

***Cross-sectional study to the relationship between  
personality, work characteristics and burnout***

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*“Job demands – Resources Model”* (Bakker and Demerouti)

- > Exhaustion
- > Cynicism
- < Feelings of personal efficacy

Burnout



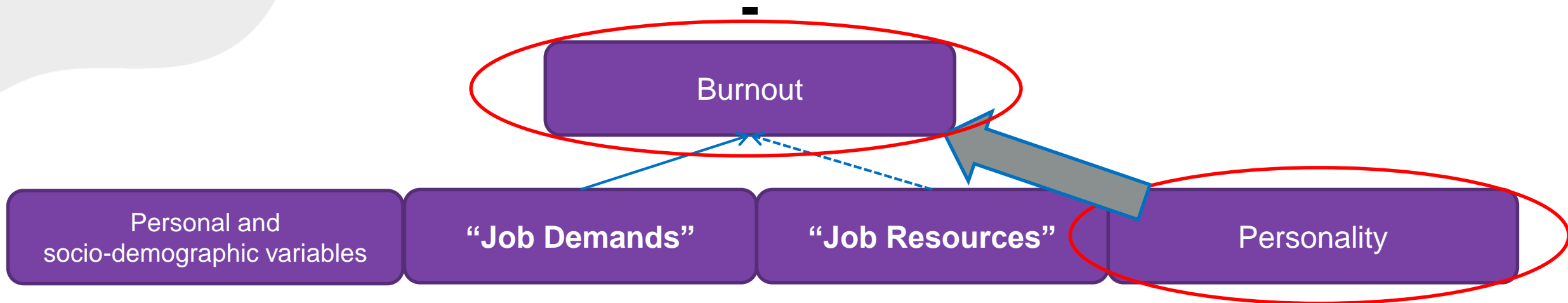
*“Big Five Model”* / *“Five-factor model”* (Costa and McCrae)

- “job demands”: job requirements that ask physical or mental energy
- “job resources”: energy sources

- Neuroticism
- Extraversion
- Agreeableness
- Conscientiousness
- Openness (for new experiences)

—————> Positive relationship  
- - - - -> Negative relationship







-Research hypotheses:

Comparison with existing data

Personality trait	Burnout
Neuroticism	+
Extraversion	-
Conscientiousness	-
Agreeableness	-
Openness	/

 Positive relationship  
 Negative relationship

## 3. Material and methods

### Study design

- Cross-sectional study in various Flemish companies
- Online questionnaire platform
- Data gathered between April and June 2015
- Approval by Ethical Committee of the University Hospital Ghent (2015/0100 – feb 2015)

## 3. Material and methods

### Questionnaire and hypothesis testing: multiple linear regression analysis

#### Dependent variable: Burnout

Measured with UBOS-A, 3-dimensional

#### Independent variable: Personality

Measured with NEO-FFI

#### Adjustments:

Personal and socio-demographical variables

Health-related variables

Work characteristics (JD-R, VBBA)

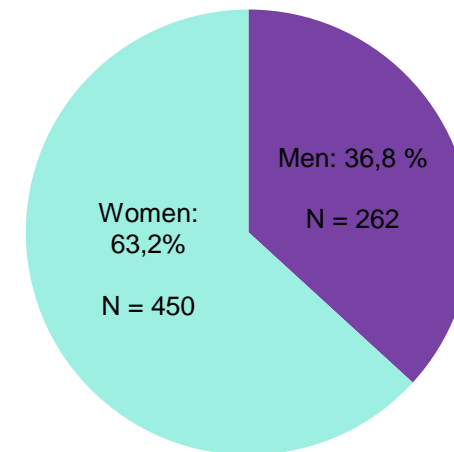
- Workload, mental load, task in clarity
- Autonomy, social support colleagues and direct supervisor, opportunities for development

# Response ratio

Total amount sent	Completely filled-in	Partially filled-in	Not filled-in	Response ratio
2174	713	159	1302	<b>32,8 %</b>

## Sample

- Chemical production company, 2 public centres for social well-being, a school, a local police force and an organization for public care
  - Not representative, but very heterogeneous !
  - (Literature: variety of study samples, difficult to compare)
- N = 713 ; Majority of women



## Prevalence of burnout

- Burnout and its dimensions:
  - 6,7 %: risk score on all three burnout dimensions
  - 15%: risk score on the exhaustion scale AND on one of the other two burnout dimensions (= group at risk for burnout)
  
- Cf. literature



# Multiple linear regression (separate dimensions not shown)

Burnout	Non-standardized				Standardized	
	b-coefficient	standard error	Lower limit 95% ci	Upper Limit 95% ci	$\beta_{1-final}$	$\beta_{1-initial}$
(Constante) ( $b_0$ )	79,627**	3,780	72,203	87,050		
Neuroticism	,244	,023	,200	,288	,291**	,590**
Extraversion	-,165	,030	-,223	-,107	-,154**	-,475**
Openness	-,023	,026	-,074	,028	-,021	-,001
Agreeableness	-,019	,033	-,083	,045	-,015	-,311**
Conscientiousness	-,171	,032	-,233	-,109	-,138**	-,374**
Workload	,097	,020	,057	,137	,112**	
Task in clarity	,056	,015	,026	,086	,093**	
Social support supervisor	-,080	,014	-,108	-,052	-,163**	
Autonomy	-,055	,017	-,088	-,022	-,087**	
Opportunities for development	-,215	,020	-,255	-,175	-,309**	
Managerial position	1,575	,728	,147	3,004	,051*	

\*\* p < ,01

\* p < ,05

<sup>a</sup> Burnout is the composite score obtained by averaging exhaustion and cynicism, and the opposite score on the scale of professional efficacy.

# Burnout: framing of the study results

Personality traits	Exhaustion			Cynicism			Professional efficacy		
	+	-	/	+	-	/	+	-	/
Neuroticism	<b>7</b>			<b>5</b>		2		<b>1</b>	6
Extraversion		<b>3</b>	4		3	<b>4</b>	<b>4</b>		3
Openness			<b>7</b>		1	<b>6</b>	<b>1</b>		6
Agreeableness		2	<b>5</b>	1	<b>2</b>	4	4		<b>3</b>
Conscientiousness		1	<b>6</b>		<b>2</b>	5	<b>2</b>		5

- '+': positive significant association
- '-': negative significant association
- '/': no association
- **Bold**: our result

- 58/105 investigated relations confirmed
- 46 no relationship
- 1 contradiction (agreeableness and cynicism)

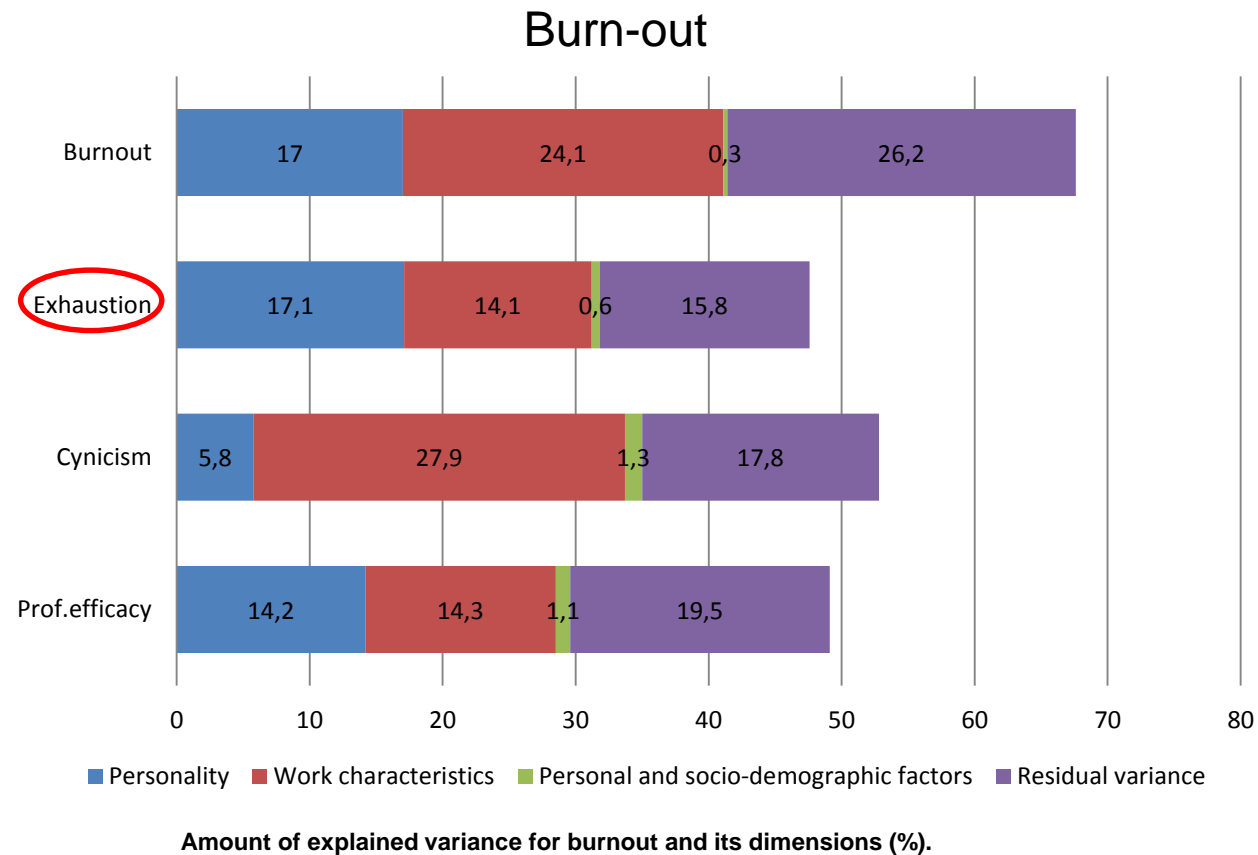
-differences: type and size of study samples

## Key conclusions of the multiple linear regression analysis:

- Certain personality traits are, apart from work circumstances, associated with burnout.
  - Neuroticism (+), extraversion (-)
  - Openness (for new experiences): no relationship
  - Agreeableness, conscientiousness: ?

# Burnout

## Relative contribution of the different effect variables



# Strength-weakness analysis of the study

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## Strengths

Large heterogeneous research population

International accepted models  
Validated questionnaires

Variety of work characteristics (control variables)

## Weaknesses

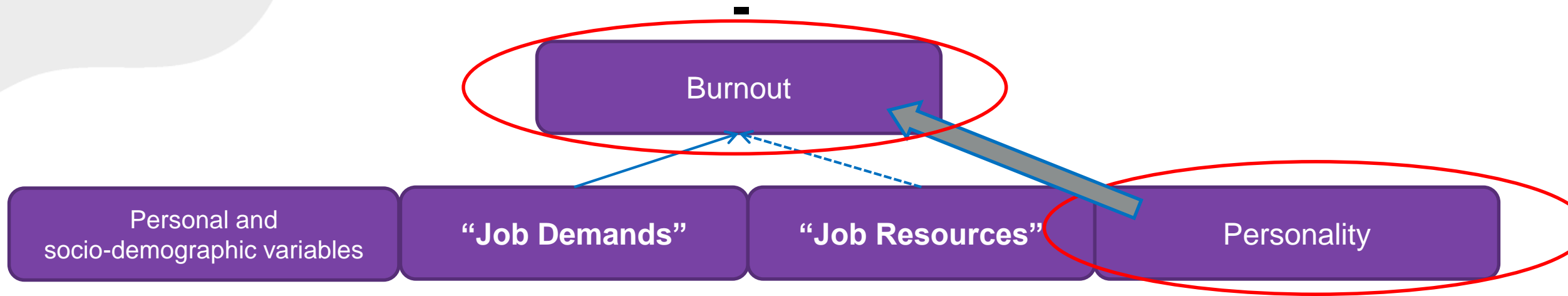
Selection-bias ? (response ratio, healthy worker effect, questionnaire only available online...)

UBOS-A for all kinds of professions  
No adjustment for depressive symptoms or psychological well-being

Self-reporting: socially desirable answers, “Common Method Variance”

Cross-sectional study -> causality ?

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- **Further research is needed**

- HRM and Occupational Health Services should be aware of the importance of personality traits:
    - Interaction work characteristics <-> personality?
  - development of strategies and procedures to make employees aware of the risk factors for burnout
    - Personality-environment fit -> specific personality traits in certain professions?
  - including personality traits
    - Studies about organizational interventions and changes in time
  - Inclusion of personality in
    - Adding of personality dimension to existing interventions + monitoring effect
      - Models and existing interventions for burnout
- **Need for RCTs and longitudinal data** (e.g. 10 years, 20 years, 40 years...)
- Occupational medicine or labour psychologist: personality as a part of a holistic approach of the employee
  - Society and national policies can make more efforts sensitizing the general population about burnout and the role of personality in its development.

## 6. Conclusion

Certain personality traits are, apart from work circumstances, associated with burnout.

- Neuroticism
- Extraversion

Implications:

- Personality is an essential player in the development of burnout -> inclusion in existing interventions and in society

# Questions or comments?

*"She burnt with love, as straw with fire flameth,  
she burnt out love, as soon as straw out burneth."*

**William Shakespeare**

*Engels toneelschrijver, dichter en acteur  
(1564-1616)*