

# HOW TO BECOME A FEARFUL FLYER:

## THE LEARNING HISTORY OF FLYING PHOBIA

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 **Fit-to-Fly**

# Background

Learning theory provides three models to explain the origins of phobias:

- **Classical conditioning**

(Watson and Morgan, 1917; Mowrer, 1939)

- **Vicarious learning (modeling)**

- **Informational learning**

(three-pathways account of Rachman, 1977)

## Recent literature tells us....

- In studies about **specific phobias** the percentage of **classical conditioning** varies between **10%** (Menzies, 1996) and **66%** (Öst), depending on the kind of phobia and the methods that are used.
- There is only one study that examined conditioning processes in **flying phobia** (Wilhelm, 1997): **Half of the participants with flying phobia** reported some kind of traumatic event, about twice as many as in the control group.

# Objectives

- Identify the relevant experiences that could lead to a flying phobia.
- Possible experiences could be:
  - Frightening flight experiences
  - Stress at the beginning of flying phobia
  - Fear of Flying in the Family
  - Personal or family attitude towards flying
  - Information from the media

## Method : Sample

	<b>Flying Phobia Sample</b>	<b>Control Sample</b>
	N = 30	N = 30
<b>Sex:</b> Women:	60%	60%
Men:	40%	40%
<b>Age (Mean):</b>	37 years (23 - 60)	37 years (21 - 57)
<b>Education:</b>		
Low:	47%	47%
Medium:	33%	33%
High:	20%	20%
<b>Diagnosis:</b>	Specific Phobia (criteria of DSM-IV fulfilled)	No Diagnosis of DSM-IV

# Methods - measures

- **Diagnoses:**

**Mini – DIPS** (Structured Diagnostic Interview for DSM-IV Psychiatric Disorders, J. Margraf, 1994)

- **Learning History:**

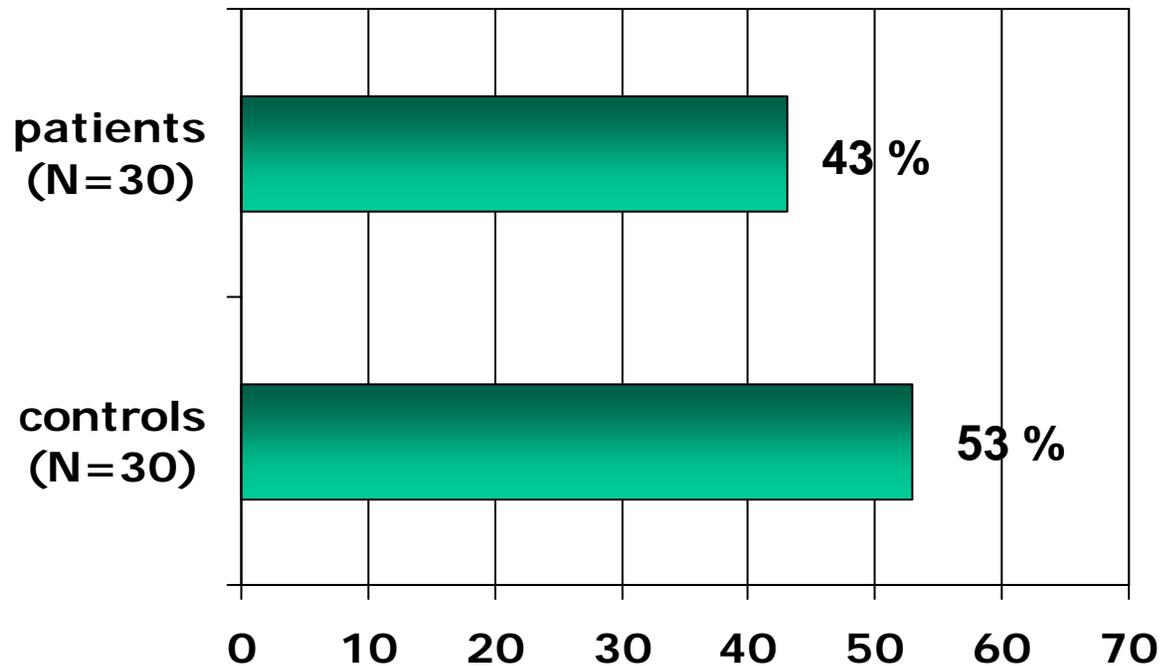
**Fear of Flying History Questionnaire**

Structured Interview including:

- Flying history
- Aversive flights
- Stressful life events
- Fear of Flying in the Family (Modeling)
- Individual or family attitude towards flying
- Media Information

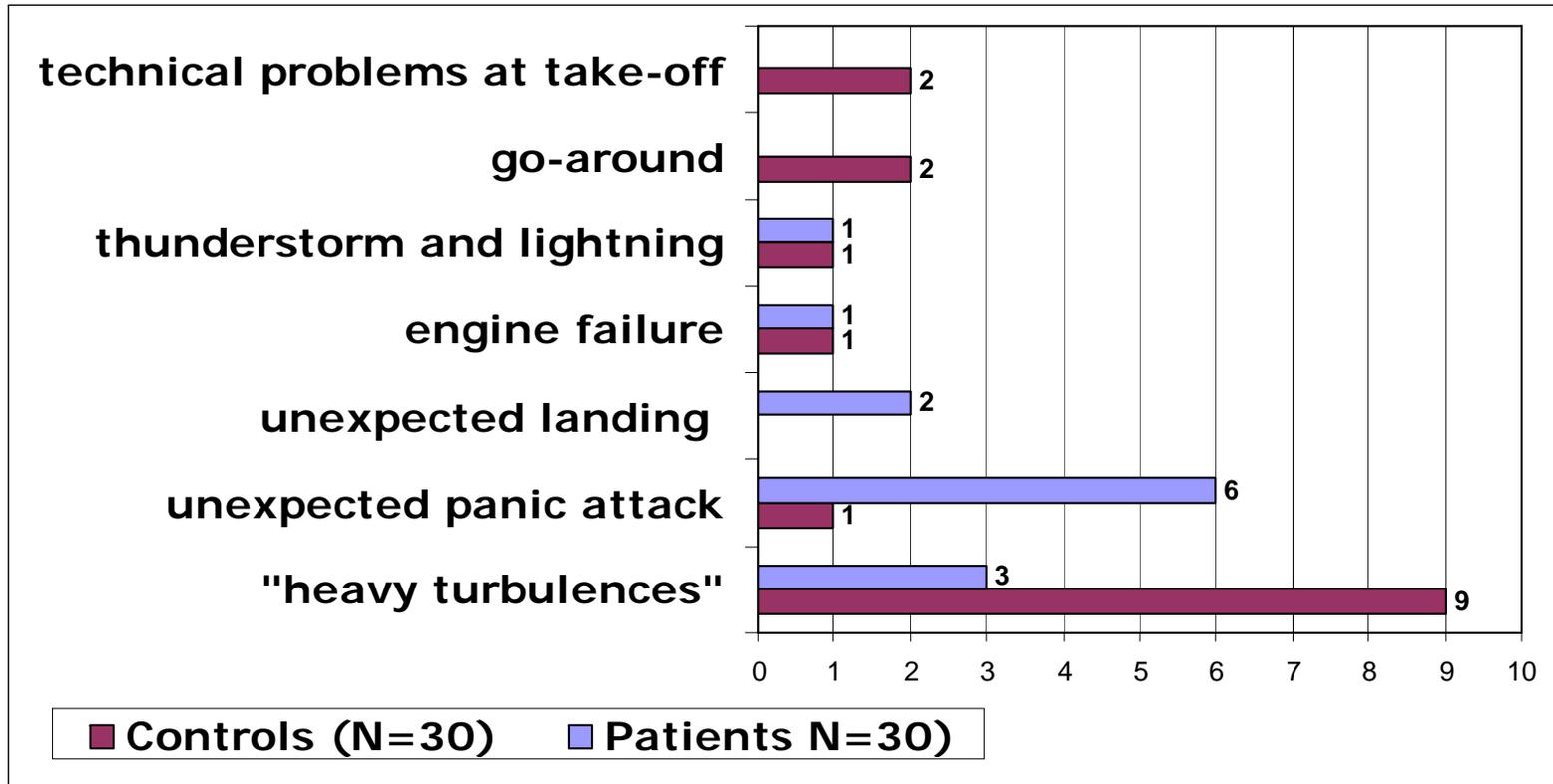
# Patients reported fewer frightening flight experiences than healthy controls!

## Aversive Experience in the Plane:



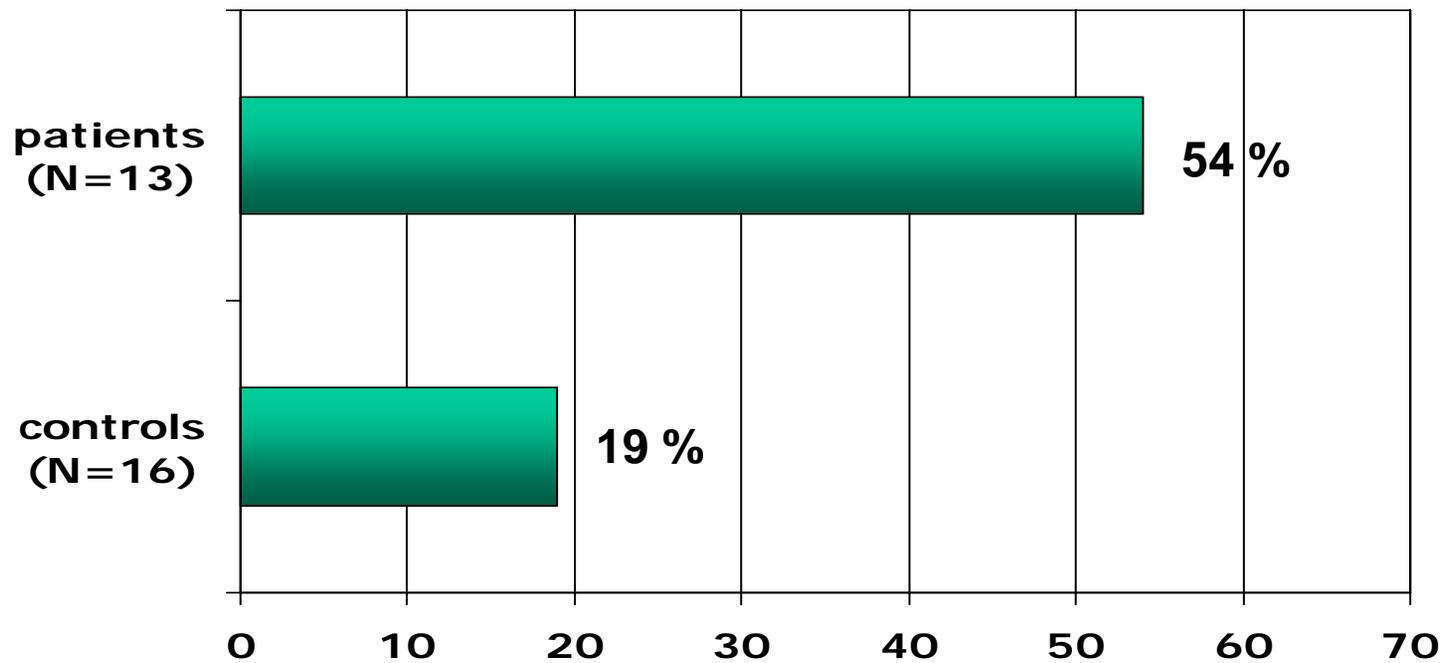
Chi-Square Test:  $\chi^2 =$  ,  $p > .05$

# Frightening Flight Experiences of Fearful Flyers and People without Fear of Flying



# Stress in life enhances the onset of flying phobia

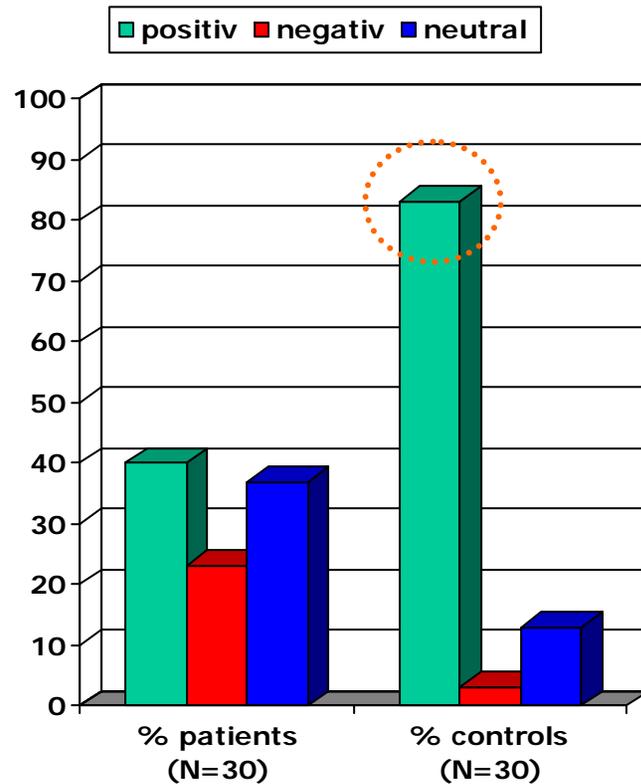
Stress in life during the frightening experience in a plane:



Chi-Square Test:  $\chi^2 = 3.910$ ,  $p = .048$

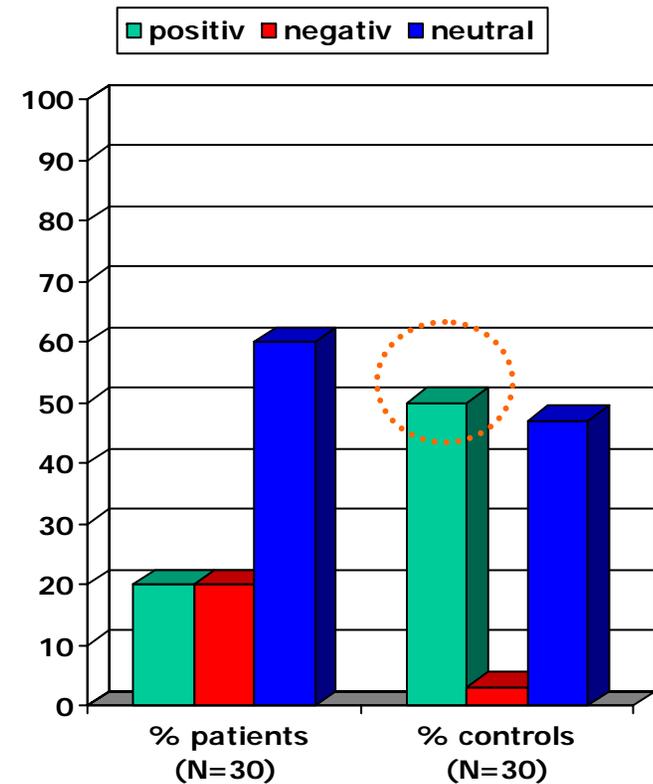
# Attitude towards Flying before phobia onset

## Individual



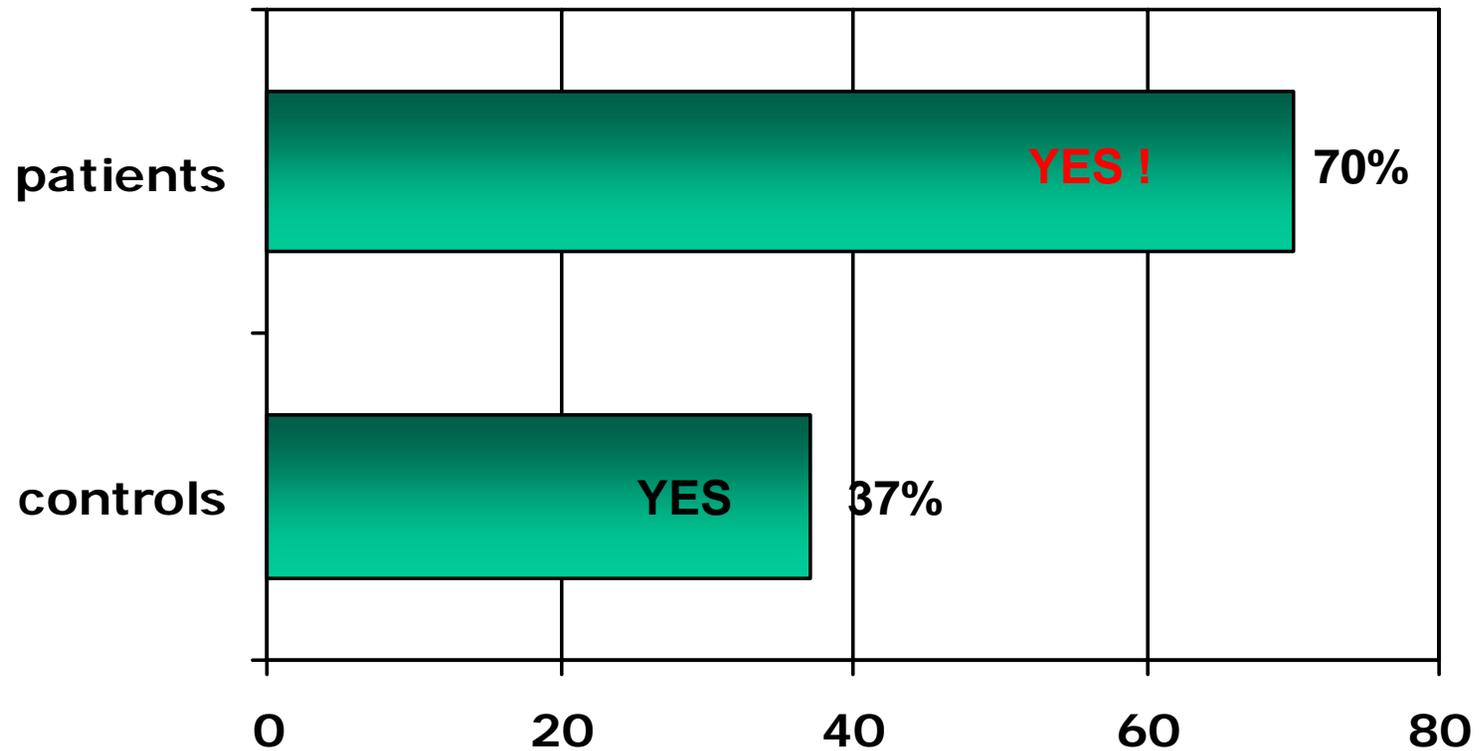
Chi-Square Test:  $\chi^2 = 12.334$ ,  $p = .002$

## Family



Chi-Square Test:  $\chi^2 = 7.929$ ,  $p = .019$

## Did Media Information influence your attitude towards Flying?



Chi-Square Test:  $\chi^2 = 6.696$ ,  $p = .01$

## What do these results tell us?

- Frightening Experiences in planes seem to be quite common. However, a lot of people manage to forget these fearful experiences without developing a fear of flying.
- Classical conditioning alone does not explain the onset of flying phobia.
- Stress in life makes people vulnerable to conditioning.
- A positive attitude towards flying may protect against developing a flying phobia.
- Media Information about flight accidents enhances flying phobia.

## If you are treating people with fear of flying, keep in mind..... (clinical implications)

- When patients report very scaring experiences in the plane, keep in mind, that patients usually do not experience more aversive events in planes than other people. Focus on the way they handle these experiences.
- Focus on the circumstances of the fearful events. Did stressful life events take place?
- Stress enhances the probability of a fearful reaction in the plane. Stress should be avoided when flying again.
- A positive attitude towards flying may help patients to overcome their fear of flying and also prevent them of a relapse after treatment.
- Try to build new positive associations with flying like nice holidays and relaxation.
- Patients should avoid media information about flying!

# THANKS....

- For your attention
- To all the persons that helped realizing this study