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Strategic silence or regulatory talk? Regulatory agency responses to public allegations amidst the glyphosate controversy

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ABSTRACT

How do regulatory agencies manoeuvre to diffuse potential risk endangering their organisational reputation in the eyes of relevant stakeholders and what explains the substantial variation in the reputational repertoire on which agencies draw to legitimise their conduct? This study relies on a bureaucratic reputation account to enhance our understanding of the strategic behaviour of regulatory agencies and their endeavours to justify their outputs and processes vis-à-vis public allegations. We focus on the glyphosate case to examine whether diverse reputational vulnerabilities encourage agencies to opt for strategic silence or, on the contrary, issue a public response justifying their technical, performative, legal-procedural, and/or moral conduct. Interviews with agency officials and primary document analysis suggest that to respond to stakeholder allegations agencies with an evolving reputation engage in extensive communication activities to warrant their outputs and processes, whereas agencies with a strong reputation tend to be less responsive and opt for strategic silence.

KEYWORDS Glyphosate; organisational reputation; regulatory agencies; risk regulation; scientific risk assessments

Introduction

The legitimacy of regulatory agencies depends on their ability to foster relevant stakeholders' belief that they can implement the core functions assigned to them (Majone, 1999). Evidence-based solutions have always been regarded as an important source of legitimation of non-majoritarian institutions in general and regulatory agencies in particular. However, recent scholarship has demonstrated that agencies combine the reciprocity of reputation-management strategies to appeal to important audiences (Arras & Braun, 2018; Busuioc & Rimkutė, 2020; Wood, 2018). To respond to reputational threats originating from relevant stakeholders exerting severe

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public allegations, agencies may engage in strategic silence or, on the contrary, issue a public response emphasising different aspects of their activities to legitimise their technical, performative, legal-procedural, and/or moral conduct (Gilad et al., 2015; Maor et al., 2012). However, we have a limited understanding of how regulatory agencies manoeuvre to diffuse potential risk endangering their organisational reputation in the eyes of relevant stakeholders and what explains the substantial variation in the reputational repertoire on which agencies draw to justify their outputs and processes. To that end, this study asks how public allegations affect regulatory agencies' response strategies. We aim to examine when agencies engage in strategic silence and when they are inclined to provide public responses to stakeholder allegations.

The study relies on a bureaucratic reputational account to enhance our understanding of the strategic behaviour of regulatory agencies and their endeavours to legitimise their outputs and processes in view of grave public allegations exercised by relevant stakeholders (Carpenter, 2010; Gilad, 2008, 2015; Gilad et al., 2015; Maor et al., 2012; Rimkutė, 2020). The scholarship in the field has provided solid quantitative evidence that reputational vulnerabilities guide agency behaviour (Gilad et al., 2015; Maor et al., 2012). To advance these recent quantitative studies suggesting a link between reputational vulnerabilities and regulatory response, this article further elaborates on these causal links followed by an in-depth qualitative analysis specifying how diverse sets of reputational vulnerabilities encourage agencies to choose between contrary response devices (i.e., strategic silence or regulatory talk). This study relies on two sets of agencies (i.e., well-established agencies possessing a strong overall reputation and agencies whose reputation is still developing) to examine how regulatory agencies respond to relevant stakeholder allegations on salient issues threatening their core responsibilities and functions. To that end, we compare public responses of agencies operating in long-established polities (i.e., the United States) with the agencies that are in the process of developing their unique organisational reputation (i.e., European Union agencies).

To gauge the study's theoretical expectations, we focus on one of the most controversial pesticides worldwide – glyphosate. In the last 40 years, regulatory agencies worldwide have regularly assessed glyphosate for safety. Government agencies in the EU, United States, Canada, Australia, and Japan have invariably authorised glyphosate with some warnings about conditions for safe use. However, unlike government agencies, the International Agency for Research on Cancer (IARC) – an independent cancer centre of the World Health Organization – declared the most commonly used pesticide to be genotoxic, carcinogenic to animals, and 'probably cancerogenic' for humans (IARC, 2015). IARC's scientific conclusion has sparked vibrant debates worldwide questioning regulatory agencies' core responsibilities to deliver scientifically rigorous risk assessments aimed at warranting the highest protection standards to those exposed to unacceptable risks. Inconsistencies between the hazard/risk assessments of

IARC and other regulatory agencies have resulted in comprehensive scrutiny of agencies' scientific outputs and processes by political superiors, the scientific community, NGOs, and consumers. This, in turn, has led to public allegations blaming regulatory agencies for a lack of scientific rigorousness, serious flaws in procedural conduct, a lack of compassion for those exposed to glyphosate risks, and incapacity to take effective decisions and resist inappropriate industry influence. Such saliency and severity of public allegations posed major reputational threats to regulatory agencies worldwide because they challenged agencies' core duty to rely on reliable scientific evidence in pursuit of the highest protection standards shielding society from unacceptable health risks.

The glyphosate case provides a unique opportunity to observe empirically if and how diverse reputational vulnerabilities encourage agencies to cultivate their organisational reputation in different ways to sustain their legitimacy vis-à-vis grave stakeholder allegations. The case is theoretically relevant because it allows control over pertinent explanatory factors (i.e., the intensity and content of public allegations) to focus on gauging the explanatory power of agency's reputational vulnerabilities that are argued to guide agency response.

The empirical analysis draws on primary documents and interviews with top-level officials who were in charge of glyphosate risk/hazard assessments in their agencies. The study finds that in view of public allegations, agencies with an unsettled reputation are inclined to engage in extensive communication activities to justify their scientific outputs vis-à-vis relevant audiences, whereas agencies with a strong overall organisational reputation tend to be less responsive and often opt for strategic silence.

Diverse reputation-management strategies and reputational vulnerabilities guiding agency behaviour

Our theoretical framework focuses on the agency response to public allegations as a reputation-management strategy. Reputation-management strategy is defined as 'an agency's reaction to allegations and/or incidents that shed a negative light on its fulfilment of its core mission' or its distinctive organisational traits (i.e., reputation uniqueness) (Gilad et al., 2015, p. 455; see also Carpenter, 2010). We start by introducing potential reputation-management strategies that agencies can choose from to respond to stakeholder allegations, followed by a discussion of conditions under which agencies are likely to opt for different strategies.

Diverse reputation-management strategies: Strategic silence versus regulatory talk amidst public allegations

Reputation-based explanations originate from the assumption that agencies are attentive to their audiences' expectations and actively pursue multiple

reputation-management strategies to influence the judgements of audiences that monitor and assess their behaviour (Carpenter, 2010). Diverse reputational threats are likely to be dealt with by carefully calibrating public responses to external claims 'to align audiences' perceptions of the agency with their internal vision of regulatory roles and performance' (Maor et al., 2012, p. 585). To achieve broad support from observing audiences, agencies engage in the calculus of possible responses that include not only issuing public responses to stakeholder allegations but also engaging in strategic silence (Gilad et al., 2015; Maor et al., 2012).

More specifically, agencies may adjust their regulatory talk depending on which aspects of their reputational attributes they want external audiences to register (Carpenter, 2010). This is the case because organisational reputation is multidimensional as stakeholders' opinions of agencies may concurrently concern various aspects of their conduct. As a result, agencies carefully choose which audiences they want to please and which signals they want to send to shape audiences' perceptions of their undertakings. To that end, agencies may choose to send strong signals about their scientific rigorousness and staff expertise (to cultivate their technical reputation), effective performance and their ability to take decisive action (performative reputation), legality of their processes (legal-procedural reputation), and/or values and ethical implications of their regulatory activities (moral reputation) to influence audiences' judgements about specific nuances of their activities (Carpenter & Krause, 2012).

However, agencies may be wary of issuing their reactions about matters that receive prominent public attention, i.e., reputational considerations can urge agencies to engage in strategic silence (Maor et al., 2012). Such a decision could be made to avoid making any premature representations (e.g., voicing uncoordinated and inconsistent positions), evade the need for abrupt decisions (e.g., to minimise the need for swift decisions over critical events), anchor unsolicited expectations, or shorten the duration of a crisis. Strategic silence could be interpreted as a sign of agencies' confidence in their stance as well as their patience and persistence. It also could imply an agencies' exclusive focus on providing solutions to the problem at hand and a refusal to be diverted into merely engaging in public debates.

Reputational vulnerabilities guiding agency response strategies

Reputation-based explanations suggest that regulatory agencies' choice between strategic silence and regulatory talk emphasising diverse multidimensional reputational aspects is linked to the anticipated impact of public allegations on agencies' distinct reputations (Gilad et al., 2015; Maor et al., 2012). Agencies were found to focus on their reputational vulnerabilities in light of public allegations; that is, the agency's assessment of its initial

reputational standing (strong or weak/developing) and how external claims affect it. Agencies that hold a strong overall organisational reputation (i.e., clearly defined 'niche' roles and a widely acknowledged 'turf' for the provision of unique functions in a specific polity) have more leeway in choosing how to respond to damaging public allegations. Gilad et al. (2015) and Maor et al. (2012) argued that agencies with a strong reputation could even afford to keep silent in light of acute public allegations because external claims may not pose a severe threat to their well-established reputation. Accordingly, we expect that agencies with a strong overall reputation are inclined to respond to stakeholder allegations by engaging in strategic silence (i.e., no direct response to specific public allegations).

However, even agencies with a well-established reputation cannot remain completely ignorant when relevant stakeholders directly question their core functions and mandates to deliver specific outputs and engage in certain processes for which they were established in the first place (Gilad et al., 2015). This is the case because when an agency is established, it is assigned distinct organisational traits (i.e., reputation uniqueness) that have to be maintained by shaping its reputation-balancing and protection strategies (Gilad & Yogev, 2012; Maor et al., 2012). To that end, we expect that agencies with a solid reputation are more likely to choose to engage in strategic silence (i.e., they do not engage in a public debate justifying their outputs or processes). Instead, they invest time and effort in conducting their core regulatory tasks in a more rigorous and diligent manner than usual. For example, they may issue extensive scientific risk assessments that might even result in a publication delay to signal their adherence to the highest scientific standards. Other strategies include engaging in inclusive processes to demonstrate their procedural aptness, emphasising assertive behaviour to exhibit their regulatory power, and/or doing more to protect those exposed to negative regulatory consequences.

On the contrary, agencies tend to be responsive to public allegations about their core responsibilities for which they hold weak reputations or when public allegations target domains in which agencies' reputation is still emerging (Gilad et al., 2015; Maor et al., 2012). Agencies possessing a weak, or still evolving reputation (i.e., 'niche' roles and 'turf' for the provision of unique functions are still developing in the political system in which agencies operate), are inclined to be more reactive to external signals by issuing, for example, a public statement refuting/admitting public allegations or justifying their outputs and/or processes. This is the case because agencies with weak/developing reputations have to shield their fragile reputations and engage in turf-protective strategies (Busuioc, 2016). To that end, they are anticipated to respond vigorously to external criticism targeting their outputs and processes. Agencies need to provide the proof that they can deliver outputs and outcomes that were entrusted to them (Maor & Sulitzeanu-Kenan, 2015). The

legitimacy and, in turn, survival of supranational agencies – that are still in the process of establishing their unique reputation – depend on their aptitude to convince relevant stakeholders that they can carry out the functions entrusted to them (Majone, 1999). If an agency manages to persuade relevant stakeholders that it performs well on delegated responsibilities, then it may, in turn, result in an increased legitimacy that is regarded as ' … a product of successful reputation management by selectively responding to various reputational threats' exercised by different, and often conflicting, audiences that target different reputational dimensions' (Rimkutė, 2018, p. 72). Accordingly, we expect that agencies with weak/developing reputations will respond to stakeholder allegations by publicly addressing the claims threatening their core responsibilities and investing considerable time and effort in cultivating the organisational reputation aspects that the relevant stakeholders are challenging.

Furthermore, recent studies have suggested that agencies perform in contexts that impose different threats and, in turn, lead to different agency responses (Gilad et al., 2015; Maor et al., 2012). First, the intensity of public allegations (e.g., salience) has been found to relate to an agency's choice to keep silent or issue a public response defending its outputs or processes. In view of intense public allegations, agencies were found to be more receptive and attune their reputation-management strategies to respond to a wide array of expectations (Busuioc & Rimkutė, 2020; Rimkutė, 2018, 2020). Second, agencies' inclinations to respond to public allegations depend not only on how much visibility and public debate a particular issue attracts but also on the content of public allegations targeting different aspects of bureaucratic reputation. Allegations targeting the core roles of an agency may pose severe reputational threats because they imply the agency has failed to realise its mandate (Gilad et al., 2015). Such allegations encourage agencies to send vigorous response signals tailored to address the content of accusations. The absence of a robust response to intense public allegations targeting the core responsibilities of regulatory agencies becomes problematic as public criticism may cast more attention and serious doubts about their appropriate conduct.

Research design

To assess the theoretical propositions, we have chosen to examine how the US Environmental Protection Agency (EPA) and EU agencies – i.e., the European Food Safety Authority (EFSA) and the European Chemicals Agency (ECHA) – dealt with the recent glyphosate controversy. The US and EU agencies are different regarding the key explanatory variable (i.e., reputational vulnerabilities) and similar regarding other factors that were found to be relevant for agency behaviour (e.g., Gilad et al., 2015; Krause & Douglas, 2005, 2006; Maor et al., 2012).

While US agencies are embedded in a long-established political system and hold a strong overall organisational reputation, EU agencies have to perform in an unsettled and transitioning supranational polity that is currently still in search of a common political identity (Olsen, 2017). This context, in turn, requires EU agencies to work on establishing their 'niche' roles and 'turf' for the provision of unique functions vis-à-vis their supranational and national counterparts. EU agencies are still in the early stage of instituting the uniqueness of their distinctive reputation (Busuioc & Rimkutė, 2020). They face major legitimacy issues as national governments occasionally undermine their scientific advice (Rimkutė, 2018; Versluis, 2016) and EU and national-level institutions challenge their regulatory powers, authority, and independence (Chiti, 2013). This can be empirically observed in their explicit efforts to enhance their organisational reputation vis-à-vis the most relevant audiences. For example, one of EFSA's core communication goals is to 'strengthen EFSA's reputation management process through understanding of institutional partners and stakeholders' (EFSA, 2019, p. 1). To achieve this, EFSA developed a reputation barometer (ICF Consulting Limited, 2017) to learn about its reputation amongst the core institutional stakeholders (i.e., the European Parliament and the European Commission) and to arrive at an effective strategy to improve its organisational status. On the other hand, US government agencies are regarded as legitimate regulatory bodies with far-reaching regulatory powers and distinctive reputation uniqueness that is well known to their core audiences and even the wider public (Lee & Van Ryzin, 2018). For example, a recent survey has shown that US citizens perceive federal agencies favourably, however, perceptions vary depending on a specific agency (Pew Research Center, 2019). The EPA is held in relatively positive regard (57 per cent of US citizens perceive it favourably, 34 per cent unfavourably). The survey indicates that US federal agencies do not necessarily possess positive reputations; however, their existence and reputation uniqueness is well known to the broader public (i.e., people widely acknowledge their 'niche' roles and 'turf' for the provision of unique functions in the polity).

We argue that although the institutional design of EU and US agencies vary, we can nevertheless gauge the explanatory power of reputational vulnerabilities on agency behaviour. This is the case because recent empirical evidence suggests that no clear association exists between an agency's institutional design (e.g., political insulation) and its bureaucratic performance (Krause & Douglas, 2005, 2006). Agencies were found to follow the requirements of their political superiors not because they are obliged to do so but because such a reputation-management strategy is considered the best way to cultivate their reputation: 'Agencies' concern with reputational considerations are fairly homogeneous and thus outweigh the varying political pressures that they confront attributable to the institutional structure that they operate under' (Krause & Douglas, 2005, p. 281).

We have chosen to explore agency responses to public allegations amidst the glyphosate controversy. By relying on the glyphosate case, we can hold the intensity and content of accusations constant, while focusing on how regulatory agencies with a strong and developing organisational reputation respond to similar stakeholder allegations. More specifically, in March 2015, IARC alerted the public about glyphosate's cancerogenic properties and, in turn, significantly shaped the glyphosate debate worldwide (Bozzini, 2017). The independent and highly regarded scientific organisation's conclusion suggested that government agencies failed to appropriately assess the actual risk of glyphosate, and it 'placed the herbicide into the spotlight of the media and sparked a scientific controversy, as well as a public debate on potential health risks and industrialized agriculture as a whole' (Villnow et al., 2019, p. 2). Public allegations intensified with the 'Monsanto papers' scandal. In 2015, Monsanto's internal documents were gradually made public as part of a US lawsuit against the company by cancer victims. The documents revealed that Monsanto manufactured scientific studies supporting the safety of its product (Roundup) and paid scientists to publish them in peer-reviewed journals. EU and US agencies used the studies to assess glyphosate's safety. As a result, the EU and US agencies faced serious public accusations related to their scientific integrity, transparency, susceptibility to industry influence and manipulation (CEO, 2018).

In view of the glyphosate controversy, both EU and US agencies' audiences (e.g., political superiors, the scientific community, NGOs, and consumers) openly challenged their outputs and processes. First, political institutions (i.e., US Congress and European Parliament) started investigations scrutinising the conduct of respective agencies. In the United States, Congressional leaders expressed their concerns about the EPA's decisions to allow the use of glyphosate. In open letters, they accused the EPA of not properly regulating potentially harmful pesticides (see, e.g., Pallone et al., 2017). Congress requested more transparency and called for public hearings. In a similar vein, the European Parliament questioned EU agencies' conduct by holding a public hearing and launching an investigation of EU agencies' practices (EPRS, 2018). Second, scientific community led by Professor Portier openly accused both EU and US agencies of scientific misconduct and questioned the entire system of pesticide risk assessment, implying that significant changes are urgently required to adequately protect consumers from unacceptable risks. Third, both in the EU and US, citizens engaged in the public debate and took action. The European Commission received a petition signed by more than 1,000,000 EU citizens requesting an EU-wide ban on glyphosate (European Parliament, 2017). In the US, close to 20,000 people sued the industry in US courts, alleging to have experienced negative effects after using Roundup (US RTK, 2019). Some lawsuits have already been finalised and the industry was found

liable for farmers' cancer, suggesting that the US courts are issuing verdicts that contradict the EPA's scientific conclusion.

We triangulated information sources to conduct empirical analysis. Data triangulation enabled us to crosscheck the empirical evidence in a consistent way and empirically demonstrate the plausibility of the theorised arguments. We draw on primary documents published by agencies since IARC issued its scientific opinion until the end of 2019 (e.g., agency communications regarding their glyphosate-related activities: scientific opinions, press releases, public responses to stakeholder allegations, see supplemental data, Appendix 1) and semi-structured interviews with agency officials (see supplemental data,Appendix 2). As we focus on two sets of agencies – i.e., US EPA and EU agencies (EFSA, ECHA) – the core interviews were conducted with the officials who led the risk assessment process in the respective agencies. To crosscheck evidence provided by the EPA, EFSA, and ECHA, and to validate data obtained in primary document analysis, top-level officials in other regulatory agencies that conducted/contributed to glyphosate risk assessments were also interviewed, including regulatory bodies in Germany (BfR, BVL), France (ANSES), Australia (APVMA), and IARC.

Empirical analysis

EU agencies amidst the glyphosate controversy: Carefully crafted public responses to stakeholder allegations

In October 2015, EFSA finalised its risk assessment that updated the scientific conclusions of the toxicity of glyphosate. In contrast to IARC, EFSA concluded that 'glyphosate is unlikely to pose a carcinogenic hazard to humans and the evidence does not support classification with regard to its carcinogenic potential' (EFSA, 2015, p. 2). In addition to EFSA's glyphosate risk assessment, the European Commission requested ECHA to conduct an independent glyphosate hazard assessment. In March 2017, ECHA's Committee for Risk Assessment (RAC) concluded that the existing scientific scholarship does not give sufficient confidence to classify glyphosate as a carcinogen or mutagen (ECHA, 2017).

In view of the glyphosate controversy and severe public allegations, EU agencies issued four public responses to the selected set of accusations to clarify the legal processes of EU risk assessments, emphasise their scientific excellence, and draw attention to the extensively transparent practices that EU agencies used to clarify and justify their glyphosate risk assessment: 'After the publication of our peer review, we have made a significant effort to clarify our position: we have published a lot of clarifications on the assessment and several statements in response to claims made about our assessment, showing our documents but also refuting claims about the

'Monsanto papers' and the involvement of industry' (EFSA representative #2). In particular, EFSA was responsive to the claims regarding transparency and independence from the industry, simultaneously threatening its performative, procedural, and moral reputation as well as the accusations coming from the scientific community, which challenged its technical reputation.

More specifically, in light of the 'Monsanto papers' scandal, EFSA issued two statements. EFSA admitted that the allegations originating from the 'Monsanto papers' outrage were serious enough to initiate an internal investigation assessing the impact of Monsanto ghost writing scientific articles on the overall EU assessment of glyphosate. After the internal investigation, EFSA issued a statement: 'There are no grounds to suggest that industry improperly influenced the EU assessment of glyphosate; and that the role of industry and of other actors in the process was carried out according to standard procedures' (EFSA, 2017a, p. 1). To refute public accusations damaging its bureaucratic reputation, EFSA has chosen to send strong legal-procedural signals by reiterating its routine steps that were established and strictly followed to preclude inappropriate industry influence. Furthermore, EFSA used this opportunity to cultivate its emerging bureaucratic reputation by referring to its performative vigour, i.e., power to exercise regulatory authority against influential audiences. To illustrate, EFSA emphasised that when a disagreement between the industry and EFSA emerges, it always takes firm action:

> It is not unusual for Member State and EFSA experts to disagree with industry on how the results of these studies should be interpreted for the risk assessment. This was also true in the case of glyphosate. For example, EFSA dismissed several industry-sponsored studies and identified concerns that led it to conclude that acute health effects should not be disregarded in the setting of Maximum Residue Levels for glyphosate in food. (EFSA, 2017a, p. 3)

EU agencies were exceptionally transparent about the processes that led to the conclusion (ECHA representative #1, EFSA representative #2, BfR representative #3, BVL representatives #4, ANSES representatives #5). To illustrate, EFSA stated that it:

> has gone to great lengths to be open and transparent about the EU assessment of glyphosate. It has published its final Conclusion and 6,000 pages of background documents, which include the comments and views of experts offered during the process as well as very detailed information about how EU experts appraised each and every study and how they evaluated the evidence. (EFSA, 2017a, pp. 4–5)

Furthermore, in response to Public Access to Document requests, EFSA has released the raw data from all the genotoxicity and carcinogenicity studies that the industry had submitted. EFSA noted that 'in doing so, EFSA rejected the vast majority of confidentiality claims submitted by industry and provided the requestors with enough information to allow full independent scrutiny of

the EU assessment' (EFSA, 2017a, p. 5). EFSA emphasised that such transparency practices are highly exceptional: 'As far as EFSA is aware, it is the first regulatory body anywhere in the world to release this amount of information related to pesticide risk assessments' (EFSA, 2017a, p. 5).

European agencies openly admitted that they engaged in unmatched efforts to release relevant information: 'We paid a lot more attention to serving everybody's questions and being a hundred percent transparent about the process. Given that there was so much political tension, we paid more attention to being very extensive in our communication: we wrote Q&As, we put a lot of information on our website, which is not normal for every case. We had enormous numbers of press questions and answers. We also had a special session in December, in the RAC, where we allowed all relevant parties to provide their views on the dossier – i.e., the industry, the NGOs from different sides, etc. So, we had a quite extensive session to make sure that everybody was heard properly' (ECHA representative #1).

In addition to public responses refuting the 'Monsanto papers' accusations, EFSA issued a statement on the allegations directed at its scientific conduct (i.e., accusations damaging EU agencies' technical reputation). Around a hundred scientists published an article questioning EU agencies' conclusions and pointing to numerous flaws and mistakes in their glyphosate risk assessment (Portier et al., 2015). In addition, Professor Portier wrote an open letter to President Juncker regarding EFSA's evaluation of the carcinogenicity of glyphosate. Portier reanalysed EFSA's raw data and found 'eight instances where significant increases in tumour response following glyphosate exposure were not included in the assessment by either EFSA or ECHA' (Portier, 2017, p. 1). Based on his analysis, Portier claimed that 'the evaluations applied to the glyphosate data are scientifically flawed, and any decisions derived from these evaluations will fail to protect public health' (Portier, 2017, p. 1).

This public accusation struck at the heart of the EU agencies' core regulatory responsibility: to protect public health by relying on rigorous scientific risk assessments. To that end, the Commission requested EU agencies respond to the allegations. EFSA, jointly with ECHA and BfR, issued a public statement aimed at refuting the claims: 'We consider that none of the specific findings you [Portier] bring forward are relevant for the hazard and risk assessment of glyphosate' (EFSA et al., 2017, p. 1). The EU agencies reiterated the regulatory rules specifying the legal procedures of EU hazard/risk assessments and noted that 'EFSA and ECHA are of the opinion that all the findings on the chronic rodent carcinogenicity studies referred in your [Portier's] letter have been adequately considered and therefore we see no need for our evaluations to be revised' (EFSA et al., 2017, p. 2). In so doing, the EU agencies attempted to defend their technical reputation by signalling confidence in their scientific analysis and the data behind it.

In addition to attempts to refute the 'Monsanto papers' controversy and Portier's claims, EFSA issued a response to public allegations casting doubt on the scientific integrity of the EU's glyphosate assessment (i.e., EFSA was accused of plagiarising information provided by the companies applying for the re-authorisation of glyphosate). In its response, EFSA published an assertive statement defending the robustness of the EFSA assessment. EFSA used strong language to refute the accusations: 'The allegations are unfounded and based on a fundamental lack of understanding of the EU pesticides assessment framework' (EFSA, 2017b, p.1). Different from the previous public responses focused on defending and explaining EU regulatory procedures, this response from EFSA Director Bernhard Url took a strong position by shifting blame to stakeholders and accusing them of unreasonable complaints:

> Unfortunately, the recent claims appear to be part of an orchestrated campaign and the latest in a series of efforts to discredit the scientific process behind the EU assessment of glyphosate […]. While of course we welcome all interested parties to scrutinise our work, it is important that the integrity of the legally prescribed scientific process is not purposefully undermined for short-term political gain. (EFSA, 2017b, p. 2)

In so doing, EFSA suggested that unlike the stakeholders who made public accusations based on the misunderstanding of how the EU's risk assessment processes are designed, EFSA cares deeply about its scientific processes that are defined in EU regulations. Furthermore, EFSA took the opportunity to emphasise its commitment to credible policy solutions and long-term benefits that its risk assessments provide to EU citizens.

Interviews and primary document analysis suggest that, in view of severe public allegations, the aim of EU agencies was to remind stakeholders of their unique reputation and to emphasise that they are blamed for issues beyond their mandates. EFSA and ECHA admitted their frustrations related to audiences' misunderstanding of their role:

> The most difficult criticisms are those that are just unfair because the people criticising us have clearly not taken the minimal effort to check what we are doing. If there is criticism about our scientific assessments, the process, or if the Parliament considers that we are not acting in the public interest, we will take an immediate action […] The problem is receiving criticism on something that we cannot do anything about, such as the role of EFSA. (EFSA representative #2)

To that end, EFSA used the opportunity to set its reputation uniqueness in stone by repeatedly explaining its roles and tasks: 'Many of the responses [to public allegations] were concerned with what EFSA's role is. We are a scientific organisation that is not involved in the [risk management, i.e., political] decision-making, and while our assessment is used by the Commission and Member States to make decisions, we do not make those decisions ourselves' (EFSA representative #2).

EFSA and ECHA's primary aim was to communicate its reputation uniqueness to relevant stakeholders by emphasising how EU agencies are different from EU institutions (i.e., the European Commission and the European Parliament), and most importantly, by reminding stakeholders that EU agencies are scientific – not political – bodies in charge of the technical part of the risk regulation process. To illustrate, ECHA engaged in substantial efforts to emphasise that its reputation uniqueness is rooted in scientific contribution as opposed to political action:

> Scientific rigor is probably the foundation, because if that falls, the rest would not matter anymore. The last thing we should do is to become a political body. We are a technical body providing opinions and views to the policy people in Brussels. If they ignore our advice or decide to do something else, that is up to them. Our task is to provide scientific and technical input, and that needs to be scientifically correct. (ECHA representative #1)

In the same vein, EFSA confirmed that it regards its scientific activities as the most important, followed by transparency and independence:

> For us the scientific rigorousness is still the most important. Nevertheless, I would say that scientific rigorousness and transparency are connected. We need to be transparent and to communicate our scientific assessment. That is why you see that EFSA in particular, but also other agencies, publish everything. However, it is important to note that without scientific rigorousness, we have nothing to be transparent or independent about. (EFSA representative #2)

However, while EU agencies put strong emphasis on their technical conduct, they also noted that they are wary about other aspects of their organisational reputation, which implies that agencies are aware of their multifaceted reputation and reputational weaknesses, and they take cautious decisions about which signals to send to external audiences (ECHA representative #1, EFSA representative #2, BfR representative #3, BVL representatives #4, ANSES representative #5). To illustrate, the ECHA representative noted,

> For us scientific rigor is relevant, of course, because if we would not be rigorous that would not be wise. By definition, science has to be proper and correct. At the same time, we need to be efficient, because we are public agencies, people pay our salaries. It also has to be transparent and take all views into account. In the end we deliver a service to the people in general which follows very clear, open, and rigid procedures in order to avoid that we are legally challenged on procedural grounds. (ECHA representative #1)

In the same vein, EFSA noted that it is aware of its core responsibilities and conscious about balancing its multifaceted organisational reputation:

> I would say that the most relevant one is a combination of acting in the public interest—we are a public organisation, we receive all our funds from the public, so that should be our first priority—and scientific and technical rigorousness. Our scientific rigorousness and responsibility to act in the public interest

> mean that we follow rigorous procedures, and we explain ourselves. (EFSA representative #2)

In short, EU agencies predominantly focused on their core reputational vulnerabilities: they attempted to refute reoccurring stakeholder allegations regarding their scientific excellence, transparency, and independence that are regarded as the core glitches preventing the EU agencies from building a strong organisational reputation and, in turn, legitimising their outputs, processes, and behaviour vis-à-vis relevant stakeholders. Furthermore, while EFSA and ECHA simultaneously cultivated their technical, performative, legal procedural, and moral reputation by issuing multiple public responses to stakeholder allegations, one common pattern prevailed: the two agencies referred to the technical reputation as the core foundation of their reputation uniqueness that they focused on safeguarding amidst the glyphosate controversy.

US Environmental Protection Agency amidst the glyphosate controversy: Strategic silence

After the IARC's scientific conclusion in 2015, the EPA initiated the re-evaluation of the risks of glyphosate. In December 2017, the EPA published a draft glyphosate human health and ecological risk assessment for public consultation. In April 2019, after assessing the public comments on the draft risk assessment, the EPA released the 'Glyphosate Proposed Interim Decision' and invited interested parties to provide comments. In the decision, the EPA reaffirmed that glyphosate does not cause cancer in humans, however, it gave additional time for interested stakeholders to provide their input, and after reviewing the received public comments, the EPA published a final decision in 2019 (EPA, n.d.).

After the publication of the IARC's scientific conclusion on glyphosate, the EPA faced similar public allegations as EU agencies in terms of the intensity and content (e.g., the 'Monsanto papers' scandal triggered political superiors, the scientific communities, and consumers' accusations regarding the EPA's scientific, performative, legal-procedural, and moral conduct). However, unlike EU agencies, the EPA followed different response strategies. It engaged in strategic silence (i.e., it did not directly respond to public allegations in the same vein as EU agencies). Differently from EU agencies, the EPA sustained from directly reacting to specific public allegations by elaborating on its processes and outputs; instead, it focused on conducting its core mandates and exercising its regulatory powers. The EPA invested much time and effort in conducting its core regulatory tasks in a very thorough way (EPA representatives #7). It took the time to provide a more comprehensive scientific risk assessment. In so doing, it engaged in more inclusive and

transparent risk assessment processes, assured that those exposed to glyphosate risks (i.e., farmers) are provided with clear risk management guidance and tools, and demonstrated assertive behaviour by issuing strict guidance documents to registrants to stop misleading labelling requirements for glyphosate.

More specifically, the EPA admitted that, in view of high public interest and reputational threats related to the IARC's conclusion, additional efforts were made in terms of transparency and scientific excellence: 'Given the high level of public interest in glyphosate's re-evaluation and the IARC's conclusion regarding glyphosate's cancer potential, additional steps were used for glyphosate to ensure transparency and scientific quality. Following the IARC decision regarding glyphosate, [. . . .] a more comprehensive systematic review of studies submitted to the Agency and available in the open literature was performed' (EPA representatives #7). Furthermore, the EPA managed its legal-procedural reputation more carefully than usual by being more open about the process that led to its scientific conclusion, as well as making sure to grant sufficient time for relevant stakeholders to provide their (technical) input and advice:

> EPA provided additional opportunities to solicit technical advice and feedback from independent experts and the public due to the high level of public interest. […] All supporting documentation was publicly available, which included full study reports, the Agency's individual study reviews (data evaluation records), and the Agency's issue paper detailing the process and decisions undertaken to reach the conclusions based on a weight-of-evidence approach. (EPA representatives #7)

One also observes empirical evidence supporting the claim that severe public allegations encouraged the EPA to cultivate not only its reputation for legal-procedural and technical rigour but also to address the moral implications of its scientific conclusions more scrupulously. The EPA published a document 'giving farmers better information on mode of action, the need for scouting, and how to report potential weed resistance issues, to maintain glyphosate as a tool for growers' (EPA, 2019a). In so doing, the EPA strived to act as a guardian of the health of those likely to be exposed to the glyphosate-imposed risks.

After demonstrating its adherence to the scientific 'gold' standard, due processes, and best moral practices, the EPA continued reinstating its performative reputation. The EPA took an assertive action to 'stop false labelling on products' and 'provide accurate risk information to consumers' (EPA, 2019a). More specifically, based on the IARC's scientific opinion classifying glyphosate as 'probably carcinogenic to humans', California introduced labelling requirements for glyphosate products. To respond, the EPA issued a letter requesting California to follow the EPA's scientific conclusions and repeal the recently introduced labelling requirements (EPA, 2019b). The EPA stated that

Californian authorities introduced a warning statement requirement that is false and misleading because it draws on the IARC's conclusion that contradicts the EPA's position:

> It is irresponsible to require labels on products that are inaccurate when EPA knows the product does not pose a cancer risk. We will not allow California's flawed program to dictate federal policy […]. It is critical that federal regulatory agencies like EPA relay to consumers accurate, scientific based information about risks that pesticides may pose to them. EPA's notification to glyphosate registrants is an important step to ensuring the information shared with the public on a federal pesticide label is correct and not misleading. (EPA Administrator Andrew Wheeler, EPA, 2019b)

In so doing, the EPA demonstrated its regulatory power and authority as well as its ability to suppress those who deviate from its regulatory rules. Such actions are at the heart of performative reputation-management efforts; that is, the agency's power to pressure and 'the ability to intimidate' some of its audiences, to show its might and confidence in the pursuit of its core goals and declared responsibilities (Carpenter, 2010).

Discussion

This study provided evidence supporting the claim that agencies engage in differentiated responses to external signals depending on potential risks that they impose on agencies' organisational reputation (Busuioc, 2016; Busuioc & Rimkutė, 2020; Gilad et al., 2015; Gilad & Yogev, 2012; Maor, 2011; Maor et al., 2012; Rimkutė, 2018, 2020). Agencies were found to be cautious about how their outputs and processes are perceived and provide diverse responses to public allegations based on the anticipated impact of those claims on their multidimensional reputation.

The data presented above suggest that the two sets of agencies responded to the similar public allegations in diverse ways. While both agencies did their utmost to protect their organisational reputation by making their scientific processes more technically rigorous, transparent, open, and inclusive, the EU agencies demonstrated exceptional responsiveness to public allegations, whereas the EPA mostly engaged in strategic silence. The EPA kept silent throughout the entire glyphosate risk-assessment process, implying that it is predominantly focused on providing scientific solutions to the glyphosate-related controversies. The EPA made sure to take the time to arrive at a systematic and comprehensive glyphosate risk assessment, follow appropriate procedural standards, provide clear information on how those exposed to glyphosate risks can manage risks, and demonstrate its regulatory power by enforcing its decisions. The EPA's news releases and public statements aimed not at defending or justifying its scientific output or processes, but at informing the public of its conclusions and enforcing regulations that are in line with its

scientific outputs. Such an approach signalled the EPA's confidence in its conclusions as well as its ability to exercise vigorous regulatory authority by enforcing a coherent implementation of its regulatory rules within the US.

On the contrary, in view of the similar public allegations, EU agencies followed utterly different reputation-management strategies: EU agencies engaged in a significant effort to clarify, justify, and, in turn, legitimise their scientific conclusions and processes. The agency leading the glyphosate risk-assessment process – EFSA – has published four responses to public claims regarding its independence, transparency, and scientific excellence. EU agencies were dedicated not only to delivering on their mandates by carrying their core tasks in an exceptional manner (as observed in the US context), but they also actively crafted their reputation uniqueness by communicating their distinctive missions, roles, and tasks. They predominantly focused on sending strong signals about their core reputational attributes, i.e., they took the opportunity to remind relevant stakeholders that they are scientific – not political – bodies striving for scientific rigorousness. EFSA's executive director, Bernhard Url, has underlined what lies at the heart of EFSA's reputation uniqueness and what the core distinction between political EU institutions and EFSA is:

> It is the role of politicians to represent the values, needs and expectations of their constituents through democratic processes. This is outside the responsibility of organizations such as EFSA, which were created to advise EU policymakers on scientific matters. (Url, 2018: 381)

Conclusion

The intended contribution of this article relates to advancing our understanding of agencies' management of threats to their bureaucratic reputation via strategic responses to grave public allegations. This article illustrated how a reputational account provides a novel perspective to explain substantial inconsistencies in how scientific outputs are legitimised by regulatory agencies vis-à-vis concerned stakeholders. It showed that reputational vulnerabilities and the drive to respond strategically to external expectations play an important role in explaining divergences in agency response strategies in light of stakeholder accusations pointing to an agency's failure to draw on reliable scientific evidence to protect society from unacceptable risks – the responsibility that is at the core of regulatory agencies' mandates.

The article drew on the glyphosate case – a theoretically illuminating case – that enabled us to examine how diverse reputational reserves (strong versus developing organisational reputation) guide agency behaviour regarding damaging public allegations. The results of this study suggest that agencies with an evolving reputation are inclined to respond vigorously to stakeholder allegations challenging their core responsibilities and targeting their basic

reputational vulnerabilities. The findings suggest that agencies with a developing reputation focus on reiterating their reputation uniqueness (i.e., how they are different from other organisations in the polity and what their distinct organisational traits are). On the contrary, agencies with a strong overall reputation tend to keep silent during the process of delivering outputs and communicate their confidence in their scientific outputs by sending strong procedural and performative signals aimed at exhibiting their regulatory power and authority.

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