#### Framing risks in a safety-critical and hazardous work: risk-taking as responsibility

Johan M. Sanne, Linköping University, Sweden johan.m.sanne@liu.se

### Overview

Problem, purpose and major findings System, framing of risks Data and methods A safety-critical job **Occupational hazards Risk-taking as responsibility** Conclusions

# Major findings

- Both transport and occupational risks seen as occupational responsibility
- Informs and legitimizes actual balancing
- Occupational responsibility makes work meaningful: service to nation, mutual support within team
- Risks framed as manageable due to skills
- Risk-taking sometimes necessary to make it work with given resources

# Problem

Railway maintenance technicians are assigned to secure safe and timely trains

- Their assignments puts them at risk of being hit by trains or objects falling from trains or electrocuted by high-voltage contact wires
- Everytime on tracks technicians balance demands for punctuality, train safety and own safety

#### Purpose

Analyze how transport risks and occupational risks are framed by working conditions and through occupational discourse

# Risk perceptions socially framed

- Constructed out of working conditions but also shaped by occupational discourse
- Informs balancing and also legitimizes it
- Reproduced within occupational communities
- Risk perception serves processes of occupational pride and identification

#### Safety-critical and hazardous work

Safety-critical tasks promotes identification with and involvement in work

- Hazardousness and mutual interdependence within the team strong force to develop sense of internal commonality and uniqueness
- Traditional blue-collar jobs, risks often constructed as manageable by team

### **Railway virtues**

- Punctuality
- Train safety
- Service to the nation

Claims to occupational autonomy coupled to a claimed occupational responsibility: "freedom with responsibility"

### Methods and data

Ethnographic fieldwork, 5 months, in railway maintenance, locomotive driving and among dispatchers (train control) in contemporary Sweden

Safety certification training

Interviews

Focus groups to capture social control in workteams

# A safety-critical job

- ETHNOGRAPHER: What is your responsibility [in terms of safety]?
- STIG: That the technology works of course... that is what we are employed for...
- SIXTEN: It is quite a large responsibility... when you have taken things away... or repaired something or replaced something. (Signal technicians, Focus Group, February 2003).

### Three reminders

Lerum accident: wrong wiring – support claims for responsible job

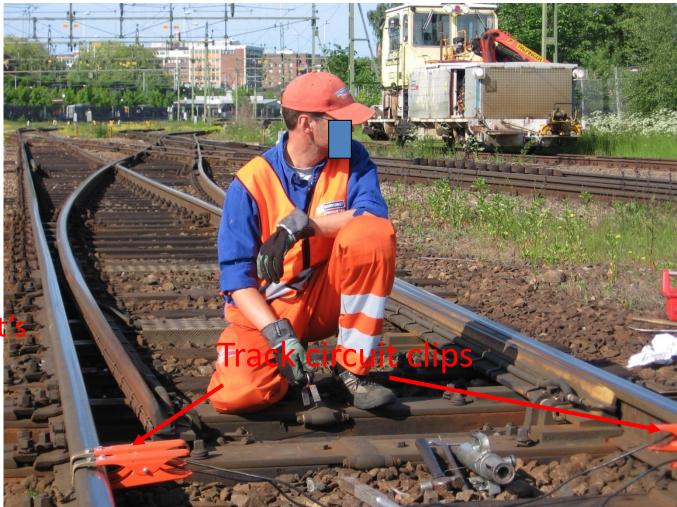
Incompetent outsiders (private companies, newcomers) reconfirm their responsibleness, carefulness and competence

Train safety creates engagement – clearing weed between tracks: "What a mess! You feel ashamed for the railway!"

# Occupational hazards

- Close interdependence within team require mutual responsibility
- The unique, fatal and definite character of occupational hazards sets technicians apart from other jobs
- Hazards are constructed as manageable through trust in colleagues, through skills and rules of thumb – visible when breaks down

#### Closing section from traffic



Informant photo

#### Need for mutual trust

I follow track technicians Torbjörn and Torsten when inspecting a single-track line. Torbjörn asks the dispatcher to protect a number of track sections from approaching traffic. Since we are about to walk a couple of kilometres we cannot attach track circuit clips to achieve green zone working: we would have to return to remove clips all the time. Instead, only the dispatcher set signals to stop.

# "What kind of men do I have?"

We are left without protection against errors that the dispatcher makes in regard to our protection. Torsten and I are walking a little bit behind Torbjörn, noting that the time for our protected work is running out and we are saying to each other: "Should not he call the dispatcher now?" After a while the dispatcher calls Torbjörn and asks him to return the section to his control. Afterwards, Torbjörn accuses us mildly for irresponsible behavior.

# Risk-taking as responsibility

- "This used to be our railway we looked after it so that trains would arrive in time", said track technician Torgny.
- Occupational pride to "make it work" in time and with given resources
- "Making it work" a collective ambition Rule-bending and risk-taking sometimes necessary and legitimate to "make it work"

#### Mundane risk-taking and rulebending to "make it work"



#### Risk-taking necessary and manageable

Everyday manpower and time-planning dependent on risk-taking

- Combined expression of responsibility, skill and control
- High-voltage technician Harry:
- "You can break rules as long as you know what you are doing"
- Serves technicians creation of social value, responsibility and accomplishment

# Conclusions

Great undertaking for others safety: railway technicians different from e.g. US firefighters

- Collective ambition to make it work rather than individual competition
- Risk-taking does not provide thrill or excitement
- Risk-taking only when needed to "make it work"

# Conclusions

Risk-taking should not be seen solely in terms of macho working cultures:

Supported by such but made necessary through institutional arrangements: employment contracts, resource allocation, culture of production

Risk-taking underpins worker culture, social structure and corporate ends