

Occupational Health Psychology

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Stressors in the workplace

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August 19, 2016

Aspects of work relevant for stress, well-being, and health

- | | |
|---|---|
| 1. Intrinsic task quality | Complexity; variety; control; requirements for emotion regulation |
| 2. Barriers to / facilitators of task fulfilment | Overtaxing; uncertainty (role stress); efficiency of work organization; interruptions |
| 3. Physical conditions | Environment (e.g., noise; heavy loads); musculoskeletal strain (constant sitting / standing) |
| 4. Work schedule | Shift work (esp. night work); breaks; long hours, constant accessibility |
| 5. Social conditions | Social stressors: conflict / tension; bullying / harassment; quality of supervision; social support; fairness |
| 6. Organizational conditions | Control & influence; future prospects; job security; company policy (org. politics), status; recognition; fairness; constant change |

**Research examples
concerning stressors and health**

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Task aspects

Ratio of nurses to patients, well-being of nurses, and patient mortality

**1 Patient more per nurse
=
Increased risk for**

- ***Nurse Burnout : 23%***
- ***Nurse Job dissatisfaction: 15%***
- ***Patient Mortality after serious surgery: 7%***

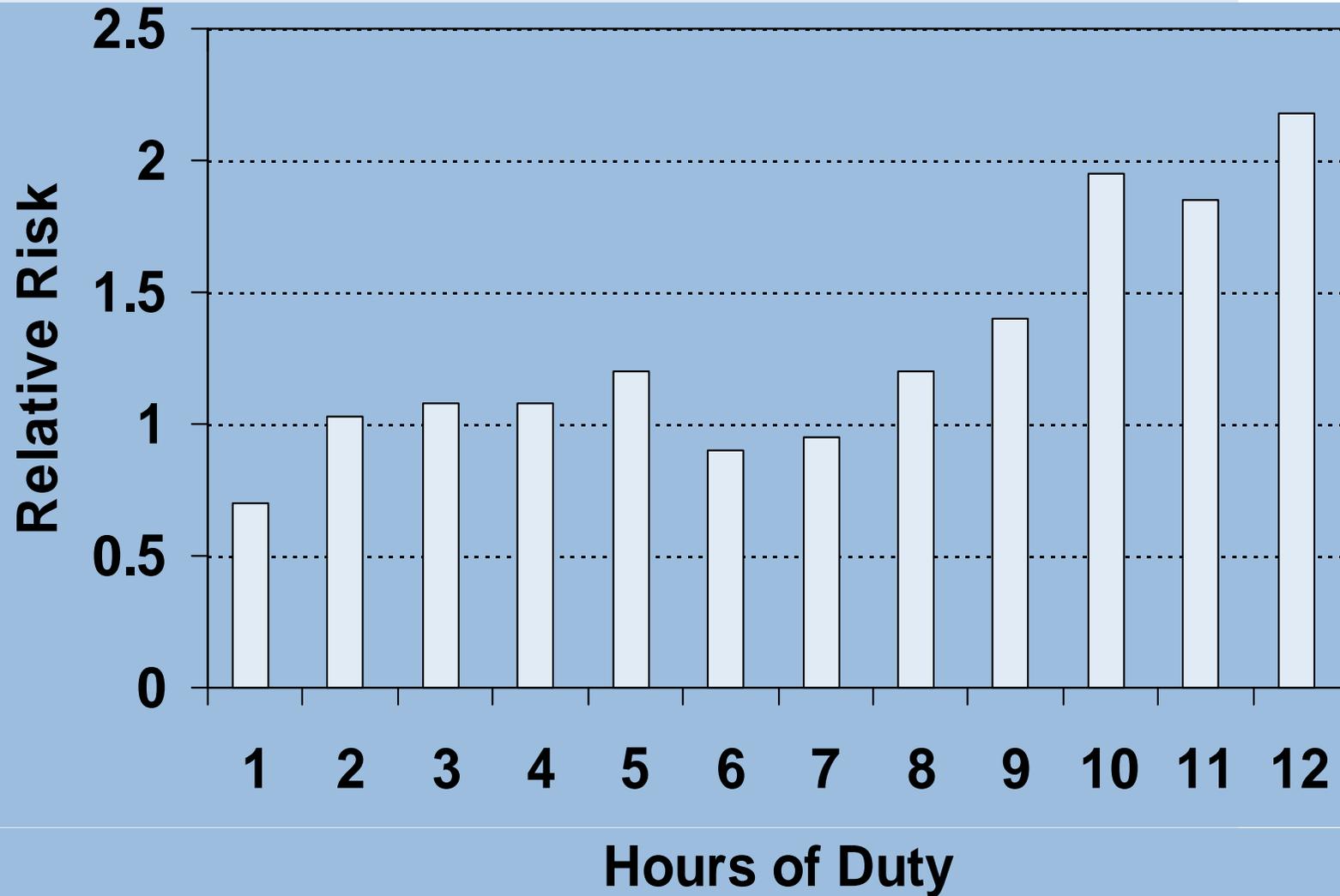
Weekly work hours and somatic complaints

e.g., heart, gastrointestinal, sleep, exhaustion



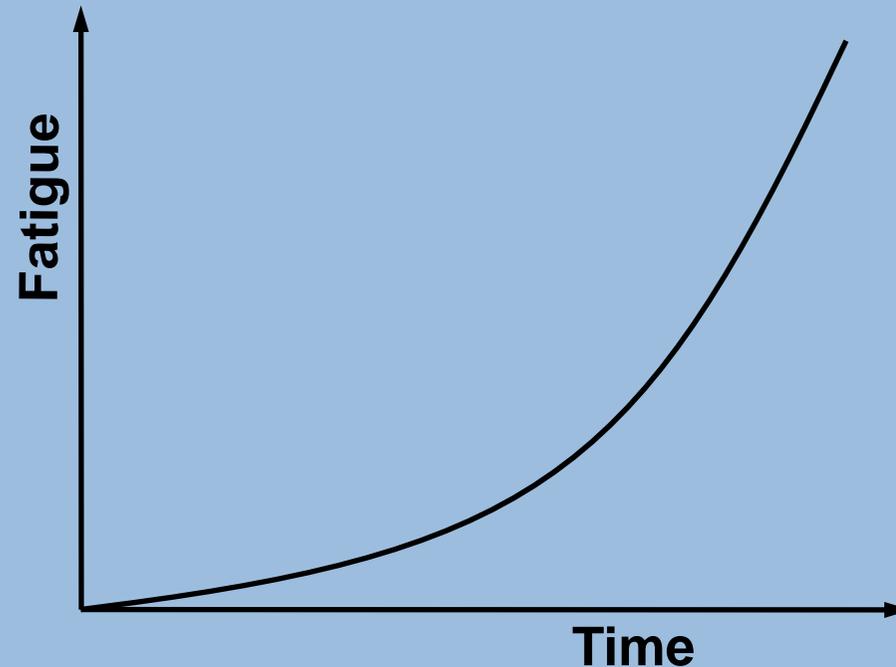
(moving averages)

Injuries and Hours of Duty



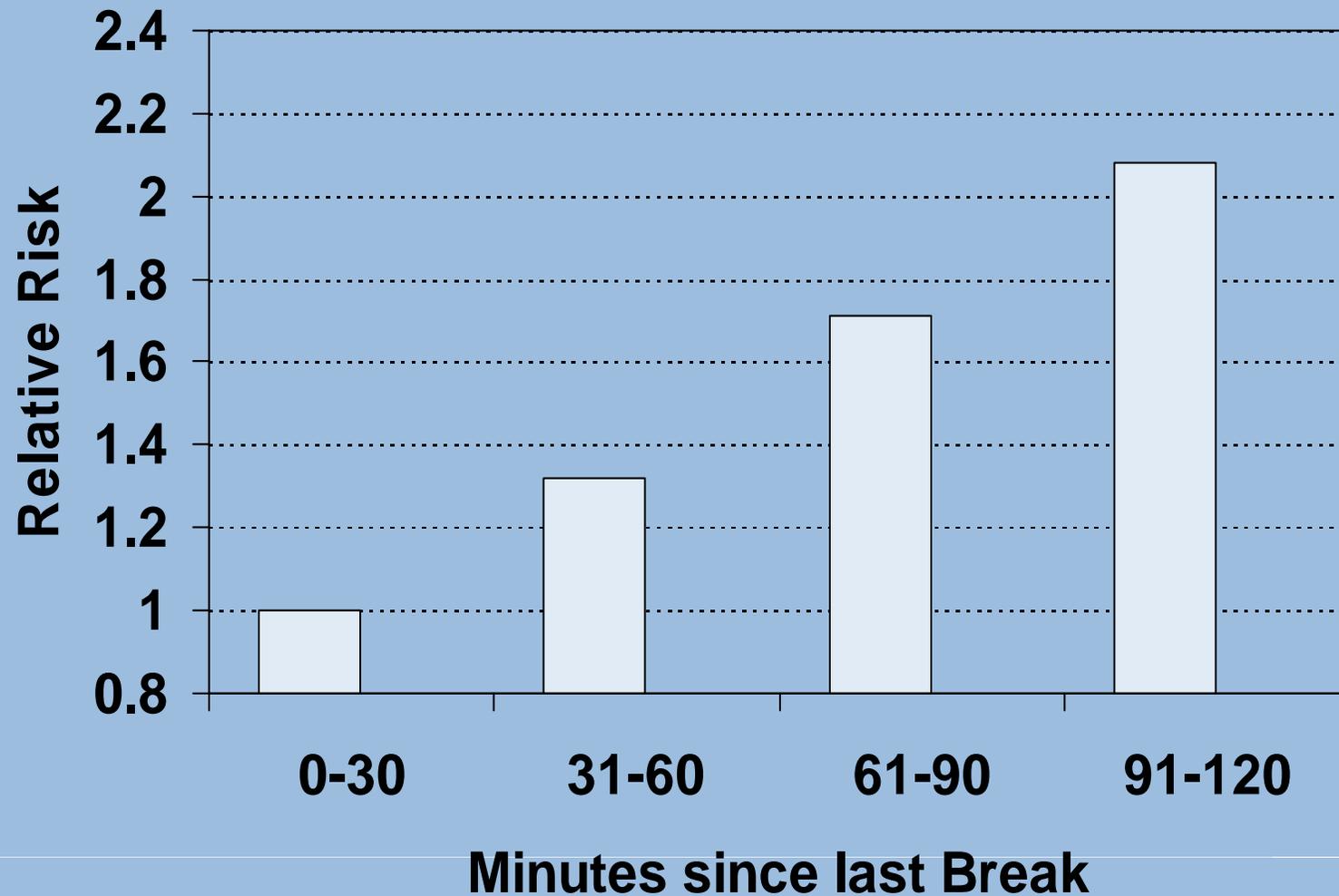
Folkard, S., & Lombardi, D. A. (2006). Modeling the impact of the components of long work hours on injuries and 'accidents'. *American Journal of Industrial Medicine*, 49, 953-963 (Fig. 4, p. 959).

Fatigue over time



- Fatigue increases in a nonlinear fashion
- Fatigue after 4 hours is more than double fatigue after 2 hours
- Intercepting early is the best prevention
- Many short breaks prevent fatigue in an optimal way
- Many short breaks do not lower performance, often enhance it!

Injuries and Time since Last Break



Folkard, S., & Lombardi, D. A. (2006). Modeling the impact of the components of long work hours on injuries and 'accidents'. *American Journal of Industrial Medicine*, 49, 953-963 (Fig. 6, p. 960).

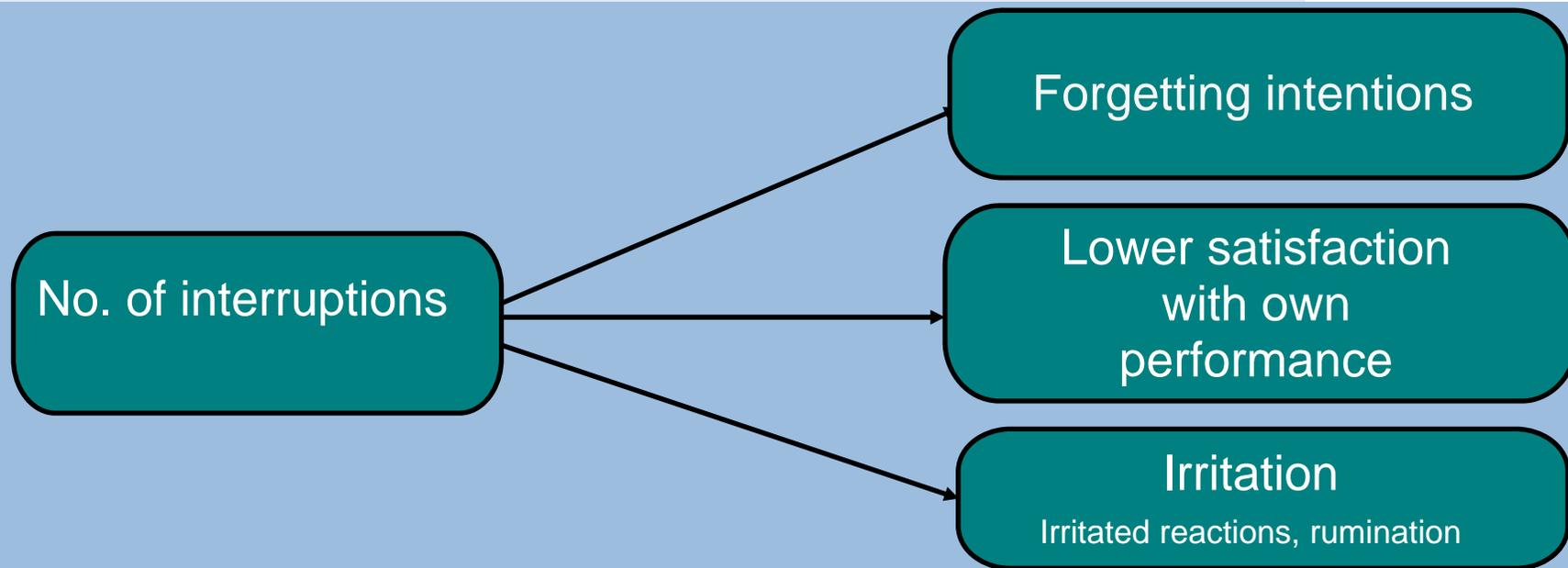
Interruptions

Increasing problem
Often underestimated

Interruptions

- **distract**
- **draw on mental resources (switching attention)**
- **often irritating**
- **resuming interrupted task:**
 - **mentally demanding**
 - **error prone**

Interruptions



Baethge & Rigotti (2013)

Long term: Increasing interruptions:

- ⇒ lower job satisfaction
- ⇒ more somatic complaints (Keller et al., 2015)

Task-avoidant vigilance

- Being vigilant over extended periods time is extremely difficult
- without breaks vigilance typically breaks down after 30 to 45 minutes

Threat avoidant vigilance (Belkic et al, 2004, p. 113):

- need to maintain a high level of attention
- to avoid disastrous consequences
- of momentary lapses or wrong decisions

- Typical for occupations such as
- drivers, pilots, air traffic controllers, surgeons, anesthesiologists
- Associated with a higher risk for cardiovascular disease (Nedic & Belkic, 2010)

Belkic, K.L., Landsbergis, P.A., Schnall, P.L., & Baker, D. (2004). Is job strain a major source of cardiovascular disease risk? *Scandinavian Journal of Work, Environment, and Health*, 30, 85-128.

Nedic, O., Belkic, K., Filipovic, D., Jovic, N. (2010). Job Stressors among female physicians: Relation to having a clinical diagnosis of hypertension. *International Journal of Occupational and Environmental Health*, 16, 330-340.

Constant accessibility

- **Technical developments lower threshold for contact:**
- **Call / text / send mail / include in cc: increasingly easy**

- ***Implication: More and more things are being communicated (often outside of work hours) that are not important for the recipient or could wait until the next regular opportunity***

On the other hand: Being disturbed for important reasons is legitimate and will often be accepted

Consequence:

- **Do not simply prohibit use of new technology after work**
- **Rather: increase thresholds for using them:**
- ***Communicate only important and urgent messages***

Emotional labor

Hochschild

- Organizations / politeness rules require showing / not showing certain emotions (e.g., towards clients, colleagues, superiors)
 - Typically: Do not show negative emotions – stay neutral or display positive emotions
 - Less frequent: do not show positive emotions (e.g., teacher, bailiff)
- Core element: Emotional dissonance
 - Discrepancy between emotions felt and emotions shown
- Several ways of dealing with emotional dissonance
 - Deep acting: change your *emotions* (empathy; reappraisal)
 - Surface acting: Regulate the *display* of emotions;
 - (negative) emotions themselves do not change
- **Surface acting is effortful, often annoying**
- Displaying feelings anyway (deviance) usually is not an option; does not attenuate bad feelings

Grandey, A. A., Diefendorff, J. M., & Rupp, D. E. (Eds.). (2013). *Emotional labor in the 21st century: Diverse perspectives on emotion regulation at work*. New York, NY: Routledge.

Hochschild, A. (1983). *The managed heart*. Los Angeles: University of California Press.

Tschan, F., Rochat, S., & Zapf, D. (2005). It's not only clients. Studying emotion work with clients and co-workers with an event-sampling approach. *Journal of Occupational & Organizational Psychology*, 78, 195-220.

Zapf, D., & Holz, M. (2006). On the positive and negative effects of emotion work in organizations. *European Journal of Work and Organizational Psychology*, 15, 1-28.

Research on Emotion Work Surface Acting is stressful...

...and associated with higher risk for stress symptoms

(Grandey et al., 2013; Hülshager & Schwewe, 2011; Zapf & Holz, 2006)

- Depletes resources
 - Suppressing emotions requires effort;
 - depleted resources not available for other activities
- Contradicts professional standards
 - Lowers the feeling to do good and professional work
 - Induces feeling of inauthenticity
- Inauthentic emotion display may be detected
 - May impair quality of interaction
- Negative emotions persist
 - Implies that avoiding triggers of negative emotions in the first place is important (Semmer et al, 2016).
 - Note: triggers need not come from a social interaction (e.g. could be a computer breaking down)

Grandey, A. A., Diefendorff, J. M., & Rupp, D. E. (Eds.).(2013), *Emotional labor in the 21st century: Diverse perspectives on emotion regulation at work*. New York, NY: Routledge.

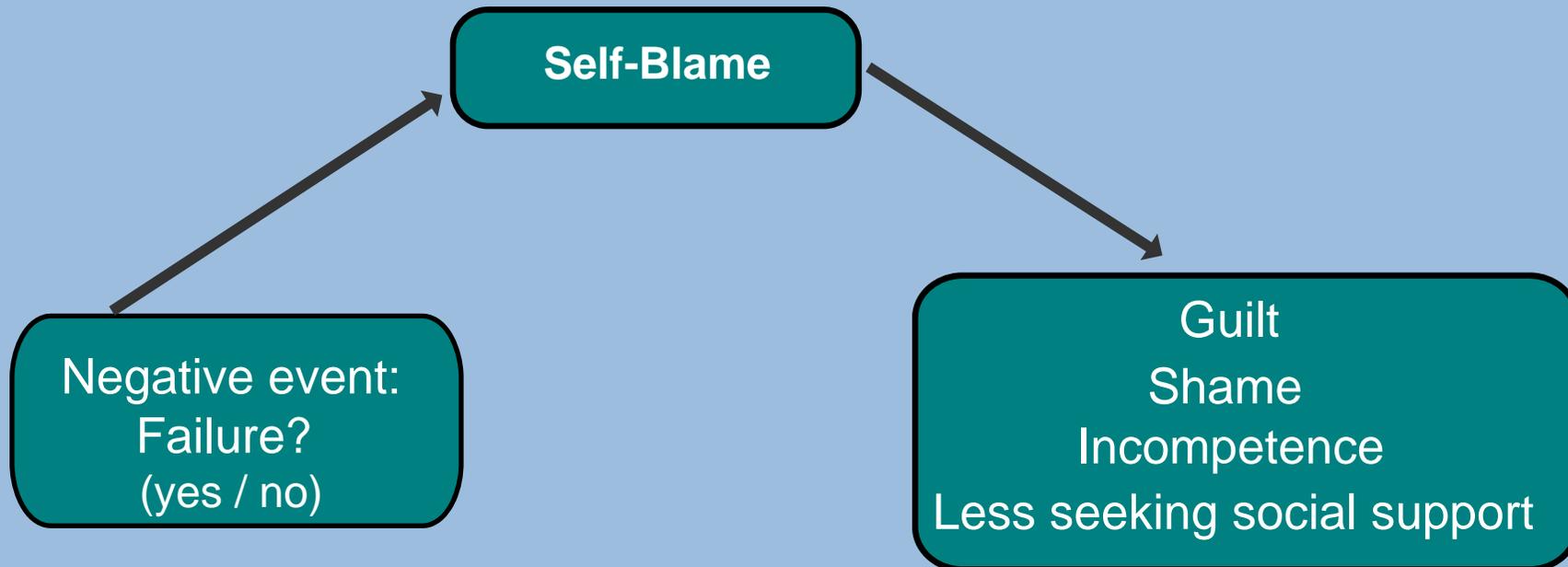
Hülshager, U. R., & Schwewe, A. F. (2011). On the costs and benefits of emotional labor: a meta-analysis of three decades of research. *Journal of Occupational Health Psychology, 16*, 361.

Semmer, N. K., Messerli, L., & Tschan, F. (2016). Disentangling the components of surface acting in emotion work: Experiencing emotions may be as important as regulating them. *Journal of Applied Social Psychology, 46*, 46-64

Zapf, D., & Holz, M. (2006). On the positive and negative effects of emotion work in organizations. *European Journal of Work and Organizational Psychology, 15*, 1-28.

Failure Experiences

163 Participants report 284 stressful experiences over 6 days
Of these, 74 events of 48 participants are related to one's own performance (= failure).
We expect failure experiences to have different consequences than "ordinary" stressors



Challenge stressors - hindrance stressors

LePine et al.

Some stressors are stressful but also challenging:

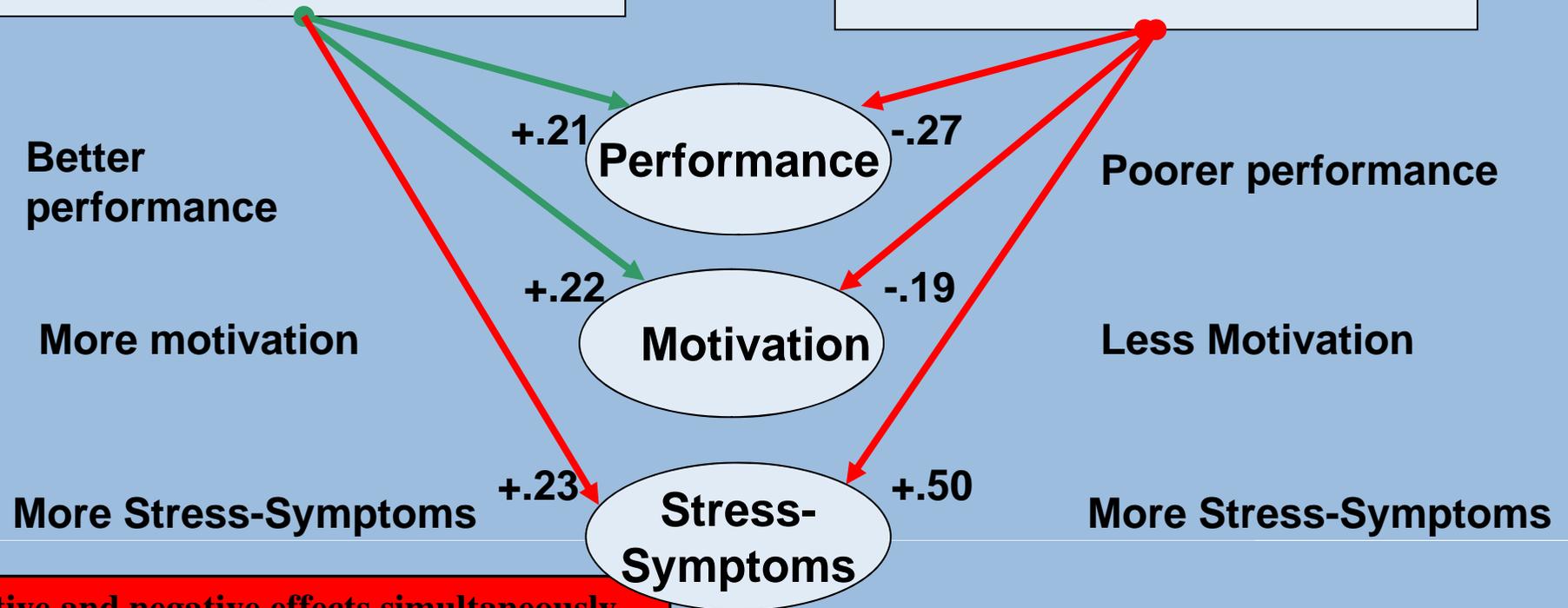
- Time pressure
- Responsibility
- etc.

Challenge Stressors

Other stressors are only hindrances:

- Organizational politics
- Red tape
- Role ambiguity

Hindrance Stressors



Positive and negative effects simultaneously

Time Pressure as a double-edged sword

Time pressure (the prototypical challenge stressor)
Often implies *stress*, but also *challenge*
Good performance under pressure
⇒ Affirmation of self, appreciation by others

*Thus, one can be satisfied and proud –
Yet at the same time prepare one's burnout*

That is probably one of the reasons why people

- *who are very committed and*
- *have much autonomy*

*accept (or even seek) more and more responsibilities, tasks,
and workload*

LePine J. A., LePine M. A., & Jackson, C. L. (2004). Challenge and hindrance stress: Relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology*, 89, 883-891.

Widmer, P. S., Semmer, N. K., Kälin, W., Jacobshagen, N., & Meier L. L. (2012). The ambivalence of challenge stressors: Time pressure associated with both negative and positive well-being. *Journal of Vocational Behavior*. 80. 422-433.

**Research examples
concerning stressors and health**

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Social aspects

Social Aspects

Social aspects are especially important for our sense of belonging and our self-esteem

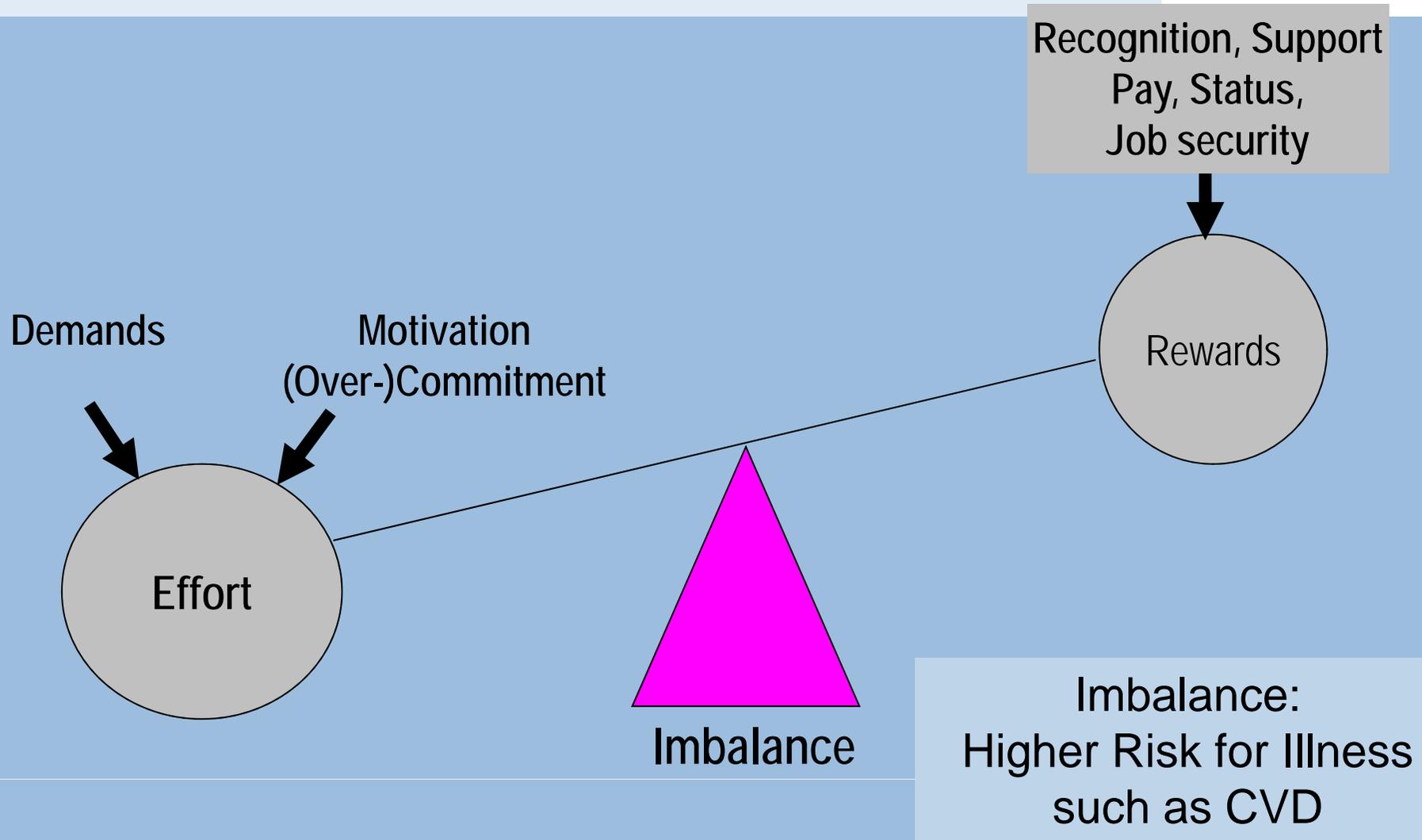
- To what extent are we being appreciated, included, accepted, respected?
- Conflicts often imply attacking one's integrity / competence
- Lack of Fairness signals disrespect
- Destructive feedback signals disrespect
- Disrespect may be shown intentionally
 - e.g., personal enmity; strategic competition
- But often is communicated unintentionally, even unnoticed
- Leadership is especially important for ensuring fairness / justice (Kuoppala et al., 2008)

Fairness / Justice

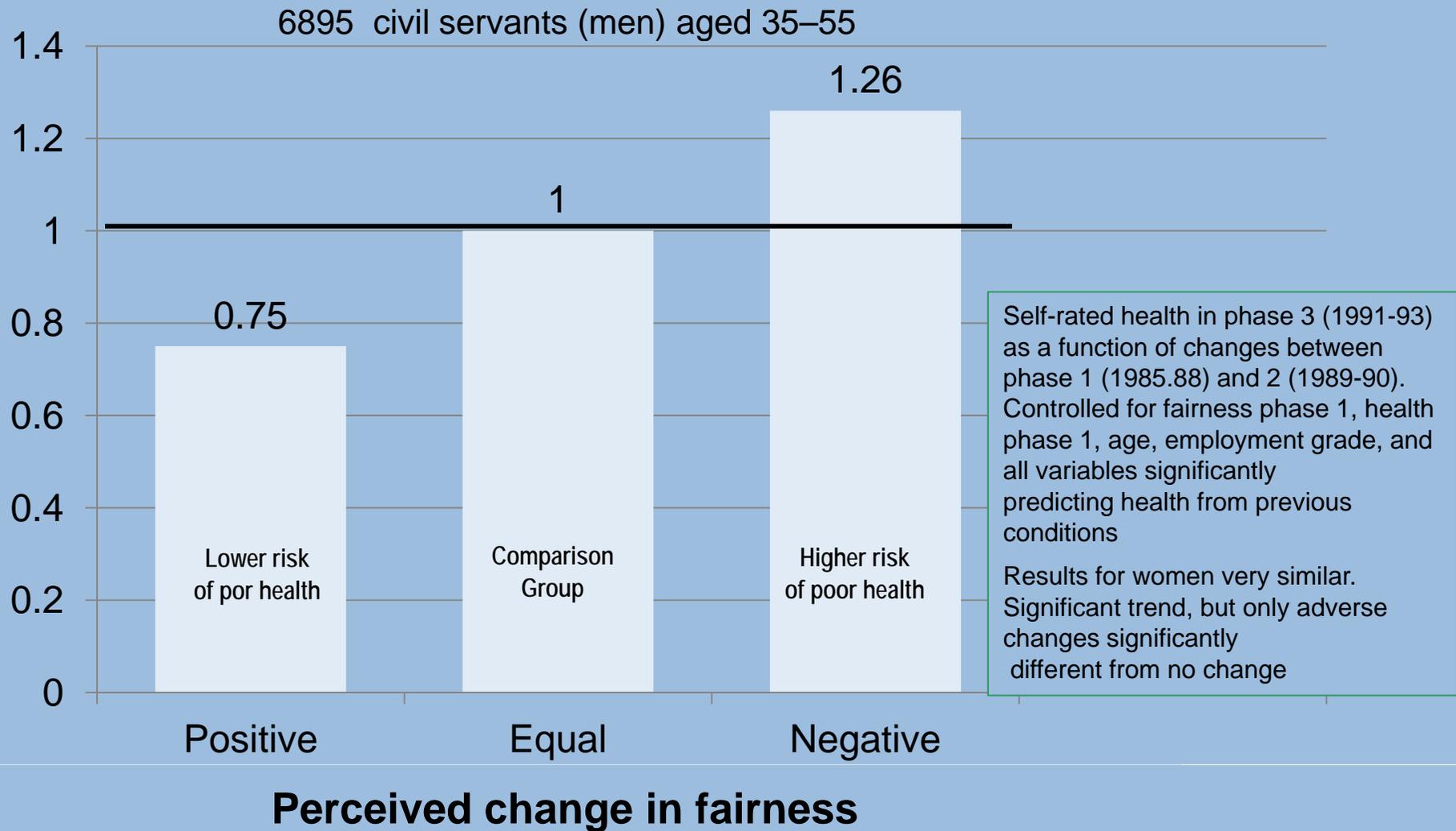
- > **Distributive** Do I get what I deserve?
- > **Procedural** Are the rules fair? Are they followed impartially?
- > **Interactional** Do I have a voice? Am I being heard?
Are my concerns taken seriously?

Fairness signals appreciation
Lack of fairness signals disregard

Imbalance between Effort and Reward



Changes in superiors' fairness and risk of health impairments

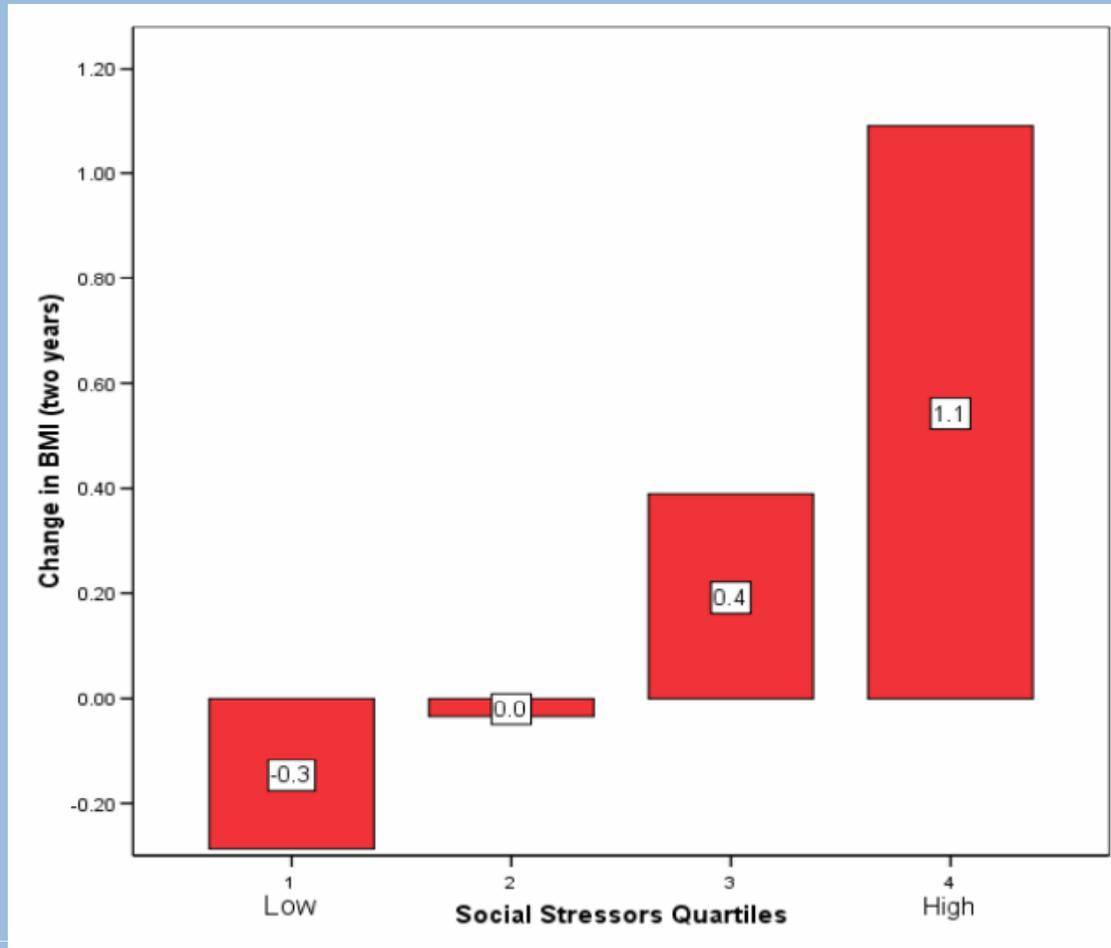


Conflict

- **Merely task-related differences are not necessarily stressful.**
 - **But: They tend to become increasingly emotional.**
-
- ***Relational* conflicts**
 - typically imply rather ***intensive*** emotions (esp. anger)
 - **tend to escalate**
 - one word leads to another...
 - counterarguments develop to personal attacks
 - the climate becomes increasingly poisoned
 - Such conflicts are stressful; we often ruminate about them for quite some time
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- **Mobbing / Bullying: extreme form of conflicts**
 - fortunately rare
 - **But extremely stressful and endangering health**

Predicting Body-Mass Index by social Stressors over 2 years

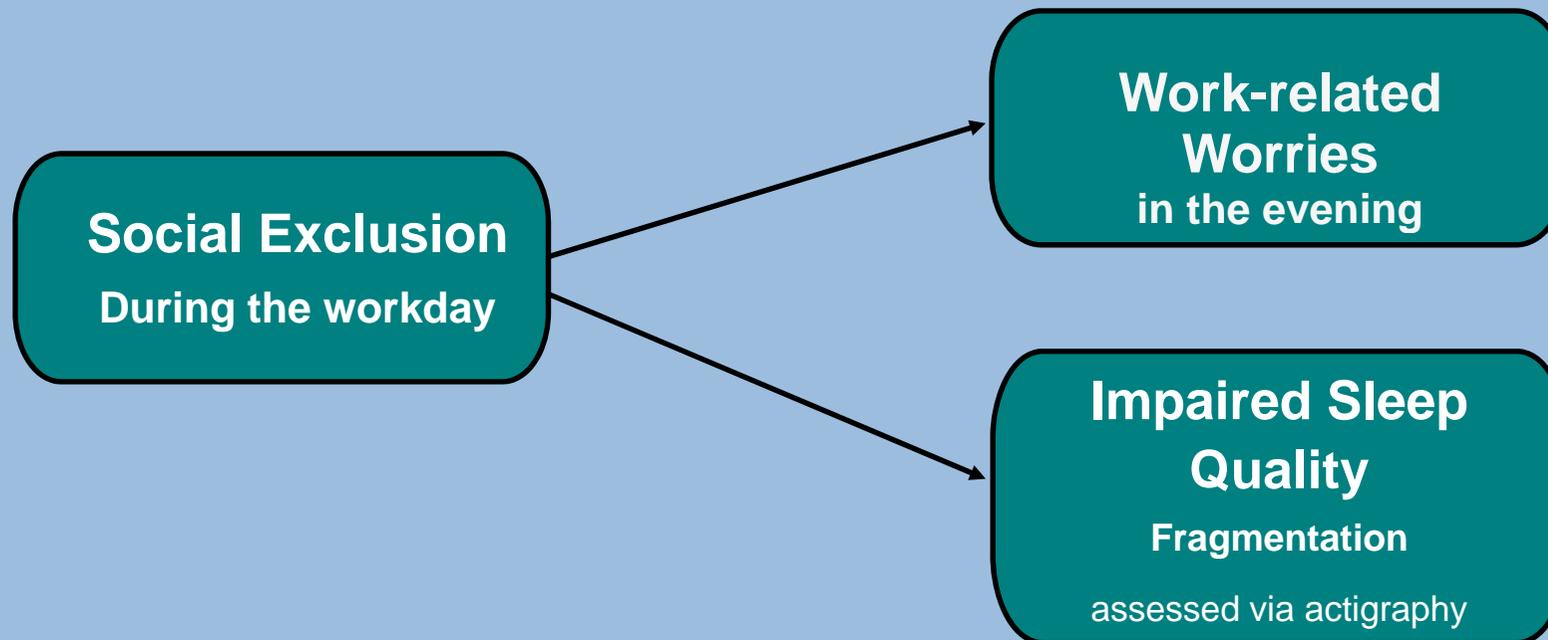
72 employees (52 men, 20 women) from a Swiss service provider.



Social stressors: conflict, tension
Controlled for BMI t1; age; sex

Social Exclusion (Ostracism) and Sleep Quality in the following night

e.g., *Today at work I had the impression people were avoiding me*



(Subtly) Offending Feedback

Destructive criticism (Baron, 1993; Raver et al., 2012)

- *rude,*
 - *attributing problems to incompetence / lack of motivation*
- hurts, impairs motivation, poisons the social climate**

However, one can offend people in much more subtle ways...

- dwell on mistakes;
- explain them at length;
- list a great number of possible consequences

The problems are increasingly magnified

Mistakes appear very obvious and easy to avoid

⇒ ***The recipient appears increasingly incompetent / unmotivated***

Important:

- All very friendly
- No explicit attributions (Krings et al., 2015)

Social aspects of task characteristics

Tasks do not only have intrinsic characteristics
They also send social messages
For instance: Granting control signals trust

Legitimate and illegitimate Stressors

- > Some stressors are legitimate:: They are part of one's professional role, are unavoidable
 - e.g. overtime in hospital due to emergency
- > Other stressors could have been avoided, are illegitimate
 - e.g., having to clean up the mess of the shift before us

Exmple: The social meaning of heat

- **Source of heat that could be placed somewhere else**

Illegitimate stressors are perceived as demeaning:

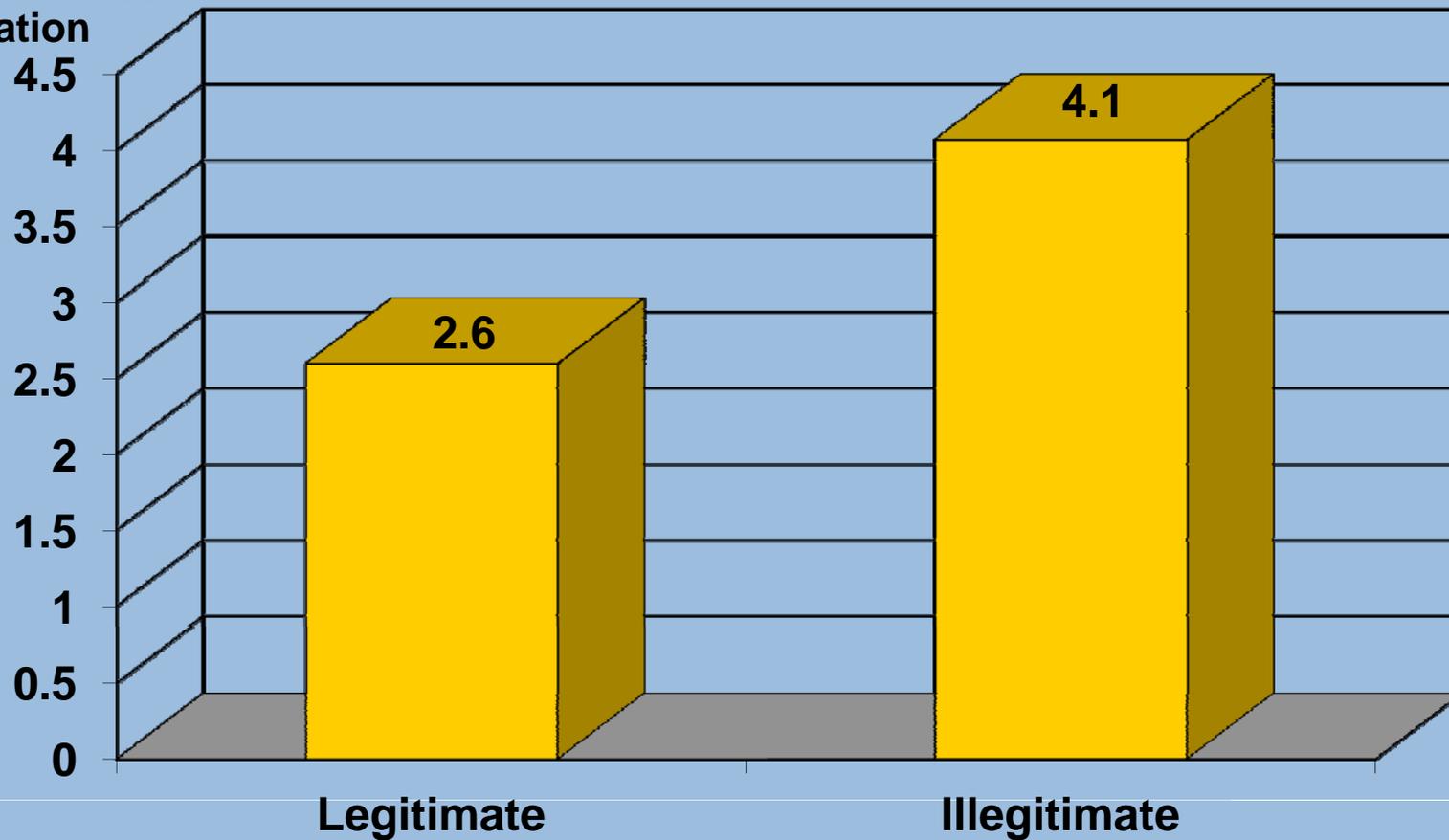
“They don't take us serously“ “

Therefore they are associated with more stress than legitimate stressors

Illegitimate Stressors and Ressentiments towards one's organisation

e.g., rancor, anger, hurt

Ressentiments
in the stressful
situation



Multilevel-analysis. Controlled for:
Stressfulness; age, sex, task-
related stressors and resources

Jacobshagen, N., Semmer, N.K. & Elfering, A. (2006). *Legitimacy of stressors and well-being at work: A situational analysis*. Paper given at the 45. Congress of the German Psychological Society, Nuremberg, Sept. 17.-21.09.2006

N = 384 stressful situations (daily hassles)
legitimate / illegitimate: +/- 1 SD

Illegitimate Tasks: A new stressor concept

Illegitimate Tasks: violation of norms about what can reasonably be expected from a given job holder

- Because they are perceived as *unnecessary*
 - e.g. because work is poorly organized (e.g., incompatible computer systems)
- Because they are not part of one's occupational role and are regarded as *unreasonable*
 - e.g. non-nursing activities (serving vs. caring)

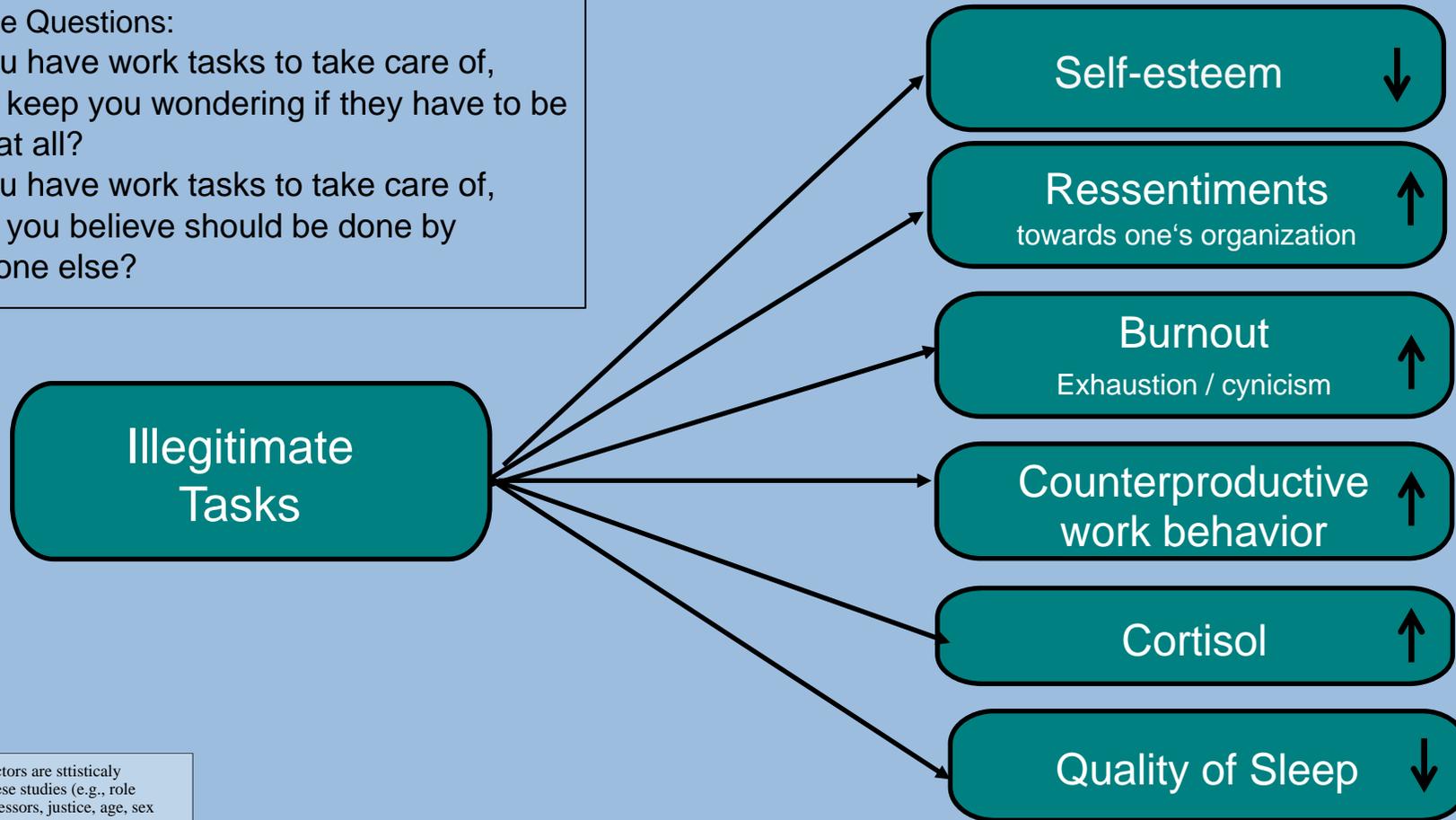
- Background:
 - Roles as expectations
 - Roles as sources of identity
 - Human striving for a positive identity
- ⇒ Violating role expectations offends (professional) identity

Illegitimate Tasks and Stress-Symptoms in various studies

Sample Questions:

Do you have work tasks to take care of, which keep you wondering if they have to be done at all?

Do you have work tasks to take care of, which you believe should be done by someone else?



A number of factors are statistically controlled in these studies (e.g., role stress, social stressors, justice, age, sex)

Semmer, N. K., Jacobshagen, N., Meier, L. L., Elfering, A., Beehr, T. A., Kaelin, W., & Tschan, F. (2015). Illegitimate tasks as a source of work stress. *Work & Stress*, 29, 32-56.

Semmer, N. K., Tschan, F., Meier, L., Facchin, S., & Jacobshagen, N. (2010). Illegitimate tasks and counterproductive work behavior. *Applied Psychology: An International Review*, 59, 70-96.

Eatough, E. M., Meier, L. L., Igic, I., Elfering, A., Spector, P. E., & Semmer, N. K. (2016). You want me to do what? Two daily diary studies of illegitimate tasks and employee well-being. *Journal of Organizational Behavior*, 37, 108-127.

Kottwitz, M. U., Meier, L. L., Jacobshagen, N., Kälin, W., Elfering, A., Hennig, J., & Semmer, N. K. (2013). Illegitimate tasks associated with higher cortisol levels among male employees when subjective health is relatively low: An intra-individual analysis. *Scandinavian Journal of Work, Environment and Health*, 39, 310-318.

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Thank you!