional and political structures becomes the ideal to be pursued. In contrast with the constitutionalist approach, the space in which people come together should not be 'produced', for instance, the realm of the state or the market, but people should be given the opportunity to 'construct' this space themselves (cf. Lefebvre 1991).

The organic approach has several historical sources (Taylor 1989). First, there are ideas already originating from Rousseau about the authenticity of communities (both in the global North and the global South) and their right to self-determination and self-expression. Second, there is the Marxist consideration about certain societal sections that suffer from a 'false consciousness' regarding the legitimacy of existing power structures.

The combination of these ideas has been developed in several directions. First, there is a *strong* version that denies the legitimacy of any structure that is imposed upon communities, as it leads to the 'alienation' of people with regard to their 'true' nature – represented by streams such as anarchism, Marxism, and romanticism. Second, there is a *weak* version that points to the inequalities that are reproduced by existing power structures. To arrive at justice, scholars who assume a strong position support the *eradication* of existing institutional structures, as these are believed to be the root of inequality. Scholars who assume a *weak* position would not go that far, as they acknowledge the inevitability of institutional structures. Current institutions may *hinder* the pursuit of justice, but this can, in principle, be overcome by identifying the main inequalities and adjusting the institutions so these are resolved.

Third, there is a *reactionary* version that is recognisable in populist accounts claiming that power is taken from the people by the elites and should be taken back – testifying the feature that paradigms do not at all have to agree on moral positions. This latter version is something of an odd one out, as it has few followers in academic circles. However, in recent years, populist leaders have gained quite some societal support with major electoral consequences, and thus, it is relevant to identify its underlying normative structure and position it vis-à-vis other normative accounts. In certain respects, the analysis of the populist account corresponds with the strong version of the organic account. The legitimate rights of a certain societal group are taken from them by external parties. However, the populist solution to overcome the problem is fully opposed to the solution of the strong organic version. Whereas the strong organic version endorses a radical emancipatory movement that leads to anarchy – in the sense of the absence of hierarchy, populists support an authoritarian form of leadership in which a specific person embodies the 'will of the people' (cf. Arendt 1953; Müller 2015). While a non-hierarchical society is believed to nurture pluralism and the capacity for individual self-determination, authoritarian convictions tend to condemn pluralism and eliminate any deviation from the collective will.

Contemporary advocates for the strong and weak versions of the organic approach can be found in feminist philosophy, human geography, and STS. Each of these fields has its specific point of entrance to study societal inequalities and the mechanisms that allow the reproduction of these inequalities, which have to do with culture, science, and power. It takes empirical research to disclose the underlying power structures so justice can be achieved for the cultural, political, and epistemological equality of local communities. This consideration has somewhat of an ironic result, namely that on the one hand, there is the inclination to study local processes, with the aim of uncovering local epistemologies and ontologies, which is grounded in a strong relativistic position, while on the other hand, there is an implicit, but almost absolutist assumption that such a local and relativistic focus is the only sound methodological and moral approach. We may deduce that for organic approaches, pluralism is conceived not to be a problem. This is the case for the strong and populist accounts because they assume the community has a singular identity that is distorted by wicked institutional structures. The weak version of the organic approach, on the other hand, conceives wicked problems as neither 'wicked' nor problematic. This approach assumes that there are always groups that are excluded and that aim to get access to decision-making structures (Mouffe 2000; Scott 2020). Therefore, normative pluralism is a healthy situation that reveals the heterogeneity of society.

Having said that, the organic approaches of moral collectivism also turn an 'is' into an 'ought'. The moral primacy of autonomous communities might conceal practices and norms that can be disputed (e.g. see Butler 2003). In the case of populism, this is a relatively straightforward case, as it appears to go hand in hand with an intolerant disposition, giving room to misogyny, racism, and homophobia. And then we do not even discuss the historic tragedies induced by authoritarian regimes. In the case of the other versions of the organic approach, the situation is much more delicate, which has to do with the typical reluctance to articulate the normative starting points: what 'justice' appears to be taken for granted, but it is left unthematized. It seems to be the assumption that a 'just' situation will arrive once institutional obstructions are changed and removed so that local communities no longer experience injustices.

3.4. Transcendental Realism

Normative pluralism is at the heart of wicked problems, which suggests that engaging with methods for normative reasoning is constructive. Ethics (or moral philosophy) is the academic field that has developed such methods; still, regarding other academic fields mentioned in this paper, ethics is the odd one out; it has almost no traction within the wicked problem literature. This may be due to a misunderstanding about the normative starting points that are hard to mix with the other paradigms. This misunderstanding leads to a missed opportunity to deal with normative pluralism; as such, we will aim to articulate the underlying ontological and methodological assumptions of the paradigm of transcendental realism.

In 1783, Immanuel Kant posed the following question: 'Is it not at the utmost necessity to work out for once a pure moral philosophy, completely cleansed of everything that may be only empirical and that belongs to anthropology?' (Kant et al. 2012, 2). The next two and a half centuries in moral philosophy can be seen as an attempt to take on this challenge. In this, most ethicists did not follow Kant's conviction that a true moral theory should be grounded upon the duties of autonomous humans. Instead, there is a wide variety of theories and approaches based on diverging ideas about what is good or just, including many that deny the existence of an independent, almost platonic, morality postulated by Kant. However, most, if not all, ethicists *start reasoning* from the viewpoint of 'moral realism', also if this is to negate such realism.

From the viewpoint of this paradigm, the moral claims of individuals or the collectives are empirical descriptions that are neither a necessary nor a sufficient condition for discovering the true nature of what is right. In other words, people are fallible as they can hold moral intuitions that do not match with what is 'actually' good. Instead of discussing social acceptance, the question that

is posed within this paradigm is that of ethical acceptability – the alignment of policies and decisions with non-contingent moral principles (Taebi 2016). This paradigm is maintained within the philosophical sub-discipline of ethics.

What complicates the transfer of insight to fields within other paradigms is that the work that is esteemed most highly in the field of ethics consists of highly sophisticated theoretical exercises that are as far removed from empirical contingency as possible. Debates in ethics tend to be very abstract and conceptual, making it hard for an outsider to understand the nature of such debates. Moreover, there seems to be a lack of willingness to tackle the issue of normative pluralism. Recently, the notion of 'moral uncertainty' has been introduced (MacAskill, Bykvist, and Ord 2020), pointing at the divergence of moral theories (descriptions of what is good) that prevents a conclusive answer of what to do in a certain situation to be given. Such uncertainty, however, is not seen as a practical problem that needs to be solved but as the result of underdeveloped theory summoning more theoretical fine-tuning – up to the level of scholastics. We can say that here, transcendental realism results in an *idealistic fallacy* (Pesch 2022): what 'is' is derived from what 'ought to be'. Reality is framed in such a way that it affirms certain normative starting points or moral principles, and empirical findings that are discontinuous with these principles are disregarded as irrelevant or 'wrong'.

Some approaches aim to bridge the divide between ethics and empirical disciplines (cf. Durant 2011). For instance, there is John Rawls's wide reflective equilibrium (WRE) (Rawls 2009), which assumes that people can attune their abstract moral principles and their judgments about a particular situation. The WRE can be used to set up a discussion among stakeholders (Doorn and Taebi 2018; Van de Poel and Zwart 2009), and as such, WRE could help with the identification and guidance of wicked problems (Taebi, Kwakkel, and Kermisch 2020). At the same time, using WRE in such a practical way raises questions about whether it is a methodology that allows us to come closer to 'objective moral truths' (Holmgren 1987) or whether it is a participatory tool that fits the constitutionalist approach explained above.

We can also think of the theory of communicative rationality developed by Habermas (1985). For Habermas, deliberation is the method to pursue a transcendental idea of morality; by eradicating contingent factors such as power from the exchange of arguments, we can establish claims that have a transcendental value, such as objective moral truths. As such, deliberation is much more than a mere procedure to arrive at an outcome that is shared by a community. This ideal version of Habermas has inspired work within the other paradigms (Huitema, Van de Kerkhof, and Pesch 2007; Voß and Amelung 2016), usually by endorsing participatory arrangements aimed at 'consensus', but, typically, the transcendental aspiration (as well as Habermas's idea of consensus as the human capacity to establish a shared body of understanding) goes lost (see Cuppen and Pesch 2021). This issue illustrates that the divide between transcendental idealism and the other paradigms is still considerable.

4. Navigating the Paradigms for Interdisciplinary Research

Each of the normative paradigms raises problems; none of them has privileged access to matters of moral concern. At the same time, the normative pluralism that characterises wicked problems needs to be addressed. To do so, we follow the suggestion of Pohl et al. (2021) to see interdisciplinary collaboration as a multidimensional interactive process in which researchers with different 'thought-styles [. . .] co-exist and are connected through a continuous process of exchange and learning on a shared topic' (Pohl et al. 2021, 23). The paradigms do not aim to fully capture a wicked problem – which would exclude the legitimacy of alternative descriptions – instead, each of them highlights a specific set of normative elements. Bringing the paradigms together would create a multi-dimensional understanding of the wicked problem at stake, with the weak points of each paradigm being levelled out, at least to some extent, by the strong points of the other paradigms.

In other words, different paradigms help to solve different parts of the puzzle raised by a wicked problem and taken together; they help to create a more comprehensive overview of what can be done. With that goal in mind, let us revisit the paradigms and see how to constitute an ecosystem of wicked problem approaches in which different levels of contextualisation are maintained. With that, we mean that every paradigm has its scope of delineating contextual factors so solutions can be established that are effective with regard to that specific problem. These factors include moral issues, structures of power, other problems, effects for the longer term, and so on (Cuppen et al. 2020). Moreover, in each of the paradigms, different questions are foregrounded, as can be seen in Figure 1.

In this ecosystem of contextual scales, moral denialism turns the focus towards the 'here and now' of wicked problems. Basically, everything that makes a problem 'wicked' is suppressed for the time being. Singling out a problem as a discrete entity makes it manageable, which is important because, in the end, *no* problem will be solved if singular problems are not addressed. The subsequent paradigms add context, but at the same time, they also become more abstract, increasing complexity that can be counterproductive.

The contextual aspects added by aggregated subjectivism are the existing decision-making structures in which wicked problems are embedded and the underlying individual motivations that can be aggregated. These structures represent the institutional and ideological status quo, which is based on the starting points of liberalism, giving primacy to the capacity of individuals to shape their own lives (Berlin, Hardy, and Harris 2002; Minogue 1963; Pesch 2005) and pursue their self-interests (Dumont 1977; Hirschman 1977; Macpherson 1962). Wicked problems do not reveal societal discontent with these ideological goals, but they contest the legitimacy and effectiveness of the institutional structures that are considered to make this goal effective. The academic fields gathered within this paradigm aim to maintain existing decision-making structures while being confronted by new societal challenges; this is very much necessary as the reconsideration of these structures will bring about high societal costs in the form of uncertainties, impotent governance, and societal sectarianism.

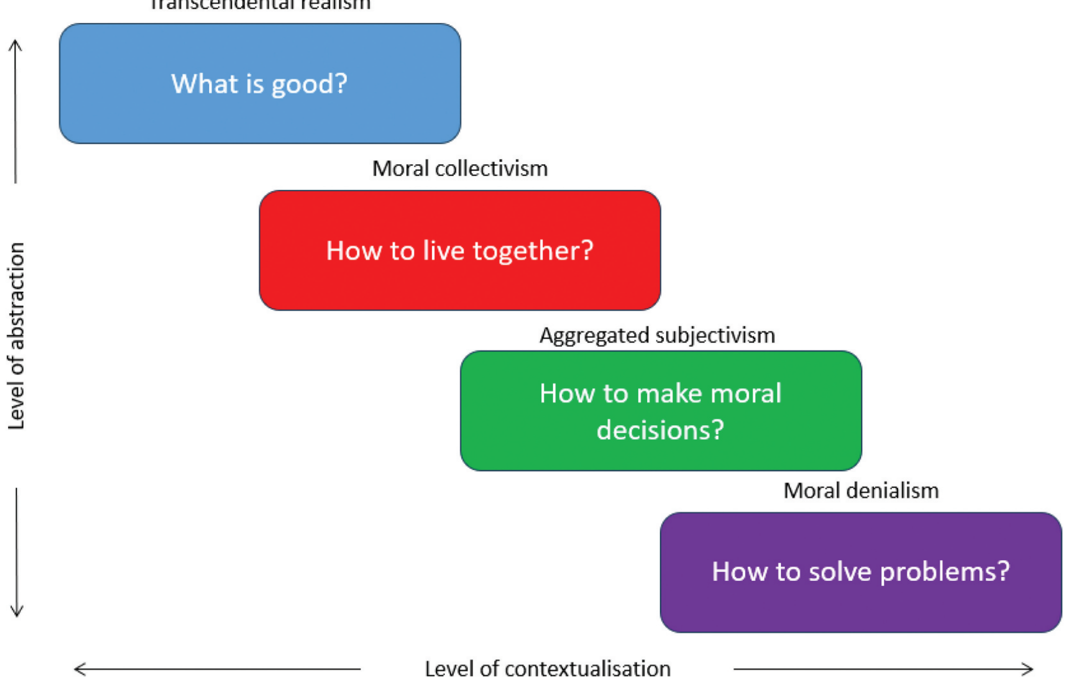

Figure 1. The questions of the normative paradigms.

Advocates for the paradigm of moral collectivism are not afraid to challenge existing decision-making structures. For them, the crucial question is how we want to live as a collective. In this, the prevalent institutions and arrangements not only shape the way we live together, but they also shape the opportunity to discuss how we want to live together in the first place. As such, they need to be constantly monitored on their normative efficacy, and if necessary, adjustments need to be carried out.

Finally, transcendental realism focuses on the question of what is 'good' irrespective of certain beliefs that are based on historical contingency. Obviously, no researcher has access to universal truths, but like the natural sciences are perfectly capable of working with 'truths' that have both a universal outlook and a falsifiable status, moral philosophy establishes ways to think about moral truths *as if* they were real so that we can engage with normative reasoning that is not influenced by existing moral outlooks (Pesch 2024). This is necessary, for instance, to question the norms that are maintained within certain communities and that become contested by emancipatory movements. In these cases, wicked problems are *caused* by societal parties that feel treated unjustly because of dominant cultural norms or institutional structures. Though it may not take an eternity, changing an 'is' into an 'ought' will take a long time – and the tools that transcendental realism provides can guide us along this process.

Despite our plea for interdisciplinary collaboration, engaging with scholars who think differently about the locus of moral reality can be hard. In fact, there often appears to be a certain hostility between the different paradigms, a hostility that can be explained by the belief that representatives of the other paradigms denounce the validity of one's paradigm. Such hostility gives rise to (and is reinforced by) misunderstandings and misrepresentations of the other paradigms (Salmela, MacLeod, and Grundmann 2018; Salmela, MacLeod, and Johan 2021).[1]

A remedy to overcome the hostility between researchers that entertain contrastive moral starting points would be the clear and explicit separation of methodological issues from ontological ideological convictions, allowing researchers to emphasise the complementarity of approaches – in line with the multi-dimensional approach we have introduced above. In this, a culture of collaboration would be welcome so to nurture common understanding and explore mutual differences. The emergence of such a culture is obstructed by the fact that collaborative efforts usually take place within projects that have funding for a limited amount of time, making it tempting to work together with researchers with similar starting points. Again, this reveals how interdisciplinary research needs to overcome existing institutional restrictions.

In our analysis, we have focussed on the collaboration of researchers from social sciences and humanities. This focus allows for a manageable scope, as we already had to include insights from a wide range of disciplines to complete our analysis, but we are confident that our analysis could, with some modifications, also be applied in more extensive patterns of knowledge integration. For instance, we may think of the role of engineering and design disciplines or the uptake of non-scientists in knowledge production (cf. Pearce and Ejderyan 2020).

A similar disclaimer can be made concerning our use of the notion of wicked problems, which Rittel and Weber introduced in the context of urban planning but which has become used extensively in fields as different as design (Vermaas and Pesch 2020), public policy, and management (Head 2019). How normative plurality plays a role in these different contexts is a question that has hardly been touched upon in the literature; as such, it can be expected that our explorative multi-dimensional approach needs to be further refined and adapted to cover all forms of interdisciplinary collaboration to address wicked problems.

Note

1. In fact, it will not be a surprise to us if readers think that our characterisations of the other paradigms are spot on, while the description of their paradigms is rudimentary or even a caricature.

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