

A MULTI-PERSPECTIVE ACCOUNT OF SAFETY (MUPSY)

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Ragnar Rosness, SINTEF Torgeir K. Haavik, NTNU Social Research Ranveig Kviseth Tinmannsvik, SINTEF "How people work is one of the best kept secrets in America" (David Wellman)

- To what extent is safety work visible to the people involved and to outsiders?
- What makes some aspects of safety work less visible than others?
- How can people be sensitised to safety work, so that formerly invisible aspects of safety work are made visible?
- How can organisations learn from successful operations by making safety work visible?



Objectives of MUPSY – A MUltiPerspective account of SafetY

- MUPSY forms the backbone of a *Practitioners' guide to learning from successful operations*.
- Primary purpose to sensitise the user to actions, patterns of interaction and practices that contribute to successful operations (safety work)
- To be used as a support for reflection and discussion, e.g. during
 - Brief and informal talks
 - Debriefs
 - Job planning meetings
 - Safety meetings
 - Workshops

MUPSY - Approach

- Emphasises the *diversity of perspectives* that can be used to identify high level tasks that contribute to safe operations.
- Seeks to bridge the systemic/organisational level and the meso/micro level (group interactions and individual actions in an explicit manner, using straightforward arguments in everyday language about how specific actions, interaction patterns and practices contribute to the high level tasks.
- *Includes practical examples* derived from interviews, observations and the literature.
- Allows the users to extend the model based on their own observations and interpretations.
- We do not dichotomise or rate performance into categories such as "adequate/less than adequate" or "failure/success".

From perspectives to high-level tasks

Perspective	High-level tasks	
Barrier and energy	Ensure adequate barriers against unwanted event	
perspective	sequences	
Information processing	Ensure adequate sharing and interpretation of	
perspective	information	
Normal accident theory	Handle complex and hot-tempered technologies and	
	operations	
High reliability organisations	Use organisational redundancy to ensure safe	
	operation	
Conflicting objectives: Risk	Ensure safety in the face of conflicting objectives	
taking, adaptation and drift		
Resilience engineering	Handle minor disruptions	
	Prepare for a nasty surprise	
	What happens when nothing happens?	



Relevant actions, patterns of interaction and practices

Perspective	High-level tasks	Relevant actions, patterns of interaction and practices
Information processing perspective	Ensure adequate sharing and interpretation of information	 Share information across the boundaries of the organisations Challenge the prevailing understanding of the situation Providing space and time for slow discussion and slow thinking Anti-scapegoating



An example of an example: "Anti-scapegoating"

A drilling crew had just gone through a session of simulator training on well control. During the debrief they noted that it took a rather long time from the kick was observable until they had shut in the well. One of the crew members said "It was my fault". Another crew member immediately said: "No, it was not your fault; we all could have spotted it." Several more crew members confirmed this.

• The crew members helped to build a culture where people can share bad news with the confidence that it will not be turned against themselves or their fellow workers.



Intended use: Learning from successful operations

- The most salient vehicle for learning in large organisations is typically formal management systems. Procedures are added or tightened in response to unwanted incidents.
- There is a limit to how much a management system can grow before people are no longer able to keep track of their obligations, they do not have the capacity to comply with all the requirements, or the written procedures get too rigid get the job done.
- There is also a limit to how much time managers can spend checking the compliance of their subordinates before it reduces their time for reflection on safety issues.
- We do not recommend integrating large parts of MUPSY into governing documents. As an alternative, we encourage reflection on the less visible aspects of safety work and on the preconditions for these.



Relations to the work of Barry Turner

- The present study seeks to extend qualitative safety research from a focus on accidents to a focus of safety work.
- Turner is concerned with the organisation's capacity to "see" the problems that may eventually turn into a disaster. We aim to enhance the organisation's capacity to "see" how they build safety.
- Turner's information processing account of disasters is included as one of several perspectives used in our account of safety.



Summary

- Safety work, i.e. the things people do to prevent accidents, is partially invisible, sometimes even to the actors themselves.
- People may be sensitised to some of these tacit aspects of safety work by providing them with a richer pre-understanding of the things they do to prevent accidents.
- Our multi-perspective account of safety (MUPSY) therefore utilises six different perspectives on organisational safety to sensitise the users to the different ways in which individuals, groups and organisations build safety.



Practitioners' guide – free download for personal use

Rosness, R., Haavik, T., & Tinmannsvik, R.K. 2016. What do you do when you build safety? Practitioners' guide to learning from successful operations. SINTEF/NTNU Social Research, Trondheim, Norway. ISBN: 978-82-14-06185-7.

https://www.sintef.no/globalassets/sintefteknologi-og-samfunn/rapporter-sintefts/successful-operations-guide.pdf

WHAT DO YOU DO WHEN YOU BUILD SAFETY?

Practitioners' guide to learning from successful operations

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