

IRSN

INSTITUT
DE RADIOPROTECTION
ET DE SÛRETÉ NUCLÉAIRE

Faire avancer la sûreté nucléaire

From concepts to regulatory cognitions and practices

IRSN

13/12/2020

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Purpose and plan

- Our HSS research program
- Research approach
- Appropriation process
- Conclusion and perspectives

A HSS research program

- After the Fukushima-Daiichi accident, a research program focused on the French nuclear regulatory system
- Centered on « natural » hazards, risk regulations and the design of regulatory tools
- Building on three case studies : Cold waves, Heat waves and Floods
- A socio-historical approach

Research approach

- Filling the knowledge-gap (technical) “by” immersion : an opportunity and an “entry cost”
- Producing an a-theoretical narrative with two objectives :
 - establishing a medium and foster an in-depth empirical relationship with technical experts
 - stimulating abductive reasoning
- A dual reviewing process : a challenge for expertise and research
- An academic support all along the research to help sorting out and counterbalance multiple influences

The “appropriation” seminar (1 / 3)

- HSS Researches can be used to support and strengthen expertise (work, processes) => How to bolster appropriation of our results, that is the translation and operationalization of our results in expertise ?
- For that purpose we design “a place” dedicated to debates and learning, and underpinned by a social “engineering” aiming at fostering discussion.
- A flexible and adaptable framework with a few principles
 - Discussion of only relevant and synthetic results. Done by the researcher, asked to choose the appropriate and standing-alone excerpts of its report.
 - For each topic a presentation done by an expert whose purpose is not to report the results, but the way in which he has understood them and his thoughts about how they can be connected to his work.

The “appropriation” seminar (2/3)

- To foster commitment in the debates, discussions are organized within small groups of maximum ten participants.
- To avoid a natural grouping according to pre-existing affinities, we do not allow free placement. In order to promote heterogeneity in terms of discipline, hierarchical status, and structural affiliation.
- Representatives of the academic world are invited to participate in the various sessions and discussions so that they can enrich them with their knowledge and experience

The “appropriation” seminar (3/3)

- Acceptance posture is needed
- For the researcher, acceptance of a dispossession of one results
- Acceptance of a reconsideration of their views, analysis and work
- Appropriation work is a source of discomfort, for both researchers and the experts

Synthesis and contributions

- A specific document
- Giving a synthetic account of a HSS research to non HSS and technical experts
- Analyzing what are the specific contributions of our research program for expertise ? An insider view (inside the research and inside IRSN)

Benefits of a HSS researches for the IRSN

- A set of concepts directly relevant to understand IRSN's daily activity and IRSN's activity over time
- A framework the various stakeholders of the nuclear safety regulatory framework can use to analyze and improve their organizations, ideas, practices and strategies
- A research that reveals decision-making processes and design processes of regulatory tools and expose their potential weaknesses and strengths.

Benefits of a HSS researches for the IRSN

A socio-historical narrative may serve various purposes and may have various benefits for the IRSN :

- Fostering learning-processes about risk regulation and regulatory tools design
- Supporting skills and knowledge building
- Enabling mediations between stakeholders and/ or the public

To conclude

- Beyond simple dissemination, fostering appropriation is an effortful and two-fold work.
 - Work of synthesis, translation, passage, carried out by the researcher,
 - but also work of cognitive reception and appropriation for the recipients of our work.
 - In both cases it requires commitment, trust and various kinds of renunciations that HSS researchers must accept, trigger, foster and sustain.
- A research approach, with its benefits, opportunities, costs but also pitfalls
 - An academic support all along the research is needed to help sorting out and counterbalance multiple influences linked to “embeddedness”
- Perspectives : the CIRAC project, embedded in an on-going design process of a regulatory tool concerning natural hazards in the context of climate change