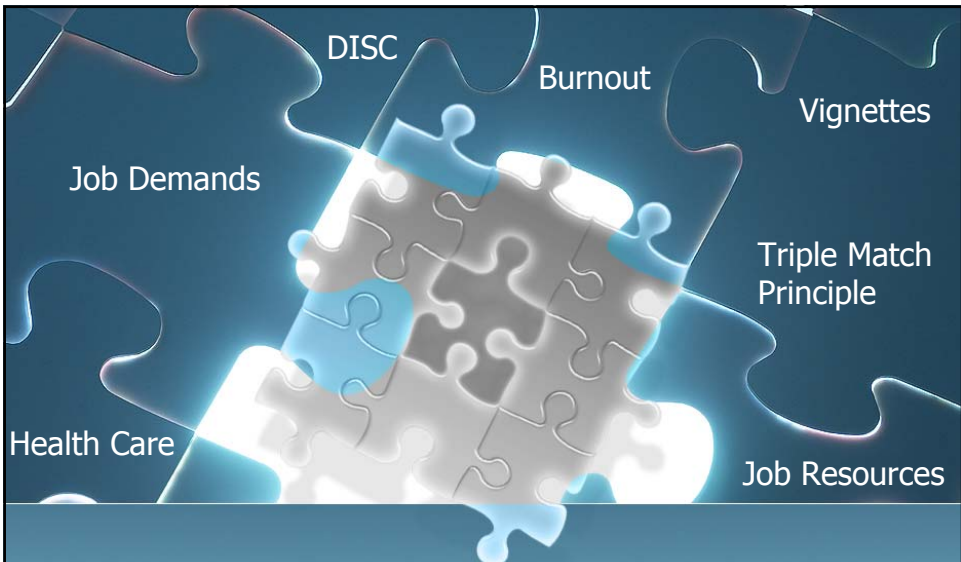


Matching Job Demands and Job Resources: A Vignette Study



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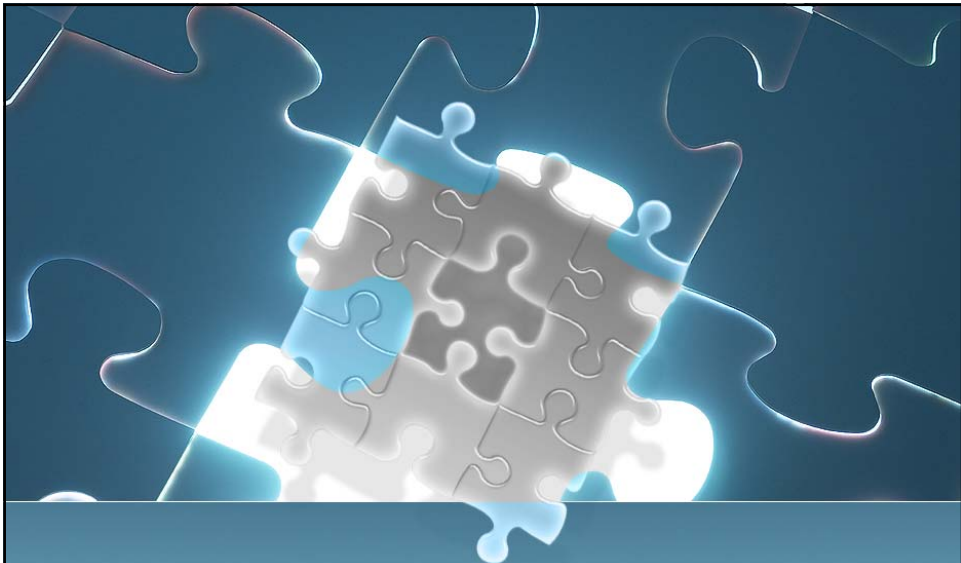
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Introduction



Interaction Effects

- Longlasting debate about empirical support for interactive or moderating effects in job stress research
- In order to detect moderating effects of job resources in the stressor-strain relationship, several researchers proposed that *specific* demands and *specific* resources should *match* in order to show moderating effects in the prediction of job strain



The magic of matching (I)

- “We posit that there must be a reasonable *match* between the coping requirements and the available support in order for buffering to occur. This analysis predicts that buffering effects will be observed when the support functions measured are those that are most relevant for the stressors faced.” (Cohen & Wills, 1985, p. 314; italics ours).
- “Evidence to date shows some support for the Karasek model, particularly when salient job demands and areas of control are clearly defined and are *matched* with each other.” (Cooper et al., 2001, p. 140; italics ours).



The magic of matching (II)

- Theoretically, the discovery of optimal stress-support combinations may help us understand better both how adverse life events threaten and how social support protects or enhances well-being". (cf. Cutrona & Russell, 1990, p. 319).
- Future research should endeavor to refine theoretical models that guide how different sources of support can be *matched* to particular stressors and strains." (Viswesvaran et al., 1999, p. 328, italics ours).



Matching hypothesis

If the type of available job resources (e.g., emotional) corresponds to existing job demands (e.g., irate customers), then those resources are best able to mitigate the effects of those demands, and less job-related strain (in this case manifested through unwanted emotions) will result

(cf. Cohen & Wills, 1985; Sargent & Terry, 1998; Viswesvaran et al., 1999).



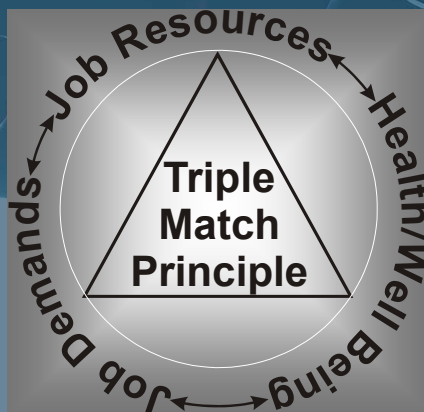
DISC Model

- For that and other reasons, De Jonge and Dormann (2003) developed the Demand-Induced Strain Compensation (DISC) Model
- The DISC Model consists of a number of principles, resting on the idea of self-regulatory processes
- Multidimensionality of concepts: job demands, job resources, and job-related strain may comprise at least cognitive, emotional, and/or physical (behavioral) components



Triple Match Principle (TMP)

- Triple Match Principle: the strongest, interactive relationships among the concepts should be observed if they are based on qualitatively identical dimensions and processes (e.g., emotional demands vs. emotional resources in the prediction of emotional exhaustion)






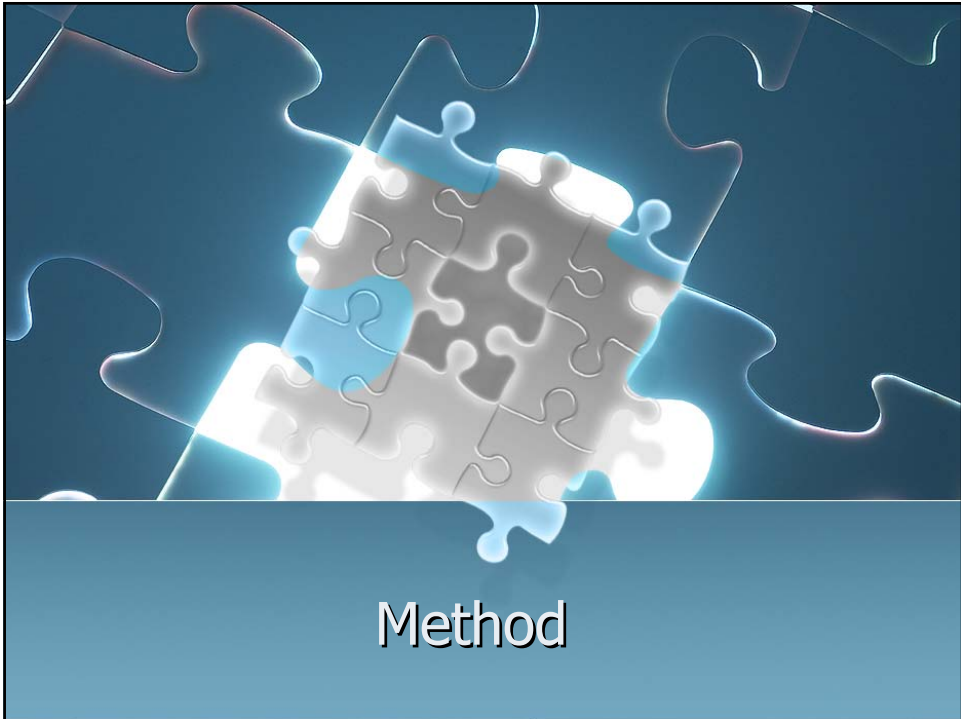
Problem Statement

- Disadvantage of using only survey techniques is that the issue of match is merely determined by the statistical programme (e.g., interaction terms)
- $\hat{Y}_{\text{exhaustion}} = X_{\text{emodem}} + Z_{\text{emores}} + X_{\text{emodem}*Z_{\text{emores}}} + E$
- The present study, however, will access causal attributions of people; that is, employees' beliefs about which job resources help under which demanding work conditions ('vignettes')
- To put differently, employees determine match of demands and resources merely by themselves



Research Questions

- Therefore, we will explore:
 - 1) what kind of job resources are perceived as helpful in particular types of demanding work situations (relevance)
 - 2) whether or not various types of job resources are perceived as available, even if they are not viewed as helpful (availability)
 - 3) triple-match interactions between (1) demands and (2) relevance and availability of resources in the prediction of job strain



Research Design

- Data were collected as part of a cross-sectional survey (survey response rate was 71%)
- 49 health care workers from an institution for the blind
- Mean age: 38 yrs (SD=11)
- Gender: 77% women and 23% men
- 25% is working full-time (> 36 hrs per week)
- Mean working hours: 28 hrs (SD=7)



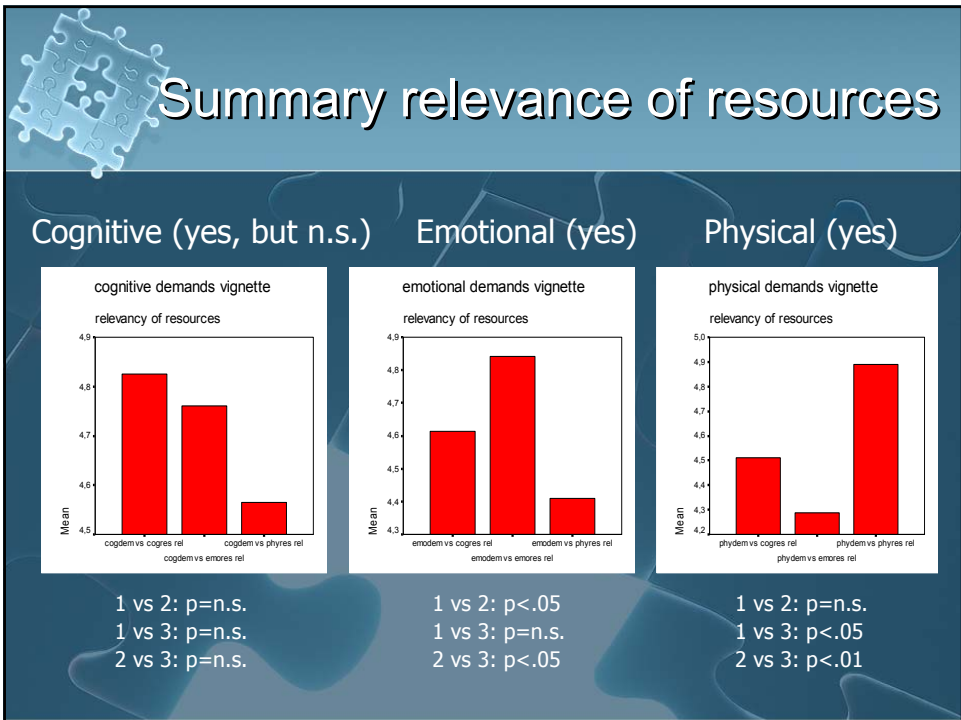
Measures (1)

- Three different vignettes ('cases'):
 - cognitively demanding situation
 - emotionally demanding situation
 - physically demanding situation
- DISC Questionnaire (DISQ 1.1):
 - three corresponding job resources (i.e., cognitive, emotional, and physical) with two response categories:
 - relevance of the particular job resource (3-point scale; alpha's ranging from .62 to .87; one alpha was .41)
 - availability of the particular job resource (0=no/1=yes; KR-20's ranging from .61 to .81)



Measures (2)

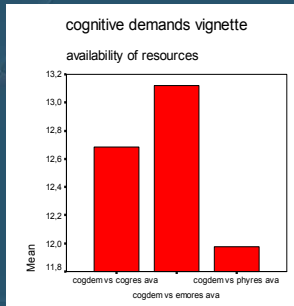
- Three types of job demands (questionnaire):
 - Cognitive demands (2 items; 5-point scale; $r=.67^{***}$)
 - Emotional demands (2 items; 5-point scale; $r=.51^{**}$)
 - Physical demands (3 items; 5-point scale; $a=.78$)
- Outcome measures (questionnaire):
 - Active learning (4 items; 4-point scale; $a=.81$)
 - Emotional exhaustion (5 items; 7-point scale; $a=.85$)
 - Physical health complaints (4 items; 3-point scale; $a=.72$)





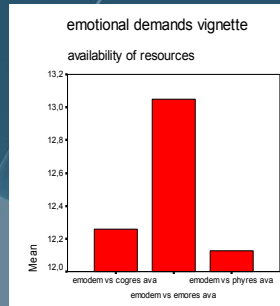
Summary availability of resources

Cognitive (no)



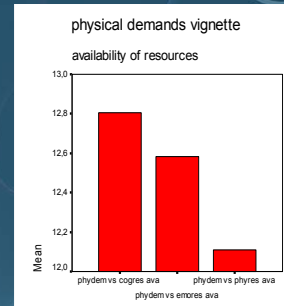
1 vs 2: $p=n.s.$
1 vs 3: $p<.01$
2 vs 3: $p<.05$

Emotional (yes)



1 vs 2: $p<.01$
1 vs 3: $p=n.s.$
2 vs 3: $p<.01$

Physical (no)



1 vs 2: $p=n.s.$
1 vs 3: $p<.05$
2 vs 3: $p=n.s.$

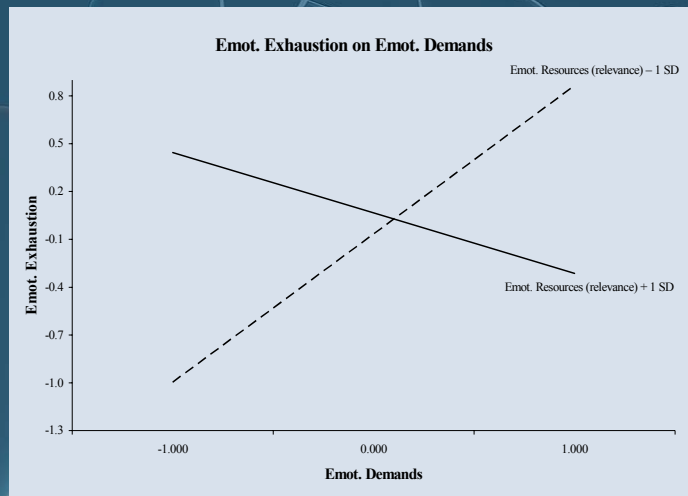


Regression Findings

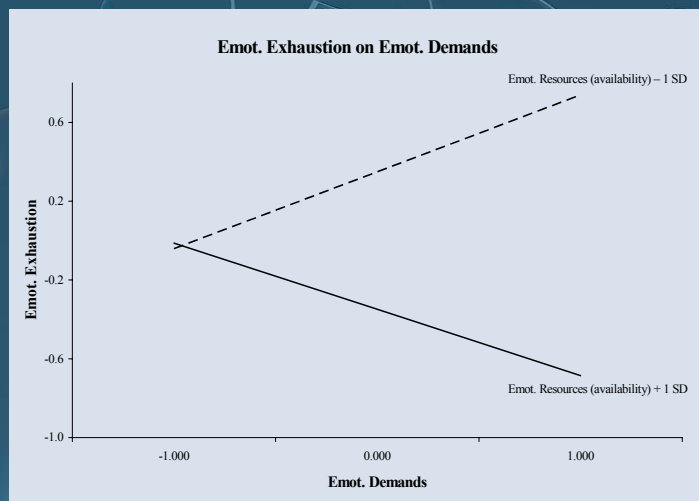
- Hierarchical regression analyses (controlling for gender and age) showed that 2 out of 6 triple-match interactions were significant:
 - Emotional demands versus emotional resources (relevance) in the prediction of emotional exhaustion ($R^2\text{-adj.}=18\%$; $\Delta R^2\text{-adj.}$ in final step=14%)
 - Emotional demands versus emotional resources (availability) in the prediction of emotional exhaustion ($R^2\text{-adj.}=40\%$; $\Delta R^2\text{-adj.}$ in final step=4%)

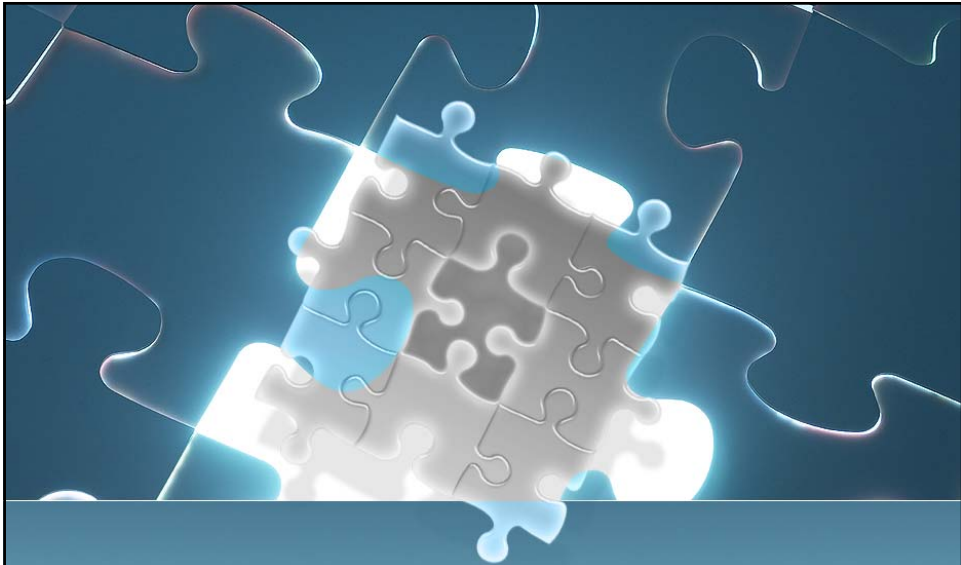


TMP interaction: relevance emotional resources



TMP interaction: availability emotional resources





Conclusions and Implications



Concluding remarks

- Relevant job resources matched corresponding demanding situations, while only available emotional resources matched the corresponding demanding situation
- Relevance of job resources seems to be just as important as availability of job resources (and maybe even more...)
- This is also true for detecting triple-match interactions in the prediction of emotional exhaustion (both methods converge in this respect)
- Emotional resources are indeed important as stress moderators for human service employees (client oriented jobs)



Implications

- Given high convergence, both the vignette method and the survey method provide a richer and deeper insight in the matching mechanisms
- Future job stress research may benefit from the idea that job demands and job resources do not interact randomly in the prediction of health/well-being outcomes
- It is the idea of *match* and *triple-match* that merits attention in future job stress research



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