Finnish Institute of Occupational Health

Process Industry Work Safety as Group Accomplishment: examining Safety II through organizational ethnography

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The ideas of Safety II challenge safety research

The challenge of Safety II to safety research:

- How to issue "why things almost always go right"?

- How to approach work-as-done?

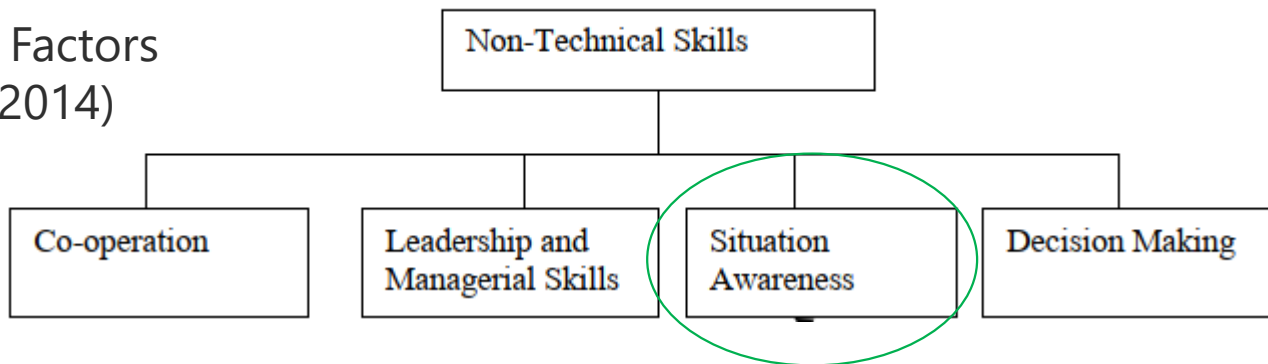*Can fieldwork and 'shadowing' (Czarniawska 2014) help safety researchers answer the call?*

1 failure in 10,000 events

9,999 non-failures in 10,000 events

(Hollnagel, Wears, Braithwaite 2015)
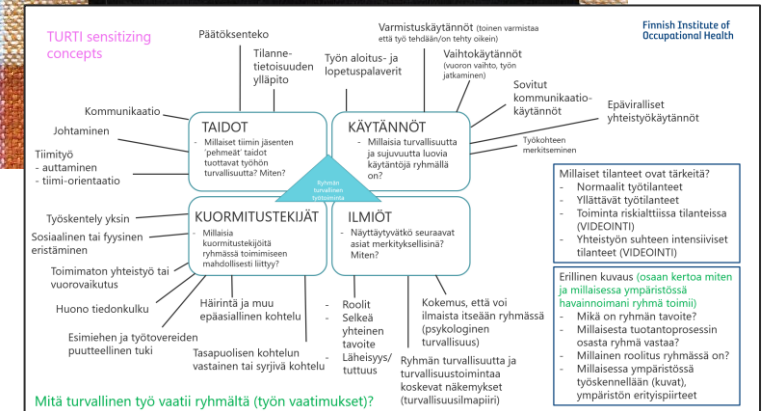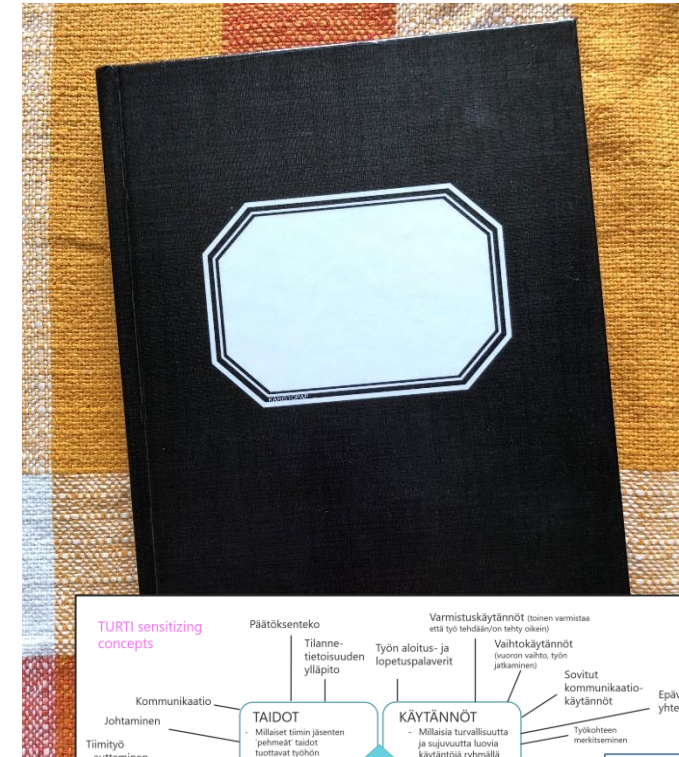
Teaming Up for Safety! (2019-2022)

What group factors create safety the work of Finnish process industry? How are they manifested in everyday work?

- Sensitizing concepts were adapted from
  - **Crew Resource management** (non-technical skills) (Flin et al. 2003)
  - **Human Performance tools for Work teams** (Doe2009),
  - **Psycho-social hazards** (MoHSFA 2015) and
  - other **group phenomenon** affiliated with safety (Glendon 2009)

Human Factors
(Teperi 2014)

(Flin et al. 2003, Endsley 2000)

Mixed methods: data to support observation

- Survey: (N=260)

- Incident investigation reports analysis (416)

- Thematic interviews

  - Work-teams (14)

  - Supervisors (5)

  - Middle management and safety experts (5)
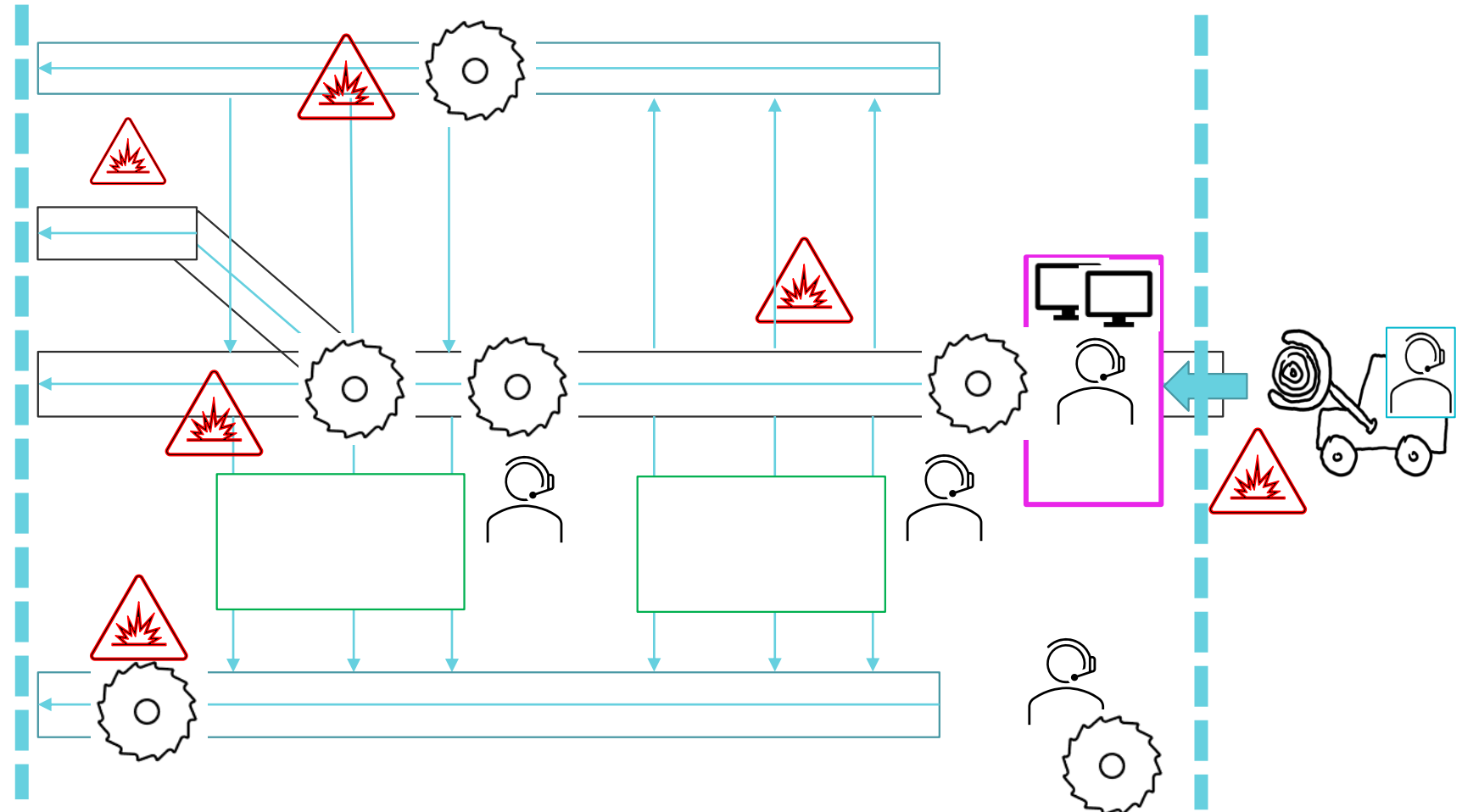
  - Top management (5)

The 'field', 'access to the field' and observation

- 'Field' and fieldwork is at the heart of organizational ethnography

- Our field:

  - The facilities of 4 Finnish plants (sawmill, food, paper and textile industry and industrial maintenance)

- 5 work teams: production (3) and 2 maintenance (2) (N=49)

- 'Gates': physical and ethnographic

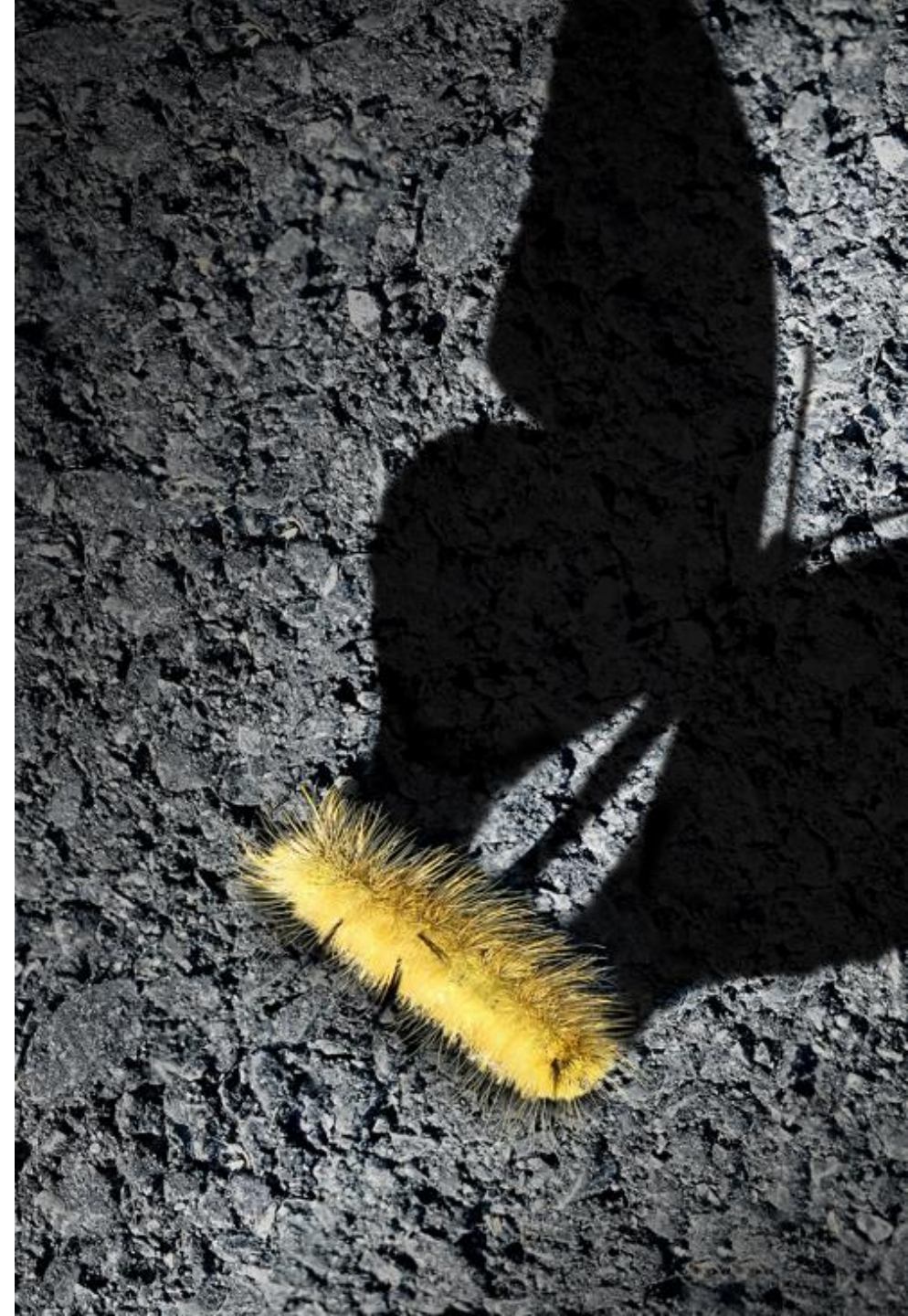- 'Shadowing' – a method of observation (Czarniawska 2014).

Shared situational awareness is needed to avoid the production line clogging

- Keeping the statements short and confirming messages received

- Utilizing special vocabulary (slang) to address problems quickly and notify machinery startup

- Repairing mutual understanding in case of 'talking on top of each other' on radiophone

- Contributing to team humor to maintain vigilance

Conclusions

- Shadowing can help ground the ideas of Safety II to empirical safety research (e.g. Ellis et al. 2019)

- Work groups' non-technical skills are a good example of the minute and often unseen things that make "things go right".

- NTS are vital for safety – but difficult to verbalize!

- **Group discussion theme cards to work-teams available in Finnish**

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Thank you!

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