



PowerPoint Design

The Good, The Bad and The Ugly

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Agenda



- ❖ Rules of Thumb
- ❖ PowerPoint Design
- ❖ Design Examples
- ❖ Additional Info

Rules of Thumb

K0162 OF T11010

One Rule to Rule Them



1
slide per minute

666 Rule



- ❖ Max 6 words per line
- ❖ Max 6 lines per slide
- ❖ Max 6 text-slides without images



K.I.S.S.

Keep It Simple, *Stupid*

PowerPoint Design

- ## Good Design Elements
- ❖ Simple slides with clear messages
 - ❖ Good use of images / visual elements
 - ❖ Must reinforce the message
 - ❖ Use max. two fonts
 - ❖ Good contrast
 - ❖ Less is more
 - ❖ Focus on the main message

Images

- ❖ Excellent for peppering up the slideshow
- ❖ Beware resolution
 - ❖ Typical projector: 768 x 1024 pixels
 - ❖ Calvin & Hobbes: 48 x 48 px 
 - ❖ Looks bad enlarged...
- ❖ Compression
 - ❖ Jpg files: Lossy compression
 - ❖ Png/tif: Lossless
 - ❖ Better quality



- ## Controlling the Focus
- ❖ Present lines one at a time
 - ❖ Overhead projector 
 - ❖ "Fading bullets"
 - ❖ Emphasize the main message
 - ❖ Colors
 - ❖ Bold text
 - ❖ Size
 - ❖ Present message through animation
 - ❖ Explanation of each point
 - ❖ Animated graphs

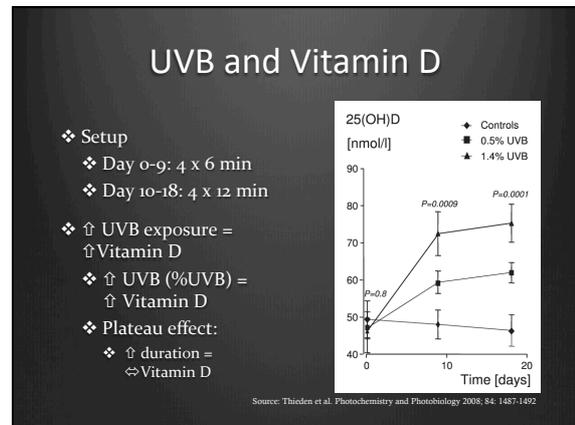
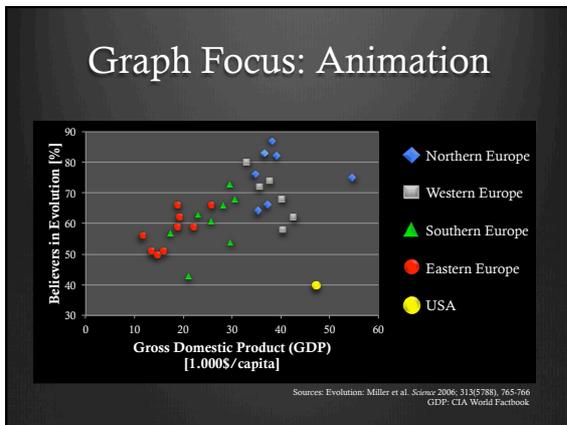
- ## Fading Bullets
- | | |
|----------------------------------|----------------------------------|
| ❖ Control the audience focus | ❖ Control the audience focus |
| ❖ Prevent skipping ahead | ❖ Prevent skipping ahead |
| ❖ You should not be reading this | ❖ You should not be reading this |
| ❖ Listen to the speaker! | ❖ Listen to the speaker! |



THE FASCINATING ROCK

- ❖ Did you know that the diamond is the hardest natural substance found on earth?
- ❖ Did you know that quartz is one of the most common minerals on Earth?
- ❖ Did you know that marble forms from metamorphosed carbonate rock, most usually limestone?
- ❖ Did you know that basalt is the most common rock on Earth?

GOOD POWERPOINT
SAMUEL THORSØE 2012



- ### I: Fancy Effects
- ❖ Hallmarks of the new PowerPoint user:
 - ❖ Slide transitions
 - ❖ Superfluous animation
 - ❖ Sound effects
 - ❖ Too many fonts
 - ❖ Distracts from the main message

Dead Salmon are Highly Emotional

- ❖ Dead salmon shown photographs of emotional situations
- ❖ Asked what emotion was experienced
- ❖ Salmon brain was active on FMRI scan indicating emotional dead salmon

Source: Human Brain Mapping 2009 Poster: http://prefrontal.org/files/posters/Bennett_Salmon-2009.pdf

- ### III: Printed Material
- ❖ Printed tables / figures
 - ❖ Reading distance: 40 cm
 - ❖ PowerPoint show
 - ❖ Reading distance: Several meters
 - ❖ Avoid tables / simplify figures
 - ❖ Focus on main message

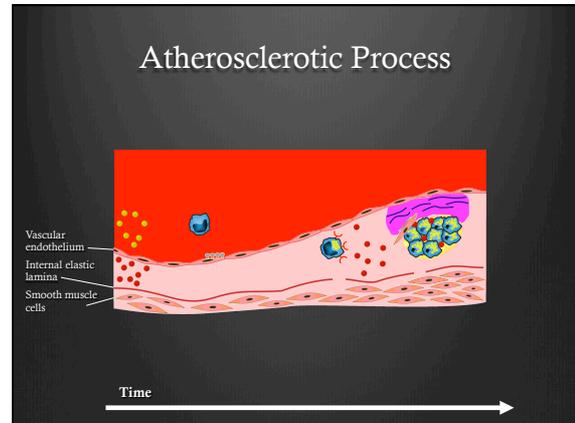
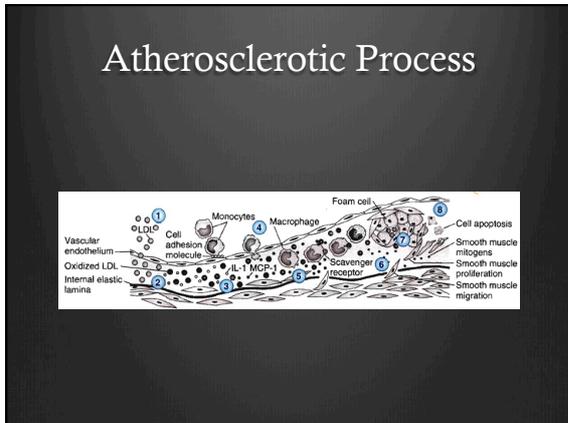


Table *Woes*

- ❖ Tables presents lots of data
- ❖ Suitable for articles and printed matter
- ❖ PowerPoint requires tight focus on main message
- ❖ Too much data distracts from main message

ACST Surgical Compliance

	Allocated Immediate CEA (n=1560)	Allocated deferral of any CEA (n=1560)
Surgical compliance		
Number of patients with any CEA	1348	229
Proportion (life-table) with CEA (%)		
Within 1 year	89.3%	6.9%
Within 5 years	91.8%	20.0%
Contralateral CEA	69	44
Proportion (life-table) with CEA (%)		
Within 1 year	2.9%	0.8%
Within 5 years	5.7%	3.9%
Ipsilateral CEA	1336	201
Proportion (life-table) with CEA (%)		
Within 1 year	88.5%	6.2%
Within 5 years	91.1%	17.7%
Number (%) with ipsilateral CEA preceded in trial by ipsilateral symptoms (stroke+TCI)*	7 [1+6] (0.5%)	93 [13+80] (46.3%)

Baseline ACST Statistics

Category of stroke or patient	Number with stroke / patients and 5-year risk [%[SE]]	Deferral	Absolute 5-year gain (95% CI)
Severity of worst stroke after randomisation			
Non-disabling	12/1560 (1.1% [0.3])	47/1560 (4.3% [0.6])	3.1% (1.8-4.4)
Disabling or fatal	18/1560 (1.6% [0.4])	58/1560 (5.3% [0.7])	3.7% (2.1-5.2)
Sex			
Men	18/1021 (2.4% [0.6])	77/1023 (10.6% [1.2])	8.2% (5.6-10.8)
Women	12/539 (3.4% [1.0])	28/537 (7.5% [1.4])	4.1% (0.7-7.4)
Age at entry (years)			
<65	6/456 (1.8% [0.8])	33/456 (9.6% [1.6])	7.8% (4.3-11.3)
65-74	12/775 (2.2% [0.6])	54/783 (9.7% [1.3])	7.5% (4.7-10.3)
≥75	12/329 (5.5% [1.6])	18/321 (8.8% [2.1])	3.3% (1.9-8.4)
Prerandomisation cholesterol (mmol/L)			
<6.5 (250 mg/dL)	24/1146 (3.3% [0.7])	61/1146 (7.9% [1.0])	4.6% (2.2-7.0)
≥6.5	6/414 (1.6% [0.7])	44/414 (13.4% [1.9])	11.7% (7.8-15.7)
Prerandomisation systolic blood pressure (mm Hg)			
<160	18/877 (2.5% [0.6])	55/909 (8.9% [1.2])	6.3% (3.7-9.0)
≥160	14/683 (3.0% [0.8])	50/651 (10.4% [1.4])	7.4% (4.1-10.6)

III: Standard Clipart

- ❖ Clipart/Images *should* illustrate a point
- ❖ *Re-enforce* the main message
- ❖ Superfluous/standard clipart
- ❖ *Distracts* from the main message

Do Storks Deliver Babies?

- ❖ Stork population significantly correlated with out-of-hospital deliveries
- ❖ Decline of stork pairs correlated with decrease of deliveries
- ❖ Constant delivery numbers associated with unchanged stork population



Source: Paediatric & Perinatal Epidemiology 2004; 18(1): 88-92

IV: Too Much Text

- ❖ 666 rule
 - ❖ Excessive text hides important details
- ❖ Use **keywords**
 - ❖ Not sentences
- ❖ Too much text hides the main message

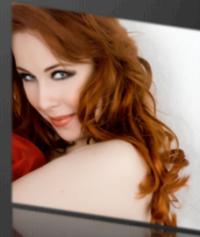
Red-haired Women Need More Anesthesia

- ❖ The researchers examined 20 female test subjects aged 19-30:
 - ❖ Ten redheads (experimental group) and ten brunettes (control group).
 - ❖ All 20 women were given desflurane.
- ❖ After the anesthesia took effect, the researchers gave each woman electric shocks
 - ❖ Voltage, which a conscious person would have found "intolerable", was used
 - ❖ If the subject could feel the pain, the researchers increased the dosage of desflurane and continued to administer shocks until they got no response to the shocks
- ❖ Redheads did require more anesthesia
 - ❖ It took an average of 20 percent more
- ❖ The effect was hypothesized to be due to melanocortin-1 receptor gene (MC1R), which is responsible for the red hair color, but also seems to be involved in a complex neuromodulatory regulation within the central nervous system.

Source: Medscape Ob/Gyn & Women's Health. 2004;9(2)

Redheads *are* Juicier

- ❖ Study design
 - ❖ 10 redheads vs 10 brunettes
- ❖ Anesthetized using desflurane
- ❖ Electric shocks administered
 - ❖ Dose increased until cessation of movement
- ❖ Redheads required 20% more anesthesia
- ❖ MC1R gene



Source: Medscape Ob/Gyn & Women's Health. 2004;9(2)

V: Reading

- ❖ Humans capable of **one** thing
 - ❖ Reading
 - ❖ Listening
- ❖ Use **keywords**
- ❖ Reading distracts from main message

Introduction

- Atheroma vulnerability to rupture is heightened in the presence of a large lipid core and further raised in setting of a thin fibrous cap on the plaque.
- Morphologic characteristics of plaque composition have been proposed to explain the apparent paradox of improved clinical events despite no or minimal reduction in % stenosis with statins. CMR can distinguish underlying features that determine plaque 'vulnerability'.
- Coronary lesions demonstrate that rupture of the fibrous cap overlying the lipid core typically occurs where it is thinnest and most heavily infiltrated by inflammatory cells.
- MRI can non-invasively characterize human carotid atheroma composition delineating lipid admixtures in vivo.

Falk E. Coronary thrombosis: pathogenesis and clinical manifestations. Am J Cardiol. 1991;68:288-358.

Improved Plaque Characterization

- ❖ Greater rupture risk
 - ❖ Large lipid cores
 - ❖ Thin fibrous caps
- ❖ Clinical paradox
 - ❖ Statins improve clinical status
 - ❖ No reduction in % stenosis
- ❖ CMR can image plaque composition
- ❖ Coronary lesions
 - ❖ Fibrous cap rupture occurs
 - ❖ Where thinnest
 - ❖ Infiltrated by inflammatory cells
- ❖ MRI
 - ❖ Non-invasive characterization of human carotid atheroma

Falk E. Coronary thrombosis: pathogenesis and clinical manifestations. Am J Cardiol. 1991;68:288-358.

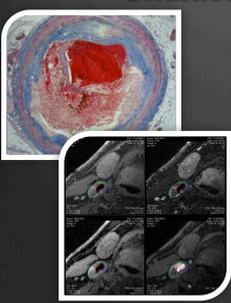
Improved Plaque Characterization

- ❖ Greater rupture risk
 - ❖ Large lipid cores
 - ❖ Thin fibrous caps
- ❖ Clinical paradox
 - ❖ Statins improve clinical status
 - ❖ No reduction in % stenosis



Falk E. Coronary thrombosis: pathogenesis and clinical manifestations. Am J Cardiol. 1991;68:288-358.

Improved Plaque Characterization



- ❖ Coronary lesions
 - ❖ Fibrous cap rupture occurs
 - ❖ Where thinnest
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- ❖ MRI
 - ❖ Non-invasive characterization of human carotid atheroma

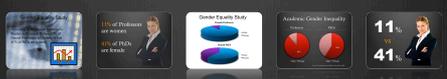
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Design Examples

DESIGN EXAMPLES

Getting the Message Across

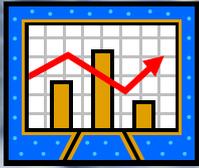
- ❖ University professors are typically male
 - ❖ Only 11% women
 - ❖ Female proportion of PhDs is 41%
- ❖ Many ways in which to present this
 - ❖ Some good, some bad, and some ugly:

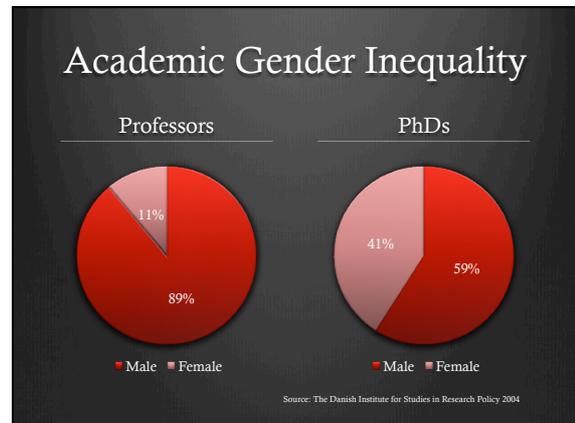
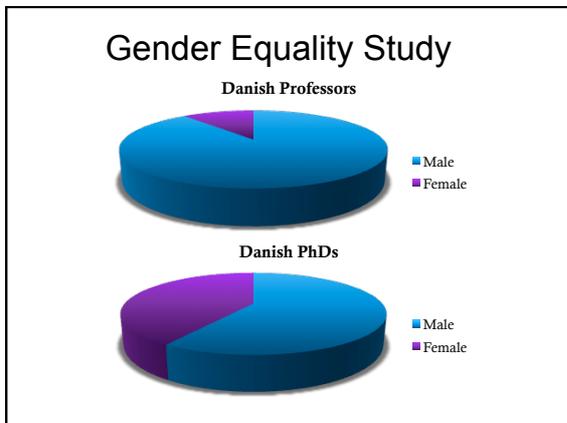


Source: The Danish Institute for Studies in Research Policy 2004

Gender Equality Study

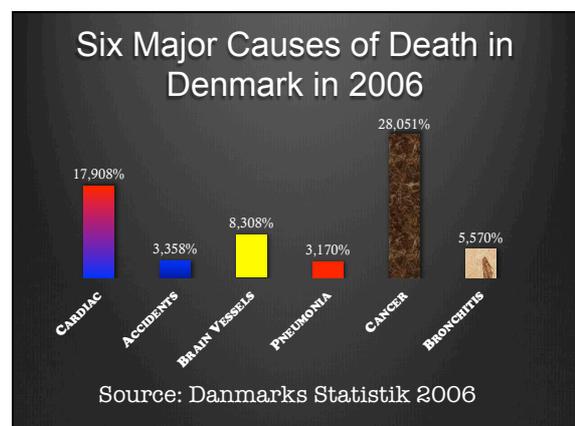
According to the Danish Institute for Studies in Research Policy, 11% of Danish Professors are female, while 41% of PhDs are women



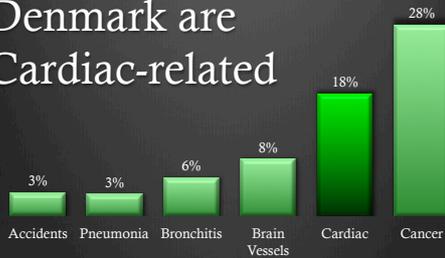


Controlling the Focus

- ❖ Main message:
- ❖ 18% of Danish deaths are cardiac-related



18% of Deaths in Denmark are Cardiac-related



Source: Danmarks Statistik 2006

Condensing the Message

An analysis of some 30 studies by British researcher Adrian Furnham, a professor of psychology at University College London, shows that men and women are fairly equal overall in terms of IQ. But women, it seems, underestimate their own intelligence (and that of women in general), while men overestimate theirs. "What I study is 'perceived intelligence,' essentially how smart people think they are. I analyzed 30 international studies, and what I found was that women, across the world, tend to underplay their intelligence, while men overstate it," Furnham said.

Design Examples: Focus on the Message 3

- ❖ Analysis of 30 studies
 - ❖ By Adrian Furnham, professor of psychology at the University College of London
- ❖ Men and women
 - ❖ Equal intelligence measured by IQ
- ❖ Women underestimate their intelligence
 - ❖ Also that of women in general
- ❖ Men overstate their intelligence

Male Ego Larger than IQ

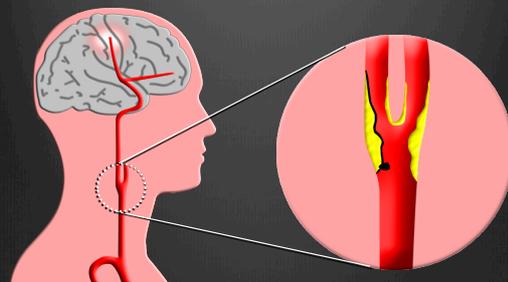
“Women, across the world, tend to underplay their intelligence, while men overstate it”



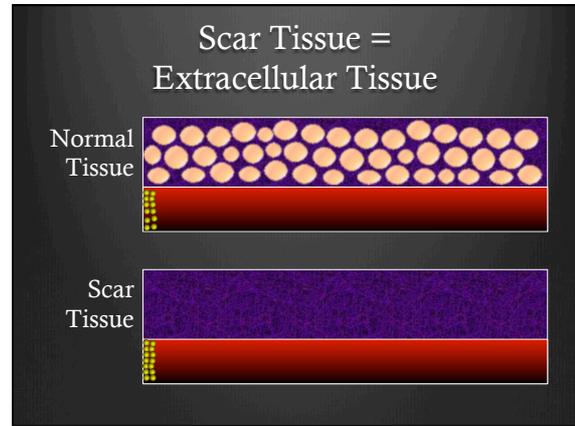
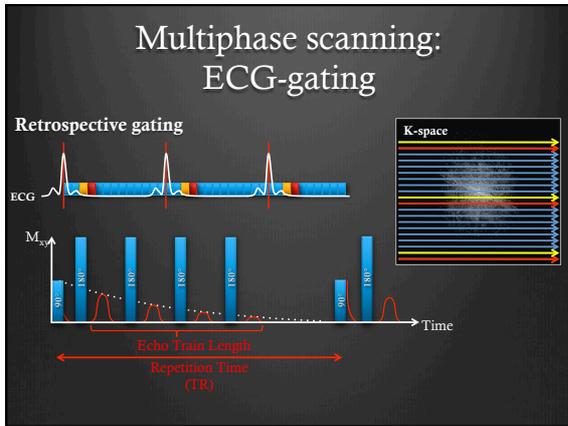
Adrian Furnham
University College
London

Good Use of Animation

Stroke due to Carotid Atherosclerosis



Lovett JK & Rothwell PM. *Cerebrovascular Diseases* 2003;16:369-375



Additional Info

PowerPoint Courses

- ❖ PowerPoint for Healthcare Professionals
- ❖ Substance over style
- ❖ Advanced PowerPoint
- ❖ Style over substance...

Internet Sites

- ❖ Color designs
- ❖ kuler.adobe.com
- ❖ Clipart
- ❖ istockphoto.com
- ❖ mdconsult.com
- ❖ flickr.com

Flickr

- ❖ Enter term in Search bar
- ❖ E.g. Artery
- ❖ Click Advanced Search
- ❖ Check
- ❖ Only search within Creative Commons-licensed content

Handouts

- ❖ www.samle.dk →
- ❖ PhD Grundkursus – PowerPoint
- ❖ Contact info:
 - ❖ samuel@mr.au.dk

One more thing...



Good design examples from Apple

