

COMPLIANCE vs. RESILIENCE:

Working to rule or working safely?

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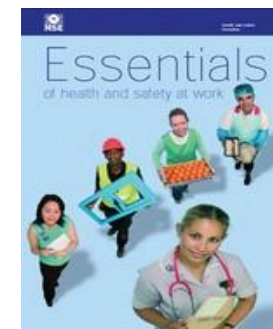
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DIFFERENT APPROACHES AND CONCEPTIONS OF SAFETY RULES: Paradigms 1 and 2



Rules as foundation for safety

- Required as ‘user manual’ for (certifiable) Safety Management System
- Central focus for attitudes important in safety culture
- Failure to follow rules cited as one of the most common causes in accident investigations



PARADIGM 1: Top-down

- **Roots in scientific management: rules embody the one best way**
- **Rationalist, prescriptive, static: can cover all eventualities**
- **Devised by experts to guard against the errors of fallible operators who lack the time or expertise to devise their own rules**
- **Worked out in advance & imposed on operators through training & enforcement**
- **Deviation essentially negative – blame, lack of trust**

PARADIGM 1: Adherents

- Supervisors/managers with authoritarian style
- Behavioural safety & behavioural economics (cost-benefit analysis)
- Purveyors of off-the-shelf safety manuals
- Auditors & Regulators: non-conformities and breaches of the law
- ‘Old fashioned’ accident investigators, compensation claimants & prosecutors
- ‘Engineering’ view – analogy with machines and their operational specification
- Media after accidents



PARADIGM 1: Research evidence

- **Behaviour- based safety: simple, observable, critical behaviours, compliance measured with feedback, role of praise & discipline**
- **Flavour of the month with clear proof of success, but still controversial for its cultural scope and flavour of blame-shifting**
- **Extensive research on factors correlating with non-compliance**

PARADIGM 1: Non-compliance

Individual factors

Attitude, intention, habit of non-compliance
 Previous accident involvement
 Low level of knowledge/training/ experience
 High value on macho, exciting, quick, money- or energy-saving way to work
 Self-image & status among peers favours risk and violation
 Perceived low risk/threat/consequence
 High self-efficacy/powerfulness/sees ways to make short cuts
 Lack of planning
 Male & young in driving (not in other arenas)

Organisational or safety climate factors

Management turns blind eye or inconsistent in sanctioning
 Non-participative style of supervision: poor cooperation workers & supervisors
 Poor (work)group cohesion: conflicts between trades
 'A skilled person can violate this way with impunity'
 Conflicting demands: productivity, time pressure, workload
 Subjective group norm to violate
 Lack of trust or management commitment
 Incentive pay vs. fixed hour rate

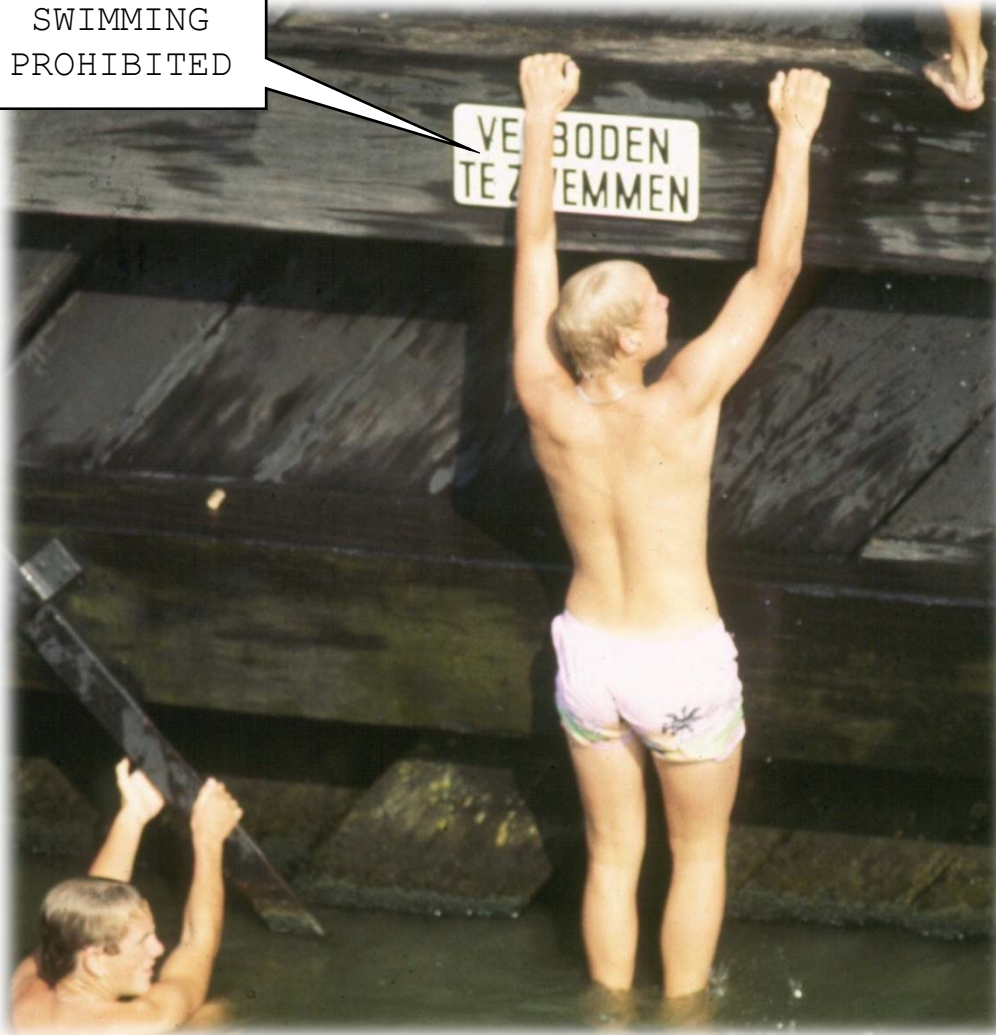
Hardware/activity factors

Unfamiliarity with design
 Complicated, difficult or changed design
 Design/layout making violation necessary to achieve objectives: compensate for poor equipment
 Use of incorrect materials

Rule related factors

Difficult to understand/comply/work with,
 Violation needed to get job done
 Out dated rule, or conflicting rules, no priorities given
 Rule seen as not appropriate for the organisation/activity (rule-maker has no knowledge of reality of activity)
 Too many rules

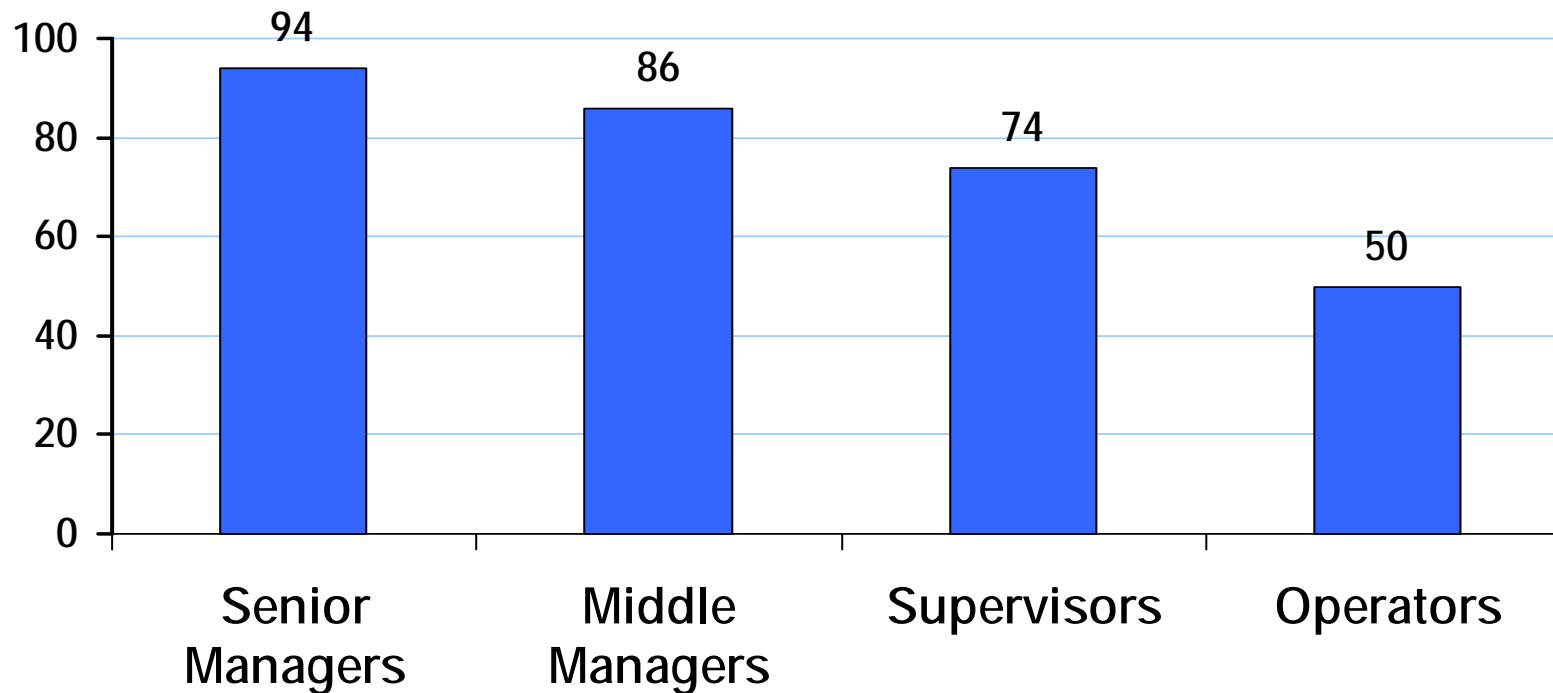
SWIMMING
PROHIBITED



**But, who follows
the rules?**

Perceptions of rule violation

“I know people don’t have to break safety rules to get jobs done”



PARADIGM 2: Bottom up

- **Routines = rules in practice: patterns of behaviour, socially constructed, emerging from experience, repository of organisational memory**
- **Local, situated, specific, dynamic, tacit, never complete in coverage, often heuristics**
- **Operators as the real experts whose ability to adapt & use discretion defines their competence (sense-making)**
- **Written rules = generic, underspecified, limited to guidance & substrate for adaptation**
- **‘Violation’ essential – all rules have exceptions**



PARADIGM 2: Adherents

- **Ethnography, sociology of practice, anthropology, organisational studies of routines**
- **Workers and their immediate (participative) supervisors, particularly professional ‘operators’ (pilots, surgeons, maintenance fitters, seamen, control room operators, traffic controllers) = complex, diverse, dynamic, uncertain work**

But isn't that a description of most work?



PARADIGM 2: Research evidence

- Low accident rate correlates with high scores on both rule compliance & worker initiatives
- Diversity and uncertainty need mindfulness
- Need for adaptation (violation) to cope with complex, unexpected, interleaved, conflicting tasks, where rules envisage linear, predictable responses
- Borderline tolerated conditions of use & normalisation of deviance: designers have inadequate models of operations & operators
- Emphasis on compliance stifles innovation



PARADIGM 2: Research evidence

- **Studies of the resistance to proceduralisation esp. in health care, aviation, aircraft maintenance, etc.**
- **From novice to expert: outgrowing rules & learning to adapt – but this relies on a ‘job for life’ culture**
- **Clashing cultures: doctors/surgeons/train controllers (P2) vs. nurses/midwives/ managers/technicians (P1)**
- **Rules as tools in power games, with double binds about questioning the rules of the game – issues of trust & autonomy**



- **Hierarchy of rule types:**
 - performance goals, decision processes, detailed action or hardware requirements; rules and meta-rules
 - guidance, default, compulsory (golden rules)
- **Match the type of rules to the competence, professionalism & incentive to violate of rule users**
- **Participation in rule making, monitoring & improvement: continual dialogue**
- **Involve different expertises: design, reality, risk analysis, rule formulation**
- **Procedure & training to adapt and modify rules**

- **Rule management is dynamic, centred on rule optimisation, not static and one-off: rule deletion as essential element**
- **Match to situation:**
 - **routine vs. non-nominal vs. emergency**
 - **expected/planned for vs. unpredictable/unpredicted**
 - **level of risk**
 - **frequency of use**
 - **complexity of task**
 - **need to harmonise across different individuals & groups**
- **Apply the same reasoning for regulatory level of rule making as for workplace**

A RULE-MANAGEMENT FRAMEWORK





Steps in rule management

