

Ethical considerations on stakeholder engagement in radiological risk governance

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Abstract – This paper highlights some ethical considerations relevant to formal types of stakeholder engagement in radiological risk governance. These reflections presented are based on previous research related to ethical aspects of radiological risk governance and on the outcomes of the ENGAGE research project¹ in particular. The paper aims to serve as inspiration for research and dialogue on what responsible stakeholder engagement could and should be, and does so by presenting two key ideas about the ethics of stakeholder engagement: the primary ethical motivation for stakeholder engagement and the overall ethical framework for stakeholder engagement.

Keywords: ethics / stakeholder engagement / governance / justice

1 Keeping the primary ethical motivation for stakeholder engagement in mind

1.1 The justice of justification

There exist various types and models of stakeholder engagement, and it has been stated from the start of the ENGAGE project that “no value judgement is made on which type or model of participation is considered more valuable or better than another” (Turcanu *et al.*, 2019). From a social sciences and humanities research perspective, thinking in terms of models (and their underlying theories and practical realisations) with an eye on reality is indeed the right perspective. However, reflections on ethics in relation to radiological risk governance in general, and with a focus on stakeholder engagement in particular, would always need to keep the principle of justice in the justification of radiological risk in mind as a central concern, and this from the perspective that radiological risk governance should primarily *care for the vulnerable* (Meskens, 2016).

This normative justice view is supported by the Aarhus Convention² and by the International Commission on Radiological Protection (ICRP)³, and can, in a simple way, be formulated as *the right of people to become involved in knowledge generation and decision-making related to situations or practices that might negatively affect them*.

It may be clear that the responsibility for the implementation of this principle lies with “authorities” that have the power and the means to organise stakeholder involvement. Depending on the context, these authorities can be political authorities, management and governing boards (e.g. of hospitals) or medical doctors, among others. In that sense, the so-called substantive motivation for stakeholder engagement, being that it may result in “better” (in the sense of improved) knowledge generation and decision-making, could also be seen as a “positive consequence” of the implementation of the justice principle (caring for the vulnerable).

With this reasoning, it becomes clear that “the (potentially) affected” would need to be considered as the “primary” stakeholders in radiological risk governance, regardless of the context of application. Scientists, ethics committees, the regulator and representatives from industry and civil society are also relevant stakeholders and could also be “(potentially) affected”. They also have the “right” to have their voice heard

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¹ The EURATOM-sponsored ENGAGE project (“Enhancing stakeholder participation in the governance of radiological risks for improved radiation protection and informed decision-making”) aimed to identify and address key difficulties and opportunities for stakeholder engagement in three fields of exposure to ionising radiation: medical use of ionising radiation, post-accident exposures and exposure to indoor radon. Available from: <https://www.engage-concert.eu/>.

² UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. Available from: <https://www.uncece.org/env/pp/treatytext.html>.

³ ICRP Publication 138 on the Ethical Foundations of the System of Radiological Protection. Available from: <http://www.icrp.org/page.asp?id=191>.

and to contribute to knowledge generation and decision-making. However, they are not vulnerable as they act from positions with a specific authority. This means that the motivation for their engagement should be seen mostly as serving improved knowledge generation and decision-making. Following this reasoning, it may be clear that civil society representatives are somewhat of an “in-between” category. As interest groups, they care for a specific societal interest. This interest may be an “activist” interest, in the sense of a care for the vulnerable (the potentially affected by the radiological risk), taking into account that what is considered vulnerable may be citizens or “the environment” in general. However, that interest can also be a business interest or a specific political or spiritual interest, making these civil society representatives to act from positions with a specific authority.

Although the justice of justification, in the interest of caring for the vulnerable, may be largely supported as the primary ethical motivation for stakeholder engagement, ethical issues remain with the possibility to put it into practice. Standard ethical issues and questions in that sense are:

- Who is affected? Who is vulnerable? In the various reflections made in previous research, including research in the context of the ENGAGE project, the question “What is a stakeholder?” was mainly approached from a pragmatic consensus perspective, taking into account the difficulty of grasping the meaning in general and the diverse meanings it can have in specific application contexts in particular. From the previous reasoning, we understand that the justice of justification principle helps to “define” stakeholders primarily as those who would have “the right to become involved in knowledge generation and decision-making on practices that might negatively affect them”. However, this perspective does not necessarily lead to an unambiguous determination of who should (not) be involved. Two challenges in this sense are:
 - How to determine who is affected and who is not? The concept of an “affected community” brings along the challenge to determine its “boundary conditions”, taking into account that these boundary conditions may be geographical (as in the case of nuclear power plants or waste disposal sites) but also be conditions to be set considering *e.g.* gender and age (as in the case of medical diagnosis or treatments),
 - How to determine who is vulnerable and who is not? Citizens, with their limited potential to directly influence policies that might negatively affect them, or patients, in their dependency on medical doctors and specialists, may generally be understood as being vulnerable, but one can imagine situations in which also the scientific community or even industry or civil society representation may be “vulnerable” under the influence of “higher powers” such as politics or the liberal market;
- How to act responsibly towards the future generations who, in their vulnerability, can obviously not be involved in knowledge generation and decision-making today?
- What about non-human living species? From a pragmatic practical perspective, only human beings can be engaged

as stakeholders, simply because they are the only creatures that are capable of reasoning and raising their voice. However, the risk is that this pragmatic perspective becomes locked into a narrow anthropocentric view, not sensitive to the fact that also animals and plants are vulnerable living creatures. Some would even say that, precisely because they are incapable of reasoning or raising their voice, animals and plants are even “more vulnerable” than human beings. Therefore, from an ecocentric perspective, one could ask the question whether also animals and plants should be seen as “stakeholders”, taking into account that we humans should do justice to them by caring for their “rights”. The issue of ecocentrism *versus* anthropocentrism can pragmatically be solved by stating that stakeholders have not only rights but also responsibilities (animals and plants have no responsibilities). This can be seen as a perspective of “responsible anthropocentrism”, in the sense that, given that humans are the only living creatures capable of reasoning and raising their voice, it is not “wrong” for us humans to perceive everything from out of an anthropocentric view (“we have no choice”), given that this brings along the fact that we humans not only have responsibilities towards each other but also towards animals and plants and the environment in general;

- What if stakeholders do not want to engage?

While the justice principle (of justification as a central concern) is essentially *independent from the application context* (which means that the normative motivation for stakeholder engagement does not depend on the application context), further rationales on ethics related to the implementation and organisation of stakeholder engagement will need to take into account (or start from) situations or practices typical for the context of application. In this, two further attention points are worthwhile considering.

1.2 Vulnerability and power in different application contexts

As an example, the situations or practices considered in the ENGAGE project were the “presence” or application of radiation in three contexts: emergency preparedness & response (EP&R), indoor radon and medical. It may be clear that “the vulnerable” denotes different “kinds” of people in these three contexts. In the context of indoor radon, it concerns those living or working in buildings with high radon concentrations. In the medical context, it concerns patients and staff, but also broader publics in the context of general health care policies (*e.g.* mammography campaigns). Finally, in the case of EP&R, it obviously concerns in the first place those affected by the consequences of a nuclear accident, such as the (local) population and first responders, but also those stakeholders engaged in preparedness management and measures (see *e.g.* Schneider, 2019). In short, thinking about ethics in a specific application context brings along the need for joint reflection on who is vulnerable and who has the authoritative (mandated, legitimate) power to identify and engage those vulnerable and other stakeholders.

1.3 From the ethics of stakeholder engagement to engaging stakeholders in deliberating ethical issues

In specific application contexts, such as the ENGAGE contexts EP&R, indoor radon or medical, but also the context of nuclear energy or nuclear waste policy, ethical issues and questions may emerge that do not relate to (the rationales of) stakeholder engagement directly, but that should also become a topic of concern in stakeholder engagement as such. Typical examples of the contexts considered in ENGAGE are:

- (medical) ethical choices to be made in the case of a pregnant woman with breast cancer: who decides what?;
- (EP&R) considerations on return of evacuated citizens to a region with still an elevated⁴ radiation level: who decides taking into account uncertainties and values? Should informed consent and autonomy of citizens be the central perspective?;
- (EP&R) evacuation policies: who receives compensation and who does not?;
- (indoor radon) risk mitigation for private houses: who decides about what risk is tolerable and for whom? (see e.g. smoking policies);
- (indoor radon) the issue of justice and selection of priorities: do we prioritise the higher level of concentration or do we put a focus on the collective risk with the aim to reduce the average level of concentration? How to allocate public and private resources for managing health issues related to radon with or without considerations of other risks (or even energy efficiency)?

A comprehensive overview of ethical issues within specific application contexts that should become a topic of concern in stakeholder engagement goes beyond the scope of this paper. Research has been already done in EP&R and medical contexts in this sense (see e.g. Malone *et al.*, 2018, and the CONFIDENCE, TERRITORIES and SHAMISEN projects⁵), and the reader might want to consult the additional sources mentioned in the References

2 An “ethics of care” framework for stakeholder involvement

So, what are we speaking about when we speak of ethics in relation to the radiological risk? In a somewhat simplified way,

⁴ Elevated in the sense of higher than the local average background radiation.

⁵ The CONFIDENCE Project: research focussed on uncertainties in the area of emergency management and long-term rehabilitation. Available from: <https://eu-neris.net/projects/concert/project-concert-confidence.html>.

The TERRITORIES Project: research focussed on “enhancing uncertainties reduction and stakeholders involvement towards integrated and graded risk management of humans and wildlife in long-lasting radiological exposure situations”. Available from: <https://territories.eu/>.

The SHAMISEN Project: research focussed on nuclear emergency situations and in particular on improvement of medical and health surveillance. Available from: <https://www.isglobal.org/en/-/shamisen>.

we could say that, in general, ethics is about judging on “what ought to be” in absence of evidence that would facilitate straightforward judgement, consensus and consequent action. The “absence of evidence” may be due to the existence of knowledge related uncertainty and/or due to a plurality of views on the issue at stake. It may be clear that this description of ethics leaves open how actually the “act of judgement” can or should be done, in the sense that it might as well apply to a single individual reflecting on a particular ethical issue (such as becoming a vegetarian or not) as to a formal ethics committee discussing a specific medical case, or even to a society deliberating a specific social problem (such as climate change) through a system of representative democracy. However, especially with ethical issues that concern multiple people or society as a whole, we feel that this act of judgement would need to involve some sort of deliberative dialogue, *precisely because of* the existence of knowledge related uncertainty (leaving “room for interpretation”) and/or the plurality of views on the issue at stake. A fundamental characteristic of many ethical issues that concern multiple people or society as a whole is that they make a “moral appeal” to anyone concerned to recognise that the own ethical judgement is relative, and that some sort of deliberative dialogue is needed to understand each other’s views on the issue at stake, and to come to some kind of consensus solution (if possible). In other words, the idea is that, in those cases, if nobody has the authority to make sense of a specific issue and of consequent solutions, then concerned actors have nothing else than each other as equal references in deliberating the problem. In *The ethical project*, the philosopher Philip Kitcher makes a similar reflection by saying that “there are no ethical experts” and that, therefore, authority can only be the authority of the conversation among the concerned actors (Kitcher, 2014).

However, absence of evidence does of course not exclude the possibility of some kind of normative reference to assist that judgement. Throughout history, philosophers have tried to formulate specific rationales to defend possible references for ethical judgement, and one can distinguish four categories of normative ethical theories in Western philosophy in that sense⁶. The theories and their critiques are summarised in Table 1.

Since their emergence at various moments in history, all theories have been subject to academic critique with respect to their attempt to “universalise” their approach. Meanwhile, the ethics of care approach became somewhat established itself as an ethical thinking mode, especially in medical context. The reason thereof is understandable, as traditional ethics of care is said to work for “close relations”, such as those in a family and with friends, but also for the relationship between a medical doctor and a patient and the relatives of the patient, which can also be called a “close” relationship⁷.

⁶ The focus on “Western philosophy” has no other meaning than to provide a “pragmatic” framework for the introduction of the ethics of care perspective developed here. Obviously thought from other philosophical traditions and spiritual perspectives may be relevant here too. However, an elaboration of those traditions and perspectives is outside the practical scope of this chapter.

⁷ A more extended elaboration on this can be found in Meskens (2018).

Table 1. Dangers and problems in Western philosophy normative ethical theories.

Western philosophy normative ethical theories	Danger/problem
Theories that seek reference in “universally applicable principles” (Kantian) deontology, consequentialism (utilitarianism)	Danger: risk of overlooking the particular of specific situations
Theories that seek reference in evaluating particular situations “Particularism”	Danger: risk of self-protective relativism (cultural, social, political)
Theories that seek reference in virtues (“being good”) “Virtue ethics” (Aristoteles)	Problem: virtues do not always unambiguously translate into concrete action
Theories that seek reference in the care for human relationships “Ethics of care”	Problem: works for close relations with known people; unclear how it could work for distant relations with strangers

In conclusion to this chapter, this simple overview and introduction to the ethics of care approach can now be used to formulate a specific ethics of care vision on stakeholder engagement that could inspire the motivation for stakeholder engagement in general and in radiological risk governance in particular as characterised above: *caring for good radiological risk governance is caring for the relationships between all those involved in radiological risk governance*. This implies in the first place that those with authoritative power should care for those vulnerable to the radiological risk, as made explicit in the section on the justice of justification, being the primary ethical motivation for stakeholder engagement. However, the ethics of care vision may now also provide a motivation for the so-called substantive motivation for stakeholder engagement, being that it may result in “better” (in the sense of improved) knowledge generation and decision-making. Taking into account that an ethical issue is a complex issue characterised by knowledge-related uncertainty and a plurality of views, “knowing” this issue, including the ethical aspects and the views of others on the issue and its ethical aspects, can only be done together. In other words: *we need the others, not only the experts but also the stakeholders, to actually get “full knowledge” of the issue at stake*, bearing in mind that this knowledge also includes knowledge of the uncertainties and the multiple views on the issue at stake.

In sum, an ethics of care vision on stakeholder engagement, caring for interpersonal relationships between all concerned, motivates as well the justice principle (caring for the vulnerable) for stakeholder engagement, as the need to engage stakeholders in order to get full knowledge of and insight into the issue at stake. One could say that this view empowers the vulnerable, as everyone concerned has to accept that they are needed to provide (their part of) essential knowledge of and insight into the issues at stake. At the same time, this view invites authoritative power holders to be modest, as it invites them to accept that their knowledge and insight is “incomplete”, and that their mandated power does not give them the privilege to impose their view on the issue at stake and to act accordingly. However, the overarching motivation for an

ethics of care vision on stakeholder engagement, caring for interpersonal relationships between all concerned, is that the knowledge and insights generated through deliberative dialogue among all concerned is the essential advanced “synergetic” knowledge and insight needed to tackle the issue in a way that would be trusted by everyone concerned. It is an advanced synergetic form of knowledge and insight that is “bigger than” and different from “the sum” of the separate “knowledges” and insights of all concerned; a knowledge and insight that can never be generated by those concerned separately.

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References

- Kitcher P. 2014. *The ethical project*. Cambridge, MA: Harvard University Press.
- Malone J, Zölzer F, Meskens G, Skourou C. 2018. *Ethics for radiation protection in medicine*. Taylor & Francis.
- Meskens G. 2016. Ethics of radiological risk governance: justice of justification as a central concern. In: *Annals of the ICRP*. SAGE Publishing.
- Meskens G. 2018. Reflections on uncertainty, risk and fairness. In: *Ethics for radiation protection in medicine*. Taylor & Francis.
- Schneider T. 2019. The role of radiological protection experts in stakeholder involvement in the recovery phase of post-nuclear accident situations: some lessons from the Fukushima-Daiichi NPP accident. *Radioprotection* 54(4): 259–270.
- Turcanu C, et al. 2019. *Final report of the ENGAGE project*. CONCERT deliverable 9.94.

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