



Agrarian Vision, Industrial Vision, and Rent-Seeking: A Viewpoint

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Abstract

Many public debates about the societal significance and impact of agriculture are usefully framed by Paul Thompson’s distinction between the “agrarian” and the “industrial vision.” The key argument of the present paper is that the ongoing debate between these visions goes beyond academic philosophy and has direct effects on the political economy of agriculture by influencing the scope of rent-seeking activities that are undertaken primarily in the name of the agrarian vision. The existence of rent-seeking activities is shown to reflect the fact that the agrarian vision is not universally supported, which is certainly true of the industrial vision as well. The key argument of the present paper is that these two philosophical visions of agriculture are not radically incongruent. Rather, they share a common ground within which they are even mutually supportive. If agricultural policy making is oriented toward this common ground, it may reduce overall dissatisfaction with the resulting institutional regime of agricultural production. Such an agricultural policy may also stimulate the emergence of new business practices that not only enable efficient agricultural production but also minimize negative ecological impact and preserve cultural landscapes.

Keywords Agrarian vision · CSR · Rent-seeking · Business ethics

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Introduction

In a seminal book that was widely discussed on the pages of this journal, Thompson (2010) introduced a distinction between the “industrial” and “agrarian visions” of the societal significance of agriculture (cf. Graffy 2012). These visions are interpretive frameworks that situate or structure expectations for the institutions, practices, and performance of a food system. The industrial vision (Thompson 2010, pp. 31–36) takes agriculture to be just another industry branch with no special position in society and therefore subject to the same market rules as the rest of the economy. In the industrial vision, farmers make economic decisions guided by the goals of efficiency and competitive survival. To achieve these goals, farmers may pursue a variety of strategies such as specialization and large-scale industrialized production. However, the industrial vision is likewise compatible with other strategies, such as maintaining high standards of animal welfare and limiting the use of chemicals, biotechnology, and antibiotics if consumers are willing to pay the premium needed to cover the increased costs. Importantly, the industrial vision presupposes not only the normative assumptions associated with market-based allocation of resources but also the ability to conceptualize agricultural production as belonging to a discreet subset of social practices characterized by economic principles. Here, Thompson follows Polanyi, who argues that the growth of market institutions governed by these principles entails a “dis-embedment” of labor from social relations (Polanyi 1944).

In contrast, the agrarian vision holds that agriculture is special. Like no other industry, agriculture is responsible for the provisioning of society with food and fiber and thus for the maintenance of a metabolic unison of humanity and nature. As Thompson (2010, pp. 36–41) explains, the agrarian vision was implicit in virtually all social theories prior to the emergence of political economy in the eighteenth century. This may have been so because of the fact that subsistence labor, such as farming, herding, and fishing, was the dominant occupation; another important reason was the prevalent perception that the failure of the food system would be tantamount to a general social collapse. The agrarian vision underscores that the attachment to land, especially in agrarian societies, becomes an emotionally charged resource employed for defending various traditions linked to agricultural life. Thus, the agrarian vision can create meaning—far beyond farmers themselves, as it is “concerned with the way a local food system embeds people in practices whereby their commerce with nature and with one another creates an enduring sense of place” (Thompson 2010, p. 39). Unsurprisingly, the agrarian vision presents the backdrop against which communitarian values arise and are sustained.

So far, the ongoing controversy between the industrial and agrarian visions has done much to bring to light a variety of conflicting assumptions about the social functions of agriculture. However, the paper contends that this controversy has another important dimension that does not seem to have attracted much scholarly attention so far. This dimension is related to the influence of the agrarian vision’s semantics on political rent-seeking activities (Tulloch 2005), chiefly exemplified by lobbying for privileges intended to advance the welfare of a specific group of farmers at the cost of societal welfare at large. While there is no reason to believe

that Thompson himself had intended this particular outcome, it seems plausible that envisioning a special societal role of agriculture may be used to justify special treatment of at least some farmer groups. The semantics of the agrarian vision may also be employed by other interest groups such as those advocating against the use of biotechnology. Such interest groups are likely to have a vested interest in what they interpret as an agrarian vision, similar to the vested interest of some farmers in subsidies or other forms of privilege.

The key argument of the present paper is that, even though the economic standing of some farmers or interest groups directly depends on the political appeal of the agrarian vision, the argumentative power and validity of this vision might be undermined by these political rent-seeking activities in the long term. The main reason is that these activities are likely to provoke opposition from those stakeholders who must pay for someone else's privilege. To make that case, the following section discusses several examples of how European farmers and interest groups are seeking to derive benefits from employing the semantics of the agrarian vision. The following attempts to reframe the relationship between the agrarian and industrial visions in such a way as to emphasize the common ground between them. The paper will argue that promoting dialogue between the two visions will reduce the attractiveness of nonproductive political rent-seeking activities and help to (re)orient agricultural policy making toward this common ground.

Examples of Rent-Seeking Activities

Mancur Olson's (1965) seminal "paradox of collective action" postulates the possibility of a majority being exploited by a minority, insofar as the former can organize itself more efficiently than the latter. This exploitation constitutes a classic example of nonproductive rent-seeking behavior. Olson (*ibid*) recognized that this paradox is well applicable to the process of agricultural policy making in Western democracies. Given that farmers present a minority group in the total population of these countries, they engage in collective action in order to extract political rents from the much larger group of taxpayers (*ibid*), which may not be even aware of being exploited (Poczta-Wajda 2016, p. 54). The rents enjoyed by farmers may take diverse forms, including price support payments, direct payments, and trade barriers (Schmitz et al. 2010, pp. 74–75; Rausser 1992). Each of these forms is tantamount to privileging farmers relative to other participants of the national or global economy. What is noteworthy in the context of the present paper is that the farmers seeking to extract political rents may conveniently justify their efforts by using the semantics of the agrarian vision (cf. Schmitz et al. 2010; Browne et al. 1992). Browne et al. (1992) brilliantly analyzed this sort of instrumentalization of the agrarian vision in the evolution of the US agricultural policy and discussed a number of ways to rid the decision-making process of the legacy of agrarian past (*ibid*, p. 1). Even though the book was written almost 30 years ago, many of the discussed issues are still relevant.

In the EU countries, the economic logic of political rent-seeking in the evolution of agricultural policy has not been substantially different, and the semantics of the agrarian vision has likewise played an important role. Consider a recent case of the Rural Agriculture Taskforce (Arbeitskreis Bäuerliche Landwirtschaft) in Germany. This is an interest group seeking a tighter regulation of the agricultural land market in order to protect it from nonagricultural investors and thus maintain an affordable land price for local farmers. This market is already subject to regulations that privilege local farmers by conferring on them preemptive rights in land sales. The Rural Agriculture Taskforce seeks to achieve further privileges for small and middle-sized farms by means of putting large holdings and corporations at a disadvantage. The semantics employed by the Taskforce feeds on the contrast between the traditional farming and the image of large-scale industrialized, specialized, and vertically integrated production: “We need more farmers instead of agro-industrial enterprises owned by non-agricultural investors. We need a land market reform in Germany that financially enables mainly young farmers, agricultural start-ups and also farmers with small and average-sized farms to obtain land in order to tackle versatile cultivation”.¹ It is noteworthy that these political appeals are in sharp contrast to recent agricultural economics research showing that the trend of rising land prices cannot be causally attributed to large investors and holdings (Odening and Hüttel 2018, Hüttel et al. 2015). Drawing on their economic analysis, Odening and Hüttel (2018) interpret the campaign against investors as a hidden discussion of the new paradigm of agriculture in Germany, which appears to advance small-scale agriculture. Overall, the image of the capitalistic investors threatening the existence of traditional agriculture appears to be a rhetorical device intended to justify the extraction of political rents by small agricultural businesses.

Yet another example of the employment of the agrarian vision semantics to promote rent-seeking can be found in biotechnology regulation, which is known to be more restrictive in the EU than in the US (cf. Anyshchenko 2019, cf. Bruce and Bruce 2019). An interest group known as the European Farmers and European Cooperatives (COPA-COGECA) has successfully campaigned to ban genetically modified organism (GMO) imports to the EU (Poczta-Wajda 2016; Skoba 2013), thereby foreclosing large segments of the European market to imports from countries where GMOs are allowed. Until now, European farmers have been enjoying economic advantages from this ban because it has effectively protected them from international competitors using GMOs. This has been justified, among other things, by appealing to the incongruence of biotechnology with the traditional way of farming (cf. Blancke et al. 2015). Similar semantic strategies were used by various NGOs, such as Greenpeace, whose anti-GMO campaigns have encompassed not only disgust-triggering images (cf. Hellsten 2003) but also narratives of traditional

¹ Own translation: “Wir brauchen mehr Bäuerinnen und Bauern statt agrarindustrielle Betriebe, die außerlandwirtschaftlichen Investoren gehören. Wir brauchen eine Bodenmarktreform in Deutschland, die es gerade jungen Menschen, bäuerlichen Existenzgründern und auch Bauern mit kleinen und mittleren Höfen finanziell möglich macht, an Land zu kommen, um eine gute vielfältige Bewirtschaftung anzupacken. https://www.abl-ev.de/apendix/news/details/?tx_ttnews%5Btt_news%5D=1620&cHash=6b454280b03970f1fa6f2fe66aa4f57b retrieved on February 13, 2019.

farmers being exploited by powerful agribusiness corporations (cf. Blancke et al. 2015). While these campaigns have helped interest groups such as NGOs increase their donative funding, they have downplayed the right of individual farmers to make independent business decisions about the employment of biotechnology (Valentinov et al. 2019). The increased donative income of such interest groups can thus be believed to include rents extracted from those farmers and consumers who might have benefited from a more liberal regulatory environment (ibid). What made this campaign of the European ban on GMOs so successful is that interest groups managed to convince many people to oppose, if not fear, GMOs and thus disregard the statement on a scientifically based, differentiated regulation of GMOs issued by the German national science association, Leopoldina.² This can be interpreted as an even more advanced form of political rent-seeking because European farmers and interest groups mobilized the public for their purposes, even though the public consists of the very taxpayers from whom the rents are extracted.

In Germany, the semantics of the agrarian vision has been recently adopted by interest groups protesting against the use of agricultural chemicals such as pesticides, herbicides, and fertilizers (Grossarth 2018). The campaigns led by such interest groups employed emotionally charged terminology such as “poison,” “agrototoxin,” “unnaturalness,” and “denaturalized food” (ibid). There is room to argue that this terminology originates from an idealistic interpretation of the agrarian vision that affirms organic agriculture as “natural,” while taking the conventional industrialized agriculture to be accordingly “unnatural” and “poisonous.” The interest group advocacy against the use of chemicals brought serious legitimacy risks to conventional farmers and impinged upon their economic interests (McGuire et al. 2015; Janker et al. 2019; Karali et al. 2014). The political rent-seeking nature of such advocacy campaigns becomes evident when considering that they evoked moral and emotional images instead of relying on evidence-based arguments. Through these campaigns, NGOs extract rents, not only from the victimized conventional farmers but also from those consumers who would have preferred agricultural products produced in the conventional rather than organic way.

From Rent-Seeking to Dialogue

As illustrated by the examples in the previous section, the phenomenon of political rent-seeking necessarily produces winners and losers. The former extract rents from the latter. In the context of the agrarian vision, losers are stakeholders who are disadvantaged by the adoption of those political regulations that are justified by the appeal to this vision’s semantics. The disadvantage is derived from the fact that these stakeholders may not support specific aspects of this vision of farming but must bear the costly consequences of their political implementation. The practical implementation of the industrial vision may likewise generate losers, which can

² <https://www.leopoldina.org/publikationen/detailansicht/publication/wege-zu-einer-wissenschaftlich-begrundeten-differenzierten-regulierung-genomeditierter-pflanzen-in/>retrieved on February 13, 2020.

be understood as those stakeholders who are adversely affected by certain consequences of the large-scale industrialized agriculture, such as groundwater nitrate concentration, soil erosion, and the overuse of antibiotics in livestock production (De Olde and Valentinov 2019). Some of these stakeholders have even organized themselves into a number of social movements advancing the values of biodiversity, sustainability, and social justice (Rausser et al. 2015; Stojanovic 2019). Thus, it is safe to assume that both visions have their opponents.

At the same time, there is room to argue that both visions pursue societally relevant goals. The industrial vision seeks to harness market forces for enabling the efficient production of food that would be affordable for as many people as possible. The agrarian vision seeks to align agricultural production with moral values such as the preservation of biodiversity and traditional cultural landscapes. These goals are clearly different but not necessarily incompatible; in fact, they can be reconciled within certain bounds. This compatibility indicates the existence of a common ground within which the realization of each vision does not need to occur at the cost of disregarding the goals of the other. Employing this common ground as a moral guidepost for agricultural policy making is accordingly likely to reduce the overall extent of dissatisfaction with the resulting institutional regime of agricultural production. Moreover, there is room to argue that, within this common ground, the two visions are not only compatible but also mutually supportive. Each of them can be most effectively implemented in no other way than by harnessing the other one. Thompson (2010) came quite close to acknowledging this. He stressed that “in a society in which everyone is a subsistence farmer, everything really does hang on individual intentions, as well as a bit of luck,” whereas the modern industrial society is primarily reliant on institutions rather than intentions (*ibid.*, p. 183). This means that the effective implementation of the agrarian vision requires aligning it with the institutions of the capitalistic economy in such a way as to enable the harnessing of the market forces. As mentioned above, the latter is precisely the strategy employed by the industrial vision.

Thus, an important insight for the agrarian vision seems to be that an acknowledgment of the economic logic may promote the attempts at this vision’s practical implementation. This insight seems to be supported by the available evidence to the effect that small-scale farming is considerably more energy intensive than larger farms profiting from the economies of scale (Rausser et al. 2015; Schlich and Fleissner 2005; Schlich 2009), that extensive and local farming raises emissions (Saitone and Sexton 2017), and that local production of food in the US would need 214.6 million acres more to produce the current amount of output (Sexton 2009). This evidence suggests that large-scale industrialized production may ultimately consume less natural resources than the organic one (Saitone and Sexton 2017; Klümper and Qaim 2014; Saitone et al. 2015). Another implication of the economic logic is that political regulations intended at privileging specific farmer groups by protecting them against the market forces are ultimately self-defeating. This implication follows from Willard Cochrane’s (1958) theory of the “technological treadmill,” explaining that the market forces, combined with the ongoing technological progress, put marginal farmers under permanent pressure to exit the market. The dynamic of the treadmill not only works to neutralize the short-term effects of policy instruments,

such as price and income support programs, but also creates endowment effects on the part of farmers who thus become deeply frustrated if these instruments are abolished (*ibid.*).

To be sure, the complementarity between the agrarian and industrial visions goes both ways. It is not only that the former may benefit from recognizing the economic logic emphasized by the latter; the latter may likewise benefit from recognizing the usefulness of agrarian virtues, such as a delicate sensitivity to natural processes and to the importance of social community. This contention is well supported by Allen and Lueck's (1998) seminal neoclassical explanation of family governance as a solution to the pervasive problems of asymmetric information in agricultural production. Allen and Lueck (1998) rightly argue that the opportunistic abuse of asymmetric information stands in the way of efficiency and profit maximization stressed by the industrial vision. They note that this abuse can be neutralized by the activation of trust and responsibility that are sustained by the social structure of farm families. What the authors do not say, but what nevertheless appears plausible, is that the trust and responsibility exhibited by farm families are the outcomes of these families' agrarian virtues related to the respect for community and nature. As described by Allen and Lueck (1998), family farms are capitalistic in spirit and, accordingly, can be thought of as being guided by the industrial vision. A key result of Allen and Lueck's (1998) theory, however, is that the success of the practical implementation of this vision depends on the availability of agrarian virtues.

There is, in fact, room to argue that the dependence of the industrial vision on agrarian virtues is so far-reaching that it even goes beyond the scope of agriculture. Consider the phenomenon of corporate social responsibility (CSR) that has become salient in the twentieth century almost all over the world. While there exist literally hundreds of CSR definitions, at their core is "the subject of the social obligations and impacts of corporations in society" (Crane et al. 2008, p. 6). If anything, this subject implies the importance of corporations' sensitivity to the consequences of their entanglement in the societal and natural environment. Much of the current scholarship on CSR and business ethics suggests that this sensitivity has often been far from perfect. In the words of an eminent scholar, "business as an institution, and business professionals as a group—in spite of the central, indispensable economic function they carry out—are so thoroughly suspect in the public eye. During much of the twentieth century, business and society have existed in a state of tension and conflict. From a societal point of view, business is frequently believed to have exercised its power and influence to the detriment of particular groups and society at large" (Frederick 1995, p. 5ff.). Yet, the sheer possibility of such a diagnosis being made, and the dependence of corporate reputations on the public perception of CSR activities, all testify to the fact that the sensitivity of corporations to their "social obligations and impacts" (Crane et al. 2008, p. 6) is a valid concern for a broad range of corporate stakeholders. At the same time, a moment's reflection shows that the sensitivity to the complexity of environmental effects is a central ingredient of the agrarian vision. It turns out that the very idea of CSR boils down to the application of the agrarian value of sensitivity to the industrial corporate context. If this argument is correct, agrarian values pervade the industrial corporate world

and are deeply entwined with the industrial goals of efficiency and long-run profit maximization.

Concluding Remarks

This paper has contributed to the analysis of the conceptual relationship between the two visions of agriculture by accentuating the existence of the rent-seeking activities undertaken in the name of the agrarian vision. In Western economies, political rent-seeking dominates the scene of agricultural policy making (cf. Schmitz et al. 2010; Browne et al. 1992). The economic logic of political rent-seeking implies the existence of winners and losers, the latter of which include stakeholders who do not support the rent-seeker's goal but nevertheless bear the costs of its practical implementation. While the agrarian vision can be instrumentalized to pursue nonproductive rent-seeking, the industrial vision is not free of comparable problems either. Large-scale industrialized agriculture may impose social costs on stakeholders who value traditional farming, biodiversity, and the preservation of cultural landscapes in rural areas. The key argument of the present paper is that these two philosophical visions of agriculture are not radically incongruent but rather share a common ground within which they are mutually supportive. If agricultural policy making is oriented toward this common ground, it may achieve greater acceptance of the resulting institutional regime of agricultural production. This sort of policy making would be less partisan and less likely to provoke conflicts.

This is of course easier said than done. The practical determination of the common ground between the two visions would require in-depth investigations of specific trade-offs and interest conflicts (De Olde and Valentinov 2019). Yet, the key point here is to show the very possibility of overcoming the conflict between the two visions. It accordingly leaves the task to further research to explore the extent to which a harmonized agricultural policy can do justice to the rich set of moral implications of the agrarian vision, such as the deep interest in the well-being of vulnerable stakeholders as well as in the maintenance of the “functional integrity” of socioecological systems. Further research is likewise needed to explore the subtle means–ends relationship that the agrarian and industrial visions might mutually sustain in the framework of a unified vision. If the unified vision succeeds in getting off the ground, it will create hope of devising smart policies and practices that not only enable efficient agricultural production but also minimize negative ecological impact and preserve cultural landscapes. Perhaps one example of such a practice could be precision farming (Weersink et al. 2018). Tools such as precision machinery, drones, and field robots help reduce inputs such as water fertilizer or pesticides (Deichmann et al. 2016; Asseng and Asche 2019). These technologies might also be used to enable a method of farming with smaller plot sizes and a larger variety of crops, thus promoting biodiversity and preserving landscapes without giving up on efficiency. Clearly, much additional work is needed to explore the potential of novel technologies to fulfill multiple criteria. What is clear, however, is that this work can be promoted by an agricultural policy that does not seek to give primacy to any of

the two visions but incentivizes research, both on the technologies themselves and on the issues that emerge in their wake.

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References

- Allen, D. W., & Lueck, D. (1998). The nature of the farm. *The Journal of Law and Economics*, 41(2), 343–386.
- Anyshchenko, A. (2019). The precautionary principle in EU regulation of GMOs: Socio-economic considerations and ethical implications of biotechnology. *Journal of Agricultural and Environmental Ethics*, 32, 855–872.
- Asseng, S., & Asche, F. (2019). Future farms without farmers. *Science Robotics*. <https://doi.org/10.1126/scirobotics.aaw1875>.
- Blancke, S., Van Breusegem, F., De Jaeger, G., Braeckman, J., & Van Montagu, M. (2015). Fatal attraction: The intuitive appeal of GMO opposition. *Trends in Plant Science*, 20(7), 414–418.
- Browne, W. P., Skees, J. R., Swanson, L. E., Thompson, P. B., & Unnevehr, L. J. (1992). *Sacred cows and hot potatoes: Agrarian myths in agricultural policy*. Boulder, CO: Westview.
- Bruce, A., & Bruce, D. (2019). Genome editing and responsible innovation, can they be reconciled? *Journal of Agricultural and Environmental Ethics*, 32, 769–788.
- Cochrane, W. (1958). *Farm prices: Myth and reality*. Minneapolis: University of Minnesota Press.
- Crane, A., McWilliams, A., Matten, D., Moon, J., & Siegel, D. (2008). The corporate social responsibility agenda. In A. Crane, A. McWilliams, D. Matten, J. Moon, & D. Siegel (Eds.), *The Oxford handbook of corporate social responsibility* (pp. 3–15). Oxford: Oxford University Press.
- de Olde, E. M., & Valentinov, V. (2019). The moral complexity of agriculture: A challenge for corporate social responsibility. *Journal of Agricultural and Environmental Ethics*, 32(3), 413–430.
- Deichmann, U., Goyal, A., & Mishra, D. (2016). Will digital technologies transform agriculture in developing countries? Policy Research Working Paper 7669. Washington, DC: World Bank.
- Frederick, W. C. (1995). *Values, nature, and culture in the American corporation*. New York: Oxford University Press.
- Graffy, E. (2012). Agrarian ideals, sustainability ethics, and US policy: A critique for practitioners. *Journal of Agricultural and Environmental Ethics*, 25(4), 503–528.
- Grossarth, J. (2018). *Die Vergiftung der Erde: Metaphern und Symbole agrarpolitischer Diskurse seit Beginn der Industrialisierung*. Frankfurt am Main: Campus Verlag.
- Hellsten, I. (2003). Focus on metaphors: The case of “Frankenfood” on the web. *Journal of Computer-Mediated Communication*. <https://doi.org/10.1111/j.1083-6101.2003.tb00218.x>.
- Hüttel, S., Odening, M., & von Schlippenbach, V. (2015). Steigende landwirtschaftliche Bodenpreise: Anzeichen für eine Spekulationsblase? *DIW-Wochenbericht*, 82(3), 37–42.
- Janker, J., Mann, S., & Rist, S. (2019). Social sustainability in agriculture—A system-based framework. *Journal of Rural Studies*, 65, 32–42.

- Karali, E., Brunner, B., Doherty, R., Hersperger, A., & Rounsevell, M. (2014). Identifying the factors that influence farmer participation in environmental management practices in Switzerland. *Human Ecology*, 42(6), 951–963.
- Klümper, W., & Qaim, M. (2014). A meta-analysis of the impacts of genetically modified crops. *PLoS ONE*, 9(11), e111629.
- McGuire, J. M., Morton, L. W., Arbuckle, J. G., Jr., & Cast, A. D. (2015). Farmer identities and responses to the social–Biophysical environment. *Journal of Rural Studies*, 39, 145–155.
- Odening, M., & Hüttel, S. (2018). Müssen landwirtschaftliche Bodenmärkte vor Investoren geschützt werden? Eine ökonomische Perspektive (No. 2053-2018-5491).
- Olson, M. (1965). *The logic of collective action*. Cambridge, MA: Harvard University Press.
- Poczta-Wajda, A. (2016). Interest groups and rent seeking in agriculture—A theoretical approach. In B. Czyżewski (Ed.), *Political rents of European farmers in the sustainable development paradigm*. International, national and regional perspective. PWN Warszawa.
- Polanyi, K. (1944). *The great transformation*. Boston: Beacon Books.
- Rausser, G., Zilberman, D., & Kahn, G. (2015). An alternative paradigm for food production, distribution, and consumption: A noneconomist's perspective. *Annual Review of Resource Economics*, 7(1), 309–331.
- Rausser, G. C. (1992). Predatory versus productive government: The case of US agricultural policies. *Journal of Economic Perspectives*, 6(3), 133–157.
- Saitone, T. L., & Sexton, R. J. (2017). Agri-food supply chain: Evolution and performance with conflicting consumer and societal demands. *European Review of Agricultural Economics*, 44(4), 634–657.
- Saitone, T. L., Sexton, R. J., & Sumner, D. A. (2015). What happens when food marketers require restrictive farming practices? *American Journal of Agricultural Economics*, 97(4), 1021–1043.
- Schlich, E. (2009). Zur Energieeffizienz regionaler und globaler Prozessketten: das Beispiel Wein aus Erzeugerabfüllung. *Journal für Verbraucherschutz und Lebensmittelsicherheit*, 4(1), 68–74.
- Schlich, E., & Fleissner, U. (2005). The ecology of scale: Assessment of regional energy turnover and comparison with global food. *The International Journal of Life Cycle Assessment*, 10(3), 219–223.
- Schmitz, A., Moss, C. B., & Schmitz, T. G. (2010). *Agricultural policy, agribusiness, and rent-seeking behavior*. Toronto: University of Toronto Press.
- Sexton, S. (2009). Does local production improve environmental and health outcomes? *Agricultural and Resource Economics Update*, 13(2), 5–8.
- Skoba, L. (2013). Principal EU-US trade disputes. (Briefing 130518rev1). Library of the European Parliament.
- Stojanovic, M. (2019). Conceptualization of ecological management: Practice, frameworks and philosophy. *Journal of Agricultural and Environmental Ethics*, 32, 432–446.
- Thompson, P. B. (2010). *The agrarian vision: Sustainability and environmental ethics*. Kentucky: University Press of Kentucky.
- Tullock, G. (2005). *The rent-seeking society*. Indianapolis: Liberty Fund.
- Valentinov, V., Hielscher, S., Everding, S., & Pies, I. (2019). The anti-GMO advocacy: An institutionalist and systems-theoretic assessment. *Kybernetes*, 48(5), 888–905.
- Weersink, A., Fraser, E., Pannell, D., & Duncan, E. (2018). Opportunities and challenges for big data in agricultural and environmental analysis. *Annual Review of Resource Economics*, 10, 19–37.

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