

Motivation, health and human capital - how do work factors contribute?

Stein Knardahl, Prof.em., dr. med.
Dept of work psychology and physiology

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Human capital

Adam Smith, 1776: "The acquisition of ... talents during ... education, study, or apprenticeship, costs a real expense, which is capital in [a] person. Those talents [are] part of his fortune [and] likewise that of society".

The stock of knowledge, habits, social and personal attributes embodied in the ability to perform work which produces economic value (Jacob Mincer, 1958; Gary Becker, 1964).

Human capital is the stock of productive skills, talent, health, and expertise of the labor force (Claudia Goldin, 2014, 2016)

Human capital is **competence**

Øystein Dørum NHO (employers' organization) 2018:
«*The value of the labor force constitutes three quarters of our National wealth*».

The Human Resource frame

1. Organizations exist to serve human needs.
2. Individuals and organizations need each other:
Organizations need ideas, energy, and talent, while people need career opportunities, salary, and future prospects.
3. When the individual and the system are poorly adapted to each other, one or both will suffer.

Bolman & Deal, 2008

The Structural frame

1. Organizations exist in order to attain set goals.
2. Purposeful forms of co-ordination and control ensure that individuals and units function well.
3. Organizations function at their best when personal preferences and external pressure is controlled by rational management.
4. Structures must be designed to fit the conditions that the organization at any time is subjected to.
5. Problems and variation of performance are caused by structural deficiencies and weaknesses and may be corrected through analysis and restructuring.

Bolman & Deal, 2008

The Political frame

1. Organizations are **coalitions** of different individuals and different interest groups.
2. There are sustained **conflicts** between coalition members in terms of values, beliefs, knowledge, interests, and frame of reference.
3. Most important decisions pertain to the **distribution** of limited resources – who is to get what.
4. Aims and decisions develop through bargaining and **negotiations** between different interest groups who all fight for their particular interests.

Bolman & Deal, 2008

Human capital is **competence**

Competence =

1. Knowledge
2. Skills
3. Ability - health

How build competence ?

1. Education
2. Training -practice
3. Ensure good health

Return from human capital requires **motivation**

Theories of Motivation

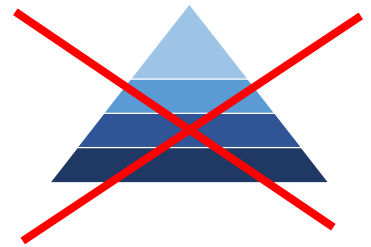
Drive reduction theory (Hull & Spence, 1943): drives are the main motivators of behavior and learning.

- I. Primary innate **biological** drives (hunger, thirst, sex)
- II. Secondary drives (i.e. money) **learned** by conditioning.

A theory of human motivation (Maslow 1943):

Humans motivated by **basal needs** - five-stage structure

1. physiological needs
 2. need for safety and predictability
 3. need for love
 4. need for self esteem
 5. need for self actualization.
- The needs are prioritized in this order.



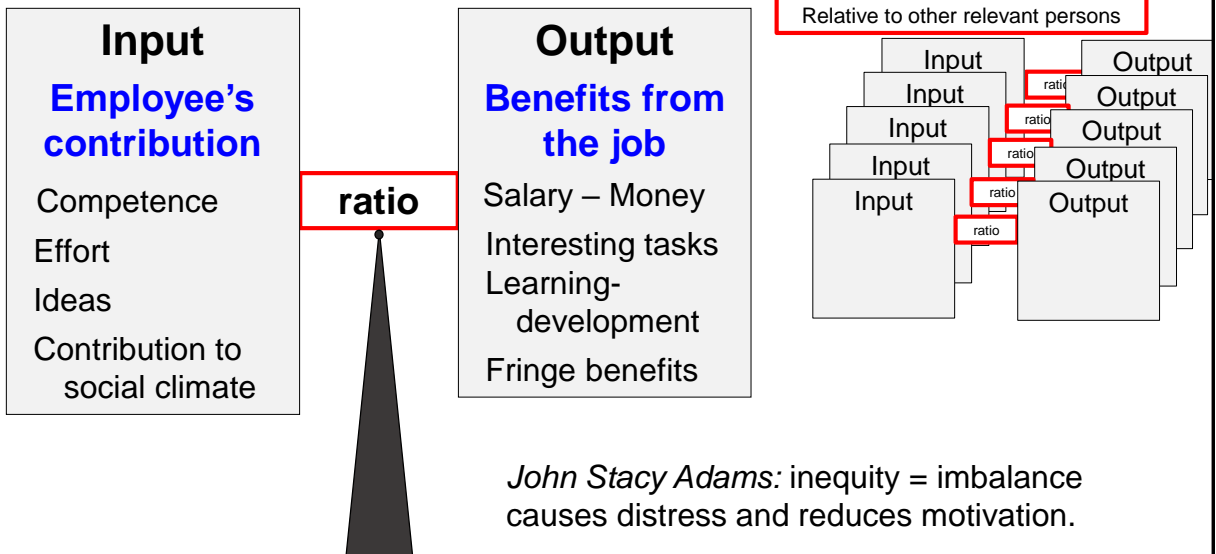
Return from human capital requires **motivation**

Internal motivation: motivated by the **task itself**,
to work with the task is motivating.

External motivation: motivated by a **reinforcer**,
motivated by **consequences** of
performing the task.

Return from human capital requires **motivation**

Motivation for work: Equity theory - Inequity



Return from human capital requires **motivation**

Motivation for work: The Job characteristics model

The work tasks *per se* determine job-motivation.

1. Meaning of work:

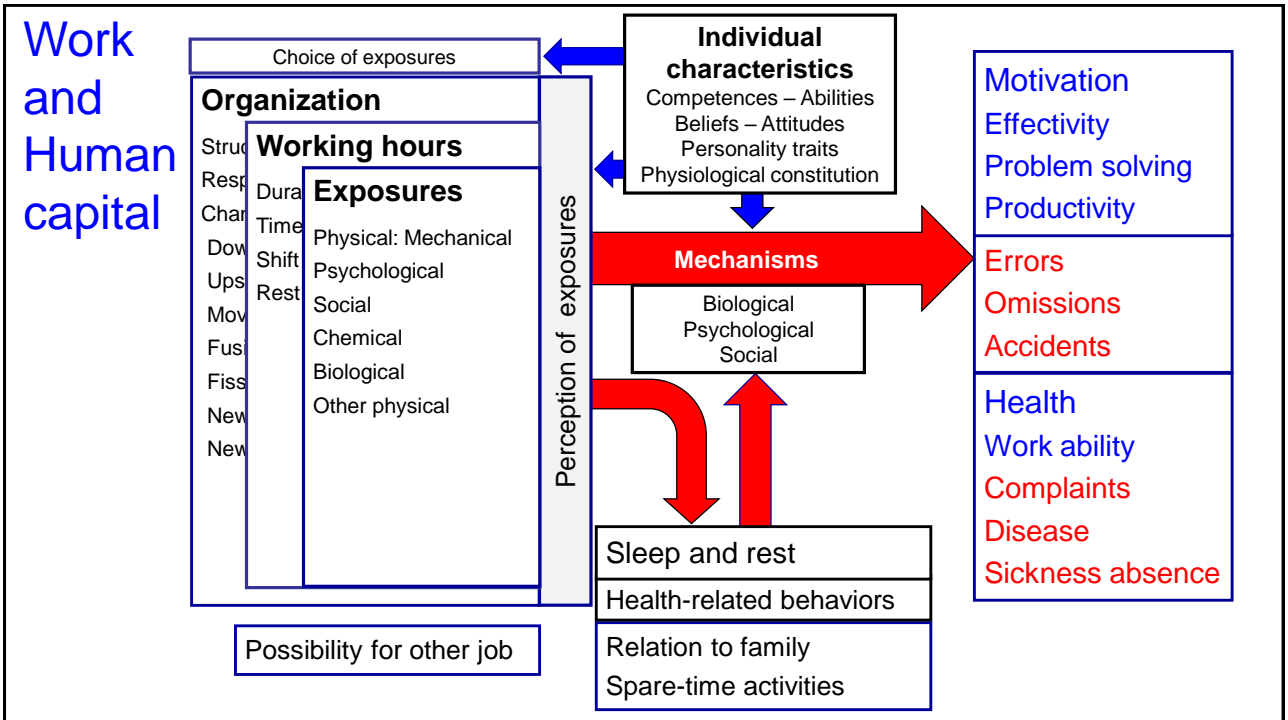
- Task variation: number of tasks a person perform in a job
- Task identity: if a person perform a complete or identifiable part of a task
- Task significance: perceived significance of tasks

2. Responsibility derived from autonomy: **control** of the execution of work

3. Knowledge of results: **Feedback** of how well the work is performed

Hackman & Oldham 1976

Assessment instrument: The Job diagnostic survey



DEMANDS

- ▶ Quantitative Amount of work
 Time pressure
- ▶ Qualitative Complexity
 Quality
 Problem solving
 Education – learning
- ▶ Social demands: interactions with clients, etc (emotional demands)
- ▶ Risk control
- ▶ Variability – Monotony
- ▶ PHYSICAL DEMANDS



CONTROL

Possibility (freedom) to choose between alternatives

Control over own work situation

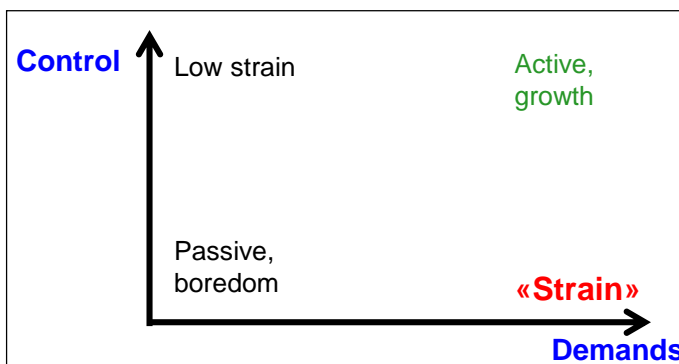
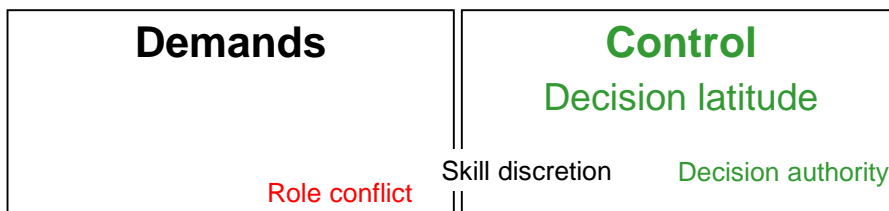
Possibility to structure own work

- ▶ Tempo
- ▶ Procedure
- ▶ Sequence
- ▶ Breaks
- ▶ Social interactions with customers, clients, co-workers

Control of work *versus* private life

Control of working hours

The Demand-Control model



Assessment instrument:
The Job content questionnaire
(JCQ)

SOCIAL INTERACTIONS

SOCIAL SUPPORT - buffer or independent factor (House 1982)

- ▶ Information - advice
- ▶ Instrumental - assistance, practical help
- ▶ Evaluation - feedback
- ▶ Emosjonal - empathy, sympathy, care

CONFLICT

Two parties of about same "strength" in conflict.

HARASSMENT

Must occur on several occasions over time.

The target person must have difficulties defending himself/herself.

VIOLENCE – THREATS

Work factors contributing to sickness absence

Strongest evidence possible with observation studies (GRADE Moderate evidence):



Arbeidsplassen og sykefravær Arbeidsforhold av betydning for sykefravær

Stein Knardahl
Avdelingsleder, avdeling for arbeidspsykologi og fysiologi, Statens arbeidsmiljøinstitutt (STAMI),
stein.knardahl@stami.no

Tom Sterud
Forsker, avdeling for nasjonal overvåking av arbeidsmiljø og helse, Statens arbeidsmiljøinstitutt (STAMI),
tom.sterud@stami.no

Morten Birkeland Nielsen
Forsker, avdeling for arbeidspsykologi og fysiologi, Statens arbeidsmiljøinstitutt (STAMI),
morten.nielsen@stami.no

Karl-Christian Nordby
Avdelingsleder, avdeling for arbeidsmedisin og epidemiologi, Statens arbeidsmiljøinstitutt (STAMI),
kcn@stami.no

SAMMENDRAG:
Forhold på arbeidsplassen av betydning for sykefravær blir i denne artikkelen belyst med kunnskapsoversikt med inklusjonskriterier for primærstudier: sykefravær (søkeord), alle former for eksponeringer på arbeidsplassen, prospektivt eller case-control design (søkeord). Eksklusjonskriterier var studier av sykdomstilstander/diagnoser; studier av generelle tiltak.

Det var sterkeste evidens som er mulig ved observasjonsstudier, for at mekanisk eksponering generelt, repetitive bevegelser, bøyning av nakke/rygg, kombinasjonen høye krav og lav kontroll, og trakassering/mobbing øker risiko for sykefravær. Det var sterkeste mulige evidens ved observasjonsstudier for at kontroll, kontroll over arbeidstid og positivt sosialt klima reduserer risikoen. Det var evidens for manglende sammenheng mellom krav og sykefravær.

Nøkkelord
sykefravær, arbeid, arbeidsmiljø, eksponeringer, systematik, litteraturgjennomgang.

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Increased risk of sickness absence

- Repetitive movements
- Work with flexion of neck-back
- The combination high demands + low level of control
- Harassment-bullying

Reduced risk of sickness absence

- Control
- Control of working hours
- Good social climate

STAMI
STATENS
ARBEJDSMILJØINSTITUTT

Work factors contributing to disability retirement

Strongest evidence possible with observation studies (GRADE Moderate evidence):

Knardahl et al. *BMC Public Health* (2017) 17:176
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BMC Public Health

Stein Knardahl¹, Håkon A. Johannessen²,
Tom Sterud², Mikko Härmä³, Reiner
Rugulies^{4,5,6}, Jorma Seitsamo³, Vilhelm
Borg⁴.

RESEARCH ARTICLE

Open Access

The contribution from
and organizational v
disability retirement
with me

Results: There was moderate evidence for the role of **low control** (RR=1.40; 95% CI=1.21-1.61) and moderate evidence for the **combination of high demands and low control** (RR=1.45; 95% CI=0.96-2.19) as

Increased risk for disability retirement pension (moderate evidence):

- Low level of control
- High level of demands + low level of control

Increased risk for disability retirement pension (limited evidence):

- Downsizing
- Lack of training and education
- Repetitive work tasks
- Imbalance «effort» – «rewards»

Stein Knardahl^{1*}
and Vilhelm Borg⁴

Abstract

Background: Pre health, motivation
The objective of t
and organization

Methods: Data s
and PsychINFO w
extraction: Intern
Conclusions were
estimates by mea

Results: There was moderate evidence for the
CI = 1.21-1.61) and moderate evidence for the
average was RR = 1.45; 95% CI = 0.96-2.19) as predictors of disability retirement. There were no major systematic

control. We recommend the measurement of specific exposure factors in future studies.



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Work and headache: A prospective study of psychological, social, and mechanical predictors of headache severity

Jan Olav Christensen^{a,b,*}, Stein Knardahl^a

^aDepartment of Work Related Psychology and Physiology, National Institute of Occupational Health, P.O. Box 8149 Dep, N-0033 Oslo, Norway
^bPsykologisk Institutt, Universitetet i Oslo, Postboks 1094 Blindern, 0317 Oslo, Norway

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Increased risk for headache:

- Role conflicts

Reduced risk for headache:

- Control of decisions
- Control of work intensity
- Job satisfaction

1. Introduction

Headache is a very common health problem. In a 2007 review Stovner et al. estimated the worldwide point prevalence of headache, regardless of type, to be 46% in the general adult population [50]. The prevalence was higher in those less than 60 years old, ie.

high work demands, low work support, and low job satisfaction for back pain [7,17,25,31]. We have found that role conflict is prospectively related to neck pain across several occupations, whereas decision control and empowering leadership attenuate risk [12].

Little research has been devoted to identifying specific occupational psychological factors that may influence headache. Swedish

Psychological and Social Work Factors as Predictors of Mental Distress: A Prospective Study

Live Bakke Finne^{1,2*}, Jan Olav Christensen^{1,3}, Stein Knardahl¹

¹ Department of Work Psychology and Physiology, National Institute of Occupational Health, Oslo, Norway, and Technology, Trondheim, Norway, ³ Department of Psychology, University of Oslo, Oslo, Norway

Abstract

Studies exploring psychological and social work factors in relation to mental health are mainly focused on a limited set of exposures. The current study investigated psychological and social work factors as predictors of potentially clinically relevant, i.e. "caseness" level of distress. Employees were recruited from 48 Norwegian job types. A total of 3644 employees responded at both baseline and at follow-up, distributed across 832 departments within the 48 organizations. Nineteen work designs were tested: (i) with baseline predictors and (ii) with average exposure. Intercept logistic regressions were conducted to account for clustering of the data. Age, sex, skill level, and mental distress as a continuous variable at T1 were used in some prospective association with mental distress. The most consistent risk factor was *role conflicts* (lowest OR 0.56, 99% CI: 0.43–0.72), *fair leadership* (lowest OR 0.52, 99% CI: 0.40–0.68), and *positive challenges* (lowest OR 0.52, 99% CI: 0.40–0.68). The present study demonstrated that a broad set of psychological and social work factors predicted mental distress of potential clinical relevance. Some of the most consistent predictors were different from those traditionally studied. This highlights the importance of expanding the range of factors beyond commonly studied concepts like the demand-control model and the effort-reward imbalance model.

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* Email: live.b.finne@stami.no

Increased mental distress:

- Role conflicts

Reduced distress:

- Support from immediate superior
- Fair leadership (leader)
- Positive challenges

Introduction

Mental health problems represent an increasingly important

organizational level factors, to compare the relevance of numerous work factors to mental distress.

Prospective studies have shown that high demands, low control,

ROLE AMBIGUITY

Ambiguous expectations:

Ambiguous aims, goals, and objectives

Ambiguous responsibility

Ambiguous task descriptions

ROLE CONFLICT

Conflict between aims, goals, and objectives

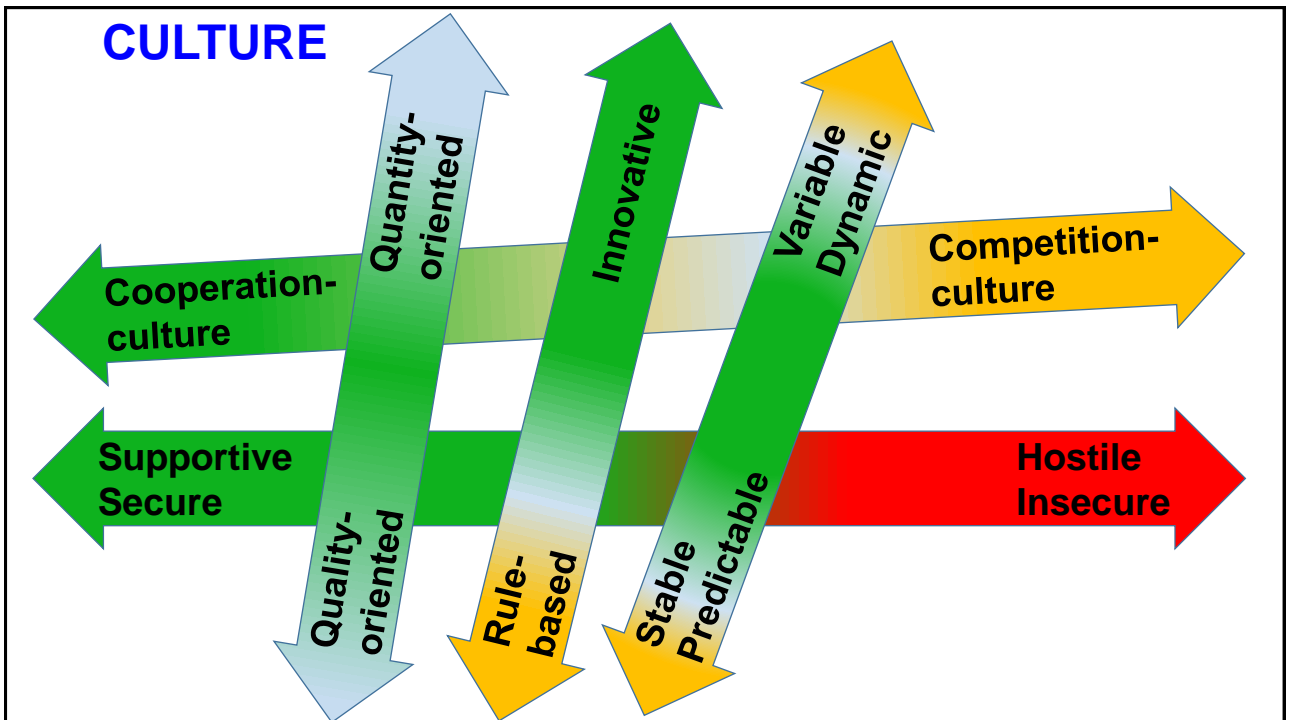
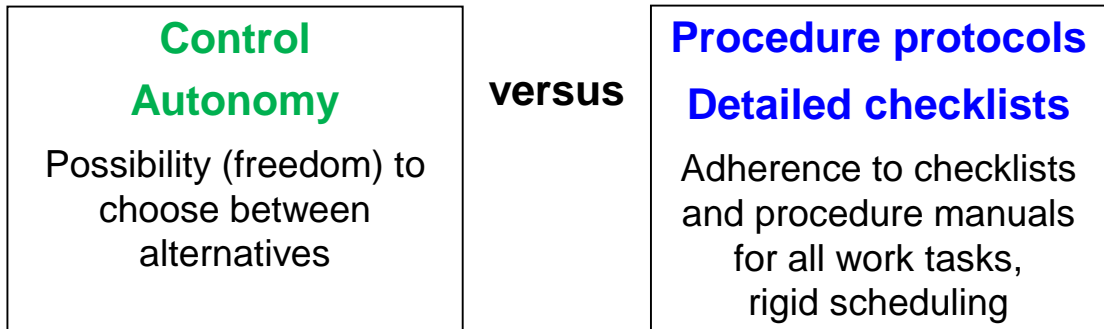
Conflict between different expectations

Conflict between different tasks

Conflict between standards (i.e. ethical standard *versus* praxis)

ROLE CONFLICTS – future health care

- Development of Evidence-based treatment guidelines
- Diagnosis based on standard test batteries
- Digitization of all systems



CULTURE

Basic beliefs

Values

Attitudes

Habits

Behaviors

Alter culture:

Define

Aims, goals

Expectations

Standards

Leaders' behaviors
are models



Advice: measures for better work

- Ensure that all employees have maximum control of their work situation.
- Ensure that all employees know what is expected by clear information of: responsibility – priorities - standards.
- Identify and remove role conflicts.
- Ensure that all leaders know the work load and role conflicts of all employees in their unit.
- Ensure that all leaders provide support, help, and feedback to all.
- Ensure that all employees receive equitable rewards.
- Organize work to eliminate working-time schedules that pose health risk.
- Competence: Systematic planning of need for competence of the organization and of the individual employee.
- Organizational change: Adequate decision process – adequate information.