

From 2000 to 2007

The evolution of commercial aviation since the last World Conference (Vienna, 2000) and its implication on the passenger

What happened in between...

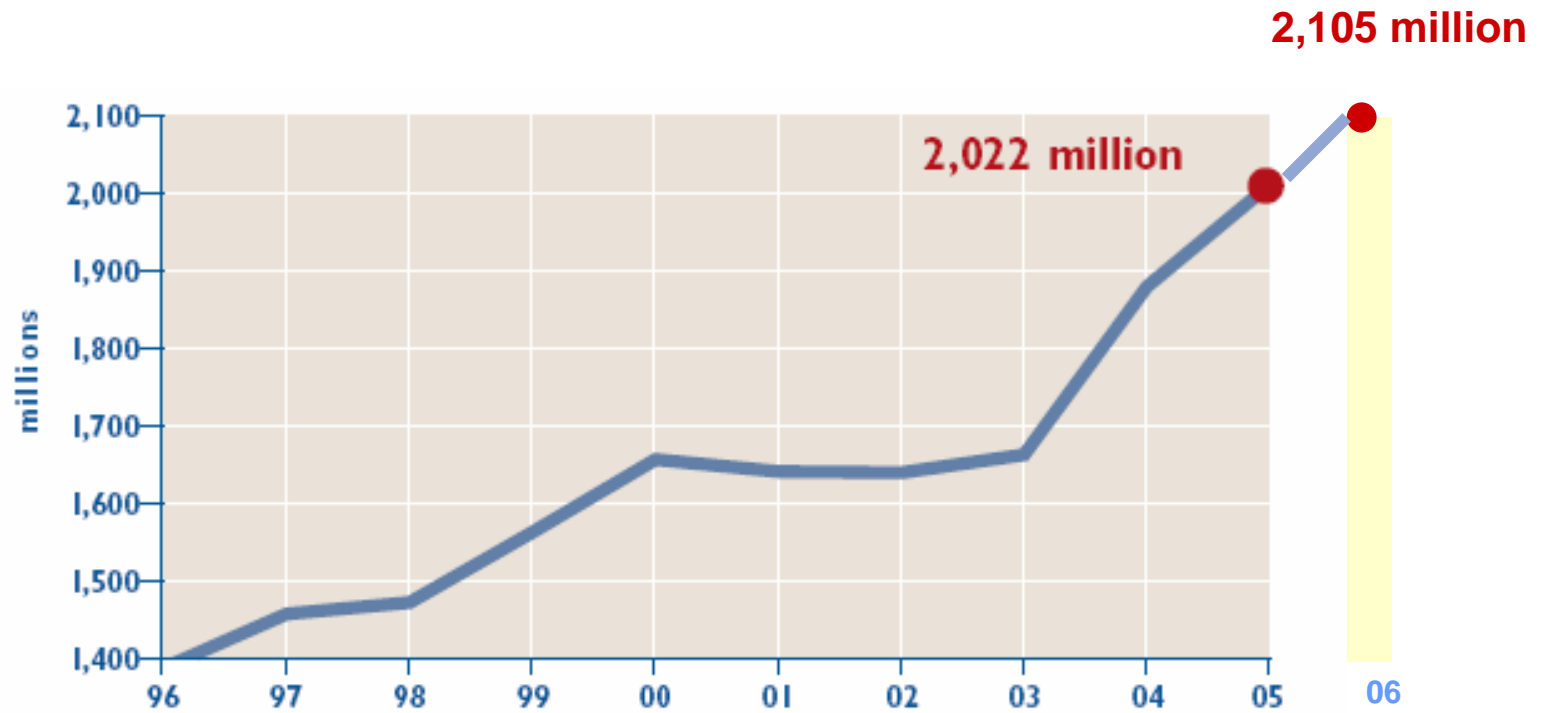
Developments with relevance to
Fear of Flying



Robert Wolfger / Lucas van Gerwen



440 million Passengers more than 2000



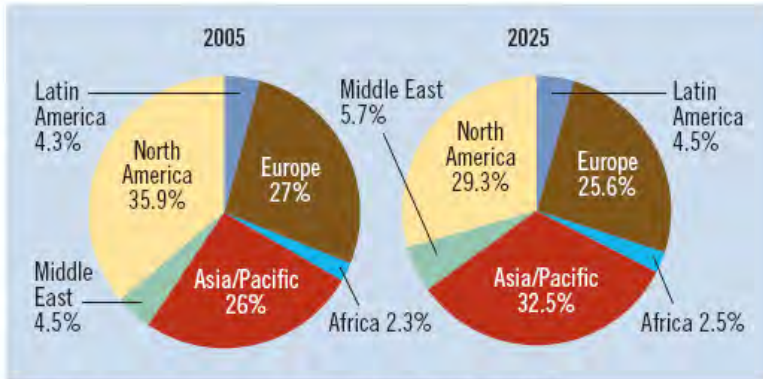
2006: US Carriers	751 mio Pass
EU Carriers	643 mio Pass
China + India	215 mio Pass
Rest/World	496 mio Pass



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Sources: ICAO, US BTS, EU Airl. Associations, Chin. CAA, Airport Auth. India



Regional development at a different pace



Share of scheduled passenger traffic by region, 2005 vs 2025 (passenger-kilometres performed)

1 in 5 aircraft deliveries in next 20 years will be to emerging markets

2006-2010: highest traffic growth in emerging and large population regions

*A/C excluding India and China

Expanding regions		Yearly traffic growth	5.4 billion people
	China	+10.8%	
	India	+8.6%	
	Eastern Europe	+8.7%	
	Middle East	+8.0%	
	CIS	+7.4%	
	Asia	+7.1%	
	Africa	+7.0%	
	Latin America	+6.2%	

Developed regions		Yearly traffic growth	1 billion people
	Australasia	+6.6%	
	Western Europe	+5.6%	
	Japan	+4.7%	
	North America	+4.1%	

Domestic China air travel doubling every 5 years

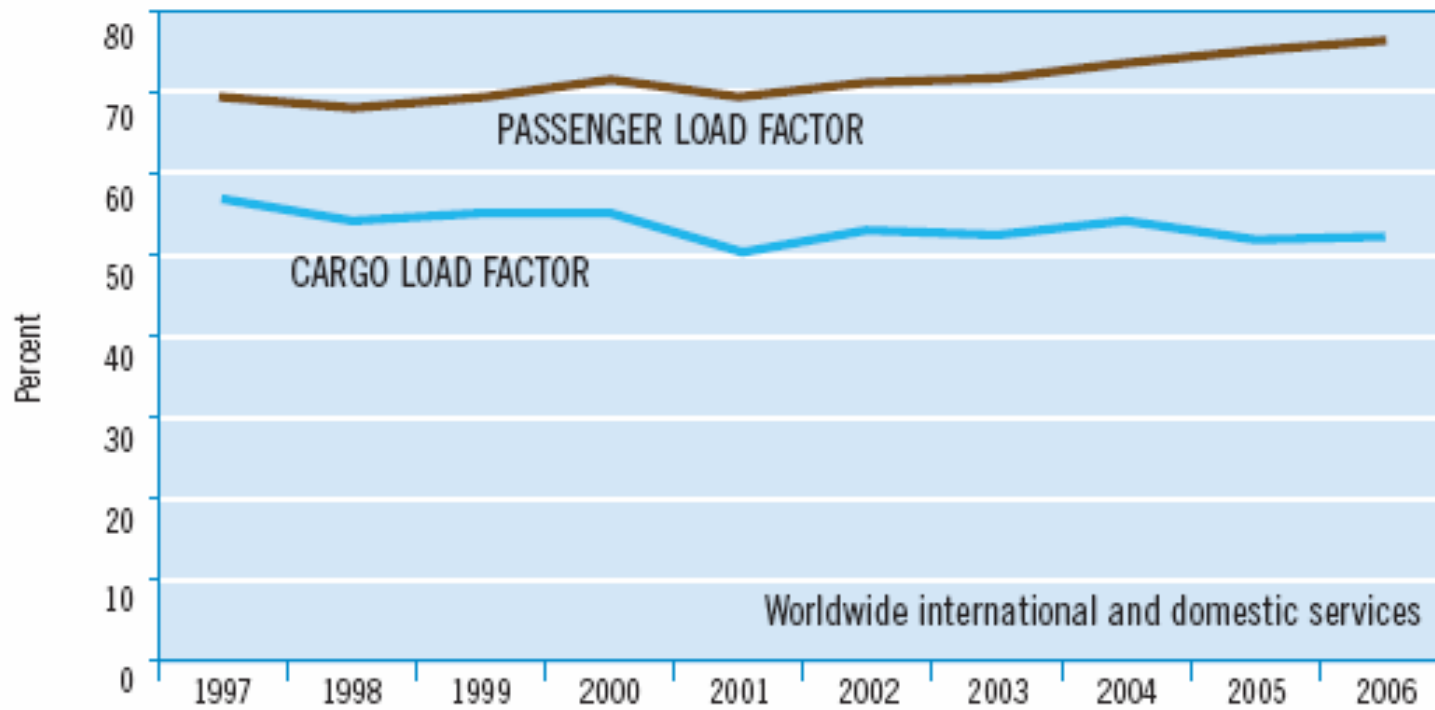
Gulf carriers will double their Wide Body Fleet next 7 to 8 years (+160 -200 A/C)



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Less space for passengers on the flights



Source: ICAO

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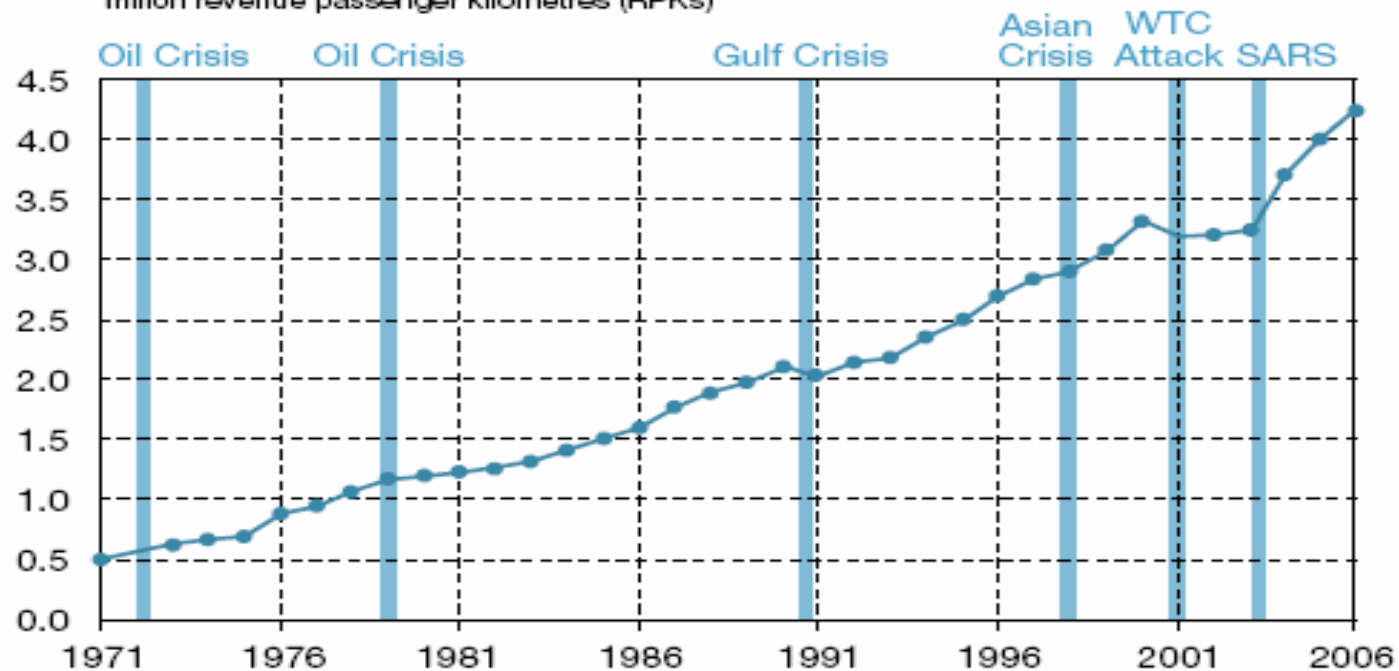


9/11, SARS, other Crises did not reverse the trend

Air travel resilient to external shocks

Source: ICAO, Airbus estimate for 2006

World annual traffic
Trillion revenue passenger kilometres (RPKs)



Source: ICAO/Airbus

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Safety Record

Year	Accidents	Passenger Fatalities
1996	28	1610
1997	31	1995
1998	26	1180
1999	28	630
2000	26	1130
2001	23	1070
2002	18	960
2003	10	630
2004	12	449
2005	17	712
2006	13	755

Source: ICAO Safety Statistics, Scheduled Aircraft more than 2250 kg



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Safety Record Improved

but seems to have reached a bottom line

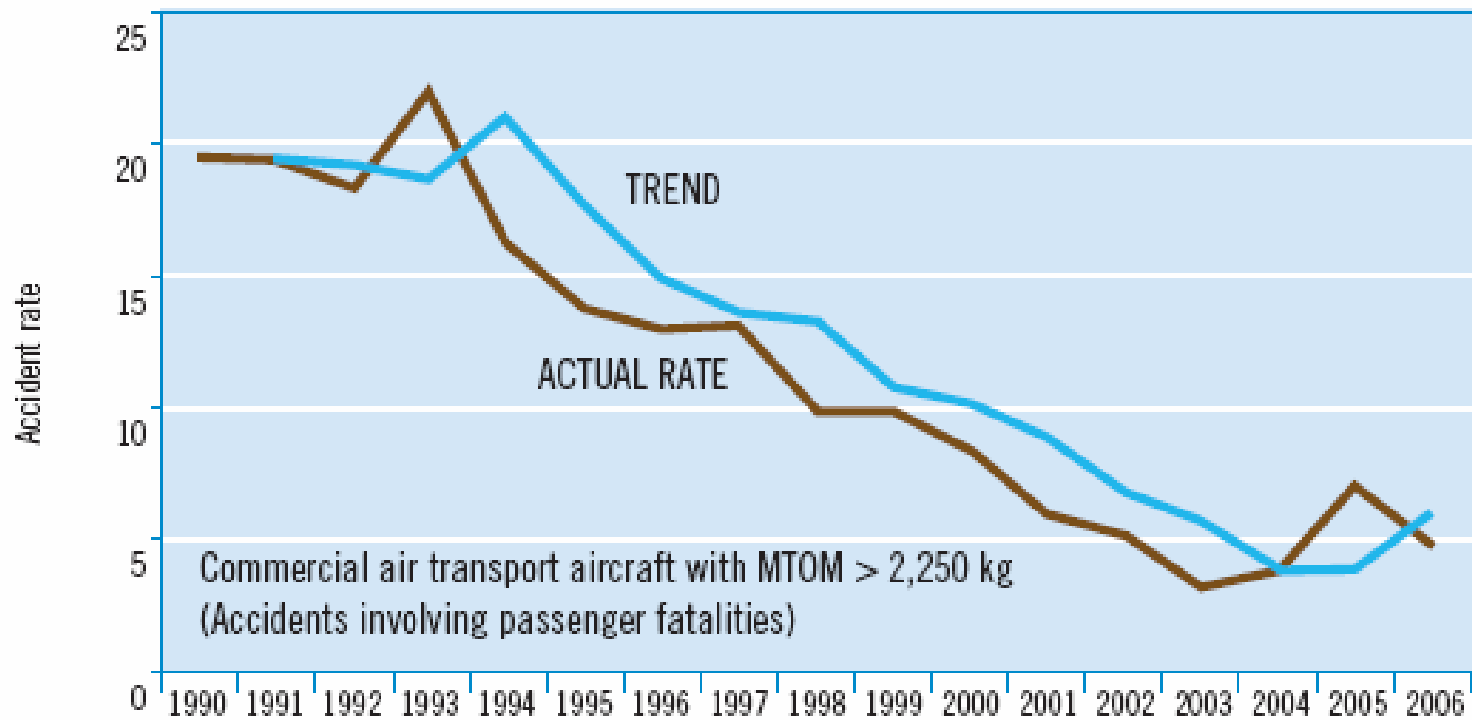


Figure 6. Fatal accidents per 10 million departures, scheduled passenger services



Source: ICAO

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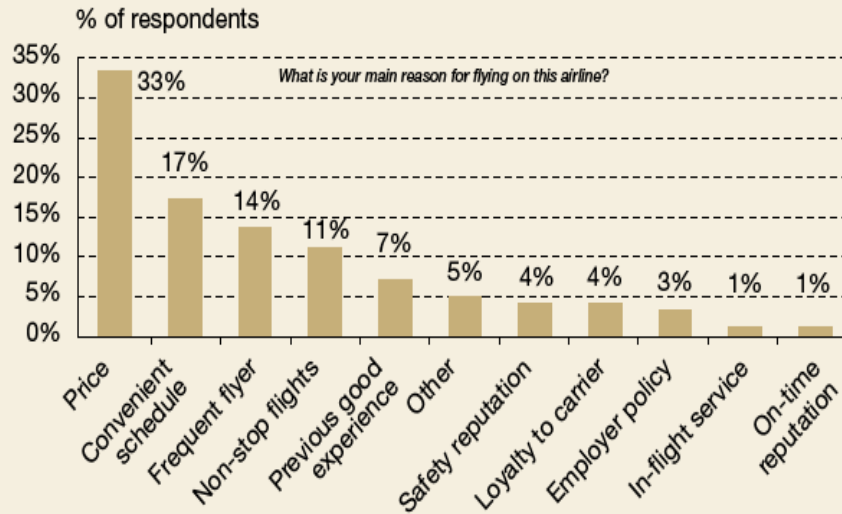


Travelling by air becomes more and more a commodity also in Europe, Asia and Latin America

Is the fearful passenger responding the same way?

Ticket price is the first criterion of choice

Source: Survey of International air travel, US Department of Commerce



Great potential for low cost carriers (LCCs) in Asia

North America



LCC Market share (seats): **29%**

Population: 290 million
Number of LCCs: 10
Deregulation: 1978

Europe



LCC Market share (seats): **26%**

Population: 375 million
Number of LCCs: 50-60
Deregulation: 1997

Asia



LCC Market share (seats): **9%**

Population: 3.5 billion
Number of LCCs: 15-20
Deregulation: acceleration today



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Rapid growth of LCCs

- ❖ No more Passenger Pampering through travel packages
- ❖ Fearful Flyer himself is responsible for each item in the travel chain



Deregulation of world air traffic accelerating



From state owned national carriers to privately owned global corporations



Cooperations → Alliances → Mergers



Hub concentration will increase – the fearful in the crowd



From restrictive bilateral air transport agreements to multilateral open sky agreements and eventually Open Aviation Areas



Fearful Flyers are more exposed to foreign environments and foreign company cultures



Market entries and market exits will be easier. What does the fearful flyer when there is a sudden market exit?



More competition – less frills for the Economy Cabin. The fearful flyer feels more and more left with himself?



Security was not **such** an issue in 2000?



Not even people in the army considered then to use aircraft itself as weapon



The hidden evil, that could trigger doom anytime – isn't that fear itself



Waiting time for the fearful event has increased considerably



Did DHS train its airport behavior check-persons also with regard to the fearful passenger?



Closed Cockpit doors. Which consequences for the fearful passenger?



Have all the Security related issues increased – not affected – or even decreased the fear of flying?



Mass Transportation and Individual Transportation on the Horizon



The fearful flyer faces
New challenges

From two opposite
Developments

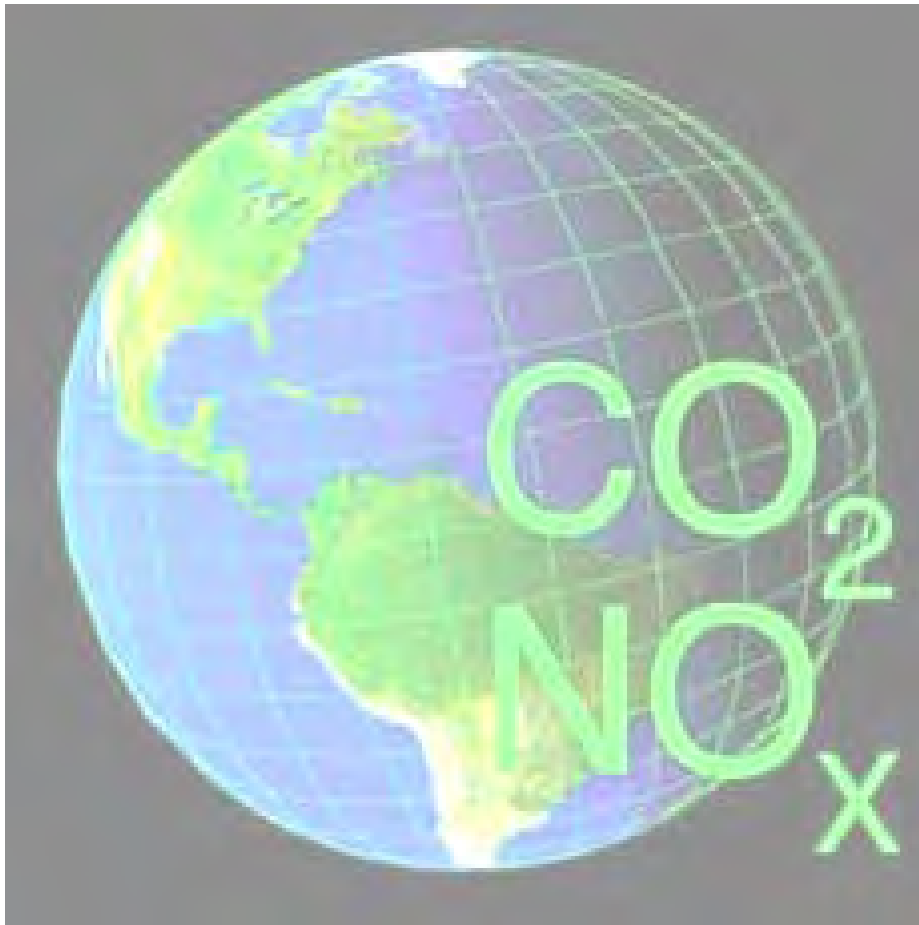
Super – Jumbo

Versus

VLJ



Do worries add up?



Although causing just 3pc of CO₂ pollution air traffic is forced to the forefront of criticism with regard to global warming.

Uneasiness because of bad conscience could mean reinforcement of fear.



Psychological Developments

Treatment of Fear

Virtual Reality

Technically Virtuality made a great leap
Towards Reality.

How much Reality is needed in
Virtual training?



Virtual worlds have been developed
in Web 2.0 and are now being developed
in „Second Life“.

New therapeutic possibilities?



For or against the use of supporting medication...

Did that change from 2000 to now?

- Benzodiazepines like Alprazolam (0,5-1); Oxazepam (10-50); Lorazepam (1-2,5); Diazepam (2-10). Addiction and dangerous if taken in combination with certain amounts of alcohol)
- Selective Serotonin Reuptake Inhibitors (SSRIs like Citalopram, Fluoxetine, Paroxetine...)
- D-Cycloserine (Trials): Antibiotic, used to treat tuberculosis.
Side Effect: Opens up learning centres in the emotional brain.
Enhances the associative component of extinction learning in exposure therapy



Or are herbal extracts this little help on board?



- Valerian (as with Benzodiazepines higher GABA production, but not acting as fast. 1-2 weeks)
- St. Johns wort (acting after 2-3 weeks, similar to antidepressant)
Reduces effectiveness of some HIV medication and heart drugs as digoxin and warfarin
- Hop (mostly in combination with other herbal agents)
- Balm (mostly in combination with other herbal agents)
- Passion Flower Herb
- Kava-Kava (2002 US FDA issued warning, potential liver problems, forbidden in Europe)
- Most herbal medications a mix of different agents

Total herbal Supplements sales in the US during the last decade went from \$12,2 billion to \$22,3 billion

Two-thirds of the time, supplements are not clinically proven to treat the conditions for which they're being used. (Arditya Bardia, June issue of Mayo Clinic Proceedings)



Increasing interest in maybe less academic treatment methods

❖ Hypnotherapy

„The 'Mind Training for Fear of Flying' hypnosis CD guides you down into a light relaxation (which opens the access to the subconscious mind) and then recites gentle but powerful hypnotic suggestions directly into the subconscious, which over time are accepted by it, which results in noticeable positive changes which occur over the months ahead whenever travelling on a plane“ (Source: www.mindtraining.net)

❖ Thought-Field-Therapy (TFT) based on acupuncture, acupressure, kinesiology

❖ Emotional Freedom Technique (EFT)

„EFT often does the job for you cleanly and thoroughly in one or two sessions ... and sometimes does it in moments ... by rightly tapping the tapping points“ (Source: EFT Home Page, Gary Craig)

❖ Energy Psychology / Energy Psychotherapy: Diagnosis and treatment of unconscious energetic blockades (According to Fred Gallo)

❖ And so forth....

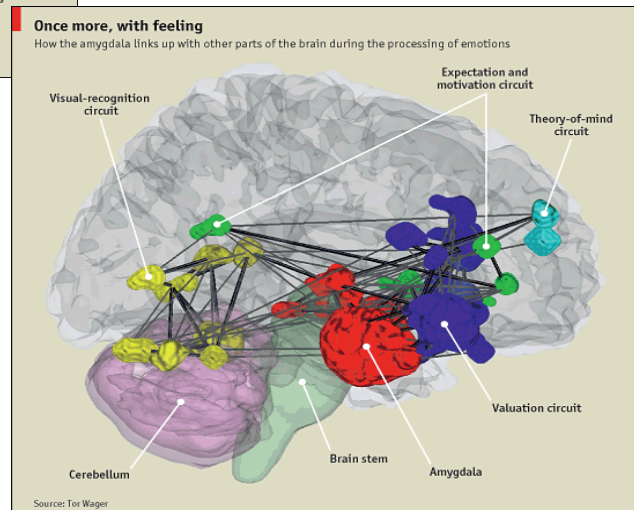
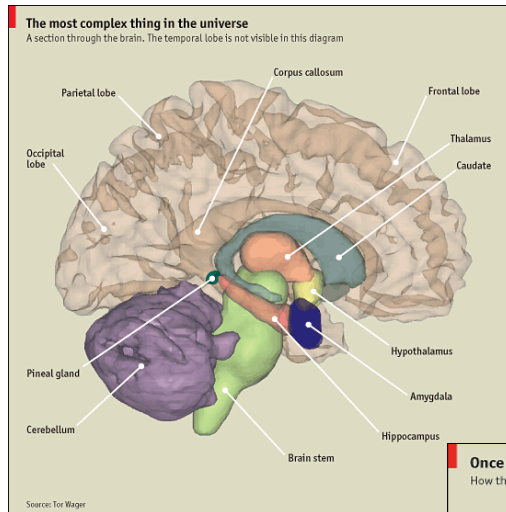
❖ The Publication of Self – Help – Books, CD's, DVD's written/produced by clinical psychologists, psychotherapists, pilots, journalists etc. is increasing



Psychological Developments

Treatment of Fear

Biological Psychology



Source: The Economist, A Survey of the brain, December 2006

A lot of research has been done how and which brain structures are associated with fear and anxiety.

„In a series of experiments Jeffrey Schwartz and colleagues .. found that CBT can quiet activity in the circuit, that underlies obsessive-compulsive disorder, just as drugs do“

„If you do well with CBT, your brain will have changed in the same way, no matter which treatment you received“

(Both in TIME, Feb. 12, 2007 „A User’s Guide to the Brain“)

Results have to be taken into account and have influence on the treatment of fear.



Psychological Developments

Treatment of Fear

Adjusted Focus



From Fighting and
Confrontation

To

Acceptance and
Confrontation



Psychological Developments

Treatment of Fear

Options beyond CBT and drugs

- There is no magic bullet for anxiety disorders and therefore other treatment options available have developed as well
- F. I. in February 2007, the American Journal of Psychiatry (Milrod, B. and others) published a paper which showed that short term analytical therapy had been found to be highly effective in treating a study group with Panic Disorder. .
- Congress Logotherapy and Existential Analysis Apr. 07/Vienna:
Our Ability for Empathy is genetically determined but can be negatively affected by emotional strains. Who feels neglected because of superficial communication reacts with Stress, Anxiety, Sorrow.
- Some concepts underlying analytical therapies seem to find new evidence through findings in biological psychology and concept modifications in CBT. (Supportive arguments that ID is manifested somewhere in the brain; or Paradoxical Intention might be a good weapon against anxiety)





Thank you for
your attention



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