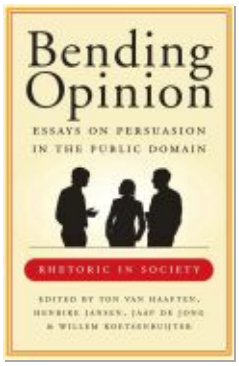
20. Responding to Expert Arguments Emerging Lay Topoi in Focus Group Interviews on GM Crops



20 Responding to Expert Arguments
Emerging Lay Topoi in Focus Group Interviews on GM Crops

ANDERS HORSBØL

20.1 Introduction

An important feature of modern societies is the exchange between academic expert and lay knowledge, the "interface between science and society" as Horst puts it (Horst 2005, p. 197). Since the equation between scientific development and societal progress has been problematized, the exchange between scientific expertise and everyday knowledge has led to several controversies. A recent controversy is the debate on genetically modified organisms (GMO) and their potential use within agriculture. In Europe, in particular, the introduction of GMO in agriculture has been met with widespread public scepticism and protest actions from NGOs (see Bauer and Gaskell 2002 and Scholderer 2005 for an overview).

The Eurobarometer study of public opinion in different European countries concludes that "[t]here is widespread support for medical [...] and industrial [...] biotechnologies, but apparently significant opposition to agricultural [...] biotechnologies in all but a few countries" (Eurobarometer survey 244b, 2006). Within studies of consumer behaviour, Scholderer humorously suggests that "[...] attitudes towards GM foods appear to be utterly resistant to persuasion. Not a single study reported in the literature has ever been able to change consumer attitudes through communication" (Scholderer 2005, p. 270). The term "communication" in the above quote refers to mediated communication, not to face-to-face or interpersonal communication.

The current study differs from the above mentioned by being a qualitative study based on focus group interviews. As such, it resembles interview studies of opinions on GM crops held by laypersons (Myers 2004) or by scientific GM experts (Cook 2004). Furthermore, and in line with Myers' study, the object of analysis is not opinions *per se*, but opinions as they emerge within a

situation; i.e., "how opinions are generated and negotiated in interaction with other people" (Myers 2004). It is important to add, however, that the current study differs from the studies of Myers and Cook by focusing on exchange between lay and expert knowledge in *interpersonal communication*, in this case between biotech experts and laypersons (with respect to biotechnology).

In order to analyse the interpersonal exchange between lay and expert knowledge, a series of focus group interviews were carried out. Each interview included two biotech experts and four or five 'ordinary citizens' (with respect to knowledge on biotechnology). The interviews were led by two moderators, drawing on an interview guide. The participants had been chosen according to criteria of demographic stratification and had agreed to join a focus group interview on food in general. Each interview lasted two to two and a half hours.

The following analysis will concentrate on two of these interviews and will focus on one aspect of the interactional dynamic of the discussion; namely, on the laypersons, responses to (persuasive) utterances from biotechnologists, who are mainly in favour of the use of GM crops and argue their case during the interview. I shall ask how, in the course of the interaction, the lay participants refer back to and make relevant earlier expert utterances, and how they reconstruct and respond to the expert talk. Of particular relevance is the way in which the lay participants try to manage the obvious knowledge gap between them and the experts without restraining from making argumentative contributions to the discussion. In that sense, the lay responses are not seen as simply reactive, but as rhetorically *inventive* contributions in an already populated argumentative space (Billig 1996). For this aim, I shall employ the concept of *topos* and analyse the different topoi which are put forward by the lay participants as they respond to the (persuasive) utterances from the biotechnologists.

Topoi are 'places' of arguments, i.e., places from which something can be argued. A topos may be understood *formally* as a certain argumentative form or structure, such as argumentation by definition, contrast, comparison, causality or authority (which are all listed as general or "koinoi" topoi by Aristotle in his *Rhetorics*, Aristotle 2007). Or, on a lower level of abstraction, a topos may be understood *materially* as the premises on which a concrete argument is based. Crossing the distinction between formal and material, a topos may be (rather) *field dependent,* as in scientific argumentation, or (rather) *common-sensical*, as in lay argumentation. In line with the latter

meaning, a topos may take the form of a *commonplace* (literally a translation of the Latin "loci communes", Cicero 1981), thereby being reduced to a rhetorical cliché. In all cases, a topos has a certain level of *generality*, making it applicable in different concrete situations, a characteristic termed "potentiality" by Bornscheuer (German: "Potentialität", Bornscheuer 1976, p. 99). At the same time, the available topoi represent a culturally specific *reservoir of argumentation* (*ibid*. p. 34), in which arguments for specific situations and problems may be sought (Kienpointer 1997; Gabrielsen 2009). This culturally specific reservoir is often not harmonious, but "composed of contraries", as argued by Billig (Billig 1996, p. 235).

In the following analysis, I shall take a material approach to the concept of topos and analyze, in the laypersons' responses, the general principles according to which controversial GM food issues are 'located' argumentatively. Some of the topoi in the laypersons' responses are modifications of topoi used by the experts earlier in the interview, whereas other topoi have not been previously employed in the interview.

20.2 Analysis

The use of topoi in the laypersons' responses to expert arguments has been summed up in table 20.1. For means of clarity, the list is divided into *approaching* and *distancing* responses, where the former leans towards agreement with the expert argument, and the latter leans towards disagreement. The list points to the diverse and multiple argumentative resources of 'ordinary citizens', which is often overlooked in media representations, where emphasis tends to be on pronounced views with clear conflicts.

TABLE 20.1 OVERVIEW OF TOPOI IN THE LAY RESPONSES

Approaching responses	Distancing responses
Topos of utility	Topos of contrast between impartiality and bias
Topos of security	Topos of (self-) contradiction
Topos of moral necessity	Topos of ability
Topos of contrast between feelings and facts	Topos of risk and preciousness
Topos of personal authority	Topos of the natural

In the following, I shall give examples and elaborate on the employed topoi individually, commenting also on their placement in the interaction and their

relation to the preceding expert arguments. The analysis starts with the approaching responses and then moves on to the distancing responses.

20.2.1 Approaching responses

> (1) Topos of utility: *Well, I didn't know very much before, but I have found out in this focus group that sort of for environmental reasons, it could possibly be an advantage*.[1] (Speaker 2)

A reoccurring topos in the focus group interviews is the topos of utility, as represented in the example above. In this example, the lay speaker explicitly states her own lack of knowledge prior to the interview, and acknowledges the contributions by the experts as valid and relevant new knowledge. She points to the benefit for the common good, in particular the environment, as a possible advantage of GM foods. This is done in a very low modality ("*could possibly be"*), which is a change in 'tone' from the expert utterances to which she is referring. In that sense, the lay speaker does not simply duplicate an expert argument, but represents it as a legitimate argument worthy of consideration.

> (2) Topos of security and (3) topos of moral necessity: *Yes, that he said that it took place in a closed environment, I hadn't really thought about that, or that it is being said that this is the only way to produce superior insulin […]*
> Interviewer: *You mean, what Carsten said about saving human lives?*
> *Yes, exactly. So in that way I am influenced by the things I hear, but I still don't like it.* (Speaker 22)

Whereas the topos of utility makes the argument for a positive impact of GM crops, the topos of security makes the argument that a potentially negative impact of GM crops can be prevented. As such, it is a *defensive* rhetoric which counters the topos of risk, which generally has been highly prevalent in the debate on GM crops. In the example above, the topos of security is not applied to GM crops as such, but only to GM crops grown under certain circumstances, more precisely in a "*closed environment*". Thus, it is based on a

[1] The quotations are all my own translations from Danish into English. They have been checked and corrected by a speaker with excellent competence in both English and Danish.

distinction which leaves most uses of GM crops as insecure. This application of the topos of security had been put forward in passing by one of the biotech experts earlier in the discussion, and in this passage the lay speaker makes it relevant as an example of a new distinction which has influenced her during the discussion. However, she does not represent the new information as leading to a complete change in her view on GM crops, not even on those GM crops which can be sealed off. Instead, she represents the new distinction as putting her in a *dilemma* where she is influenced by the expert utterance but still does not like the whole thing. The outcome of that dilemma is not settled in the discussion.

In the same quoted passage, the lay speaker employs what may be termed a topos of moral necessity. In referring to an expert utterance about GMO as "*the only way to produce superior insulin*", the speaker indicates that if a potentially lifesaving process can be achieved only through GMO, it may be acceptable. As with the topos of security, this application of the topos of moral necessity represents an *exception* to the layperson's general non-acceptance of GMO. And, similarly, saying that she is influenced by the expert argumentation does not imply that the lay speaker says she is convinced by it, only that she finds it worthy of consideration, and apparently has moved from a rather unitary to a more dilemmatic attitude towards certain forms of GMO.

> (4) Topos of facts vs. feelings: *It is quite clear that what we get to know, the facts we get, that is what we just happen to hear when we watch television or read about it. The facts we get are many times represented in an emotional way [....] And it is the same with the debate on dairies. Many people buy Hirtshals Milk [small diary in Northern Jutland] because they want to support the small dairy. But it hasn't anything to do with the quality, right, it's attitude value and sympathy and such things.* (Speaker 1)

In the above example, the lay speaker represents the knowledge of the laypersons (the first "*we*") as accidental, mass media based, and, due to the media representation, mainly emotional. This is later elaborated and said to be equivalent with the speaker's own example, the popular support for a small local diary, where the emotionality is implied to be equivalent to "*attitude value*" and "*sympathy*" as opposed to the "*quality*" (of the milk). The speaker thus picks up and elaborates on the topos of factual vs. emotional argumentation, which had been put forward by one of the experts earlier in the discussion. And, importantly, the speaker applies the topos to the knowledge

base of the laypersons in general, thereby writing them off any substantial argumentative legitimacy.[2]

> (5) Topos of personal authority: *It does* [make a difference] *every time Marianne* [one of the biotech experts] *says something. I don't know why, but she seems very trustworthy to me. And it's being said in a way so that I can follow many of the things she says.* (Speaker 21)

Asked about whether the discussion has changed her mind, the lay speaker employs a topos of personal authority, referring to the credible and understandable way of arguing by one the biotech experts in the discussion. It is worth noticing, though, that this is not the classical topos of authority of the expert as such, but a topos of an authority which is achieved and performed by a specific individual in a specific situation.

20.2.2 Distancing responses

> (6) Topos of risk & preciousness: *It could of course be that in 10-15 years time when this area has been researched a bit more and the information has reached a higher level, maybe then I may acknowledge that it* [GM crops] *can be used in some areas. But as it looks now, no, we only have the very same earth and the same environment, and then I do not dare to run the risk.* (Speaker 25)

Moving to the *distancing* responses, the topos of risk plays an important role in the focus group interviews. In the example above, where the speaker sums up his view on GM crops after a good deal of the discussion, the topos of risk is linked to a topos of preciousness. By asserting the fact that "*we only have the very same earth and the same environment*" the speaker indicates at the same time the global reach ("*earth*"), and the preciousness ("*only the very same*") of what is at stake. This assertion, though, is preceded by a concession with regard to future knowledge. The speaker rejects GM crops for the present time, but explicitly opens a possibility of partial acceptance in the future – though highly modalized ("*maybe then I may*") – depending on the

[2] This use of the topos of facts vs. feelings resonates with Cook's studies on attitudes among scientist on the GMO debate, where the attitude that "scientists think" whereas "the public feels" is reported to be widespread (Cook 2004).

development in knowledge about GM crops. As such, the response is not only a distancing response, but also has an approaching quality.

> (7) Topos of naturalness: *I also have a lot of respect for the things you* [the experts] *are saying, right, because you are a bit different from us, because you have another background, right. But the one with the tomatoes, I won't go for that one, because I still think it is disgusting, that it should be that way because they should be able to last longer. I still think it is chemical, in my world it will remain so, but I have a lot of respect for it, and I also listen a lot to what you are saying, and I think much of it sounds sensible, but you haven't convinced me. And then you can call me stubborn or whatever I am, I don't know.* (Speaker 24)

The topos of nature or naturalness also occurs several times in the focus group interviews. In the example above, the natural is assumed to be the positive alternative to the "*chemical*" quality of the long-life GM tomato. The speaker stresses his own subjectivity by the frequent use of "*I*", especially in combination with mental processes such as "*I think*", and uses the emotional term "*disgusting*" to underline his rejection of GM crops. But, on the other hand, the rejection is framed by a lot of defensive and interpersonal rhetorical (face) work, where the speaker takes great pains to express his respect for the experts present in the discussion, and even anticipates self-criticism at the end of his turn.

> (8) Topos of impartiality vs. bias: *That's the problem, it's when do you have a trustworthy expert? What is his agenda? That's where the problem is, right, because experts who are employed by Novo Nordisk* [Danish medical company] *I may doubt, but an expert within a public institution I will probably side with a bit more.* (Speaker 25)

Whereas the topoi of risk and naturalness both address the content or issue qualities of GM crops, the topos of impartiality vs. bias addresses qualities of the *debate*, more precisely the *conditions* of the debate. Without mentioning the specific experts in the focus group, the lay speaker challenges the credibility of experts in general. He does so by raising the question of *cui bono* ("*What is his agenda?*"); also experts may be led by interests which are not purely scientific. This question is followed by a distinction between privately and publicly employed experts, the latter being described as more trustworthy, though in a modalized form expressing uncertainty or caution.

(9) Topos of (self-) contradiction: *I read all the time that now it's healthy to eat something, and then suddenly you find out, then, suddenly, some experts find out that it's not healthy after all. And then, suddenly, some experts find out that it is healthy after all. You get so much misleading information.* (Speaker 24)

Another topos which addresses the quality of the debate and indirectly the credibility of expert utterances is the topos of (self-)contradiction. Here, the lay speaker points to contradictory expert information on healthy food, which by analogy may question expert information on GM foods as well. As with the topos of impartiality, the topos of (self-)contradiction denies the application of the classical topos of authority in relation to experts on foods.

(10) Topos of ability: *I can easily understand what you're saying, but I try to see it from the other side as well. I also think, just how much reflection are you allowed to have when you live on less than a dollar a day? How much room is there to reflect on what you put into your mouth? There's probably not very much room for that.* (Speaker 2)

Finally, the topos of ability in the above example also addresses the conditions of the debate, but now in relation to the attitudes of poor inhabitants in developing countries where GM crops may be used – and welcomed – to remedy famine. After having expressed full understanding for the view put forward by one of the participating experts (that one should give developing countries the choice of using GM crops), the lay speaker claims to add "*the other said*"; i.e., the perspective of distant others, to the debate. She problematizes whether the willingness to use GM crops by people living at a subsistence level can be seen as a true approval, given the limited "*reflection*" which can be expected in such cases of necessity. The speaker does not, in the example or elsewhere in the focus group interview, state exactly how this problematization should affect the stance on GM crops in developing countries. Her contribution adds a new perspective, rather than presents a definite attitude.

20.3 Discussion and conclusion

The analysis clearly shows that the laypersons in the interviews do not dismiss the expert arguments straightaway but reflect upon and 'negotiate' several of these. In that sense, the laypersons' views on GM crops do not appear to be "*resistant to persuasion*" as Scholderer (2005) has suggested. Since Scholderer's

suggestion was based on a review of the literature on how mediated communication may change attitudes on GM crops, the striking difference between the results in the current study and in the studies referred to by Scholderer suggests significant differences between the persuasive influence of mediated communication on the one hand and interpersonal communication on the other, at least in settings similar to the lengthy focus group interviews in the current study. This is not a new finding to communication studies, at least since Katz and Lazersfeld formulated their "*two-step flow*" theory based on the role of "*opinion leaders*" (Katz/Lazersfeld 1955), but it is worth noticing that the current study indicates that also interpersonal communication with strangers, in this case academic experts, may be influential. It is an open question how this applies to contexts other than the focus group interviews here examined.

Equally important, the analysis shows that the laypersons typically do not change their views in the sense that they simply take over the expert view. Instead, a wide variety of modifications can be observed. The laypersons express interest in arguments or information put forward by the experts, they recognize an expert style of communicating, or articulate dilemmas between different perspectives. Related to this, the use of modality, which expresses doubt, reservations or caution, is quite frequent in the laypersons' responses. Differentiations between different kinds of GM crops also play an important role, especially in the approaching responses. Again, these differentiations do not simply imply acceptance of certain forms GM crops, rather they imply an acceptance that certain arguments are worthy of consideration.

Several of the topoi in the lay responses, especially among the distancing responses, concern the conditions for discussing GM crops rather than the issue itself. Far from appearing as flat refusals to accept expert arguments, these meta-communicative topoi are inventive contributions to the interview discussion which display a reflexive relation to expert argumentation in society. The use of these topoi also represent a strategy which lay persons may employ in order to simultaneously appear as rational individuals and recognize the gap of field-specific knowledge between them and the experts.

This strategy enacts one of the predominant *situational identities* (Billig 1996, p. 264) which can be observed among the lay persons in the focus groups. It is an identity as a *critical or reflective citizen*, who questions the scope of scientific expertise and the role of science in the societal deliberation. Another predominant identity enacted by the laypersons, is *the learning citi-*

zen, who positions herself as being educated by science. Thirdly, a less predominant situational identity is the *stubborn* or *isolated citizen*, who positions himself as essentially unaffected by science, insisting on keeping his own view, though not insisting on it as *the* view for anybody else. When the laypersons in the focus groups enact one of these identities, and they may enact more than one in the course of events, they all appear to be concerned about showing open-mindedness and recognizing the value of scientific knowledge, also in the case of disagreement and problematization. Whether this is the case in more informal and backstage interactions would make an interesting study. Finally, a word on the *absent* topoi in the focus group interviews. Although a major point of the current chapter has been to give an impression of the diversity of everyday argumentation in dealing with complex issues and expert argumentation, this diversity is not unlimited. An interesting absence, in my view, is that topoi of pleasure, personal convenience and aesthetics play almost no role in the discussion. These topoi do indeed play a role in the discourses surrounding many other technologies and knowledge saturated products, and they form part of everyday dilemmas for many users when it comes to considering for example personal convenience against environmental concerns. However, they do not, as yet, seem to be associated with GM crops.

References

Aristotle (2007). *Retorik*. Odense: Museum Tusculanum.

Bauer, M.W. & G. Gaskell (Eds.) (2002). *Biotechnology. The Making of a Global Controversy.* Cambridge: Cambridge University Press.

Billig, M. (1996). *Arguing and Thinking: a rhetorical approach to social psychology*. Cambridge: Cambridge University Press.

Bornscheuer, L. (1976). *Topik. Zur Struktur der gesellschaftlichen Einbildungskraft*. Frankfurt a.M.: Suhrkamp.

Cicero, M.T. (1981). *Retoriske skrifter. De oratore*. Odense: Odense Universitetsforlag.

Cook, G. (2004). *Genetically Modified Language. The discourse of arguments for GM crops and food*. London: Routledge.

Gabrielsen, J. (2009). Topisk kritik. In: M.L. Klujeff and H. Roer (Eds.) *Retorikkens aktualitet* (pp. 141-165). København: Hans Reitzels Forlag.

Horst, M. (2005). Cloning Sensations: Mass Mediated Articulation of Social Responses to Controversial Biotechnology. *Public Understanding of Science* 14 (2), 185-200.

Katz, E. and P.F. Lazersfeld (1955). *Personal Influence. The Part Played by People in the Flow of Mass Communication*. Glencoe, Ill.: The Free Press.

Kienpointner, M. (1997). On the Art of Finding Arguments. What Ancient and Modern Masters of Invention Have to Tell Us about the 'Ars Inveniendi'. *Argumentation* 11 (2), 225-236.

Lassen, I. (2008). Matters of Uncertainty: Negotiating Public Opinion. In: *Journal of Risk Research* 11 (8), 1025-1045.

Myers, G. (2004). *Matters of Opinion. Talking about Public Issues*. Cambridge: Cambridge University Press.

Scholderer, J. (2005). The GM Foods Debate in Europe: History, Regulatory Solutions, and Consumer Response Research. *Journal of Public Affairs* 5 (3-4), 263-274.

Zompetti, J.P. (2006). The Value of Topoi. *Argumentation* 20 (1), 15-28.