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Chapter 6

On Arguments from Ignorance in Policy-Making



Corina Andone and José Alfonso Lomelí Hernández

Abstract “Schools should remain open during the COVID-19 pandemic, because there is no evidence indicating that children can get the virus.” Many European policy-makers have employed such arguments from ignorance to argue for a course of action in a situation in which science lacked vital information. What is particularly challenging about such arguments is that, despite the ignorance involved, they are used to justify policies meant to deal with practical problems. Limited information (‘there is no evidence indicating that children can get the virus’) is used as a basis for decision-making that might have significant consequences for the population (‘schools should remain open’). This chapter explains the intricate but unavoidable relationship between arguments from ignorance and policy-making. Moreover, evaluation criteria are developed to distinguish between reasonable and unreasonable arguments from ignorance in policy-making by taking into consideration the structure of these argument types and their contexts of application. Finally, the chapter assesses two real-life instances of arguments from ignorance employed by the European Commission and the European Center for Disease Prevention and Control during the COVID-19 pandemic. Such an assessment sets important steps in understanding how arguments from ignorance can facilitate or reduce acceptance of the measures proposed by policy-makers.

Keywords Arguments from ignorance · Policy-making · Risk · Uncertainty

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6.1 Introduction

Policy-makers are oftentimes confronted with situations of high risk and uncertainty in which key evidence for decision-making is lacking. Such situations pose particularly difficult challenges, because the absence of vital information makes it very difficult to handle appropriately the problems at issue. A few prominent examples of such situations include the emergence of bovine spongiform encephalopathy (BSE) in the United Kingdom (mad cow disease), the Ebola outbreak in several countries, and the most recent case of the COVID-19 (coronavirus) pandemic. In such cases, the only certainties for policy-makers are the high risks and the possible devastating consequences for society at large in the short and long term.

Notwithstanding the lack of a strong scientific basis, the threats posed by unexpected situations constrain policy-makers to take decisions against the backdrop of uncertainty. Decision-makers need to adopt certain measures by relying on ‘no scientific evidence’ (Cummings, 2010: 125) or otherwise the consequences for inaction may be catastrophic (Cummings, 2010: 57). Even if no evidence is available, policy-makers have to decide that certain behaviors should be adopted (such as maintaining distance from one another), that certain measures need to be imposed (such as a curfew after 21.00 h.), or that some things are allowed (such as young children going to school). A paradoxical situation emerges between scientific evidence and policy-making. Although science cannot provide conclusive evidence about the risks involved, policy-makers still appeal to it for finding certainty (cf. van Asselt & Vos, 2006; Weingart, 1999).

In turn, scientists involved in research during uncertain situations attempt to provide a strong basis for political decision-making. Despite the obvious situational limitations, they have to assess risks and form judgments in the same contexts of paramount vagueness, while being pressured by policy-makers’ requests for information to implement urgent policies to address the risks posed by the novel situations.

The synergy between policy-makers and scientists, although desirable, may come at the expense of being wrong. When policy-makers justify their decisions, they employ what are known as ‘arguments from ignorance’ (Cummings, 2010; Hinton, 2018; Robinson, 1971; Walton, 1996). What is particularly paradoxical about such arguments is that, despite the ignorance involved, they are used to justify specific policies meant to deal with practical problems. For example, during the emergence of the COVID-19 pandemic in 2020, no evidence had been found that the coronavirus transmits to children up to the age of 12. Based on that, policy-makers in some countries, such as the Netherlands and Denmark, concluded at the start of the pandemic that it was safe for children to play together outside and even go back to school. In this example, an argument from ignorance on the scientists’ side provided the basis for a political decision, authorizing something with significant consequences for the population.

While expert advice has become an undeniable fact of modern-day policymaking (cf. Andone & Hernández, 2019), the precise interaction between science and policy-making in situations of risk and uncertainty is insufficiently studied, let alone fully explained. The use of arguments from ignorance for policy-making is very much different from situations where scientific information based on ‘no evidence’ is used for technical decision-making, such as in clinical medicine (Parkhurst, 2017). In such situations, as we will explain in Sect. 6.2, the absence of evidence is taken as a fact in the area of concern, while policy-making is about values and preferences, choices between different options, and regulation between conflicts and cooperation. It is therefore important to clarify and explain the policy-science interface in cases where no evidence is available. This paper aims to contribute to current debates on the connection between arguments from ignorance and policy-making by answering three questions:

- (i) What is the connection between arguments from ignorance and policy-making?
- (ii) How can we distinguish between reasonable and unreasonable uses of arguments from ignorance in policy-making?
- (iii) How can we evaluate real-life examples containing arguments from ignorance in policy-making?

In Sect. 6.2, we will explain an unavoidable tension between science and policy-making that needs to be addressed to make progress in decision-making. Such tension involves an obligation for policy-makers to employ arguments from ignorance for precautionary reasons. In Sect. 6.3, we will discuss the forms, roles, and effects of arguments from ignorance when they are employed by policy-makers in situations of uncertainty. We will present four criteria that can be applied to distinguish reasonable from unreasonable arguments from ignorance, pointing out that unreasonable uses of these arguments can lead to impaired measures or even dangerous ones. Finally, in Sect. 6.4 we will evaluate two real-life examples of arguments from ignorance employed by the European Commission and the European Center for Disease Prevention and Control. Such an assessment sets important steps in understanding how arguments from ignorance can facilitate or reduce acceptance of the measures proposed by policy-makers.

6.2 Arguments from Ignorance in Policy-Making: A Forced Marriage

The use of scientific knowledge by policy-makers has become a fact in today’s society, even in cases in which the quality of science is very much contested (Parkhurst, 2017). Scientific evidence matters for policy-making to such an extent that it is considered

unreasonable not to base important social policies on it.¹ The use of scientific insights makes policy-making arguably more objective by offering insights on causal questions, and for making plausible predictions about the future (Montuschi, 2017: 57). A good illustration of this idea is present in UNICEF's advocacy toolkit stating that 'evidence for advocacy *provides credibility and authority* to the organization, allowing us *to convince* decision makers to support an issue' (UNICEF, 2010: 11) (our italics). The same idea is rendered by the European Food Safety Agency (EFSA) in its 'Guidance on communication of uncertainty' (2018) in which it is explained how the agency acts as "a scientific source of advice [...] to *improve* consumer *confidence*" (EFSA, 2019: 11) (our italics).

There has been a large interest among scholars in the use of evidence for public policy-making. However, most work on the subject has failed to engage with the use of claims based on arguments from ignorance which are so commonly employed in novel situations of high uncertainty (cf. Cummings, 2015, 2020, EFSA, 2019). These claims are part and parcel of policy-making when no knowledge is yet available for decision-making, both in cases of uncertainty regarding technological risks (e.g. 5G) and natural risks (e.g., BSE, COVID-19) (cf. EFSA, 2019: 14).

As science raises questions, gives answers, and informs policy-making, searching for confirming evidence is not the entire story. One also needs to look for the lack of evidence to enable decision-making (cf. Montuschi, 2017). After all, science does not provide advice to policy-makers only on the basis of corroborating evidence, but also on the basis of lack of evidence.² In other words, one should err on the side of caution: although strong scientific evidence on causal relations might be lacking, policy-makers should adopt measures to prevent the occurrence of certain risks, and they have to do it in anticipation of further risks. Only in this way science can provide appropriate grounds for deliberating about what a situation might be or whether taking a course of action is worthwhile at all. As Boyd (2013: 1) explains, "strictly speaking, the role of science should be to provide information to those having to make decisions, including the public, and to *ensure that the uncertainties around that information are made clear*" (our italics).

Boyd (2013: 2) also points out that "the world does not stop at the point where scientific certainty ends, and *those implementing policy usually have no choice but to continue making decisions and implementing actions when there is scientific uncertainty*" (our italics). That is, regardless of the lack of evidence and uncertainty, policy-makers still have to make decisions. The more so as political concerns are not purely

¹ The European Court of Justice (ECJ) has gone so far as consistently obliging Member States to base their views on international scientific research, in particular in the case of technical reports and the like (see Case 178/84, *Commission v. Germany (Reinheitsgebot)* (1987) ECR 1227). The Amsterdam Treaty, in the aftermath of the BSE crisis, has imposed an obligation on the European Commission to take account of "any new development based on scientific facts" ((Art. 95(3)); cf. also Vos, 2000: 236). Obviously, science alone cannot provide all solutions (cf. case C-331/88, *Fedesa*, at 4062. Case C-84/94, *United Kingdom v. Council* (1998) ECR I-5755).

² This idea coincides with the precautionary principle explicitly introduced in the Maastricht Treaty regarding environmental policies, which has later been extended to other policy fields (cf. Vos, 2000: 241, Weimer, 2019). In Case C-180/96, [1998] ECR I-2265, para. 99, ECJ held that "[w]here there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent."

based on science, but also on legal, economic, ethical, and other practical considerations, all of which play a role in the decision-making process. Multiple competing social values and trade-offs are involved in policy-making (Parkhurst, 2017: 5), which go beyond what science offers as evidence for decision-making, particularly in the case of highly contested issues, where multiple concerns are at stake simultaneously. Therefore, science itself cannot provide answers to political questions, which are inherently normative. Policy-makers carry the responsibility of deciding whether an action is needed, while protecting the public goods (such as public health) throughout the decision process (cf. the case of Covid-19 discussed by Paces & Weimer, 2020).

Through their use in policy-making, ‘no-evidence’ claims are employed outside the scientific field in which they were granted. In technical areas of discovery, such as medicine, biology, or technological studies, ‘no-evidence’ claims point at facts. If there is no evidence that a certain effect occurs, the absence of evidence is taken as a fact in the area of concern. But using scientific insights for policy-making oftentimes raises concerns and challenges for objectivity, if only because policy-making is about values and preferences, choices between different options, and regulation between conflicts and cooperation. While scientific information remains uncertain in some issues, policy-makers can exploit this uncertainty to the extent of presenting the absence of a certain effect as proof for the truth or falsity of a certain decision. On that basis, politicians might draw different conclusions according to their own preferences. Since policy-making involves competition between different political interests, this fact is fundamental for understanding that the ultimate goal for some political actors is personal success (cf. Parkhurst, 2017: 66).

Parkhurst (2017: 19) points at this type of situations as confusing certainty of an effect (the certainty that something is not the case or will not lead to something) with desirability of an outcome. Take for instance, the previous example in which policy-makers decided that children may go to school during the COVID-19 pandemic, because there was no evidence that they could get the virus. There was much pressure from various stakeholders to allow children to go back to school rather than staying with their parents who were obliged to work from home. Little if any criticism was raised to governments about what ‘no-evidence’ actually meant. Some critics pointed out that no-evidence could arise simply because little research on the subject has been carried out, or because the research that had been carried out in such a way that internal and external validity were compromised. In other words, scientific claims based on arguments from ignorance can be strategically manipulated to justify a desired conclusion.

However, scientific insights, including those revealing ‘no-evidence’ are used to help policy-makers decide what to do in situations of risk and uncertainty. Such insights are considered in areas of practical concern (Montuschi, 2017) resulting ultimately in political decisions. Although those decisions are inherently based on values and preferences, since politics is guided by such characteristics, they cannot be avoided in pressing circumstances. At best, those decisions will be justified by taking into consideration both scientific insights and the values invoked by different stakeholders. In any case, politicians must justify their decisions ultimately on arguments.

6.3 Form and Contexts of Arguments from Ignorance

6.3.1 Form of Arguments from Ignorance

In argumentation theory, an argument is a constellation of propositions advanced to convince a reasonable critic about the acceptability of a standpoint (cf. Van Eemeren, 2018: 3). The acceptability of certain propositions is presented as a sufficient reason for accepting a disputed standpoint, and for this reason, no argumentative discussion can be successful without having acceptable propositions. The emphasis on acceptability is the reason why inconclusive and disputable propositions are avoided as much as possible in a discussion.

However, discussants often rely on limited, partial, or even complete lack of information when engaging in a discussion. In the specific case of arguments from ignorance, a descriptive standpoint (according to which *P* or *No-P* are a fact³) is said to be acceptable by pointing at a certain epistemic gap. More specifically, someone is expected to believe something on the basis of having insufficient or no evidence for the opposite proposition.⁴ For example, “There is no malaria in the country, because no residents with the disease were found.” In this example, the absence of evidence confirming the presence of malaria is advanced as a reason for believing that malaria is not present in a certain country. Put in a nutshell, the structure of arguments from ignorance⁵ is the following (Fig. 6.1).

	Version 1	Version 2
Descriptive standpoint	<i>P</i>	<i>No-P</i>
Argument	There is no evidence for <i>No-P</i>	There is no evidence for <i>P</i>

Fig. 6.1 Form of arguments from ignorance

³ We refer to a descriptive standpoint following van Eemeren et al. (2007: 37) as expressing a proposition describing a fact.

⁴ There is a distinction regarding ‘no evidence’ claims in argumentative situations. On the one hand, ‘no evidence’ claims can be used to attack an opponent’s argumentation (‘you have no evidence for what you say’ = ‘what you say is false’). This use results from the dialectical nature of argumentation in which discussants confront their views by doubting or attacking each other’s argumentation. On the other hand, ‘no evidence’ claims can be used to support one’s own standpoint. This use refers to the inferential relation between arguments and a standpoint, and is known in the literature as ‘*argumentum ad ignorantiam*.’ We discuss the second kind of ‘no evidence’ claims throughout the paper. We thank Dima Mohammed and Henrike Jansen for pointing out to us the distinction.

⁵ Cummings (2002) distinguishes between arguments from ignorance in which there is a ‘no-evidence’ premise (just like in our own conceptualization of such arguments), and arguments from ignorance based on a ‘no reason’ premise (‘there is no reason to believe that children are more

Arguments from ignorance give support to standpoints indirectly (Walton, 1992). One example is the presumption of innocence in legal systems. In these cases, the innocence of an accused is granted until proven the opposite. The absence of incriminatory evidence gives support indirectly to the contrary proposition: the accused is innocent. Apart from legal contexts, arguments from ignorance also take place in the scientific domain. For example, an animal species is considered extinct after no specimen has been found in its ecosystem. In this case, the unsuccessful attempt of finding a specimen over a period of time is taken as an indirect proof that the species has become extinct. As can be seen from these two examples, the overall quality of arguments from ignorance largely depends on the relevant inquiry that must be conducted for the case at hand. Both in the case of the accused person and the case of the extinct species, the justification for the standpoint is as robust as exhaustive the inquiry is. It goes without saying that the inquiry in each case demands different procedures and reliability standards, but in all cases the point is the same: if a reliable and extensive inquiry has been carried out to confirm proposition *P* and the attempt was unsuccessful, the failure of confirmation is advanced as justification for *No-P* or vice versa.

6.3.2 *Fallacious Versus Reasonable Arguments from Ignorance*

As with any other type of argument, arguments from ignorance can be fallacious or reasonable depending on whether they are conducive to support the tenability of a standpoint in view of reasonableness standards or not. Intuitively, it is easy to say why arguments from ignorance can be fallacious: they bring no direct justification for believing something. Lack of proof or evidence for a proposition is too weak to conclude that the proposition is true or false (Copi & Cohen, 2009: 142). As scholars have pointed out (Robinson, 1971), ignorance is not the best source of knowledge; not to mention that absence of evidence does not count as evidence for an absence (Bodlović, 2019: 589). For example, one cannot reasonably believe that some product is healthy by pointing out that it has not been proven unhealthy. This example is fallacious, because it might be that the product is neither unhealthy nor healthy, and simply trivial for human well-being. Another possibility is that the procedures carried out to evaluate if the product is unhealthy are not appropriate for the matter under discussion. For example, ‘unhealthy’ could have been taken as ‘containing no toxic ingredients’. In that case, the product might be free from toxic ingredients while still containing big amounts of sugar or fat. In this situation, the

susceptible to the disease, therefore children are not more susceptible to the disease’) and ‘no scientific’ justification premise (‘there is no scientific justification for not eating beef, therefore it can be eaten by everyone’). However, we characterize arguments from ignorance as being generally based on a ‘no evidence’ premise, based on the fact that also the other two types of premises amount ultimately to ‘no evidence.’

product would be unhealthy without necessarily containing any toxic ingredients. In short, the absence of specific evidence in favor of a certain proposition does not necessarily imply that the opposite proposition holds true.⁶

To identify the fallacious version of arguments from ignorance, at least two aspects must be considered: its *logical assumptions* and its *pragmatic purposes*. Arguments from ignorance are based on two *logical assumptions*. The first one is that every proposition has a contradictory version of itself. For example, the proposition “it is raining” is in contradiction with “it is not raining”. The second assumption is that two contradictory propositions cannot be true at the same time. In logic, this is known as the non-contradiction principle (NCP) on which classical logic is based. Although developments in logic have challenged the NCP (Priest, 2002), it is widely accepted in deliberative contexts and scientific discussions that two contradictory propositions cannot simultaneously be true. In fact, the inferential process of arguments from ignorance is based on the NCP because by having two propositions to choose from and having no evidence to support one of them, the other proposition gains indirect support.

Nonetheless, the first logical assumption opens a possibility for a fallacious version of the argument. Every proposition has a contradictory version of itself, but contradiction is not the only relationship among propositions, there are also contrary propositions (Van Eemeren et al., 2007: 22).⁷ For example, “it is raining” is contrary to “it is sunny.” The difference between contrary and contradictory proposition is crucial for arguments from ignorance because contradictory propositions must have different truth values from each other (either true or false), while contrary propositions can be both false at the same time. “It is raining” and “it is sunny” are both false on a cloudy day. Since contrary propositions are just as relevant as contradictory propositions in a discussion, it is not enough to provide indirect support to (p) by discarding a contradictory proposition ($\sim p$) if there are contrary propositions (q) for an issue under discussion. To illustrate this point, we turn to a concrete example.

During the coronavirus pandemic in 2020, a recurrent issue among politicians was whether lockdowns were an effective measure to deal with the crisis because there were many doubts about the best available option for containing the spread of the virus. Two standpoints on this issue were (i) “Lockdowns are an effective measure to contain the pandemic,” and ($\sim i$) “No lockdown is an effective measure to contain the pandemic.” In this case, the absence of evidence for the effectiveness of lockdowns would have not been enough to provide indirect justification for standpoint ($\sim i$) because there are different variables that give rise to contrary standpoints, namely

⁶ This idea can be traced back to the traditional distinction between “mediate opposition” and “immediate opposition” of terms. Rigotti and Greco (2019: 115) explain that ‘mediate oppositions, unlike immediate ones, present intermediate values between the extremes (it is possible not to be rich without necessarily being poor). On the contrary, in immediate oppositions, the negation of the former predicate coincides with the affirmation of the latter’ (see for a concrete example and its representation, Fig. 6.4 in Rigotti and Greco (2019: 116)). We would like to thank one of the anonymous reviewers for pointing out this idea.

⁷ See also Rigotti and Greco (2019: 26–27) for a more elaborate discussion of the conceptual domain of contraries and contradictories.

(i_a) “Lockdowns are effective when imposed in due time,” (i_b) “Lockdowns are effective when the population follows the safety guidelines,” etc. To provide indirect justification for (\sim i), it would be necessary to dismiss all the relevant variables that might prove lockdowns effective, because otherwise, any attempt of justifying the standpoint indirectly would be partial, and therefore, fallacious. Put simply, it is not possible to provide indirect justification to a proposition by rejecting an opposite one if there are other relevant propositions to be considered. The indirect support that arguments from ignorance provide is appropriate only when the issue under discussion can be reducible to a yes/no question. If the issue at hand is better portrayed as an open question with possibly multiple answers, arguments from ignorance are not an appropriate way to justify a standpoint.

Let us discuss the *pragmatic purposes* of arguments from ignorance, which is the second feature that can make them fallacious. Arguments are commonly used for epistemic and pragmatic purposes (see respectively Dutilh Novaes, 2021; Walton, 2006: 299). The purpose of an argument is epistemic when the motive for having a discussion is achieving truth or another epistemic value like certainty, clarity, etc. An argument is used for pragmatic purposes when the outcome of the discussion is meant to influence or regulate a decision, behavior, or situation. According to this distinction, an epistemic discussion takes place when discussants are confronted with knowing something, and a discussion is pragmatic when they are confronted with making a decision.

The distinction between epistemic and pragmatic discussions is relevant for arguments from ignorance, because depending on the type of discussion where arguments are advanced, different reasonableness standards apply to them. Epistemic discussions paradigmatically take place in the scientific domain, while pragmatic discussions are archetypical in political deliberation. To illustrate how reasonableness standards vary from one case to another, some examples from the scientific and the political domains are presented.

Arguments from ignorance are common in science. A clear example comes from discharged patients from cancer. Cancer is diagnosed in a relatively easy way, by direct confirmation of cancerous cells (Kasivisvanathan et al., 2018; Ramaswamy et al., 2001). However, to consider the disease under control, a more elaborate procedure is required. After undertaking a cancer treatment, patients are submitted to different analyses depending on the type of cancer they had. The analyses might include X-rays, blood tests, biopsy, etc. If the result of the analyses does not show evidence of cancerous activity or cancerous cells, the patient is said to be under remission. If the situation remains the same for a specific time-lapse, the disease is assumed to be under control and patients can be discharged (Gerlach et al., 2003; Greenberg et al., 1996).

The cancer example shows that arguments from ignorance are more or less regulated in science. There are clear circumstances in which they apply, and their procedures are methodologically designed to give indirect support for a certain standpoint. Experts are trained to identify the situations in which arguments from ignorance are pertinent, and they are able to recognize the absence of evidence depending on the issue at hand. In the case of cancer, practitioners have to know which test to carry out

depending on the variety of cancer, what kind of cancerous activity must be absent in the results, and how long the time-lapse should be to assess the development of the disease. Although certainty is never achieved (the notion of remission points out that cancer might have gone unnoticed), the procedures are standardized to a greater extent and their rationale is legitimized within the field (Walton, 1996). As a result, the legitimate uses of arguments from ignorance are specified in each field of expertise.⁸ When there is doubt about the soundness of an argument due to novel situations or atypical cases, the controversies are resolved internally by appealing to the reasonableness standards of each scientific discipline. In sum, the legitimate uses of arguments from ignorance in science are determined by the methodological procedures and the scientific values of each field.

Unlike in the case of science, arguments from ignorance in policy-making are anything but standardized. One reason for this is that decision-makers not only deal with states of affairs but mainly with preferences among different choices, negotiations, emergencies, etc. Since arguments from ignorance are indispensable in policy-making, it is necessary to mention some features to distinguish their legitimate uses in deliberation.

The distinction between epistemic and pragmatic discussions becomes crucial at this point. In science, arguments from ignorance rely ultimately on probabilities and certainty is never achieved. Consequently, science—although invaluable as a source of information—cannot provide grounds to favor a certain standpoint over another in a novel situation, because the replication of events that gives strength to probabilities is absent. Policy-makers, nonetheless, are confronted with situations that demand decision-making, and therefore, they must act *as if something were the case*. Political affairs need to bridge uncertainty with concrete actions that will have tangible consequences, either appropriate for dealing with the problem at hand or not.

The crux of the matter in deliberations is what allows policy-makers to advance arguments from ignorance in the first place. One possible answer is the uncertainty of novel situations. However, this point cannot be taken for granted and it does not enable drawing conclusion indiscriminately. The first feature that arguments from ignorance must have in policy-making is an *overriding reason* to act given the uncertainty at hand. This is important because uncertainty itself is not a sufficient reason to act, in fact, it can be taken as a reason not to act. An overriding reason should explain why it is necessary to undertake a course of action in the midst of uncertainty. Thus, it must be shown that uncertainty poses a threat or opens up a valuable opportunity for society at large. For example, during the coronavirus crisis an overriding reason to act was the fact that even by doing nothing, governments were putting at risk the health of the population. In this case, there was uncertainty about its lethality, the means of containment, and the vulnerability of certain groups, but it was clear that doing nothing counted as having a stance on the issue and accepting the risks that came with it. This was an overriding reason to act during the coronavirus crisis.

⁸ For an underscoring of Walton's idea, see Zarefsky (2014: Chap. 13).

Due the nature of politics, not everyone might agree on what counts as a crisis. For this reason, policy-makers must justify whatever overriding reason they advance for taking action, which means that they have to provide justification for it. Without the presence of an overriding reason and its justification, the use of an argument from ignorance in policy-making would be fallacious because the urgency to act would not be addressed. In this line of thought, the better the justification of policy-makers for acting in a situation of emergency, the better support they gain for their position. The point of such a justification is to explain to all the relevant stakeholders what is at stake in a novel situation. This point is crucial for arguments from ignorance because the clearer the possible risks are to stakeholders, the more sense it would make to rely on these arguments, especially in cases where key information is unavailable.

Overriding reasons are important for achieving agreement on possible threats posed by novel situations, but there are cases when nobody doubts there is a crisis and the issue is how to deal with it. Even in these situations, politicians cannot draw conclusions indiscriminately about the crisis no matter how much uncertainty there might be. For example, during the coronavirus crisis, it was irresponsible for politicians to say that hydroxychloroquine was an appropriate treatment for the coronavirus (The Guardian, 7/04/2020) because such an assertion is outside their competence. The uncertainty brought by the coronavirus impacted different issues: health risks, medical treatments, economic disturbances, containment measures, etc. But the uncertainty of the coronavirus did not make everyone equally knowledgeable on those matters, in the best case it made some people even more ignorant than others. Therefore, when it comes to proposing containment measures for situations of crisis, politicians can only advance standpoints on issues relevant to their competence, that is, the administration of public resources, its logistics, and safeguarding the population. This point leads to the second feature that makes arguments from ignorance fallacious in policy-making.

Although policy-makers have to consider a wide range of matters when dealing with situations of crisis, their main standpoint must be prescriptive. A prescriptive standpoint (van Eemeren, 2018: 4) promotes or prevents a certain measure through normative expressions like “X should (not) be done,” etc. These prescriptive standpoints concern the necessary measures to contain a crisis and the appeal to ignorance must count as a reason for justifying such measures. If the argument from ignorance is used to defend a different kind of standpoint, the argument becomes fallacious, because policy-makers should not tell people what to believe in situations of uncertainty, but to decide what to do about them. In other words, the assessment of the situation is left to the people, the management of the situation is in the hands of the policy-makers. This idea is inspired by the distinction made in risk studies between risk assessment (such as the risks associated with certain products) carried out by scientists and risk management (deciding what to do about those risks) carried out by policy-makers (cf. Vos, 2000: 229, Weimer, 2019).

1	Measure X should be carried out	<i>Standpoint</i>
1.1a	It is necessary to take action given a risk situation S	<i>Overriding reason</i>
1.1a.1	Not acting <i>might result</i> in negative consequences C	
1.1b	P : Situation/object p has property q	<i>Argument from ignorance</i>
1.1b.1	There is no evidence for $No-P$	
1.1c	Measure X can lead to solving S given P	<i>Causal reason</i>

Fig. 6.2 Argumentation in policy-making containing an appeal to ignorance

The following figure presents the structure⁹ of pragmatic argumentation in a deliberative context in which an argument from ignorance is advanced as part of the justification. The pragmatic argument (van Eemeren, 2016) is composed of a prescriptive standpoint, an overriding reason, an argument from ignorance, and a causal reason. The course of action prescribed in the standpoint (1), is supported by coordinative argumentation: the overriding reason (1.1a and 1.1a.1) to maintain that a possible threat makes it necessary to take action to manage the risk, the argument from ignorance (1.1b and 1.1b.1) to assume that a state of affairs is true in view of the absence of evidence to confirm the contradictory proposition, and the causal reason (1.1c) to establish a connection between the measure at hand and the situation of risk in view of the state of affairs granted in the argument from ignorance (Fig. 6.2).

To sum up, arguments from ignorance are used to provide indirect support to standpoints in situations in which inconclusive or no evidence is available. Their rationale depends on the assumption that the lack of evidence for believing something provides enough grounds to believe the opposite thing. Given the intrinsic features of arguments from ignorance and the situations in which they can be used, there are some aspects that make such arguments fallacious:

- a When the argument is advanced to answer an issue that allows more than two possible answers;
- b If the argument is advanced in an epistemic context, when it does not fulfill the reasonableness standards applicable to its field of expertise;
- c If the argument is advanced in a deliberative context, when it is not accompanied by an overriding reason that explains why it is necessary to undertake an action in a situation of uncertainty, and what the available information at the time is;
- d If the argument is advanced in a deliberative context, when it supports a standpoint that is not prescriptive.

⁹ For the sake of simplicity and clarity, we use the pragma-dialectical notational system to indicate the argumentation structure.

6.4 Real-Life Examples of Arguments from Ignorance in Policy-Making

This section discusses the overall quality of two arguments from ignorance used by policy-making institutions: the European Commission and the European Center for Disease Prevention and Control. The arguments were selected from official documents issued in the context of the COVID-19 pandemic. The purpose of these documents was to keep the public informed while providing guidelines for the management of the crisis. For presentational purposes, all the arguments are reconstructed analytically, which means that only the relevant information for resolving a difference of opinion on the merits is considered (van Eemeren, 2018: 96).

6.4.1 Case 1

The first argument from ignorance appears in the food safety guidelines issued by the European Commission (EC) through the Directorate-General for Health and Food Safety. The document addresses several questions related to the risks involved in food management and production during the pandemic. One of the issues addressed in the document was the risk of getting infected from food. In this regard, the position of the EC was that “there is no evidence that food poses a risk to public health in relation to COVID-19” (European Commission, 2020: 3). This example illustrates how an argument from ignorance with an epistemic basis is used for decision-making purposes, because the risk of getting infected from food is addressed by the absence of confirming evidence. The fully-fledged argument would be ‘Food does not pose a specific risk to public health in relation to COVID-19, because there is no evidence to confirm any specific risk.’

On the basis of the argument from ignorance, the EC advised to take cautionary measures when shopping or handling food “Staff [should wear] gloves and frequently replaces them, or otherwise frequently [wash] his/her hands [...] customers in shops should not handle food other than what they intend to purchase” (European Commission, 2020: 6). The logic of these measures is that any surface might lead to indirect contamination by touching it, food included. However, advancing this line of argumentation is somehow paradoxical because the EC affirms throughout the document that no evidence had been found that food was a source or vehicle of infection, but still the EC advised to follow those measures for handling food. This misalignment in the argumentation is problematic not only because of the confusion it might produce, but also because it raises the question whether the appeal to ignorance is a legitimate one or not. In this regard, the reasonableness of the example can be tested by applying the fallaciousness criteria discussed in the previous section. For this purpose, first the reconstruction of the EC argumentation is provided in Fig. 6.3.

1	Measure 1. Staff who manipulates food should wear gloves and replace them frequently, otherwise washing their hands frequently. Measure 2. Consumers should only handle food they intend to purchase.	<i>Standpoints</i>
1.1a	(It is necessary to take cautionary measures given the COVID-19 pandemic.)	<i>Overriding reason</i>
1.1a.1	(Not acting <i>might result</i> in spreading the disease, increasing the number of hospitalizations, deaths, etc.)	
1.1b	Food does not pose a specific risk in relation to COVID-19.	<i>Argument from ignorance</i>
1.1b.1	No evidence was found to confirm that food poses any specific risk.	
1.1c	(Measures 1 and 2 <i>can lead</i> to control the pandemic given that food does not pose any specific risk in relation to COVID-19.)	<i>Causal reason</i>

Fig. 6.3 EC argumentation to justify measures related to food management

The *first criterion* to decide if an argument from ignorance is fallacious is whether the argument answers a closed question or not. In this example, the argument counts as an answer to a closed question because food either poses a specific risk in relation to COVID-19 or not, and no other option is available for that matter, so this criterion is satisfied appropriately. Since the argument was taken from an epistemic context, the EC had to show that the argument satisfied the reasonableness standards of its field of expertise, which is the *second criterion*. For this matter, the EC referred to the European Food Safety Authority (2020) to guarantee that the argument from ignorance satisfied the pertinent reasonableness standards, and therefore, the criterion is satisfied by appealing to the authority of the EFSA. The *third criterion* concerns the overriding reason which makes it necessary to rely on an argument from ignorance. In this case, the overriding reason was the pandemic itself, and the justification to act remained implicit because it was part of the background information. Since the threats of the pandemic were already clear by the time of the publication of the document, it was not necessary to explain them further. Nonetheless, the urgency of the situation was acknowledged in expressions like “the large scale of the pandemic” to refer to threats posed by the virus. Lastly, the *fourth criterion* is whether the main standpoint in the argumentation is prescriptive or not. This criterion is also satisfied, because the measures prescribed actions to safeguard public health by means of the modal “should.” Overall, it can be said that the ignorance appeal is appropriate, since the EC argumentation complies with the four criteria for using an argument from ignorance in policy-making.

Furthermore, the reconstruction of the argumentation can explain why the argumentation is somehow paradoxical. The misalignment between the recommendations and the argument from ignorance is evident in premise 1.1c in which the causal

relation is presented. If food poses no specific risk of infection, why should there be cautionary measures? This point is clarified by acknowledging that the recommendations are not additional measures related to food, but specifications of the general guidelines that were already applicable at that time. The awkwardness of suggesting cautionary measures after affirming that food involves no risk in relation to COVID-19 could have been avoided with a better presentation. For example, by saying that “No specific measures for food are necessary apart from the general guidelines concerning hand-hygiene and limiting human contact to the strictly necessary, because no evidence has been found that food poses a specific risk to public health” and then explaining what hand-hygiene and human contact involve in relation to shopping food. Therefore, this shortcoming in the EC argumentation is related to how the information was presented rather than to its reasonableness.

6.4.2 Case 2

The second example appears in a technical report issued by the European Center for Disease Prevention and Control (ECDC) on 6 August 2020. ECDC is an EU agency aimed at strengthening Europe’s defense against infectious diseases. It supports the Member States in preparing for cross-border health threats, and carries out activities such as surveillance, scientific advice, etc. The purpose of the report was to guide policy-makers on the issue of closing/opening schools during the pandemic. Since it was not clear how the virus affected children and the role they played in spreading the disease, the closure of schools was highly controversial in some countries. For this reason, it was important at the time to have a report elaborated by specialists to address this issue.

Contrarily to the previous example, the closure of schools was highly disputed in the European Union, some countries decided to close them while others kept schools open. Accordingly, there were many arguments for and against each of the positions. In view of the disagreement, the report of the ECDC had to address different issues: the risk of transmission between different groups (adults-adults, children-children, children-adult), the impact of school closures on children’s wellbeing, the impact of schools in community transmission, etc. As a result, the general argumentation of the ECDC is rather complex because it is highly technical in nature and it deals with several issues at the same time. The overall structure of the argumentation can be summarized as in Fig. 6.4.

Instead of promoting a concrete line of action, the main standpoint prevents treating schools differently from other settings. This subtlety in the standpoint impacts the entire structure of the argumentation, because it becomes an instance of the negative variant of pragmatic argumentation (van Eemeren, 2016:17). Consequently, all the other elements in the argumentation are adjusted to provide an appropriate justification to the standpoint. In the overriding component, it is stated that there is no reason to take action, because there is no causal connection to take the measure. In the same line of thought, the argument from ignorance is advanced to support the

1	Schools should not be treated differently from occupational or leisure settings.	<i>Standpoint</i>
1.1	It is not necessary to take special measures for schools in the COVID-19 pandemic.	<i>Overriding reason</i>
1.1.1a	Closing schools leads to negative effects on children's wellbeing.	<i>Causal reason</i>
1.1.1b	Closing schools does not have a significant impact on transmissions.	
1.1.1b.1	Schools are not driving COVID-19 transmission in communities.	<i>Argument from ignorance</i>
1.1.1b.1.1	There is no significant evidence that schools are driving COVID-19 transmissions in communities.	

Fig. 6.4 ECDC argumentation concerning the handling of schools

causal element in the general argumentation. This example illustrates that these four elements play a role when arguments from ignorance are advanced in deliberative contexts, regardless of the action being proscriptive instead of prescriptive.

The reasonableness of this example can also be assessed with the criteria previously presented. The *first criterion* is satisfied because the argument answers the closed question whether schools are driving COVID-19 transmissions within communities. The answer is that schools are not driving the transmission (premise 1.1.1b.1 in the reconstruction), because no significant evidence was found to confirm the opposite. The *second criterion* about fields of expertise is important in this example because the argument is epistemic in nature. The ECDC report was written by experts with the purpose of condensing all the scientific information for the issue at hand. Although it is not possible to show in this paper that the report complies with the reasonableness standards of its scientific community, it is reasonable to believe that the argumentation satisfies those standards because of the twenty-seven experts (internal and external to the ECDC) who contributed to the report with different specializations: epidemiology, virology, risk assessment, etc. The third and fourth criteria for arguments from ignorance apply in deliberative contexts. Although the ECDC report is epistemic oriented, the argumentation did not take place in a vacuum, but in the middle of a political turmoil. This is why the report also considered issues like absenteeism and parental concerns. Therefore, criteria three and four are also relevant in this case. The *third criterion* is about considering an overriding reason to act. As discussed earlier, the argumentation in this example maintains that there is no reason to act because its rationale is to prevent imposing measures on schools. In this way, the overriding element is accounted for by emphasizing that there is no reason whatsoever. Lastly, the *fourth criterion* concerns the main standpoint being prescriptive or proscriptive as in this case. Although the standpoint of the ECDC is

adequate in this regard, it is worth mentioning that its standpoint is rather cautious given the issue that had to be addressed, namely whether schools should not be closed or not. However, this point can be explained by acknowledging that the ECDC cannot establish policies by itself because its role is only to present information to policy-makers from a scientific perspective. In sum, the ECDC's argumentation is reasonable, because it is sensitive to the context where it is advanced and complies with the general structure of arguments from ignorance.

Arguments from ignorance are relatively common in policy-making, especially when uncertainty is somehow involved. The discussed examples show that arguments from ignorance can be used to promote and prevent measures in policy-making. Depending on the measure at hand, the structure of arguments from ignorance diverges to a certain extent to compensate for the nuances of each case. Nonetheless, the criteria to distinguish reasonable from fallacious argumentation remain consistent because the rationale of the argument and its conditions of applicability remain the same. The rationale of arguments from ignorance is to take a position on a two-sides issue in view of finding no evidence to support the opposite position. Their applicability conditions vary between epistemic and deliberative contexts. The former holds when the matter boils down to believing something, and the latter holds when the matter concerns decision-making. The theoretical model presented here, although neither definite nor complete, works both for analytical and evaluative purposes. It provides analytical cues by indicating which elements to look for when examining an argument from ignorance. Moreover, it is useful for evaluative purposes, because it indicates why certain elements contribute to the reasonableness of the argumentation or not.

6.5 Conclusion

In this paper, we have explained the paradoxical yet unavoidable relationship between arguments from ignorance and policy-making. We demonstrated the importance of distinguishing the reasonable variants of this form of arguing from its unreasonable counterparts, and developed four assessment criteria for dissociating the two variants in the context of policy-making. We also showed how the four criteria can be applied on two real-life cases in which arguments from ignorance are employed.

One of the main implications of this study is that a proper understanding of the use of arguments from ignorance in decision-making is vital for the potential effects entailed by the use of this argument form. The quality of policy-making can be significantly improved if account is taken of the fact that this argument type should be used in taking precautionary measures in which the lack of evidence is acknowledged in public policy. What is important is not to avoid such arguments altogether, which would actually weaken the overall reasoning in policy-making, but rather to base final decision-making on the reasonable forms of this argument type. This is particularly important in the case of decision-making in times of crisis in which urgent action is required on the part of policy-makers that is based on a

proper assessment of the risks. In assessing, managing and communicating risks, arguments from ignorance play an important part by making it clear that the absence of scientific evidence is taken into due account.

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References

- Bodlović, P. (2019). Presumptions and how they relate to arguments from ignorance. *Argumentation*, 33(4), 579–604.
- Boyd, I. 2013. Making science count in government. Point of view. *eLIFE*: 1–4.
- Commission v Germany*, Case 178/84. (1987). European Court Report 01227, ECLI:EU:C:1987:126.
- Copi, I. M., & C. Cohen. 2009. *Introduction to logic*. (13th ed.). Pearson Prentice Hall
- Cummings, L. (2002). Reasoning under uncertainty: The role of two informal fallacies in an emerging scientific inquiry. *Informal Logic*, 22(3), 113–136.
- Cummings, L. (2010). *Rethinking the BSE crisis. A study of scientific reasoning under uncertainty*. Springer.
- Cummings, L. (2015). The use of ‘no evidence’ statements in public health. *Informal Logic*, 35(1), 32–65.
- Cummings, L. (2020). Good and bad reasoning about Covid-19. *Informal Logic*, 40(4), 521–544.
- Dutilh Novaes, C. (2021). Reassessing different conceptions of argumentation. In A. Tanesini & M. P. Lynch (Eds.), *Polarisation, arrogance, and dogmatism. Philosophical perspectives* (Chapter 1). Routledge.
- European Center for Disease Prevention and Control. (2020). *COVID-19 in children and the role of school settings in COVID-19 transmission*. Technical Report of 6 August 2020. Stockholm: ECDC. <https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-schools-transmission-August%202020.pdf>. Accessed 28 June 2021.
- European Commission. (2020, August 6). *COVID-19 and food safety. Questions and answers*. https://ec.europa.eu/food/sites/food/files/safety/docs/biosafety_crisis_covid19_qandas.pdf. Accessed 28 June 2021.
- European Food Safety Authority. (2020). *Coronavirus: no evidence that food is a source or transmission route*. <https://www.efsa.europa.eu/en/news/coronavirus-no-evidence-food-source-or-transmission-route>. Accessed 28 June 2021.
- European Food Safety Authority. (2019). Guidance on communication of uncertainty in scientific assessments. *EFSA Journal*, 17(1), 5520.
- Gerlach, B., Audretsch, W., Gogolin, F., et al. (2003). Remission rates in breast cancer treated with preoperative chemotherapy and radiotherapy. *Strahlentherapie Und Onkologie*, 179(5), 306–311.
- Greenberg, P., Hortobagyi, G., Smith, T., et al. (1996). Long-term follow-up of patients with complete remission following combination chemotherapy for metastatic breast cancer. *Journal of Clinical Oncology*, 14(8), 2197–2205.
- Hinton, M. (2018). On arguments from ignorance. *Informal Logic*, 38(2), 184–212.
- Kasivisvanathan, V., Rannikko, A. S., Borghi, M., et al. (2018). MRI-targeted or standard biopsy for prostate-cancer diagnosis. *The New England Journal of Medicine*, 378(19), 1767–1777.
- Montuschi, E. (2017). Using science, making policy: What should we worry about? *European Journal for Philosophy of Science*, 7(1), 57–78.

- Paccès, A. M., & Weimer, M. (2020). From diversity to coordination: A European approach to COVID-19. *European Journal of Risk Regulation*, 11(2), 283–296.
- Parkhurst, J. (2017). *The politics of evidence: From evidence-based policy to the good governance of evidence*. Routledge.
- Priest, G. (2002). Paraconsistent logic. In D. M. Gabbay & F. Guenther (Eds.), *Handbook of philosophical logic* (pp. 287–393). Springer.
- Ramaswamy, S., Tamayo, P., Rifkin, R., et al. (2001). Multiclass cancer diagnosis using tumor gene expression signatures. *Proceedings of the National Academy of Sciences*, 98(26), 15149–15154.
- Rigotti, E., & Greco, S. (2019). *Inference in argumentation. A topics-based approach to argument schemes*. Springer.
- Robinson, R. (1971). Arguing from ignorance. *The Philosophical Quarterly*, 21(83), 97–108.
- The Guardian. (2020). *Hydroxychloroquine: how an unproven drug became Trump's coronavirus 'miracle cure'*. April 7, 2020. <https://www.theguardian.com/world/2020/apr/06/hydroxychloroquine-trump-coronavirus-drug>. Accessed 28 June 2021.
- United Kingdom of Great Britain and Northern Ireland v Commission of the European Communities*, Case C-180/96. (1998). European Court Report I-2265, ECLI:EU:C:1998:192.
- Van Asselt, M. B. A., & Vos, E. I. L. (2006). The precautionary principle and the uncertainty paradox. *Journal of Risk Research*, 9(4), 313–336.
- Van Eemeren, F. H. (2016). Identifying argumentative patterns: A vital step in the development of pragma-dialectics. *Argumentation*, 30(1), 1–23.
- Van Eemeren, F. H. (2018). *Argumentation theory: A pragma-dialectical perspective*. Springer.
- Van Eemeren, F. H., Houtlosser, P., & Snoeck Henkemans, F. (2007). *Argumentative indicators in discourse: A pragma-dialectical study*. Springer.
- Vos, E. I. L. (2000). EU food safety regulation in the aftermath of the BSE crisis. *Journal of Consumer Policy*, 23(3), 227–255.
- Walton, D. (1992). Non-fallacious arguments from ignorance. *American Philosophical Quarterly*, 29(4), 381–387.
- Walton, D. (1996). *Arguments from ignorance*. Pennsylvania State University.
- Walton, D. (2006). *Fundamentals of critical argumentation*. Cambridge University Press.
- Weimer, M. (2019). *Risk regulation in the internal market*. Oxford University Press.
- Weingart, P. (1999). Scientific expertise and political accountability: Paradoxes of science in politics. *Science and Public Policy*, 26(3), 151–161.
- Zarefsky, D. (2014). Terrorism and the argument from ignorance. In D. Zarefsky (Ed.), *Rhetorical perspectives on argumentation. Selected essays by D. Zarefsky* (pp. 158–166). Springer.

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