



HAL
open science

Governing food futures: Towards a ‘responsibility turn’ in food and agriculture

Nadine Arnold, Gianluca Brunori, Joost Dessen, Francesca Galli, Ritwick Ghosh, Allison Loconto, Damian Maye

► **To cite this version:**

Nadine Arnold, Gianluca Brunori, Joost Dessen, Francesca Galli, Ritwick Ghosh, et al.. Governing food futures: Towards a ‘responsibility turn’ in food and agriculture. *Journal of Rural Studies*, 89, pp.82-86, 2022, 10.1016/j.jrurstud.2021.11.017 . hal-04562211

HAL Id: hal-04562211

<https://hal.inrae.fr/hal-04562211v1>

Submitted on 4 Sep 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial - NoDerivatives 4.0
International License



UNIVERSITY OF
GLOUCESTERSHIRE

This is a peer-reviewed, post-print (final draft post-refereeing) version of the following published document and is licensed under Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0 license:

Arnold, Nadine, Brunori, Gianluca, Dessen, Joost, Galli, Francesca, Ghosh, Ritwick, Loconto, Allison Marie and Maye, Damian ORCID: 0000-0002-4459-6630 (2022) Governing food futures: Towards a 'responsibility turn' in food and agriculture. *Journal of Rural Studies*, 89. pp. 82-86. doi:10.1016/j.jrurstud.2021.11.017

Official URL: <http://dx.doi.org/10.1016/j.jrurstud.2021.11.017>

DOI: <http://dx.doi.org/10.1016/j.jrurstud.2021.11.017>

EPrint URI: <https://eprints.glos.ac.uk/id/eprint/10438>

Disclaimer

The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT.

Governing food futures: Towards a ‘responsibility turn’ in food and agriculture

Nadine Arnold a,^{*} Gianluca Brunori b, Joost Dessein c, Francesca Galli b, Ritwick Ghosh d, Allison Marie Loconto e, Damian Maye f

a Department of Sociology, University of Lucerne, Switzerland

b Pisa Agricultural Economics Group (PAGE), Department of Agriculture, Food and Environment, University of Pisa, Italy

c Department of Agricultural Economics, Ghent University, Belgium

d Global Futures Laboratory, Arizona State University, USA

e Institut National de Recherche pour l’agriculture, l’alimentation et l’environnement (INRAE), LISIS, Université Gustave Eiffel, France

f Countryside and Community Research Institute, University of Gloucestershire, UK

^{*} Corresponding author. *E-mail address:* nadine.arnold@unilu.ch (N. Arnold).

In recent years climate change, mass migrations, terrorism, populism, the increasing influence of authoritarian states, and global health pandemics have undermined the appeal of the neoliberal project. From the neoliberal perspective, ‘human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework [...] centred upon strong private property rights, free markets, and free trade’ (Harvey, 2005, p. 2). Prior to the 2007–08 financial crisis, neoliberalism, having first taken root in the early 1980s and espoused by Reagan and Thatcher’s politics of privatisation and neoliberal economic reform, dominated international policy frameworks. However, increasingly, ‘global elites’ – for example those who meet in Davos for the World Economic Forum – are seeking alternative economic models to the so-called Washington Consensus. The Climate Change agreements and the Agenda 2030 of the United Nations are key pillars of a new global consensus framework. The forthcoming United Nations Food Systems Summit (UNFSS) fits into this frame too, targeting food systems, the climatic crisis, and sustainability in pursuit of the Sustainable Development Goals.

Recent international and national policy developments, including the European Green Deal and the proposed Green New Deal in the United States, are outcomes of this new consensus. The distancing from neoliberal dogmas is increasingly evident in these new policy frameworks, via an implicit recognition of market failures in social and ecological fields and a policy repertoire based on generous

fiscal policies, subordination of financial flows and trade to sustainability criteria, and a renewed interventionism in the field of health, environment, and social security regulation. In the business community the influence of this new consensus is also evident. The recent declaration of the influential US business roundtable (to which the CEOs of the biggest US corporations belong) outlines an intention to move from shareholder capitalism to stakeholder capitalism, and this is also echoed in the Davos Manifesto 2020, suggesting that there is a will to rethink the relations between state, business and civil society. The push back and civil society calls to boycott the 2021 UNFSS (including the recent withdrawal of the IPES Food scientific panel from the UNFSS meeting) attests to the fact that farmers' organisations, indigenous peoples and civil society more broadly are also not willing to let this consensus remain purely the purview of the private sector; they too demand the possibility to shape the emerging consensus.

In this new consensus, responsibility becomes a key concept and calls for concrete accountability mechanisms are already being voiced for a post-UNFSS world (Covic et al., 2021). Stakeholder capitalism implies, for example, not only responsible companies and responsible investors, but also, as noted in Agenda 2030), responsible consumers and public administrations, as implied by Goal 12 'responsible production and consumption'. This 'turn to responsibility' has been criticised by many scholars as a variant of the neoliberal discourse or, even worse, as a further step in the dissolution of the distinction between economy and society (Shamir, 2008). The moralisation of the economy, according to critics, is a way to restore the legitimisation of a system that is losing its appeal and is perceived as a way to prevent more stringent regulation. For some, the adoption of responsibility schemes is simply a way for companies to demonstrate that the system is able to self-regulate through market mechanisms (Lockie, 2020) and for powerful, corporate actors to use the discourses around responsibility to strengthen and legitimise their own position instead of actually bringing about more sustainable realities (Banerjee, 2008). On the other hand, initiatives such as the Principles for Responsible Investment in Agriculture and Food Systems, approved by the Committee of Food Security in 2014, shows a growing willingness to create a global 'soft law' that limits the freedom of private enterprises and asks for justification of their practices.

It is in this context, that this thematic issue turns its attention to responsibility, because it is becoming increasingly clear that market forces create unintended consequences and food system outcomes that are far from expectations (Ingram, 2010; Zurek et al., 2018). How innovations (policy, technology, management, new forms of organisation, etc.) shape food systems is a central issue in the agriculture and food debate (Brunori et al., 2019). Previously, controversies focused on the distribution of power in the food system and how those dynamics affected availability and access to food (Gordon and Hunt, 2019; Jarosz, 2011; McKeon, 2015; Morgan et al., 2006). This is now being integrated and amplified by concerns about direct and indirect outcomes that food systems and associated innovation

practices generate. Much of the discussion about agricultural innovation to date has focused on increasing production to feed an expanding global population (Maye and Kirwan, 2013), but this narrow framing should also include a wider set of concerns about nutrition, health, social justice, the environment, animal welfare and climate change (B'en'e et al., 2019). With a turn to responsibility, we can consider this variety of possible concerns and look at how social norms evolve and how they affect consumers, business actors and public administrations. We can assess too how the evolution of social norms shapes alternative business initiatives, and how socio-technical change affects the distribution of responsibilities among societal actors. Responsibility is often seen as a way to improve the governance of food systems and it often triggers the emergence of new policies and innovations. It offers a means to think about the different ways socio-historical conditions and interests are implicated in the shape and fate of innovations.

This special issue takes up this topic by directing attention to the relationship between truth claims, choice, responsibility, accountability and policies that have become central ethical concerns in the emerging post-Washington Consensus political economy. Specifically, the special issue targets ongoing dynamics of responsibility and processes of responsabilisation in the context of food systems. Responsibility consists of recognising and taking charge of a moral duty to act for better food futures and identifies a link between an actor and the consequences of their action. Moreover, responsibility implies responsabilisation, a 'constitution of the self' of the actors of the system in relation to a common set of rules or norms. Responsibilisation processes occur in the public sphere, where social norms also evolve in relation to information, knowledge and power relations (Grinbaum and Groves, 2013).

1. The dimensions of responsibility addressed in this special issue

This special issue is the result of a panel organised at XXVIII European Society for Rural Sociology Congress in Trondheim in June 2019. Together, the articles present empirical research from the United States, France, Greece, Switzerland, Ecuador and Peru, focusing on various settings, including the emerging contested field of 'meat' with its latest developments towards alternative proteins and vegan options, soya cultivation at the European level and the definition of supporting standards by international organisations, dairy farming, urban food markets, banana production, and organisational initiatives (Field to Market, IP-Suisse) to bring about sustainable food systems. Despite their thematic and conceptual diversity, the articles point to three dimensions in the construction of responsibility: temporal, socio-technical, and relational. In all papers, we see that responsibility refers to the past and/or the future (temporal dimension), that the construction and enforcement of responsibility is mostly based on socio-technical devices (socio-technical dimension), and that responsibility involves the unfolding of relationships among a wide variety of actors (relational dimension). Before turning to

these dimensions, it is important to note that these dimensions do not directly capture the relevant question of what responsibility is taken for, i.e. what and who is responsabilised. The papers in this special issue indicate that responsibility is taken and demanded for different issues depending on contextualised situations, be it a healthy diet, socially beneficial investments and market structures or ethically sound meat consumption. In short, what responsibility is assumed depends on institutional conditions and is subject to change.

We structure the remainder of this editorial along the three dimensions, introducing them separately, even though they are mutually interlinked in practice. Given this structuring, we do not present the papers one after the other in the classic manner but mobilise them to illustrate the three dimensions and to clarify what it takes and what is at stake to investigate the dynamics of responsibility in food systems. For each dimension, we have selected the most illustrative papers to elaborate responsibility dynamics and in so doing, refer to all special issue papers at least once.

1.1. Retrospective and prospective responsibility: the temporal dimension

As Arnaldi and Gorgoni (2016) show, the critique of the neoliberal use of responsibility should not prevent scholars from checking whether different meanings of responsibility may have a transformative role, once applied to real life. According to Gorgoni (2009), responsibility can have a retrospective (responsibility for what has already happened) or a prospective meaning (responsibility as anticipation of consequences). In the first case, responsibility is close to liability and accountability, while in the second case it is related to risk or even to virtue, which implies a behaviour aligned to a set of moral standards. In other words, as Gorgoni (2009) states, the difference between conservative and transformative approaches is in the ‘normative anchoring’ and the principles and values that inspire that conception of responsibility. In the neoliberal world, market norms prevail over social norms. In a post-neoliberal world, can we envisage a hierarchy where social goals prevail over economic goals, as implied in the Sustainable Development Goals framework? The special issue contributions do not provide an answer to this central question, but they do provide important insights in terms of ways that responsibility can be directed both to the future and to the past.

Accountability refers to the institutions and procedures that generate information about efforts to act for better food futures, and thus provide the means to gain legitimacy to act. When responsibility is constructed retrospectively, we often describe this as an effort to increase accountability: accounts are given for past actions, usually based on formalised forms of control and possibly linked to sanctions (Arnold, 2020; Boström and Garsten, 2008). Accountability is a procedural quality that provides information about action and its consequences. The emergence of systems of accountability by non-state actors to facilitate agri-food chain governance are well documented in accounts of neoliberalism

(Busch, 2010). These structural critiques of neoliberalism are valuable but they lack fine-grained understandings of how private actors develop systems of accountability and regulation. Strube et al. (2021) address this gap in their paper, which examines multi-stakeholder initiatives (MSIs) via a detailed analysis of Field to Market, a well-established US-based MSI. The case shines important light on a new area of precision farming and the operationalisation of MSI as privately ordered forms of sustainability governance, with agronomic data informing farm management and supply chain optimisation. This includes the creation of accountability through data, the sharing and accumulation of data through generalised procedures and a bureaucratic division of labour between project partners. Despite the promise that sustainability metrics offer in terms of the adoption of sustainability practices and increased accountability in food chains, their analysis suggests MSI are yet to prove more effective and less invasive than government regulations to support agricultural sustainability. The circulation of agricultural data, upon which the metrics depend, also has important consequences beyond simply improving sustainability and accountability. For example, metrics enable downstream food chain actors to make field-level management recommendations and, crucially, they create new forms of 'nascent, privately ordered bureaucracies'. This is important because emerging bureaucracies operate outside government oversight and are governed by non-farming food firms. Without counteracting legislation, privately ordered sustainability initiatives potentially limit farmer agency and further consolidate power distribution in food chains.

The construction of prospective responsibility is relevant in the papers from Maye et al. (2021) and Ransom (2021). It seems coincidental that both are empirically concerned with new, alternative forms of meat consumption (e.g., no meat, alternative proteins, vegan burgers, etc.) but their assessments of the discourse offers new understandings of how responsibility for meat consumption and its negative environmental and health consequences is anticipated. The paper from Maye et al. (2021), through an analysis of Twitter hits, shows how different 'less meat' discourses compete with each other in the infosphere and propose very different futures. Overall, however, the idea that responsibility means consuming less meat rather than no meat dominates. The paper also shows how commercial interests are able to influence the debate, and the authors raise questions about the power of influence in the infosphere. Ransom (2021) deals directly with the marketisation efforts of US companies that, as creators of alternative proteins, offer cultured meat or plant-based meat to individual consumers. Using conventions theory as an orientation, her empirical study of websites and Twitter feeds shows that companies resort to multiple justifications in the course of marketisation of these novel products. However, when the products move to the marketplace, the companies shift their justifications in ways that civic concerns (e.g. animal welfare and environmental protection) become diluted and financial and status concerns gain in importance. Interestingly, we see too that 'the companies' founders profess a desire to change what people eat, without necessarily changing people's routines' (Ransom, 2021, p. 699) Nonetheless, the paper concludes that the marketisation of alternative proteins can have

transformative potential because it can promote responsible consumption through distributed responsibility.

In a complementary way, Loconto et al. (2021) argue that the construction of responsibility often combines both retrospective and prospective elements. Their paper focuses on the Fairtrade Imaginary, which envisions a sustainable livelihood for all producers and aims to empower producers so that they decide what their future will be. Specifically, the authors investigate a central component of the Fairtrade system – the Fairtrade Premium – which consists of an extra amount of money paid by traders to certified producer organisations. At two certified banana cooperatives in Peru and Ecuador, the authors examine the decision-making processes for the premium and find that by ensuring accountability and increased participation in the decision-making, farmers and workers are becoming more responsive to each other and to their goals of reducing societal challenges. Consequently, by establishing responsibility for past actions, producers and farmers contribute to moving one step closer to the future-oriented Fairtrade imaginary. While Loconto et al. (2021) show that retrospective and prospective accountability considerations are interlinked at the organisational level, Tuscano et al. (2021) provide supporting evidence for this at the individual level. They examine sustainable consumption in households and find that retrospective reflexivity about one's own consumption practices can lead individuals to anticipate the consequences of their consumption behaviour so that they begin to experiment with new practices.

1.2. Devices of responsibility: the socio-technical dimension

Socio-technical devices (e.g. regulations, codes of conduct, measurements, rankings and ratings, audits, sustainability reports) play an important role in demanding and demonstrating responsibility. The devices examined in the special issue papers are exclusively private, market-oriented instruments whose implementation and application are voluntarily. Thus, this special issue reflects the importance given by contemporary societies to private forms of governance, but it also leaves open the question of what role state-imposed devices and regulations play in responsabilisation processes. In this regard, Strube et al. (2021) address private sustainability efforts in their examination of the multi-stakeholder Field to Market initiative, pointing to an important shift in governance that involves the governing of food systems by digital technologies and data. By specifying the consequences of this shift (improved coordination of supply chains, commodification of farm data management, changed meanings of sustainability), the authors underpin that digital transformation has implications for how responsibility and accountability strategies are carried out and enforced in food systems (Power, 2019). To better understand the technical dimension of responsibility, a deeper engagement with the use and consequences of digital, responsibility-oriented devices will be central.

Whereas the relations between accountability, responsibility and sustainability values have been insightfully addressed in agri-environmental research, the article by Bentia (2021) elaborates on the ‘margins of accountability’ (Miller, 1998) and focuses on the role of meetings as devices that significantly shape accountability relations. The case study focuses on the transnational organisation Donau Soja, which was created to develop standards to orient the cultivation of soybeans in Europe as a response to European dependence on imported soya. Organised periodically for the circulation of metrics to a range of actors, Bentia (2021) conceptualises meetings as an element of an assemblage that emerges to strengthen accountability for sustainable development. In other words, for Donau Soja the *meeting* (general assemblies, press conferences, networking events, and international conferences) are a central accountability device. Specifically, Bentia (2021) conceptualises meetings not only as spaces for accountability, but as ‘agents’ in the process of accounting for sustainability, playing a crucial part in shaping the meaning of metrics and deliberating the emergence of new accounts.

Forney (2021) also works with an assemblage perspective to explain how accountability can emerge in third-party certification systems if new collaborations and experimentations are fostered by the owners of the scheme. The case examines IP-Suisse, a Swiss third-party certification scheme and food label that was created by producers in order for them to take more ownership over the sustainability aspects of production and marketing. The assemblage approach allows Forney (2021) to focus not just on what practices are put into place using standards, certifications and labels, but also what could have been and what could other forms of accountability be in the future. The potentialities that are explored in the paper leads Forney (2021) to conclude that the autonomisation of producers, particularly as a reaction against the dominance of supermarkets in controlling quality labels, is achieved when farmer knowledge is both prioritised and empowered through experimentation. Creativity was also demonstrated by the IP-Suisse producers as they replaced heavily bureaucratised systems with flexible mechanisms that work based on progressive learning practices can render actors accountable. This offers not only an alternative framework that can account for the types of autonomy that are demonstrated in Ploeg’s (2012) new peasantry framework, but it also introduces ideas for innovative forms of accountability that could emerge in the future.

Rijswijk et al. (2021) help to render visible the socio-technical/digitalised dimension of responsibility by laying the groundwork for an integrative framework to conceptualise the impacts of digital transformations both on and off the farm. They start by distinguishing between digitisation and digitalisation. The former refers to specific events when a non-digital form of information is transformed into a digital version – like taking a digital photo, for example. The latter refers to shifts in socio-technical processes on as well as beyond the farm. For instance, that digital image taken on the farm has implications for new forms of informational flows, economic relations, and governing

possibilities. This distinction allows Rijswijk et al. (2021) to outline the Social-Cyber-Physical (SCP) systems framework. The SCP pays attention to digital innovations (cyber) in relation to their materiality (physical) and their broader institutional (social) settings. Such an integrative framework has key benefits. In particular, by linking how shifts in one domain shapes others, the framework allows a more comprehensive specification of how digital transformations affect structure and power within the system. A robotic milking arm, for example, not only replaces the human arm, it also engenders a number of social, cyber, and physical changes – it engages complex machine learning and data analytic systems, reconfigures the very physical milking shed, and affects the labour and organisational rules of the farm.

Such integrative thinking can help identify how various standards and systems for disclosure, design, and expertise, among others, can produce positive and negative outcomes of interest. However, we should not forget that the digital transformation is not only relevant in relation to the (responsible) production of food, but has also brought about social media that shape the construction of responsibility in a central way. In this context, Maye et al. (2021) argue that social media constitute an important means to negotiate and discuss responsibility for meat. The authors use selected examples of the sustainable meat discourse, as represented through hashtags within Twitter, to interrogate how this platform is used to mobilise actions, values and politics. They work simultaneously to both facilitate ‘issue publics’ as ‘echo chambers’ to share information and marshal agreement and also provide virtual spaces for dialogic debate and disagreement.

1.3. Relationships of responsibility: the relational dimension

Responsibility is not a binary that either exists or not, but an ongoing process of negotiation, particularly as new technologies, innovations, and actors enter agro-food systems. This is important to counter individualistic models of moral agency (Young, 2011), which pervade public discourse about the responsabilisation of difficult governance issues, including agri-food sustainability problems e.g. eating less meat, reducing single-use plastics, food poverty, household food waste. Consequently, we must recognise the relational dimension of responsibility, taking a deeper look at to whom responsibility is allocated and who demands responsibility from whom. Unpacking this relational dimension enables us to focus on the implications of responsibility trends for diverse actors in agri-food systems (including, but not limited to, producers, consumers, firms, civil society, policy makers) and for rural landscapes. However, as the link between actor, action and consequences depends on a multiplicity of aspects – intentionality, concurrent causes of a given consequence, alternative actions that the actors could have chosen, information that the actor had at the moment of her action, etc. – attribution of responsibility is dependent upon existing regulations, social norms, the state of

knowledge, and power relations. In everyday life, responsibilities are competing (Trnka and Trundle, 2017) and individual consumers and firms are encouraged to act more responsibly in response to concerned public opinion and normative evaluative statements about how best to act for societal well-being. At the same time, responsibility for a given consequence can be distributed over a multiplicity of actors, when a given outcome is caused by a multiplicity of circumstances. Ethical values and social problematisation thus plays a role in shaping agri-food markets, but with potential for different interpretations and the responsabilisation of actors (individualistic and distributed).

This relational dimension of accountability processes (which are neither static nor passive) emerges very clearly in Bentia (2021) Danau Soya case, where meetings – in which organisations make themselves and their partners accountable for their actions – are framed as assessment tools of accountability. Meetings frame accountability relations and are not mere context where accounts are presented. As Bentia (2021, p. 57) puts it, ‘[i]n the race for transparency and efficiency, there is a pressure to meet expectations, to step up the game, and confront actors for whom standards are not high enough, those for whom standards are just enough, as well as [to] reflect on their own vision of standards being set much higher than other ones [...] Meetings bring business, agronomic, and management skills and social competencies together to influence the course of action by taming the unruly powers of metrics, widening the space of deliberation, and deepening the space of trust. In this way, others too are called upon to make themselves accountable’.

The relevance of relationships – often direct relationships between parties in market exchanges - for the development of responsibility seems particularly observable in times of crisis and in specific geographically bounded situations. Papacharalampous’ (2021) paper examines the creation of no-middlemen markets that built meaningful relationships between the countryside in Athens in the mid-2010s, when the city was in a deep economic depression. Those involved in market creation, the citizen-producers and citizen-consumers reclaimed responsibility from the middlemen, the market and state, and thereby not only shared political responsibility but also collective resilience to crisis. Based on this observation, Papacharalampous (2021) argues that it is the relational trust built during economic hardship that builds the longer term ties and resilience. In other words, it is the direct relationships that count for responsible exchange.

Tuscano et al. (2021) take this responsible exchange perspective a step further through their analysis of sustainable consumption at the household level. Their case also emphasises the importance of meaningful relationships for the construction of responsibility. The construction and interpretation of responsibility is highly dependent on the level, scale and sphere at which it is being defined. It revolves around the question of whether responsibility is related to taking into account the consequences of one’s own actions, as a consumer and/or citizen, or rather as a component of a larger

system of interdependencies. Tuscano et al. (2021) address this gap between how to deal with sustainable consumption goals, and related forms of responsibility, in the institutional sphere and at the household scale. Deploying insights from practice theory and pragmatism, they create a conceptual framework that analyses the connection between the institutional and the individual sphere. It is built on six dimensions (competences, meanings, artefacts, habit disruption, problematisation and experimentation). Using the empirical context of the ‘Positive Food Families Challenge – The Challenge’ (*D’efi familles `a alimentation positive*), they show that an individual’s interpretation of responsibility is dynamic, and changes according to different stages in one’s life course. While among parents with young children, the feeling of responsibility for the well-being of their family prevails, the feeling of collective responsibility for the impact of one’s food practices beyond-my-own-family comes later in life courses. Generally speaking, however, it is shown that framings of responsibility remain mainly based on health and economic issues rather than on environmental ones. Moreover, the routinised habits and daily practices of households and individuals, combined with the mismatching between individual, collective and institutional construction of whom is responsible for what and towards whom, results in the framing of responsibility at the individual and household scale rather than at the collective or food system scale. It relates to ‘nested forms of responsibility’ that may change depending on contexts, actors, and with regard to what or to whom to be responsible. This analysis usefully complements a more ecological model of responsibility that is based on distributed responsibilities and related-community values and actions (Lockie, 2009).

Conclusion

This special issue touches on key questions concerning how the governance of agri-food systems are being affected by a turn towards responsibility. These questions have not yet been explored in detail in agri-food studies, but they warrant analysis because how they are interpreted and play out has significant implications for rural space and food system sustainability. The special issue thus opens up novel conceptual and empirical ground and is of direct relevance to debates about agricultural multifunctionality, eco-modernism, neo-liberalism, globalisation, food commodity chains, certification and food standards, alternative proteins, alternative food networks, food security, digital economies and rural food futures. Given that we are facing political opportunities to change our food futures, we conclude by asking what the turn to responsibility means for our current situation and research.

Together the papers collected in this special issue have brought to light three aspects of a responsibility turn, which we have captured under the notions of temporal, socio-technical and relational dimensions. These dimensions can be examined separately, but they are typically

intertwined, and future research needs to pay more attention to their interactions and mutual interplay. With regard to food futures, which imply a future-oriented form of responsibility, we can examine their connection with the socio-technical dimension by comparing the multiple socio-technical devices for their effects on agri-food systems. The recourse to standardised devices still tends to reify responsibilities, particularly when they are led by private actors. What would standardised devices look like if they were to be created and maintained by non-private actors? In doing so, we must not forget the institutional conditions, by interrogating the regulatory and institutional conditions for responsibility as driver for sustainable development. And in turn this raises questions about how to assess responsibility initiatives in light of sustainable development?

For the governance of responsible food futures, entanglements with the relational dimension is important and this implies the study of participation, inclusion and exclusion. The papers offer a number of insights and practical examples of where approaches look promising and others fall short. The trick, as a number of papers in this special issue show, is to ensure that the process of opening up remains inclusive of marginalised voices in key decision-making processes. So, how can people at the margins and resource-poor social movement and civil society actors have a stronger role in processes of responsabilisation? What actors, relating to each other in which ways, might enable a break from weaker forms of responsibility? Opening up collective experimentation led by concerned actors (particularly producers and consumers) could be one way to increase their responsabilisation. Yet, the papers also point to the power of intermediaries in food systems (e.g., standardisers, certifiers, auditors, middle-men, social media), which is why more research is needed to understand how these intermediaries too can be responsabilised through engagements that mobilise socio-technical devices that facilitate, rather than obfuscate, responsibility and accountability.

References

- Arnaldi, S., Gorgoni, G., 2016. Turning the tide or surfing the wave? Responsible Research and Innovation, fundamental rights and neoliberal virtues. *Life Sci. Soc. Policy* 12, 6. <https://doi.org/10.1186/s40504-016-0038-2>.
- Arnold, N., 2020. Accountability in transnational governance: the partial organization of voluntary sustainability standards in long-term account-giving. *Regul. Gov.* <https://doi.org/10.1111/rego.12357> online first.
- Banerjee, S.B., 2008. Corporate social responsibility: the good, the bad and the ugly. *Crit. Sociol.* 34, 51–79. <https://doi.org/10.1177/0896920507084623>.
- Béné, C., Oosterveer, P., Lamotte, L., Brouwer, I.D., de Haan, S., Prager, S.D., Talsma, E. F., Khoury, C.K., 2019. When food systems meet sustainability – current narratives and

- implications for actions. *World Dev.* 113, 116–130. <https://doi.org/10.1016/j.worlddev.2018.08.011>.
- Bentia, D., 2021. Accountability beyond measurement. The role of meetings in shaping governance instruments and governance outcomes in food systems through the lens of the Donau Soja organisation. *J. Rural Stud.* 88, 50–59. <https://doi.org/10.1016/j.jrurstud.2021.09.026>.
- Boström, M., Garsten, C., 2008. *Organizing Transnational Accountability*. Edward Elgar Publishing.
- Brunori, G., Maye, D., Galli, F., Barling, D., 2019. Symposium introduction—ethics and sustainable agri-food governance: appraisal and new directions. *Agric. Hum. Val.* 36, 257–261. <https://doi.org/10.1007/s10460-019-09929-y>.
- Busch, L., 2010. Can fairy tales come true? The surprising story of neoliberalism and world agriculture. *Sociol. Rural.* 50, 331–351. <https://doi.org/10.1111/j.1467-9523.2010.00511.x>.
- Covic, N., Dobermann, A., Fanzo, J., Henson, S., Herrero, M., Pingali, P., Staal, S., 2021. All hat and no cattle: accountability following the UN food systems summit. *Glob. Food Secur.* 30, 100569. <https://doi.org/10.1016/j.gfs.2021.100569>.
- Forney, J., 2021. Farmers’ empowerment and learning processes in accountability practices: an assemblage perspective. *J. Rural Stud.* 86, 673–683. <https://doi.org/10.1016/j.jrurstud.2021.05.021>.
- Gordon, C., Hunt, K., 2019. Reform, justice, and sovereignty: a food systems Agenda for environmental communication. *Environ. Commun.* 13, 9–22. <https://doi.org/10.1080/17524032.2018.1435559>.
- Gorgoni, G., 2009. La responsabilità a come progetto. Primi elementi per un’analisi dell’idea giuridica di responsabilità a prospettiva. *Diritto e Soc.* 2, 243–292.
- Grinbaum, A., Groves, C., 2013. What is “responsible” about responsible innovation? Understanding the ethical issues. In: Owen, R., Bessant, J., Heintz, M. (Eds.), *Responsible Innovation: Managing the Responsible Emergence of Science and Innovation in Society*. John Wiley & Sons, Ltd, pp. 119–142. <https://doi.org/10.1002/9781118551424.ch7>.
- Harvey, D., 2005. *A Brief History of Neoliberalism*. Oxford University Press, Oxford, New York.
- Ingram, J., 2010. *Food Security and Global Environmental Change*. Routledge, London ; Washington, DC.
- Jarosz, L., 2011. Defining world hunger. *Food Cult. Soc.* 14, 117–139. <https://doi.org/10.2752/175174411X12810842291308>.
- Lockie, S., 2009. Responsibility and agency within alternative food networks: assembling the “citizen consumer”. *Agric. Hum. Val.* 26, 193–201. <https://doi.org/10.1007/s10460-008-9155-8>.
- Lockie, S., 2020. *Failure or Reform? Market-Based Policy Instruments for Sustainable Agriculture and Resource Management*. Routledge, New York.

- Loconto, A.M., Arnold, N., Silva-Castañeda, L., Jimenez, A., 2021. Responsibilising the fairtrade premium: imagining better decision-making. *J. Rural Stud.* 86, 711–723.
<https://doi.org/10.1016/j.jrurstud.2021.07.011>.
- Maye, D., Fellenor, J., Potter, C., Urquhart, J., Barnett, J., 2021. What's the beef?: debating meat, matters of concern and the emergence of online issue publics. *J. Rural Stud.* 84, 134–146.
<https://doi.org/10.1016/j.jrurstud.2021.03.008>.
- Maye, D., Kirwan, J., 2013. Food security: a fractured consensus. *J. Rural Stud. Food Secur.* 29, 1–6.
<https://doi.org/10.1016/j.jrurstud.2012.12.001>.
- McKeon, N., 2015. *Food Security Governance: Empowering Communities, Regulating Corporations, Illustrated Edition*. Routledge, Milton Park, Abingdon, Oxon ; New York, NY.
- Miller, P., 1998. The margins of accounting. *Eur. Account. Rev.* 7, 605–621. <https://doi.org/10.1080/096381898336213>.
- Morgan, K., Marsden, T., Murdoch, J., 2006. *Worlds of Food: Place, Power, and Provenance in the Food Chain, Worlds of Food*. Oxford University Press, Oxford.
- Papacharalampous, N., 2021. A new rural in the city: a no-middlemen markets' ethnography. *J. Rural Stud.* 86, 702–710. <https://doi.org/10.1016/j.jrurstud.2021.06.002>.
- Ploeg, J.D.V.D., 2012. *The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. Routledge, London.
- Power, M., 2019. Infrastructures of traceability, in: Kornberger, M., C. Bowker, G., Elyachar, J., Mennicken, A., Miller, P., Randa Nucho, J., Pollock, N. (Eds.), *Thinking Infrastructures, Research in the Sociology of Organizations*. Emerald Publishing Limited, pp. 115–130.
<https://doi.org/10.1108/S0733-558X20190000062007>.
- Ransom, E., 2021. Impossible solutions: competing values in marketing alternative proteins for sustainable food systems. *J. Rural Stud.* 86, 694–701. <https://doi.org/10.1016/j.jrurstud.2021.06.017>.
- Rijswijk, K., Klerkx, L., Bacco, M., Bartolini, F., Bulten, E., Debruyne, L., Dessein, J., Scotti, I., Brunori, G., 2021. Digital transformation of agriculture and rural areas: a socio-cyber-physical system framework to support responsabilisation. *J. Rural Stud.* 85, 79–90.
<https://doi.org/10.1016/j.jrurstud.2021.05.003>.
- Shamir, R., 2008. The age of responsabilization: on market-embedded morality. *Econ. Soc.* 37, 1–19.
<https://doi.org/10.1080/03085140701760833>.
- Strube, J., Glenna, L., Hatanaka, M., Konefal, J., Conner, D., 2021. How data-driven, privately ordered sustainability governance shapes US food supply chains: the case of field to market. *J. Rural Stud.* 86, 684–693. <https://doi.org/10.1016/j.jrurstud.2021.05.028>.
- Trnka, S., Trundle, C., 2017. *Competing Responsibilities, Competing Responsibilities*. Duke University Press.

- Tuscano, M., Lamine, C., Bre-Garnier, M., 2021. Fostering responsible food consumption: a framework combining practice theories and pragmatism applied to an institutional experimental tool. *J. Rural Stud.* 86, 663–672. <https://doi.org/10.1016/j.jrurstud.2021.05.029>.
- Young, I.M., 2011. *Responsibility for Justice*. Oxford University Press, Oxford, New York.
- Zurek, M., Hebinck, A., Leip, A., Vervoort, J., Kuiper, M., Garrone, M., Havlík, P., Heckelei, T., Hornborg, S., Ingram, J., Kuijsten, A., Shutes, L., Geleijnse, J.M., Terluin, I., Van 't Veer, P., Wijnands, J., Zimmermann, A., Achterbosch, T., 2018. Assessing sustainable food and nutrition security of the EU food system—an integrated approach. *Sustainability* 10, 4271. <https://doi.org/10.3390/su10114271>.