Chapter 5 Expert Uncertainty: Arguments Bolstering the Ethos of Expertise in Situations of Uncertainty



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Abstract Arguably, one of the defining traits of an expert is certainty of knowledge. So, what happens when experts in a critical situation in public simultaneously must recognize uncertainty about knowledge and the situation *and* argue for specific policies and actions? This has been the challenge for many national health experts during the COVID-19 crisis. We examine such argumentative strategies by asking: what are the argumentative strategies used when attempting to secure and bolster the ethos of expertise when an expert must also acknowledge uncertainty and insufficient knowledge? The chapter examines such argumentative strategies by health authorities participating in debate and interview programs. Contrary to previous research our findings indicate that the health experts *do* acknowledge uncertainty, often explicitly, and also do it as a way of bolstering their ethos. Firstly, our analyses point to two ways of introducing and expressing uncertainty and lack of knowledge. Secondly, our analyses point to six ways of delimiting and qualifying the expressed uncertainty in a way that rebolsters the expert's authority and ethos of expertise.

Keywords Argumentation · Credibility · COVID-19 · Crisis · Ethos · Expertise · Rhetoric · Scandinavia · Trust · Trustworthiness · Uncertainty

5.1 Introduction

Communication of uncertainty has been the focus of much research, particularly concerning risk (Renn, 2008) and science in general (Fischhoff & Davis, 2014;

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Retzbach & Maier, 2014), as well as more specific issues like climate science (Budescu et al., 2009; Patt & Weber, 2014) and pandemics (Driedger et al., 2018; Han et al., 2018). Tied to the latter, questions appear such as "how will the disease develop, what will its effects be? Will the virus mutate? (Bjørkdahl & Carlsen, 2019, p. 4).

A number of studies have also discussed uncertainty and COVID-19, and spelled out, for instance, how to address uncertainties concerning health systems by focusing on adequate numbers and types of supplies and professionals (Koffman et al., 2020). Another recommendation from this literature has been to apply a so-called "uncertainty-normalizing communication strategy" to reduce averse ambiguity effects (Han et al., 2021). Indeed, uncertainty is an integral part of the scientific process, and the expert has an obligation to admit to her "limitations and doubts" (Walton, 1992, p. 20).

Most researchers appear to agree that communication of uncertainty does not necessarily have negative effects on people's trust (Brashers, 2001; Gustafson & Rice, 2020; Liu et al., 2016; van der Bles et al., 2020). To acknowledge uncertainty can actually bolster credibility. It has even been claimed that "[g]ood strategies for a radically uncertain world avoid the pretence of knowledge—the models and bogus quantification which require users to make up things they do not know and could not know" (Kay & King, 2020, p. 423). Still, some research suggests that experts rarely communicate uncertainty explicitly or in a clear manner during health crises (Han et al., 2021).

The word *crisis* involves so many meanings and definitions that it has been described as being "transformed to fit the uncertainties of whatever might be favored at a given moment" (Koselleck & Richter, 2006, p. 399). Crisis can be considered a perceptual concept and as such a social construction. When an organization is experiencing a crisis, this is tied to violations of stakeholders' expectations (Coombs, 2018). In the case of an adverse event like COVID-19, the public health authorities experience a crisis if the public health system cannot provide adequate treatment for those in need and stakeholders question the handling of the pandemic to the extent that it has an impact on the perceived legitimacy of the organization.

As indicated, uncertainty is inherent in crises like the COVID-19 pandemic, but even though this is well-recognized, research has not adequately theorized how authorities should best manage "uncertainty to help publics cope and respond appropriately" (Liu et al., 2016, p. 479). More specifically, to the best of our knowledge, no research examines how health authorities—or other experts—rhetorically seek to preserve an expert position and issue advice on policies or actions, while simultaneously acknowledging doubt or uncertainty. This has been a challenge faced by many experts during the COVID-19 crisis. Thus, we ask: *How do experts secure and bolster their ethos of expertise in cases where they must also acknowledge uncertainty and insufficient knowledge*?

We examine argumentative ethos-strategies used by Scandinavian public health experts during the COVID-19 pandemic, by exploring how they introduce uncertainty and lack of knowledge, while simultaneously bolstering their ethos of expertise. Theoretically, we draw on the converging fields of argumentation studies (e.g. Walton

et al., 2008) and studies in expertise and experience (e.g. Goodwin, 2011; Walton, 1989b), as well as studies of rhetoric and ethos (e.g. Hartelius, 2011; McCroskey & Young, 1981).

5.2 Uncertainty, Argumentation, and Ethos of Expertise

We conceptualize uncertainty as involving both *ignorance* ("limited understanding of lack of knowledge or lack of consensus over that knowledge") and *risk* ("uncertainties that frame the range of outcomes that have the potential to cause significant harm") (Walker, 2013, p. 107). Walker (2013, p. 104) proposes three kinds of frameworks for scientific uncertainty and ethos: (1) in form of "a moral certainty that frames scientific ethos as a negotiator between public and scientific community", (2) "in the form of ignorance about risk that frames scientific ethos as an unknowing and unconcerned technocrat", and (3) as "a calculated probability that frames scientific ethos as an aloof expert." The two last positions, naturally, are undesirable for an expert acting in public. The first is desirable as public ethos, because it invites a democratic move towards public deliberation. It does so by letting the scientific uncertainty created by ignorance *and* risk move into the public realm of moral certainty of an acknowledged need to act on the basis of the scientific uncertainty.

Our study departs from the assumption that in a situation such as the COVID-19 pandemic, citizens and societies are forced to rely on experts and act on uncertainty. In argumentation theory instances of these two moves (rely on experts and act on uncertainty) have sometimes been seen as forms of fallacies: Relying on experts is an *argumentum ad verecundiam* (Walton, 1997) and acting on uncertainty is an *argumentum ad ignoratiam* (Walton et al., 2008, p. 98). In a similar way, arguments from expert opinion have been called "weak arguments" (Mizrahi, 2013, 2018). In practice, of course, humans constantly use these forms of argumentation in both everyday life, politics, and in research. In situations of uncertainty, we normally have no other choice. "When decisions do matter, rational people delegate them to those who have, or are willing to invest in acquiring, relevant information and the capacity to interpret that information" (Kay & King, 2020, p. 47). We let pilots fly the airplanes.

Walton et al. (2008) call the *argumentum ad ignoratiam* "the lack-of-knowledge argument" (p. 98). In the theory of argument schemes (Garssen, 2001; Walton et al., 2008) this often takes a rather narrow form where the "absence of positive proof for the truth of the proposition is considered a reason to believe in its falsity" (Walton et al., 2008, p. 98). In the same way, the "lack of conclusive evidence" can be taken to "believe that the proposition is true" (Walton et al., 2008, p. 100). In the context of the rhetoric of uncertainty by health experts dealing with a pandemic, however, both the fallacy-perspective and the narrow argument scheme approach taken alone are insufficient. Firstly, because *verecundiam* and *ignoratiam* are unavoidable ways of reasoning; secondly because the issue in a pandemic is not primarily about one truth,

but about choices between many different possible actions with uncertain consequences (Kock, 2009). Thus, our approach focuses on how the experts rhetorically acknowledge the uncertainty while attempting to maintain their status as experts.

While it has been claimed that experts rarely communicate uncertainty explicitly or in a clear manner during health crises (Han et al., 2021), others have suggested that credibility and trust can be achieved by being open and vulnerable as a communicator (e.g., Liu & Mehta, 2020). Research in climate rhetoric, for instance, has pointed to four rhetorical acts when winning the trust of an audience: make yourself vulnerable, empower your audience, take responsibility for being wrong, and start small by inviting audiences to only take small steps (Goodwin, 2011; Goodwin & Dahlstrom, 2014).

Research in expertise also points out different strategies of establishing an expert ethos. Hartelius (2011), for instance, uses six so-called congruities to describe the constitution of expertise. The first congruity is *expert networks*. Expertise is constituted by "associating oneself strategically with other experts as well as with other areas of expertise" (p. 18). The second is expert techne. This signifies establishing expertise by explicating "epistemologies and methodologies" belonging to one's field of expertise (p. 19). To rhetorically establish their expertise, experts "state what they know, how they know it, and how they practice or implement what they know" (p. 20). Thirdly, *expert pedagogy* means that experts not only share epistemology and methodology, but also share "how they know what they know" (p. 23). An open sharing of process and the uncertainties of method and knowledge may reinforce the sense of expertise. The fourth congruity, deference/participation, signifies the choice of experts to either invite the audience to acquiesce or to get involved. Since expertise and professional knowledge is by nature specialized, complex and difficult for the nonprofessional to understand, deference is the most common strategy. However, in some instances experts will encourage an audience to participate. Such participation, of course, will require expert pedagogy and explanation of expert techne. The fifth congruity is expertise as fitting response. As we know from Bitzer, a rhetorical situation has a defect or obstacle, something waiting to be done, and this 'imperfection' can be addressed by rhetorical communication (Bitzer, 1968). In the constitution of expertise, experts "identify or construct a rhetorical situation in which their expertise is the most fitting response" (Hartelius, 2011, p. 23). Finally, expertise is constituted by creating relevance to everyday life. Experts, Hartelius explains, must orient themselves and their subject matter to everyday life (p. 27): "The more relevant an expert seems to the public, the more powerful she will be" (p. 29).

While these *congruities* can and should be used, depending on the rhetorical problem the expert is faced with, previous research points to the importance of expert networks as a resource in this regard (Kjeldsen et al., 2021). This is certainly the case when the expert is part of the public health authorities. Such experts have *cognitive authority*, but also different kinds of *administrative authority* (Walton, 1989a, p. 174). The cognitive authority consists of a certain knowledge and expertise within a field, the administrative authority denotes some right to "exercise command over others or make rulings binding on others through an invested or recognized

position of office or power" (Walton, 1989a, p. 174). In general, a health expert may express some certainty about the virus (i.e., how it works, which is to demonstrate medical expertise), but demonstrate uncertainty about which actions are required to curb the virus (also a medical expertise). A health expert may also demonstrate some certainty about the virus and the actions required to curb it but acknowledge uncertainty about the public consequences of the measures, and thus uncertainty about which measures should be taken (which is a form of political expertise). This indicates a possible sliding boundary between the national health experts' and the national politicians' sphere of authority.

5.3 Empirical Material and Method

Our study focuses on national health experts in the three Scandinavian countries of Denmark, Norway and Sweden. During the COVID-19 pandemic, Sweden famously chose a different strategy than most other nations, including Denmark and Norway, largely shunning lockdown as a measure. As of May 14, 2021, the death toll related to COVID-19 was 14.267 in Sweden (population 10.2 million), compared to 2.499 in Denmark (population of 5.8 million) and 774 in Norway (population of 5.5 million) (European Centre for Disease Prevention & Control, 2021). Despite these differences, surveys have shown remarkably high figures for trust in authorities in all three countries, particularly during the early phases (Ihlen et al., in press).

The public health authorities are named the Danish Health Authority (DHA), the Danish Statens Serum Institut (SSI), the Danish Medicines Agency (DMA), the Norwegian Directorate of Health (NDH), the Norwegian Institute of Public Health (NIPH), and the Public Health Agency of Sweden (PHAS). We started by identifying a number of representatives from these institutions.¹ These experts provide advice to the government and in some cases decide measures and policies. This puts them in a different rhetorical position than experts unattached to national health policies who may offer their views and express both certainty and uncertainty, but do not bear any responsibility for the measures and policies that are chosen in the final instance. The experts in our sample, however, enact both administrative and cognitive authority.

To get at empirical material, we singled out a number of national debate and interview television programs and analysed how expert representatives from these institutions appeared in the period February 26, 2020 to May 1st 2021 (the appendix contains an overview of the dates for the exact programs). More specifically, in Denmark we looked at *Debatten* and *Deadline* from the DR2 channel of the national public broadcaster DR. *Debatten* is the most watched debate program in Denmark,

¹Sweden: Anders Tegnell (State epidemiologist, PHAS). Norway: Espen Nakstad (assistant director of NDH) Camilla Stoltenberg (Director General of NIPH), Preben Aavitsland (Chief physician, NIPH), Bjørn Guldvog (Director General, NDH), Line Vold (Department Director, NIPH). Denmark: Søren Brostrøm (Director General, DHA), Kåre Mølbak (Director, Division of Infectious Diseases Preparedness, SSI), Tyra Grove Krause (SSI), Thomas Senderowitz (DMA).

aired once a week. *Deadline* is a news and debate program on the same channel aired every weekday.

In Norway, the programs *Debatten* and *Dagsnytt 18* from the national public broadcaster NRK were researched. *Debatten* on NRK1 is the most watched debate program in Norway, aired every Tuesday and Thursday. *Dagsnytt 18* is a news and debate program aired every weekday on the radio channel NRK P2 and on the television channel NRK2.

For the Swedish material we chose the debate programs *Agenda* and *Sverige möts* ("Sweden meets"), both on the channel SVT1. *Agenda* is aired every Sunday and is Sweden's most watched debate and news program, while *Sverige möts* is aired once a month.

We began the analysis by looking through the announcements for these programs on the websites of the broadcasting companies in order to find all the programs which had appearances by official health experts. We supplemented this with searches in Scandinavian media databases such as Atekst/Retriever and Infomedia. We searched for all programs in which the names of the health experts in question were mentioned. We then looked through these programs and located the programs where the experts were guests and where salient examples relating to uncertainty were found. The most relevant and salient examples were transcribed either by a research assistant or the authors. We then carried out rhetorical criticism of the excerpts to uncover how the experts rhetorically introduced and addressed uncertainty and how they worked through and established their own expert ethos. We used the insights from this analysis to establish a range of strategies for expressing uncertainty, while maintaining expert authority. We singled out six types of rhetorical strategies: expressing fellow scientific uncertainty, claiming that certainty is impossible, claiming to know all there is to know, conditioning the uncertainty, resorting to exclusive expert information, and demonstrating actively seeking knowledge and adapting to the situation.

Even though we have examined material from the three Scandinavian countries, our main objective was not a comparative analysis, but to widen our scope for categories of experts' rhetorical responses to uncertainty in public debates about the pandemic. Still, our material revealed some national differences. A main difference was not in how experts acted rhetorically, but in participation. While national health experts in Norway frequently appear in the debate programs, the health experts of Denmark and Sweden almost never participate in debate programs. In Denmark, notably, none of the national health experts participated in the debate program (Debatten). A former director of DHA, Else Smith, participated a few times, however since she no longer worked in DHA and thus had no formal responsibility, she was not included in our study. Danish national health experts were interviewed in the program *Deadline* (DR), but never participated in debates. The same was the case for the main Swedish expert (the state epidemiologist of PHAS), who only-in our material at least-participated in interviews. This is not to say that the national health experts in Denmark and Sweden did not appear in public. They did (Johansson & Vigsø, 2021), and they are as much household names as the Norwegian experts. However, they rarely appear in the most watched national *debate* programs.

5.4 Rhetorically Introducing and Delimiting Uncertainty

Our analyses have uncovered that the health experts engage in several forms of rhetorical work when expressing uncertainty, while maintaining their expert authority. We distinguish between *introducing uncertainty* and *qualifying uncertainty*. As mentioned, research argues that openness, honesty, and vulnerability fosters credibility and trustworthiness (Brashers, 2001; Gustafson & Rice, 2020; Liu et al., 2016; van der Bles et al., 2020). Our analysis reveals that openness, honesty, and vulnerability seldom stand alone: admission of uncertainty or ignorance is typically followed by rhetorical work that limits or qualifies the uncertainty or ignorance. In the following, we first describe the two main ways of admitting uncertainty and ignorance, then we describe six ways of limiting and qualifying such admitted uncertainty and ignorance. As above, we use the term "ignorance" simply as "lack of knowledge".

5.4.1 Rhetorically Introducing Uncertainty

The first way of introducing and expressing uncertainty and ignorance by the health experts is communicating in a way that makes the uncertainty less salient and detaches the expert from the uncertainty. We refer to such techniques as *hedging* (Hyland, 1998), and the strategy as *suggesting uncertainty*. Such suggesting rhetorical work is primarily done through passive linguistic constructions and the use of qualifying modal verbs, adjectives, and adverbs such as "possibly" and "maybe". Another way of hedging is the use of general pronouns such as "one". This is used in sentences such as "one does not know at this point". The use of the word "one" (in Scandinavia: "man") is more prevalent in the Scandinavian than in the English languages, and function as a substitute for the "we" or "you", expressing in general a vague sense that something is "unknown", while staying clear of saying directly "I do not know" or "we" do not know. Sometimes, the term "we" is used in the same vague way. A health representative may say "we do not know", but in context the "we" does not directly point to the experts themselves, but rather to a much more general "we", really meaning "it is not known". Thus, by using actor-less and passive linguistic constructions, as well as conditioning adverbs and conditional conjunctions, the experts link the uncertainty to external conditions, and not directly to themselves. Thereby making the experts less visible and less responsible for the lack of certainty and knowledge. Examples of this are from a Norwegian debate (Debatten, March 24, 2020) with the Director General of NIPH who said: "It remains to be seen if it will be possible to suppress the virus" and "There is doubt about the effects of these measures".

In contrast to this strategy of introducing uncertainty inconspicuously, the health experts, especially in Norway, often introduced the uncertainty through *open admission of uncertainty*, where they openly and explicitly expressed uncertainty and lack

of knowledge. Contrary to previous studies that indicate that experts rarely communicate their uncertainty in public health crises (Han et al., 2021), we find that it is common for the Scandinavian health experts to communicate uncertainty explicitly.

In a Danish interview, for instance, the Director General of DMA is asked by the journalist how he can be certain that the apparatus that controls the effects and consequences of the vaccines is good enough. The Director General says:

(20) I cannot be 100 percent certain; I can tell you that. One can never be certain when it comes to the field of medicine and human beings. Nothing is 100 percent certain. (Director General, DMA *Deadline*, November 28, 2020)

Similarly, when the Director General of NDH in a debate is confronted with a national change in strategy, he openly admits lack of knowledge about how the pandemic will develop and how one should combat it:

(21) Well, we just have to admit that we are learning during this pandemic. Continuously, new knowledge appears, which forces us to change the way we think. (Director General, NDH, *Debatten*, March 24, 2020)

This kind of open admission of uncertainty and ignorance is frequent, especially in the initial phase of the pandemic, with experts saying: "We also do not know much about immunity against this virus" (Department Director, NIPH, *Debatten*, February 27, 2020, Norway); "We know nothing for certain" (Director General, NIPH, *Debatten*, April 7, 2020, Norway); "We know very little about where they actually get the virus" (assistant director, NDH, *Dagsnytt 18*, April 20, 2021, Norway); "We do not know this for certain" (Director General, NIPH, *Debatten*, March 2, 2021, Norway); "As a matter of fact, we know very little about what the total effects of these measures will be" (State epidemiologist, PHAS, *Agenda*, March 7, 2021, Sweden).

On the one hand, our material reveals frequent admissions of uncertainty and ignorance. On the other hand, such admission is almost always followed by rhetorical delimitation and qualification. This is evident in the quotes from the Director General of DMA and the Director General of NDH. In the first case, the expert qualifies by saying that "Nothing is 100% certain", implying that we cannot expect him to know what cannot be known. In the second case, the expert qualifies by saying that he and his colleagues are actively learning and gathering knowledge, implying his expert authority this way.

5.4.2 Rhetorical Strategies for Qualifying Uncertainty

We agree that openness about uncertainty and lack of knowledge may bolster the expert ethos, because it demonstrates vulnerability, and thus contributes to an ethos of honesty (e.g. Goodwin & Dahlstrom, 2014). However, as suggested, we find that these admissions are usually followed by rhetoric that limits and qualifies the uncertainty and ignorance. Our material provided hardly any examples of unconditional and unlimited openness about the lack of knowledge. In the following part, we explain

how the experts rhetorically limit and qualify uncertainty and ignorance, through six types of rhetorical strategies.

5.4.2.1 Expressing Fellow Scientific Uncertainty

The first rhetorical strategy limiting uncertainty and strengthening ethos is *expressing fellow scientific uncertainty*. This is done by saying that other experts and countries are also uncertain, which is a rhetorical explication of the "consistency premise" in the argument scheme of expert opinion. This premise states that the claim of the expert: "is consistent with what other experts assess" (Walton et al., 2008, p. 20). This strategy supports the experts' claims and bolsters their competence and ethos of expertise by arguing that the national experts know as much as experts in other countries and places. It is an ethos building strategy that works by connecting the expert to a wider expert community or network (Hartelius, 2011).

When the journalist asks the Director General if the official stance of NIPH is that the Norwegian borders can reopen without an increase in infectious cases she responds:

(22) No, not the travel restrictions and closing of the borders. We have questioned these measures. And there is reason to do so. And we are not alone about that. The European Centre for Disease Prevention and Control does the same, as have many other countries. (Director General, NIPH, *Debatten*, March 24, 2020)

She acknowledges a lack of certainty and admits that they are questioning the measures. By saying that a multinational scientific organisation, The European Centre for Disease Prevention and Control, acts in the same way, she connects to their actions and associates herself with their ethos. The move bolsters her ethos of expertise, by implying that when a respected organization is equally uncertain, her uncertainty should not affect her ethos. The reasoning can be rendered like this:

There is uncertainty/we do not know Other experts are equally uncertain Since we know as much as other experts, we remain trustworthy and credible

5.4.2.2 Claiming Certainty Impossible

The second rhetorical strategy that bolsters the expert's ethos, does not actually limit uncertainty. On the contrary, this strategy claims that it is not possible to obtain certainty in the field in question. If it is not possible to know something for sure, then one cannot blame the expert, nor anyone else, for not knowing. One example of this is the above-mentioned case where the Director General of the DMA states that "One can never be certain when it comes to the field of medicine and human beings. Nothing is 100 percent certain" (*Deadline*, November 28, 2020). In this statement lies an assumption that uncertainty is immanent in medicine and human beings. Of course, in medicine and epidemics, there are things one can know for sure. However,

in our material such claims are never questioned, and by presenting them, the Director General disarms any potential criticism of his uncertainty or ignorance. The strategy can be expressed like this:

There is uncertainty/we do not know However, it is not possible to know for certain Since we cannot be expected to know what cannot be known for certain, we remain credible and authoritative experts

5.4.2.3 Claiming to Know What is Possible to Know

Admitting uncertainty about issues where certainty is impossible, may seem meaningless or imply that expertise is irrelevant. However, such interpretations can be avoided by claiming that although certainty is unattainable, the experts have all *possible* knowledge or the *best* possible knowledge. This is the third strategy: *Claiming to know what is possible to know* in the situation and concerning the issue at hand. An example of this is when the Director General of NIPH says:

(23) We did not recommend closing schools and nurseries, but as others have already pointed out: This measure is associated with much uncertainty, and the scientific basis is weak. We believe that we made a strong expert assessment, to the best of our professional judgement, based on the available knowledge. (Director General, NIPH, *Debatten*, May 7, 2020)

With this kind of rhetorical work, the public is invited to trust the expert more than the evidence, as the evidence is insufficient.

Another example is from *Debatten* (Norway, March 24, 2020) when the journalist claims that the Norwegian Government, NIPH and NDH communicate different messages and advice, thereby creating uncertainty and doubt about the authorities' measures. In response, the Director General of the NIPH says that she still finds it better to be open about the uncertainties and that the three entities should not stop discussing the measures between themselves and being open about the problematic sides. The Director General of the NDH supports her by saying: "I do not really have a comment to that, but I would like to say that I think that it is good that the [NIPH] *is grounded on the best of knowledge.*" (our italics)

The reasoning of this strategy can be expressed like this:

There is uncertainty/we do not know

However, we know what is possible to know in the situation and concerning the issue at hand

Thus, we remain credible and authoritative experts

5.4.2.4 Conditioning the Uncertainty

The fourth kind of rhetorical strategy is *conditioning the uncertainty*, where the uncertainty is reduced by specifying the conditions for what is known and what is unknown, and what can be expected to happen under certain conditions.

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One way this is done is to move from general uncertainty to specific instances of certainty. When asked "Are you sure that one can contain the mutated version of the virus?" the department head from SSI responds:

(24) We have seen 12 incidents of this variety and we have seen one outside Region Nord-Jylland. It is true that we cannot rule out that there may be chains of infection, which have begun other places, among other things the one we call Cluster 1, which came with a bus from Nordjylland to Bornholm [...], however the likelihood of chains of infection are very small, because we continuously take samples around the country, which we analyse, and we have not found this mink-type, in the last few weeks. (Department head, SSI, *Deadline*, November 5, 2020)

Much rhetorical work is done in this excerpt, however, most relevant here is the move from the general to the specific. Because it is impossible to provide a general answer with certainty (yes/no we can/not contain the virus), the SSI-representative instead shares detailed information about factual knowledge and maintains that because samples are being taken it appears that the mutated type is not spreading.

Another way to condition an uncertainty is to be specific about what an otherwise uncertain development depends on. In a Norwegian debate the journalist asks the Director General of NIPH: "How many deaths may be prevented if the Norwegian Government changes their strategy for vaccine distribution" (*Debatten*, March 2, 2021)? The Director General answers: "We don't know that for sure. We are uncertain about how much we will prevent, because it depends on the disease outbreak situation" (*Debatten*, March 2, 2021). While admitting uncertainty, the Director General still provides knowledge in mentioning the conditioning circumstances.

A third way of qualifying the uncertainty through conditioning, is by shifting the attention from the field of uncertainty to a different field or aspect, where the experts *do* have knowledge, where they are certain. This is not necessarily a move from a general to a specific level, but rather a move between two more or less parallel levels. In a debate about a rise in infections due to young people's partying in parks, the Assistant Director of NDH says:

(25) The big challenge with this pandemic is that we do know about those who are infected at home, because someone in their family brings the infection home. But we know very little about where they catch the infection. (Assistant director, NDH, *Dagsnytt 18*, April 20, 2021)

The journalist follows up with: "But you do know how the virus behaves outdoors versus indoors?" The director continues:

(26) Exactly. So, the reason why we still recommend these things is that we do know

about droplet infection and airborne infection, and how it works and what it takes. There has been a lot of research [*in this field*], so that is our point of departure when we assess the infection risks. (Assistant director, NDH, *Dagsnytt 18*, April 20, 2021)

In this case it is the journalist who helps the expert by shifting the focus from what he does not know, to what he does know, allowing him to justify the experts' recommendations, and support them with certainty and science. The reasoning in these conditioning strategies may be displayed as follows:

There is uncertainty about/we do not know that However, we do know this

Thus, we still have expert knowledge, and remain credible and authoritative experts

5.4.2.5 Resorting to Exclusive Expert Information

The fifth rhetorical strategy works to bolster the ethos of expertise after acknowledging uncertainty is *resorting to exclusive expert information*. Here the expert refers to research, evidence, information, and studies that the television viewers and the citizens in general cannot be expected to have access to. This strategy works by reassuring that the experts indeed have knowledge and access to relevant and important information. The strategy is often accompanied by the use of common nouns or general or abstract use of words such as "evidence", "studies", "information", "knowledge" and the like. This is then put forward in a way that presupposes that the experts form their knowledge and base their decisions on such information and evidence. Presupposing its existence and use, deprives the public of access to this information and evidence and relieves the expert from producing documentation, providing further support, or from elaborate argumentation. In a debate on the effect of the strike-down strategy, the Director General of NIPH says: "We are very uncertain about this, and so are those who support it. Some are really enthusiastic, but how should I put it, the existing evidence is very new" (italics added) (Debatten, March 24, 2020). Here, she indicates that she and her Institute base their decisions on "existing evidence", however, she says nothing about what this evidence is. Her comment is also an example of *expressing fellow scientific uncertainty*, because she explicitly says that other experts are also unsure.

As with the other five strategies, resorting to exclusive expert information can be used to support both sides of an issue, for instance the use of surgical masks. In a debate interview on Swedish television, the State epidemiologist defends his advice to not enact more or stricter measures by saying: "in the legislation for Swedish healthcare it actually says that it is based on scientific supported research" (State epidemiologist, *Agenda*, January 17, 2021), thereby insisting, postulating, that the advice and measures are based on science, thus bolstering his own ethos. After this, he is confronted with his advice for not recommending the use of masks in public. When asked for scientific support for possible negative effects of mask use, he says:

(27) ... there is rather bad research in this area. Jefferson – one of the real big ones in this area who has done a lot of comparative work – pointed out in the beginning that it is almost embarrassingly bad with studies about the use of surgical masks in society. (State epidemiologist, *Agenda*, January 17, 2021)

Resorting to exclusive expert information is similar to the argumentation scheme *argument from expert opinion* (Walton, 1997; Walton et al., 2008), but the appeal is broader, aiming more generally, and often vaguely, at suggesting that information exists and I, the expert, know about it, so you may trust me. In this sense it is a *rhetoric of deference*, as described by Hartelius (2011), because it does not invite participation

in thinking, or action, but expects the audience to acquiesce to the expertise of the health authority representative. The reasoning in the appeal may be expressed in this way:

There is uncertainty about/we do not know However, we have access to exclusive expert information Thus, you may trust us, and we remain credible and authoritative experts

5.4.2.6 Demonstrating Active Knowledge Seeking and Situational Adaption

The sixth rhetorical strategy for dealing with uncertainty, is *demonstrating active knowledge seeking*, where the experts express that they are in the process of acquiring knowledge and more certainty. In the Danish program *Deadline* (May 4, 2020), for instance, Head of department at SSI says "Well, one discovers something new all the time [...] constantly these types of information appear, which surprises you". In a Norwegian interview (*Debatten*, April 7, 2020), the Director General of NIPH says: "More empirical material will come", "We will pay attention to this", and assures that they will "pay attention to the development of knowledge."

Similarly, the already mentioned example with the Director General of NDH (see 4.1.) also demonstrates how an expert qualifies ignorance by demonstrating active knowledge seeking. When asked by the moderator why the health authorities are changing the strategy from "slow down" to "strike down", the Director General first admitted ignorance and being in a learning process (see 4.1), and then qualified this uncertainty by saying:

(28) There was an analysis from Imperial College in Great Britain, which probably changed much of the ways of thinking in the Western world, and which many places lead to a strategy which is much more clearly about striking down. It is true that we did communicate slowing down, but we also said stopping it, some time ago. And it is true that we at a certain point saw bigger problems with shutting down schools than keeping them open. However, that changed gradually as the picture in Norway changed and we obtained documentation that we had roaming virus among the population. (Director General, NDH, *Debatten*, March 24, 2020)

The Director General demonstrates that he and his colleagues are following the situation closely and have access to scientific knowledge. He admits that strategies have changed, but that is due to two types of new knowledge: (1) Changes in how society is influenced ("the picture in Norway changed"), and (2) New scientific knowledge about the virus (Imperial College and "obtained documentation"). Thus, the admission of initial uncertainty and ignorance is followed by a demonstration of active knowledge seeking and situational adaption, in which the reasoning may be expressed like this:

If situations change or new knowledge becomes available, it is sensible to change strategy

The situation has changed, and new information is available

Therefore, it makes sense to change strategy

This is also an ethos-bolstering strategy, because it shows that the experts are rationally following sensible strategies and are informed about both the situation on the ground and the relevant scientific results.

This strategy is also used by the Swedish State epidemiologist who frequently expressed that he and his institution is following the situation closely and adapts: "Of course, we are following the situation closely", "We are working closely with the different regions and follow the development there", "We need to continue what we have been good at all along: finding the places where there are risks, and lock them down", "As I have said, we are paying attention all the time; we have considered restrictions as late as the other day" (State epidemiologist, *Agenda*, March 7, 2021). Such demonstration of continuous and active adapting to the situation appears especially important for the Swedish expert, because the Swedish strategy has been accused of being too passive (Bjørkdahl et al., 2021; Johansson & Vigsø, 2021). Through this type of rhetorical work, the epidemiologist can still appear as an expert on the offensive.

In short, the ethos-bolstering strategy of demonstrating active knowledge seeking and situational adaption can be expressed like this:

There is uncertainty/we do not know

However, we are actively seeking information and adapting to the situation Thus, we remain credible and authoritative experts

5.5 Uncertainty as an Argument for Action – and for Ethos Building

Section four above has demonstrated how specific ways of introducing and dealing with uncertainty relates to ethos. In some cases, however, uncertainty itself is used as an argument for specific measures and actions. This position is evident in much of our material, where health representatives state that because our knowledge is uncertain, we need to follow a *principle of caution*. This *precautionary principle* holds that since we cannot know for sure, we should not take the risk. We also know this as the common place (*locus communes*) (cf. Curtius, 1953) "better to be safe, than sorry". The precautionary principle, then, is an argument scheme, a rhetorical topos. This topos, however, may be used to argue for contrasting positions. Mostly it is used to argue for stronger measures: Since we cannot know for sure, we should lock down and urge people to use face masks. In a Swedish debate interview a reporter confronts the Swedish State epidemiologist with this argument (cf. 4.2.5). She asks the epidemiologist, who has refrained from recommending use of masks in public, that even though he believes that masks only have a marginal effect, wouldn't it be a good precautionary measure to advice the use anyway? The epidemiologist responds:

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 - (29) Yes, however, the precautionary principle is not just one-sided. One also must consider whether the introduction of these measures will have negative effects. It is equally important in a precautionary principle, that one does not introduce things that may cause harm in different ways. (State epidemiologist, PHAS, *Agenda*, January 17, 2021)

Here the argument is the opposite: Since we cannot know for sure if the use of masks will cause harm, we should not advise such use in public. Thus, experts may agree that it is better to be on the safe side but disagree about which side is the safe side.

We find a similar example when the Director General of NIPH says in a debate (*Debatten*, March 24, 2020) that we do not know which strategy will be the best, she warrants the health authorities' course of action, which is to gain time, to wait and see how it turns out, and she continues: "But I think nobody wants to stake everything on one strategy now". By arguing that *nobody* would put peoples' health and lives at stake by following just one strategy, she implies that the health authorities are acting in a morally good way, because *anyone* would do the same based on the current state of knowledge.

In the mentioned instances, the topos of the *precautionary principle* demonstrates a certain ethos, because it says something about the character of the person using it. We might say that there is a rhetorical move from competence (phronesis) towards character (arete) and good will (eunoia) (McCroskey & Young, 1981). This rhetorical move (advancing arguments based on the argument scheme for the "precautionary principle") is also connected to experts building their expertise based on either "deference" or "participation" (Hartelius, 2011). Experts constituting "uncertainty" as calculated probability "keep the public at a distance from any decision-making process" (Walker, 2013, p. 111), putting themselves in the position of Walker's "aloof expert" requiring *deference* (Hartelius, 2011). When applying the precautionary principle, however, the experts put themselves in the position of an expert inviting participation (Hartelius, 2011). We argue that this is an invitation to participate in *moral* considerations rather than in the knowledge seeking process, thus providing a site for public participation, while retaining their position as credible experts (Walker, 2013, p. 104; cf. part 2 above). By using the precautionary principle, the experts move from scientific uncertainty to moral certainty (Walker, 2013, p. 104; cf. part 2 above). Even if the experts do not have absolute scientific certainty, they know how to act for the public good, they can make good moral evaluations.

The public, on the other hand, cannot be expected to, even should not, participate in scholarly discussions about scientific uncertainty, since the most important information is exclusive to experts (4.2.5), who are actively seeking knowledge (4.2.6), who know the conditions for the scientific knowledge (4.2.4), and understand what can and cannot be known (4.2.1-4.2.3). However, the public can be expected to participate in debates on moral uncertainty, since morality belongs to all, and everyone can be expected to have insight in these matters. Thus, moving from scientific uncertainty to moral certainty bolsters the ethos of the expert, because it positions the expert as a person of good character (arete) that attributes the public the same moral qualities (eunoia).

5.6 Conclusion

As mentioned, the national experts in this study are characterized by having both *cognitive* and *administrative authority*. They are not only knowledgeable (cognitive); they also have responsibility by either providing political authorities advice for measures and policies, or by implementing these (administrative). The experts' administrative authority affects their attributed trust in general, as well as the attributed credibility in the specific rhetorical exchanges they engage in, such as the debates and interviews we study.

We have shown two ways that the experts introduce uncertainty and ignorance (1. suggesting, and 2. open admission), and six ways the experts delimit and qualify such uncertainty through rhetorical strategies of bolstering their ethos. It is such bolstering of ethos that invites the public to accept the advice and measures of the national experts in relation to the pandemic. The experts work rhetorically in two spheres of uncertainty: one is the general uncertainty of the pandemic situation the other is the admitted uncertainty (i.e. lack of certainty in knowledge) of the experts. In this situation the ethos of expertise itself becomes an argument. Even though there is uncertainty and lack of knowledge, we should listen to the experts, because their uncertainty is limited, conditioned and contingent: They are actively seeking knowledge and adapting to the situation (4.2.6), they have access to exclusive expert information (4.2.5), they are aware of the conditions for what is known and what is unknown, and what can be expected to happen (4.2.4), they know what is possible to know in the situation (4.2.3), and they work in a field and a situation where full certainty cannot always be reached (4.2.2), which is a circumstance they share with other experts around the world (4.2.1). Thus, they must know best amidst all this general uncertainty.

Furthermore, under these circumstances, the expression of uncertainty and ignorance may itself support an ethos of expertise, because awareness of uncertainty and ignorance may be taken as a sign of competence (phronesis). While ignorance in general can be tied to an epistemological position of not knowing what you do not know, the rhetorical situation of the COVID-19 pandemic, seen from the health expert's perspective, also includes awareness of what you do not know, which we may call known ignorance. This is relevant because expressing with certainty what we know to be uncertain is a way to both express certainty and bolster ethos. It is also relevant because the health experts we have studied here must provide advice and propose measures in spite of both the general uncertainty of the situation and their acknowledged lack of knowledge. To do so well, a conscious awareness of uncertainty and ignorance is essential. Finally, when the experts rhetorically move from scientific uncertainty to moral certainty, they demonstrate character (arete) and good will (eunoia), because this move invites the public to participate in deliberations about measures and policies. At the same time the experts preserve their ethos of scientific expertise, because even though they inform the public about the scientific and situational circumstances, the experts are still in a privileged epistemological position to determine the possible ways of action in a situation of uncertainty.

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