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Vrije Universiteit Brussel

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Profiling the Highly sensitive person; characteristics of sensory-processing sensitivity in adulthood

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Introduction

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□ People differ in how they perceive and process the environment (both internal and external)

  ▫ Sensitivity

   ▪ Psychological, physiological and genetic factors are associated with this difference in sensitivity

   ▪ Imbedded in our central nervous system

□ These differences are observable as they lead to a different behavioral response to a similar stimulus

□ These differences are found across species and reflected in various psychological theories considering personality and temperament

Our challenge

- □ **What is High Sensitivity** (HSP)?
  - ◘ In order to answer this question, we need a valid and reliable <u>instrument</u> to define the population
- □ How would we <u>describe a person with HSP</u>?
  - ◘ In books some strong statements!
- □ Is HSP a <u>talent</u> or a factor leading to an increased <u>vulnerability </u>(differential susceptibility)?
- □ How could we turn HSP into a talent for every person with HSP (<u>intervention</u>)?

Design

- □ A large scale longitudinal study in an adult population
- □ T1; T2 = T1+ 14 days; T3 = T1+6 months
- □ Online questionnaire
- □ www.veerkrachtigophetwerk.be
- □ Approved by the ethical committee (UZBrussel)
- □ Started in autumn 2014

Sample

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□ 1.500 participants (T1, T2)

□ T3 ongoing

□ Preliminary results based on 1.105 people (T1) and 876 respondents (T2) (20% drop-out)(01.03.2015)

□ 77% female

□ 60% working fulltime

□ 70% married or living together

□ Age between 18-60 years of age

  ◘ 18-25: 4%

  ◘ **26-35: 31%**

  ◘ **36-45: 36%**

  ◘ **46-55: 23%**

  ◘ 56+: 6%

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Statistics

hooggevoeligheid

N	Valid	1106
	Missing	0
Mean		19,06
Median		20,00
Std. Deviation		5,931
Range		25
Minimum		2
Maximum		27

Mean = 19,06
Std. Dev. = 5,931
N = 1.106
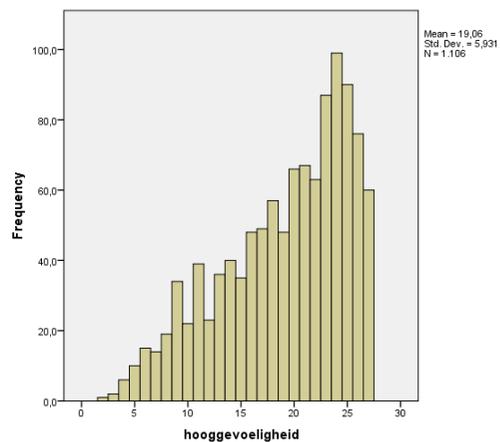
Results

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1. **HSP-test for adults**

2. **Profile of HSP**

1. **HSP-test**

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- □ Test-retest reliability
- □ Internal consistency
- □ Validity
  - ◘ Construct validity
  - ◘ Factoranalyses

Test-retest reliability

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(T1& T2)
n = 876 adults
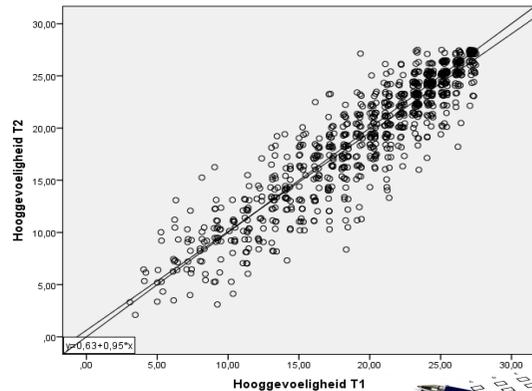
Pearson correlation = 0.918
Spearman = 0.909
⇒ **Excellent cohesion**

⇒ **Conformity?**
⇒ T1 > T2
⇒ Regression-analyses with correction for multiple testing
⇒ Item 1, 10 and 2 greatest differences

Internal consistency

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☐ Cronbach's alpha (T1) = 0.89

☐ Do all items add to the score (added-value)?

◘ Range between respondents is low

◘ Information rate is low

◘ Items 3, 12 en 17

☐ Leave out items?

◘ Items 12, 15 en 17

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- Strongest score
  - Item 1, 5, 7, 9, 11, 19, 23 and 25

Factor analyses

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Rotated Component Matrix

	Component		
	1	2	3
hsp1_23	,734		
hsp1_16	,700		
hsp1_25	,655		
hsp1_19	,655		
hsp1_14	,621		
hsp1_9	,547		
hsp1_5	,536	,454	
hsp1_11	,472		
hsp1_24	,457		
hsp1_17			
hsp1_20		,622	
hsp1_4		,585	
hsp1_7		,554	
hsp1_13		,541	
hsp1_26		,518	
hsp1_1		,507	
hsp1_6		,492	
hsp1_21	,411	,432	
hsp1_27		,404	
hsp1_3			
hsp1_18			
hsp1_22			,680
hsp1_8			,621
hsp1_10			,618
hsp1_2			,524
hsp1_15			,502
hsp1_12			

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Summary

- □ Good test-retest reliability although problem with conformity
- □ Good internal consistency
- □ Leave out 3, 12, 15 and 17
- □ Key-items: 1, 5, 7, 9, 11, 19, 23 and 25
    - ◘ Ease of excitation/ profound processing = core?
- □ No uni-dimensional construct
- □ 3-factors, consistent wit results Smolewska et al. (2006): aesthetic sensitivity, low sensory threshold and ease of excitation
    - ◘ Factor 2 and 3 have high positive intercorrelations

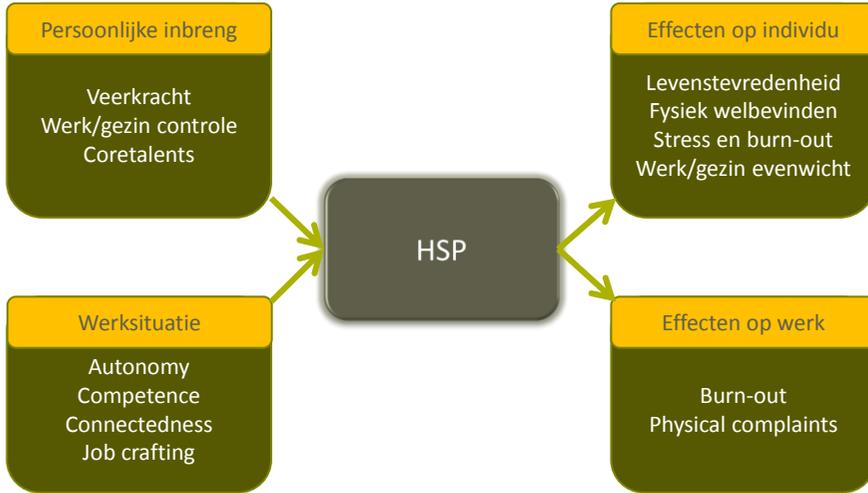# 2. Profiling HSP

- □ Low score <14
- □ High score >22

- □ HSP ~pos. negatief affect (ATQ) en neg. Effortful control (ATQ), neg. extraversion, pos. Orienting sensitivity
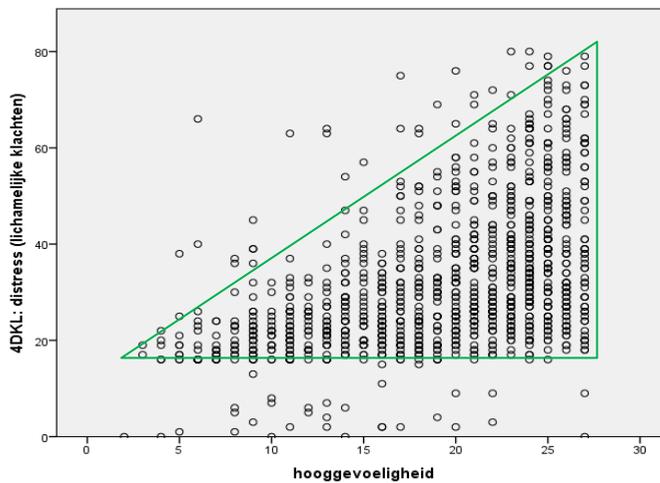- □ HSP~distress, depression, fear, somatisation

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Persoonlijke inbreng	Effecten op individu
Veerkracht Werk/gezin controle Coretalents	Levenstevredenheid Fysiek welbevinden Stress en burn-out Werk/gezin evenwicht

HSP

Werksituatie	Effecten op werk
Autonomy Competence Connectedness Job crafting	Burn-out Physical complaints

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HSP and work

- □ HSP~significantly lower score on autonomy, competence and connectedness
- □ HSP~ hindering job demands, structural job resources, challenging job demands
- □ HSP~emotional exhaustion, detachment and loss of feeling competent
- □ HSP~negative influence of work at home, negative influence of home at work
- □ HSP~less resilient

HSP and burn-out

- □ A higher score on HSP ~a higher score on stress
- □ A small risk for burn-out is associated with both a low or a high HSP
- □ A high risk for burnout is associated with a high score on HSP

Summary

- □ Indications supporting differential susceptibility
- □ HSP ~burn-out symptom
- □ High HSP is an important factor in the development of work stress complaints both as an independent factor as well as an dependent effect of stress, leading to a spiral of stress

Future research

- □ Finalise HSP- test for adults
  - ◘ Are the "core" items sufficient?
  - ◘ Select items that best reflect the three factors
- □ Differential susceptibility => identification of causal factors
- □ HSP and work: what type of stressors are key?
  - ◘ Based on qualitative research
- □ Intervention to reduce work-related stress
  - ◘ Based on concepts of positive psychology and neurobiology

Thanks

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Manuscripts in preparation
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