UNIVERSITEIT GENT

FACULTEIT PSYCHOLOGIE EN PEDAGOGISCHE WETENSCHAPPEN

Cognitive vulnerability in fear of flying: The role of anxiety sensitivity.

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Introduction: The etiology of fear of flying

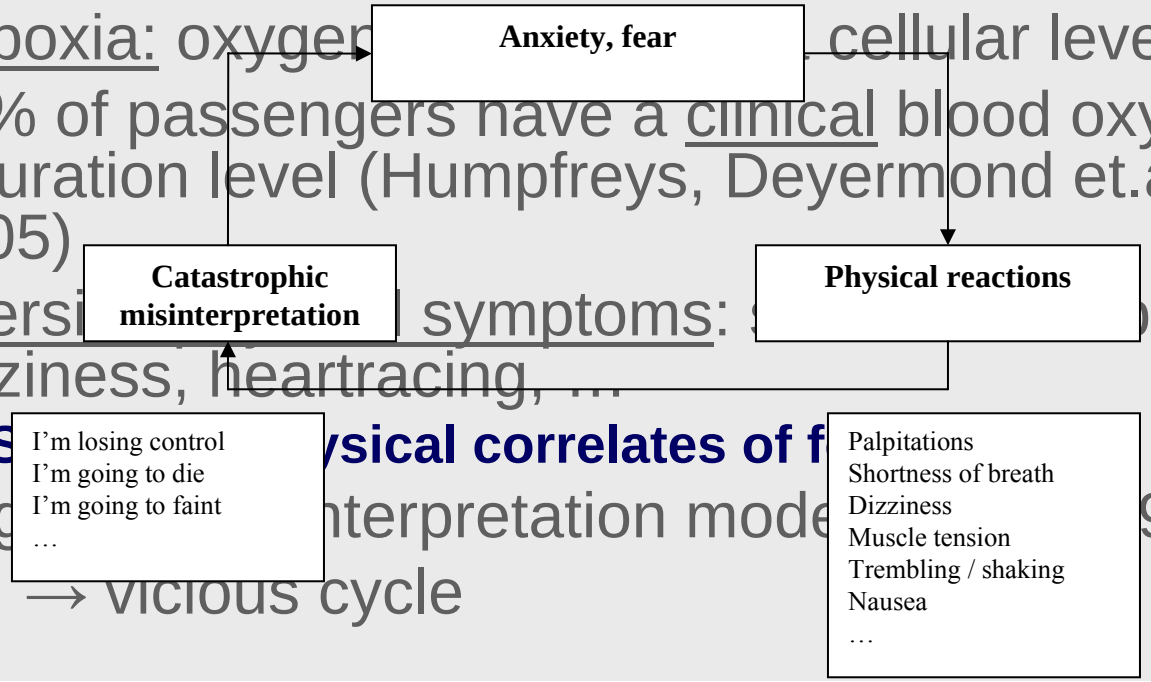
- Fear of flying (FOF) is diagnosed as a situational phobia
- Acquisition of FOF through classical conditioning

1. External conditioning events

2. Internal conditioning events ?

Internal conditioning events?

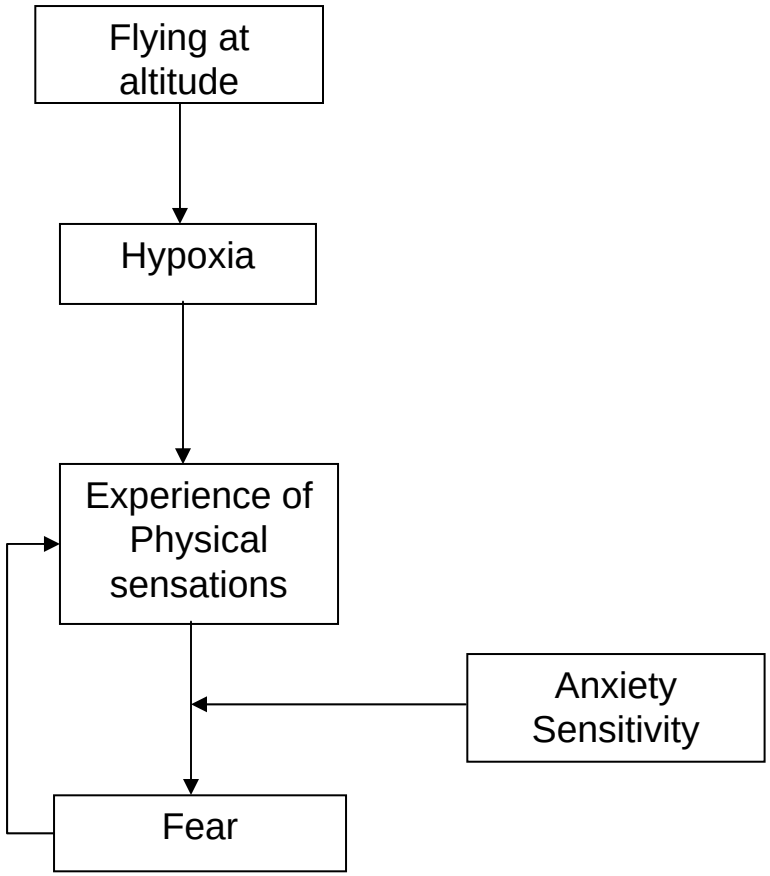
- Hypoxia: oxygen[illegible] cellular level
- 54% of passengers have a clinical blood oxygen saturation level (Humpfreys, Deyermond et.al., 2005)
- Aversi[illegible] symptoms: [illegible]reath, dizziness, heartracing, …
  - **S[illegible]ysical correlates of f[illegible]**
- Cog[illegible]nterpretation mode[illegible]99)
  → vicious cycle



Anxiety Sensitivity (AS)

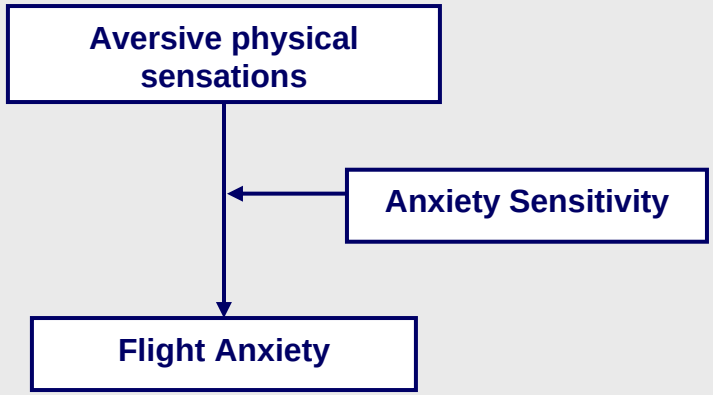
- **AS is the specific tendency to respond anxiously to anxiety related bodily sensations**
  - based on the belief that these sensations have threatening somatic, psychological or social consequences (Reiss, 1991).
  - AS is a cognitive vulnerability marker for the development of panic disorder and other anxiety disorders (Taylor, 1995).

- Subjects with fear of flying show elevated AS and a higher intensity of the fear of flying is associated with a higher AS (Rivas & Tortella – Feliu, 2000) .


Flying at altitude
Hypoxia
Experience of Physical sensations
Anxiety Sensitivity
Fear

Hypothesis

anxiety sensitivity is a cognitive vulnerability factor for the acquisition of fear of flying



Method

- **Sample**
  - N = 160
  - 26.9 % had FOF scores falling within 1SD of mean of clinical sample reported by Van Gerwen (1999)

- **Materials**
  - Flight Anxiety Situations Questionnaire (Van Gerwen, 1999)
    - In Flight Anxiety
  - Flight Anxiety Modality Questionnaire (Van Gerwen et al, 1999)
    - Somatic subscale
  - Anxiety Sensitivity Index (Reiss, Peterson, et al., 1986)

Results (1)

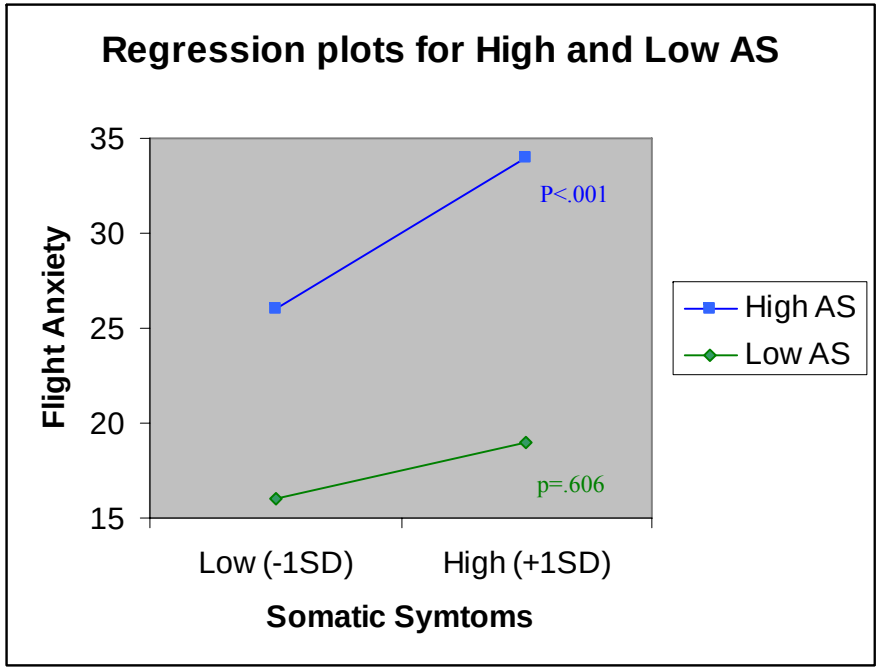
- Moderator Analyses (Baron & Kenny, 1986)
  - A main effect for somatic sensations (β = .847 ; t(7.617); p < .01)
  - a significant main effect for AS (β = 0138 ; t(.2.107) ; p < .05)
  - a significant interaction effect (β = -.052 ; t(.016) ; p < .05).

This significant interaction effect indicates that AS acts as a moderator variable between somatic symptoms and flight anxiety

Results (2)

- Simple slopes analyses (Holmbeck, 2002)
  - the moderator variable is dichotomized into a low AS group and a high AS group, by using +1SD and – 1SD as cut-off points
  - somatic sensations do significantly predict flight anxiety for the **high AS group**
    (β = .206 ; t(2.81) ; p < .01)
  - this relationship was not significant for the **low AS group**
    (β = .351 ; t(.517) ; p = .606)

Results (3)


Regression plots for High and Low AS
35
30
25
20
15
Flight Anxiety
P<.001
p=.606
High AS
Low AS
Low (-1SD)
High (+1SD)
Somatic Symtoms

Conclusion

- AS does **moderate** the relationship between somatic symptoms and flight anxiety
  - somatic sensations significantly predicts flight anxiety in individuals with high AS
  - whereas it does not for individuals with low AS.
- Clinical relevance: importance of interoceptive exposure for individuals with high AS

Discussion: recommendations for future research

- The findings of the present study are tentative
- Determining the causal role of AS in the acquisition of fear of flying:
  - longitudinal or experimental research would be required.
- Determining the role of hypoxia in fear of flying
  - other sources of physical sensations?

Questions?

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Info

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