

How we know what isn't so

**Common myths in
business, health and
daily life**

**Why do we believe in
myths?**

Magne Jørgensen
Simula Research Laboratory



The paper clip was invented by a Norwegian



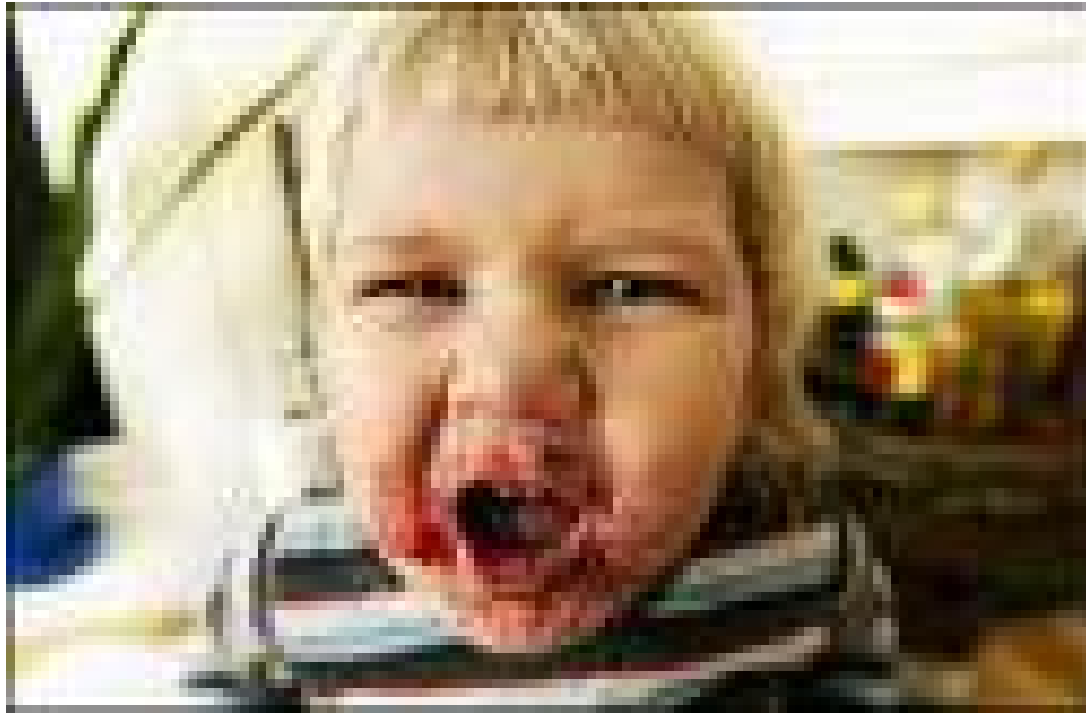
Most communication is non-verbal



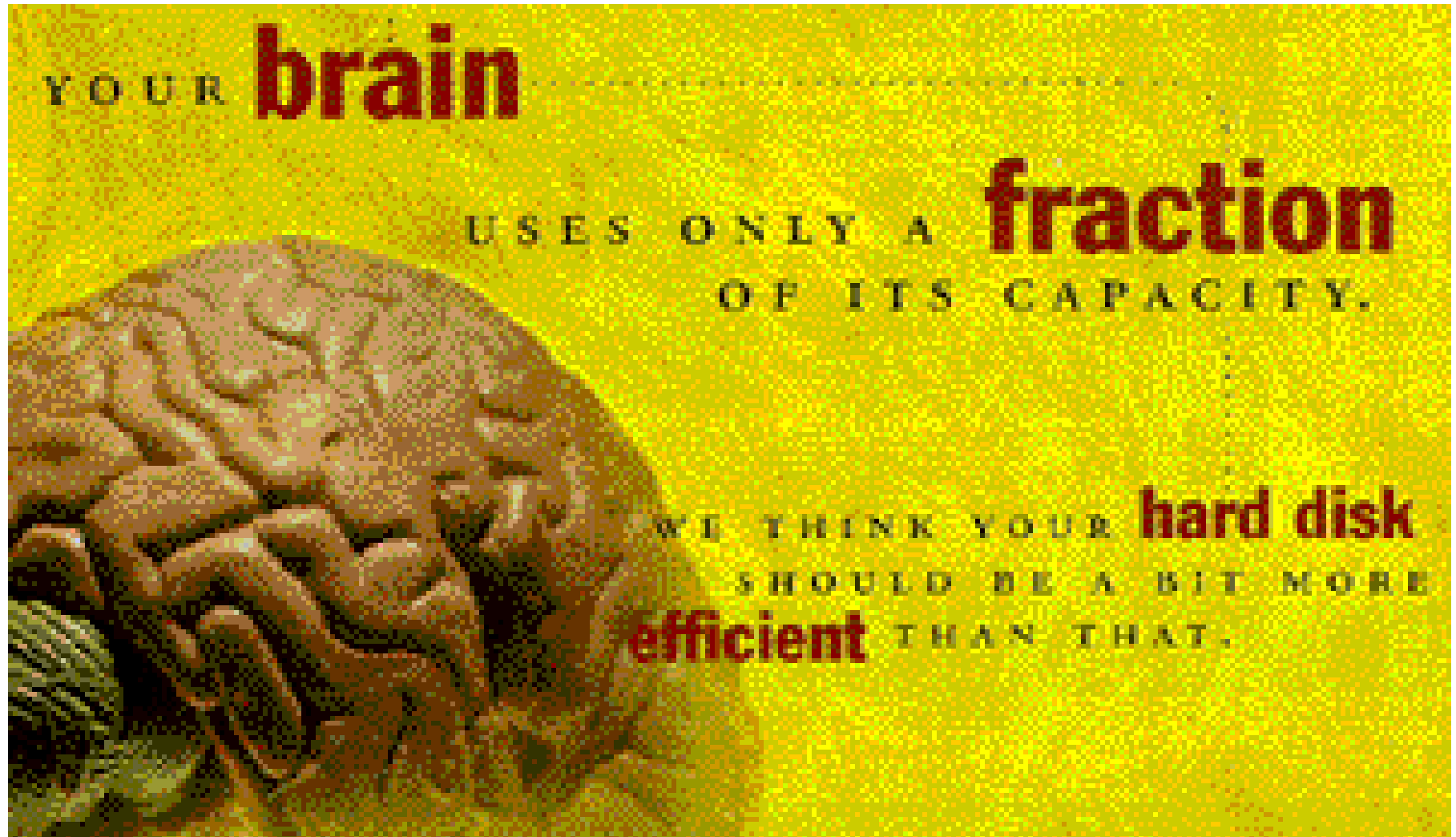
Most of the heat is lost through the head



Children get more hyper-active with sugar



We use only 10% of our brain



Short men are more aggressive (The Napoleon Complex)

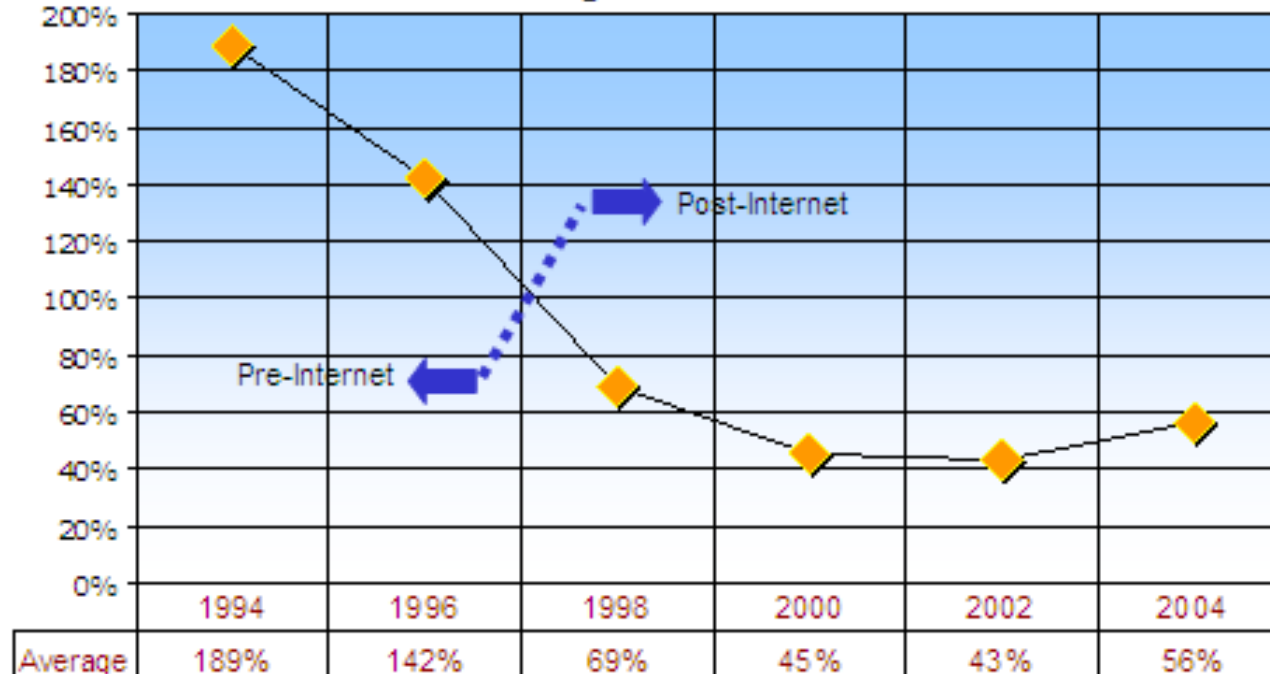


There is a software crisis (Chaos Report: 189% average cost overrun)



Cost Overruns

1994-2004 Average Percent of Cost Overrun



Year: 2004, Source: CHAOS Database: CHAOS surveys conducted from 1994 - 2004.
Results: show average percent of cost above their original estimate.



Why and how are myths created?

- Meeting a need or desire. We want them to be true and don't look for disconfirming evidence.
- Lack of precision/misunderstood research.
- We are more concerned about whether something sounds correct, than about asking what this really means.
- Self-fulfilling claims (we see it because we believe it).
- It is easier to find confirming and than to find representative evidence.
- Political and business-related reasons. Deliberate creation of myths.
 - Repetition.
 - Presented by authorities.
- To understand is to accept. De-accepting is more difficult (see next study)



Creation of a myth: Risk willing programmers are better

1. **Based on your experience, do you think that risk willing programmers are better than risk averse programmers?** 1 (strongly agree) – 10 (strongly disagree)
2. **Evaluation 1:** Group A received information about a confirming study and presented one own argument in support of risk willingness. Group B, the opposite.
→ Group A: 3,3 - Group B: 5,4
3. **Evaluation 2:** Both groups received the information that the study was there to mislead them and were asked to update their judgment.
→ Group A: 3,5 - Group B: 5,0
4. **Evaluation 3:** Two weeks later.
→ Group A: 3,5 - Group B: 4,9



Things will never go “back to normal” when we make a decision (e.g. started believe something)



http://www.ted.com/talks/lang/eng/dan_gilbert_asks_why_are_we_happy.html

[**simula** . research laboratory]

How to become a myth buster

1. A

-

2. D
th

-

3. S
by

-

4. S



ort

ve

ole