

Übung zur Vorlesung

Informationsvisualisierung

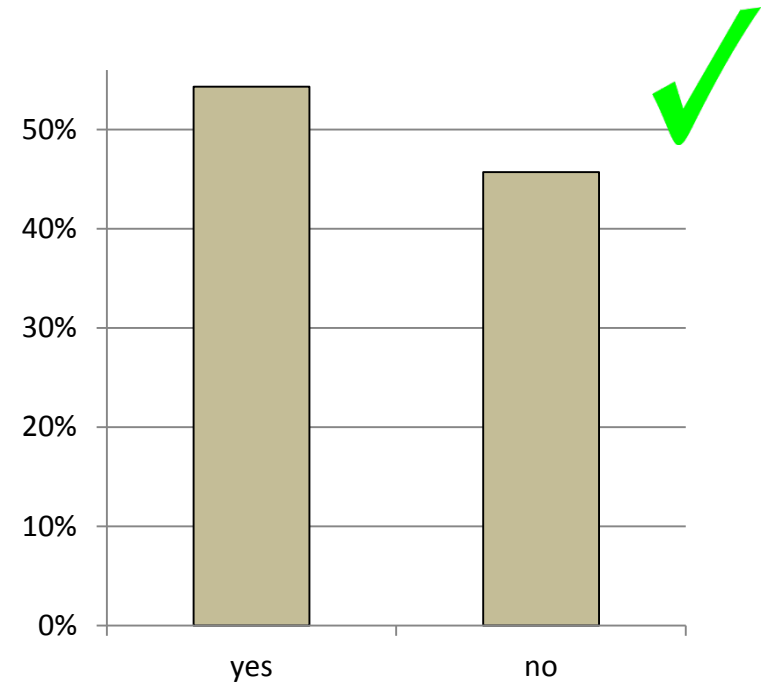
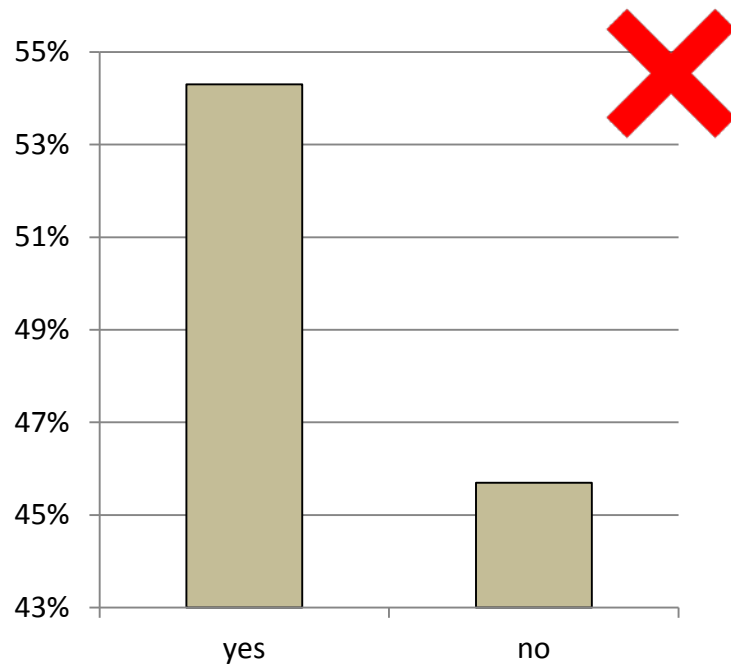
Emanuel von Zezschwitz
Ludwig-Maximilians-Universität München
Wintersemester 2012/2013

Solution

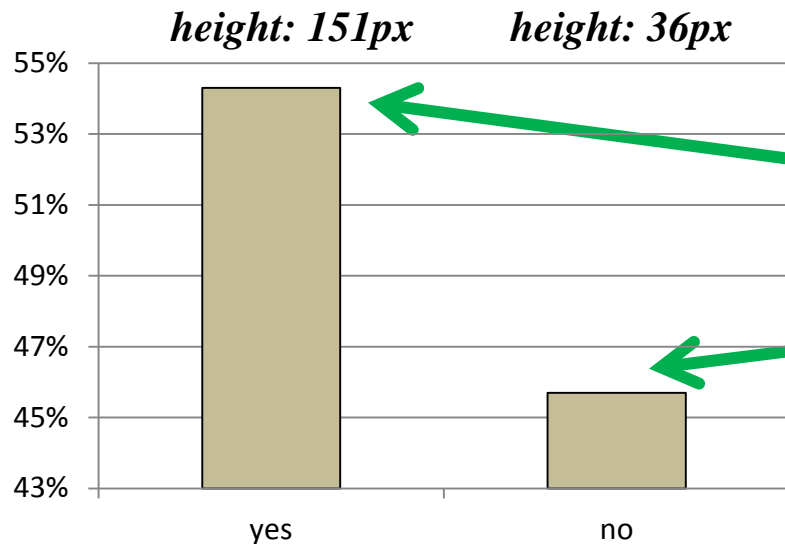
Exercise 1

Exercise 1 - 1

„Are you against a third runway in munich?“



Exercise 1 - 1



size of effect in graph

$$\frac{|151 - 36|}{36} = 3.194$$

$$\text{Lie Factor} = \frac{3.194}{0.188} = 16.99$$

$$\frac{|54.3 - 45.7|}{45.7} = 0.188$$

size of effect in data

Exercise 1 - 1

200px width & height



237px width & height



$$\frac{|237^2 - 200^2|}{200^2} = 0.404$$

size of effect in graph

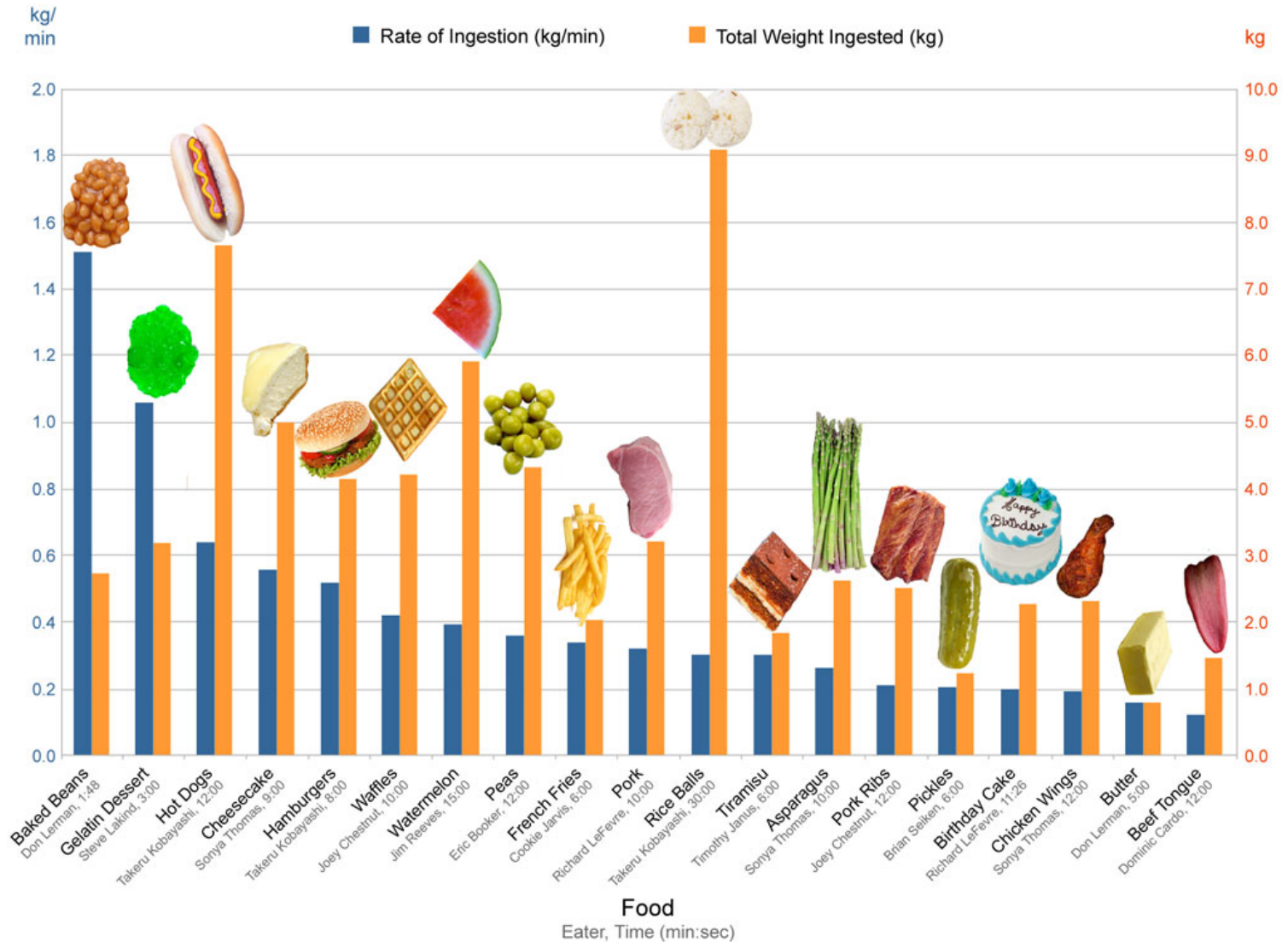
$$\frac{|54.3 - 45.7|}{45.7} = 0.188$$

size of effect in data

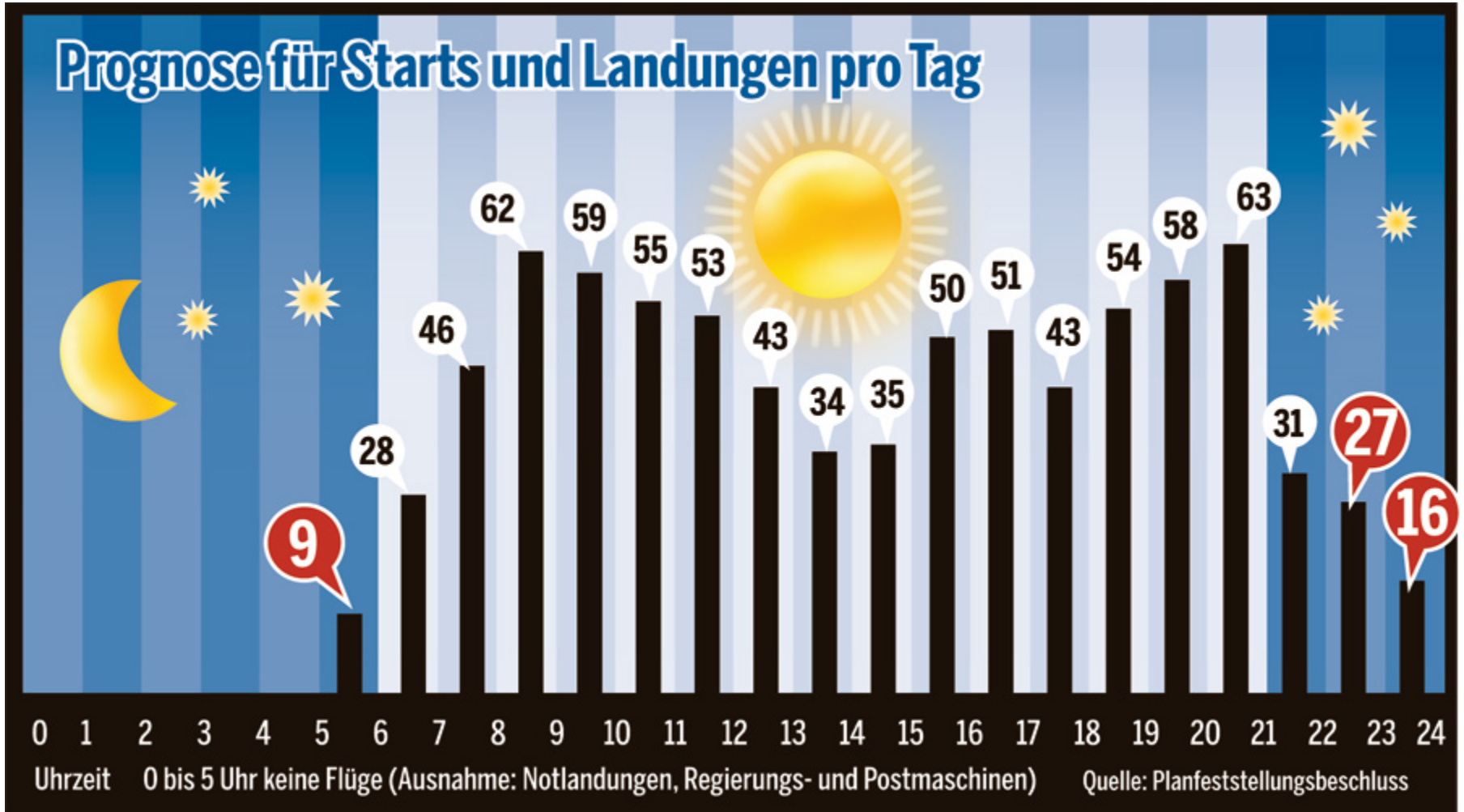
$$\text{Lie Factor} = \frac{0.404}{0.188} = 2.15$$

Exercise 1 – 3a

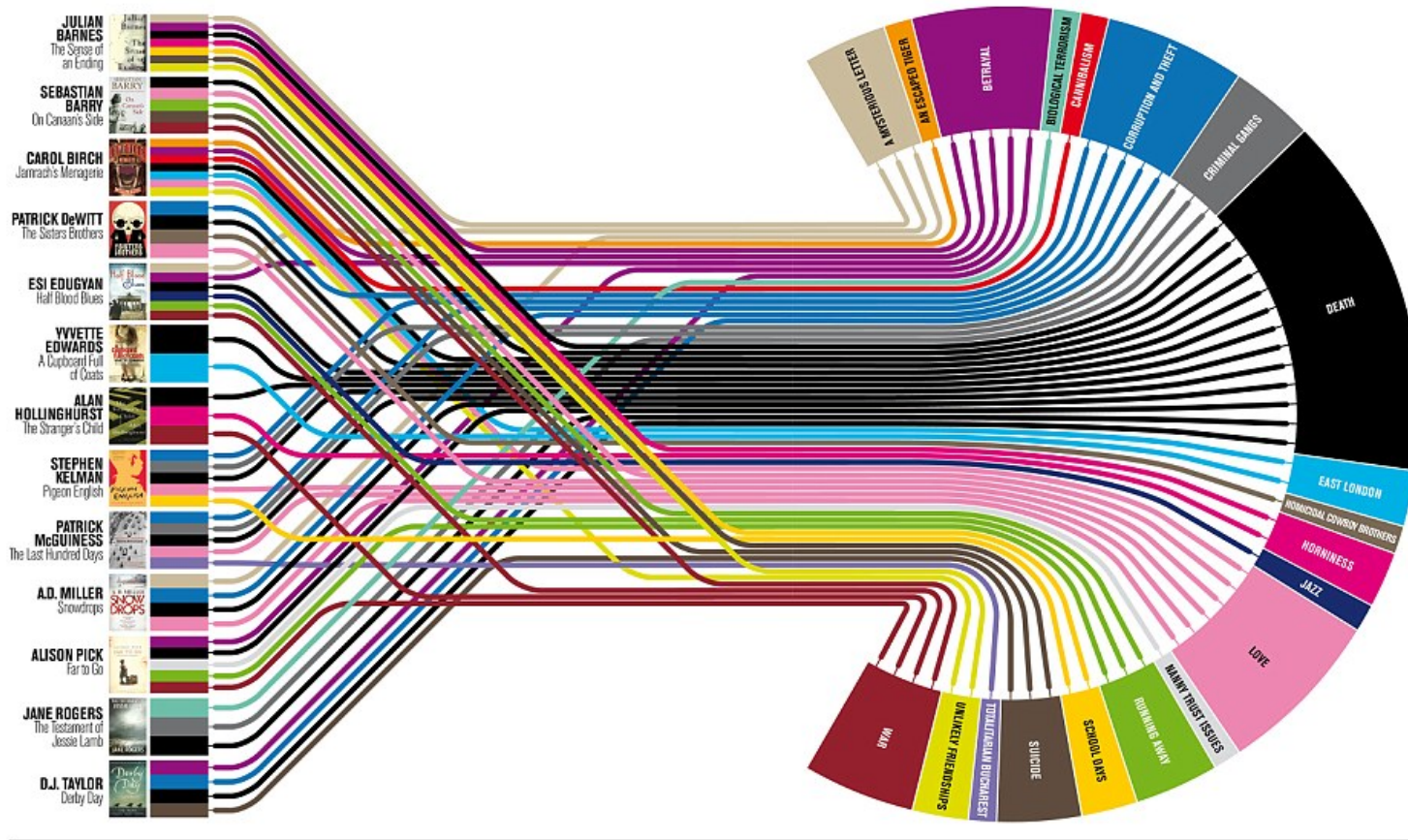
Competitive Eating Records



Exercise 1 – 3a



Exercise 1 – 3a

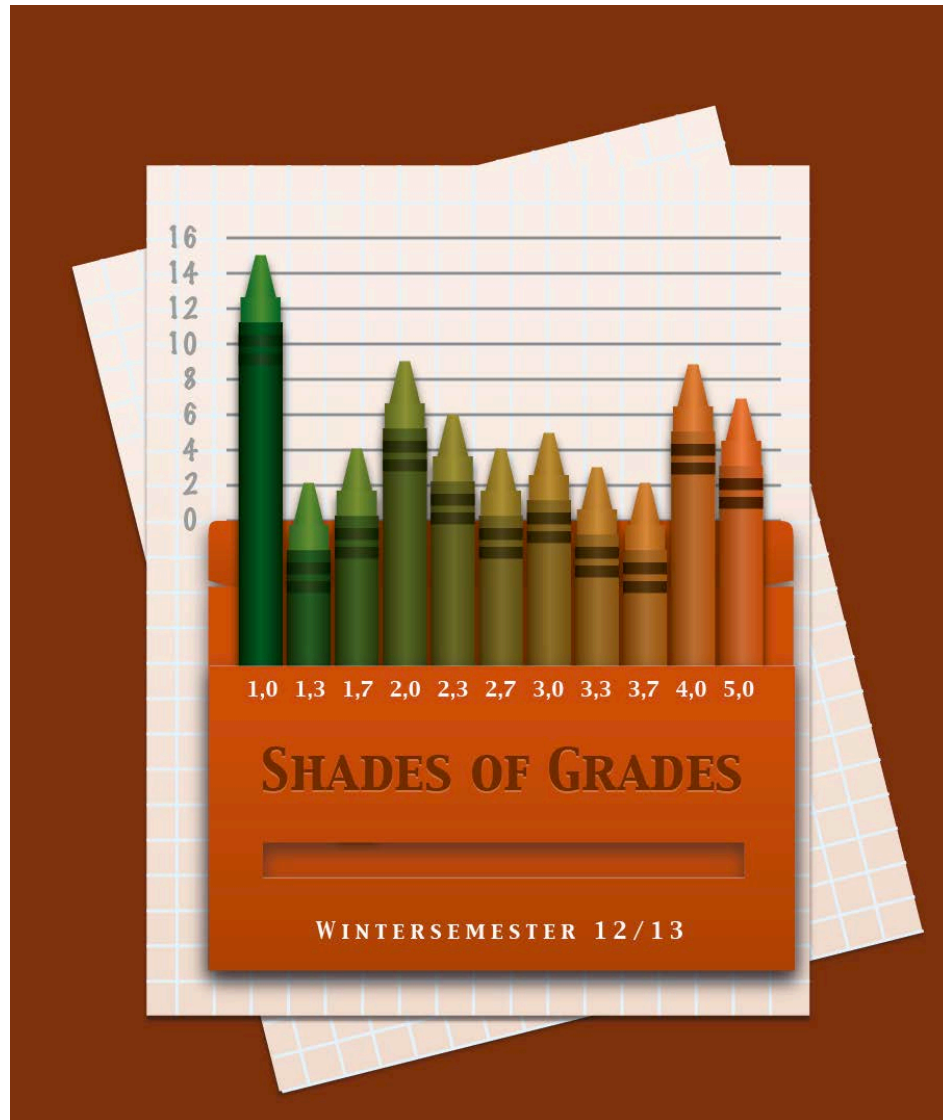


Plot lines

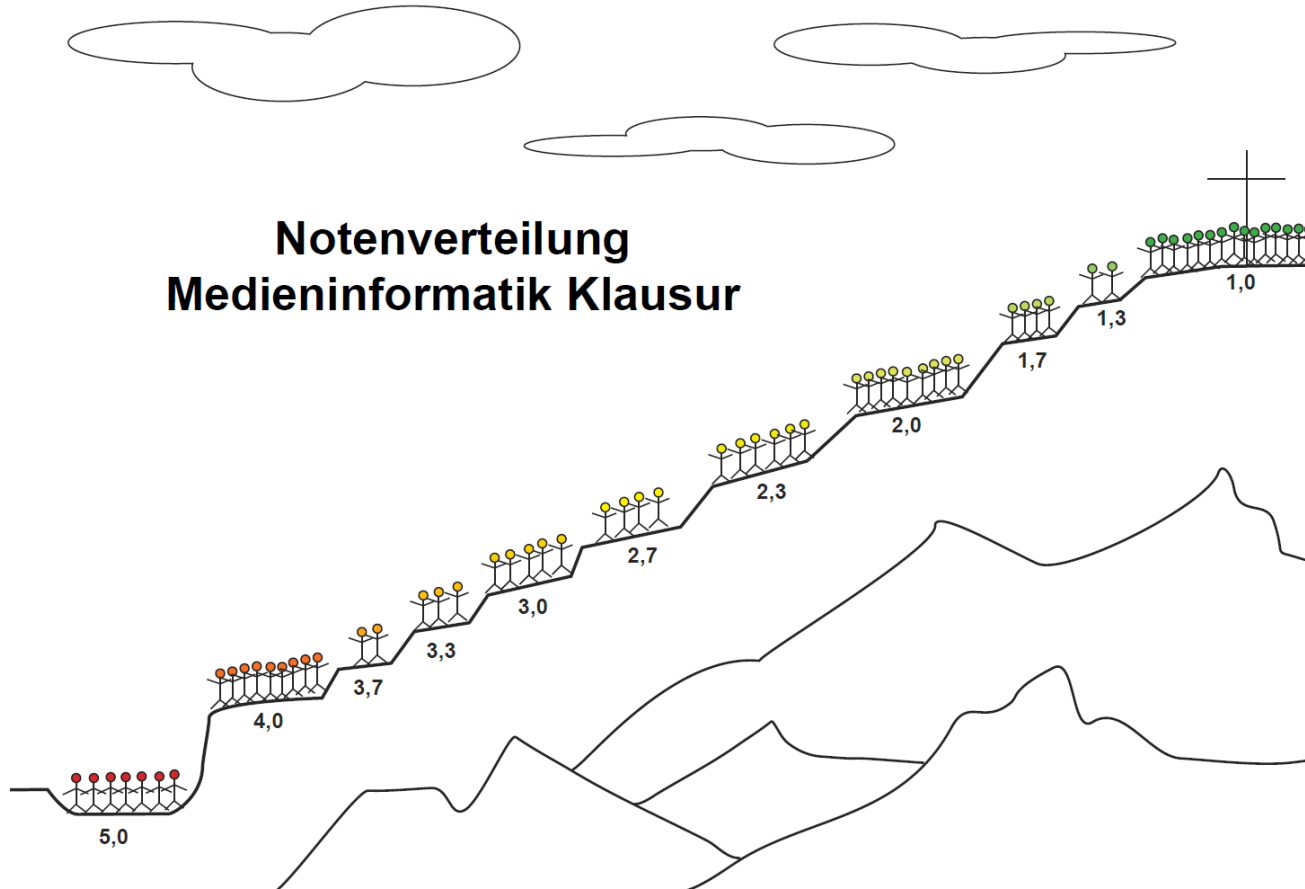
What makes a prize-winning novel? As Julian Barnes wins the Booker Prize, Delayed Gratification's Johanna Kamradt charts the themes of this year's longlisters.

4% of the total population

Exercise 1 – 3b



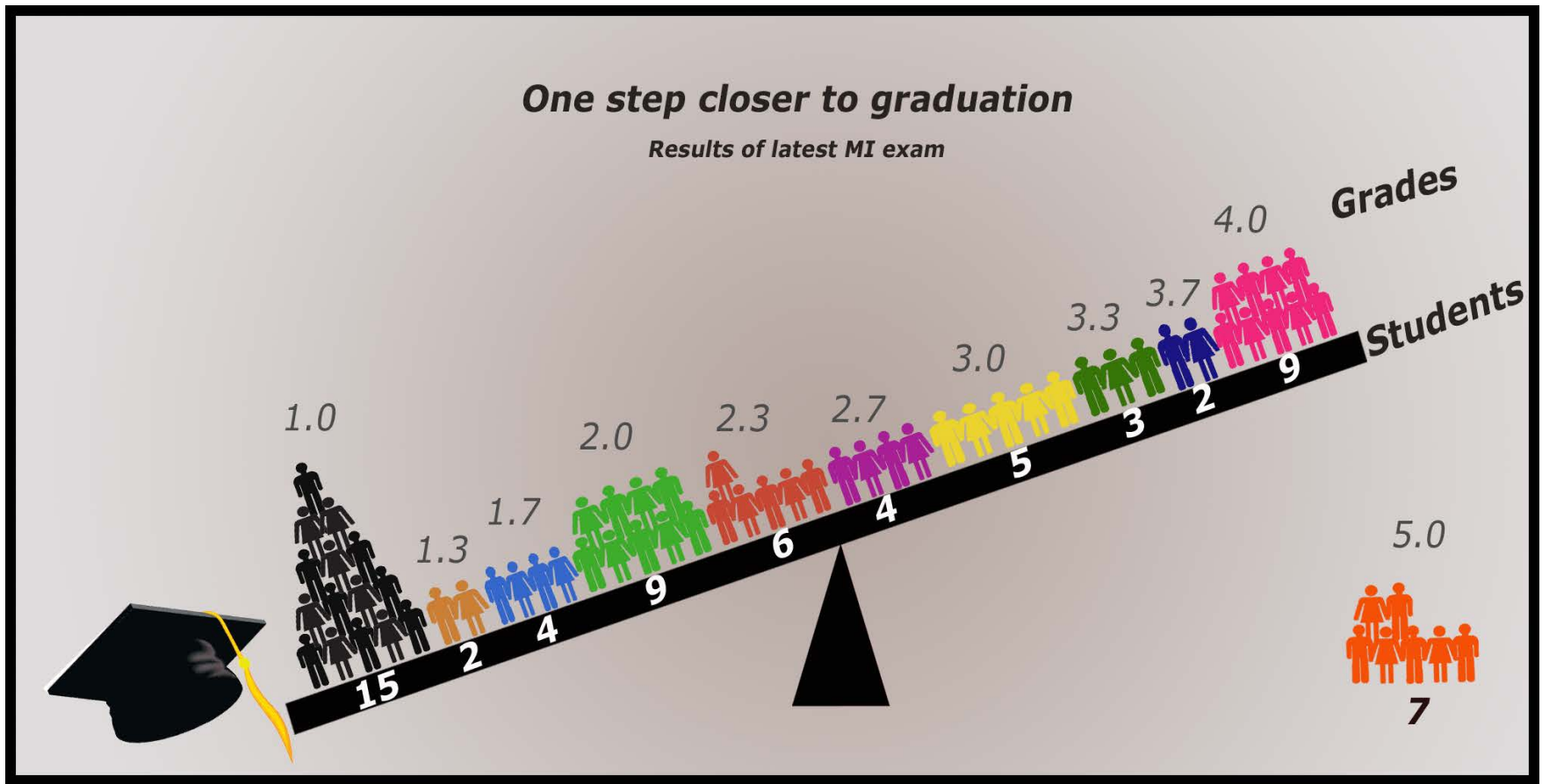
Exercise 1 – 3b



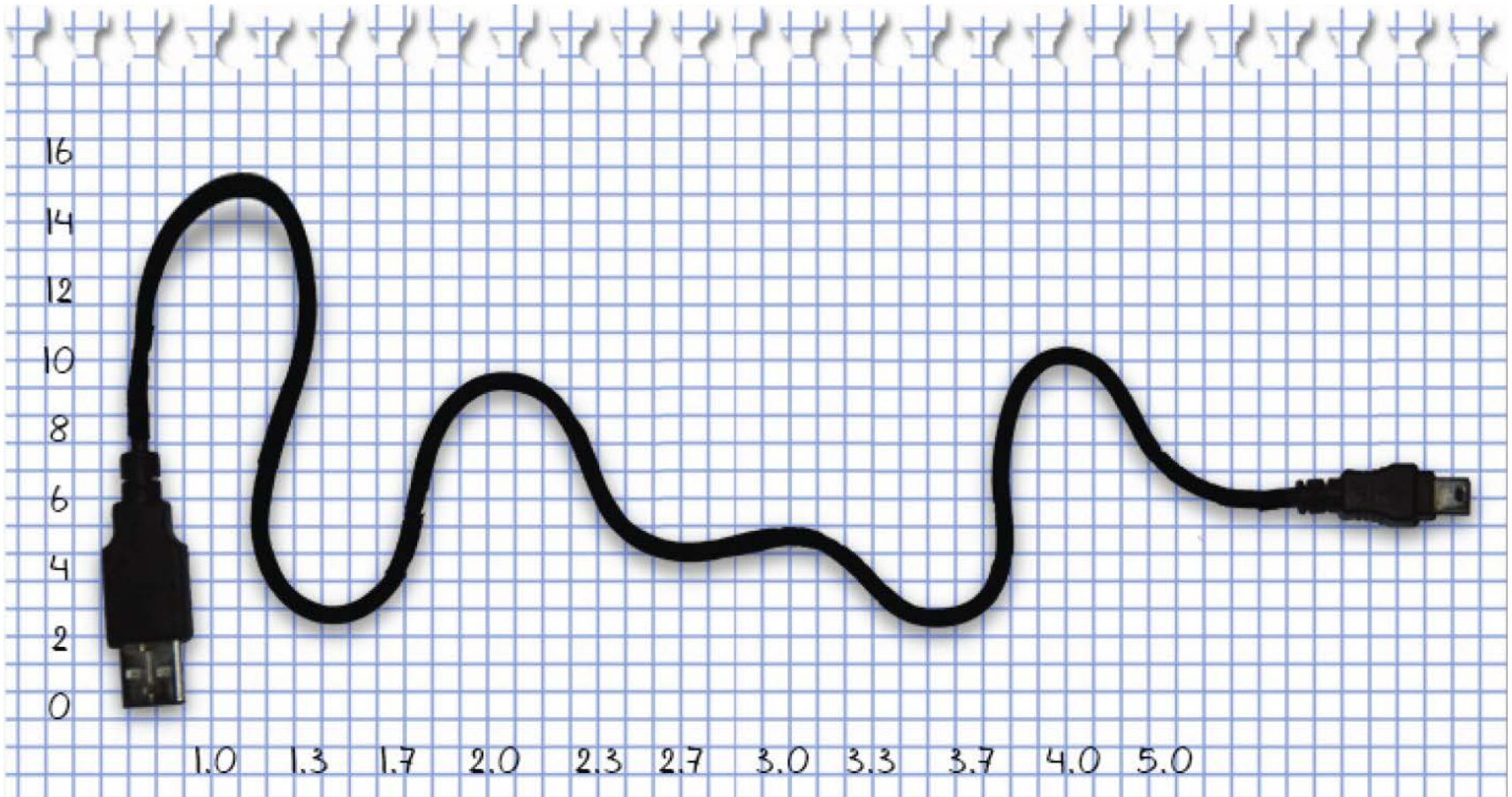
Exercise 1 – 3b



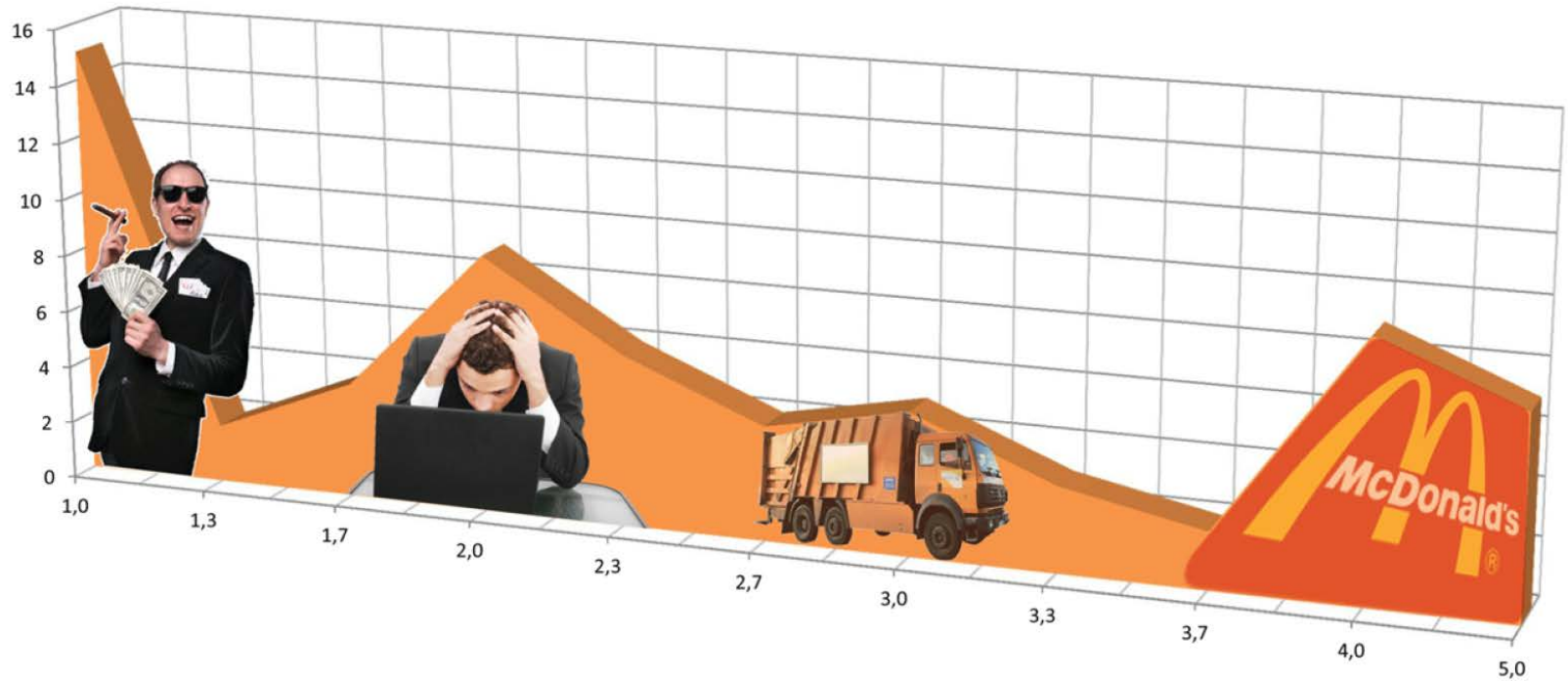
Exercise 1 – 3b



Exercise 1 – 3b



Exercise 1 – 3b



Übung zur Vorlesung

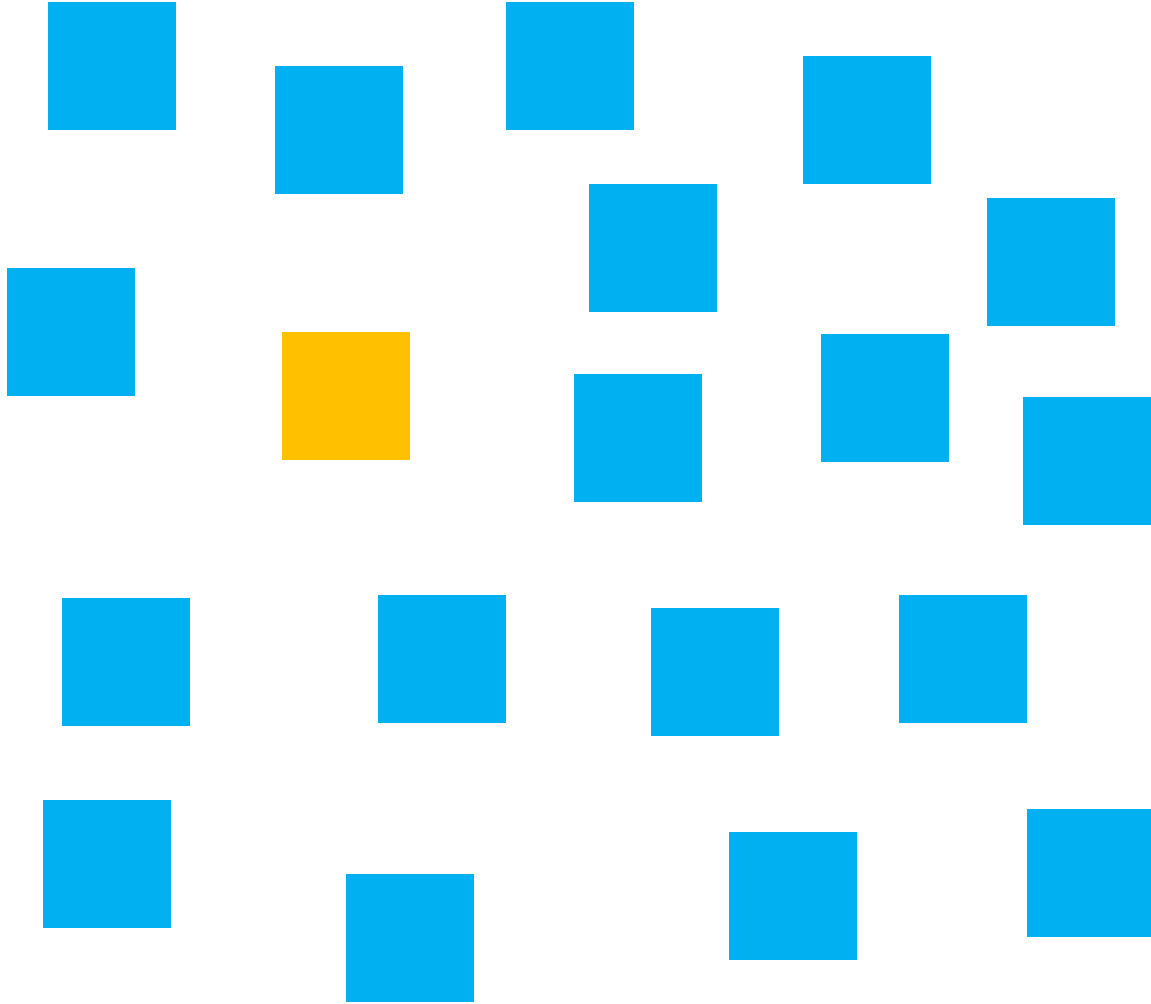
Informationsvisualisierung

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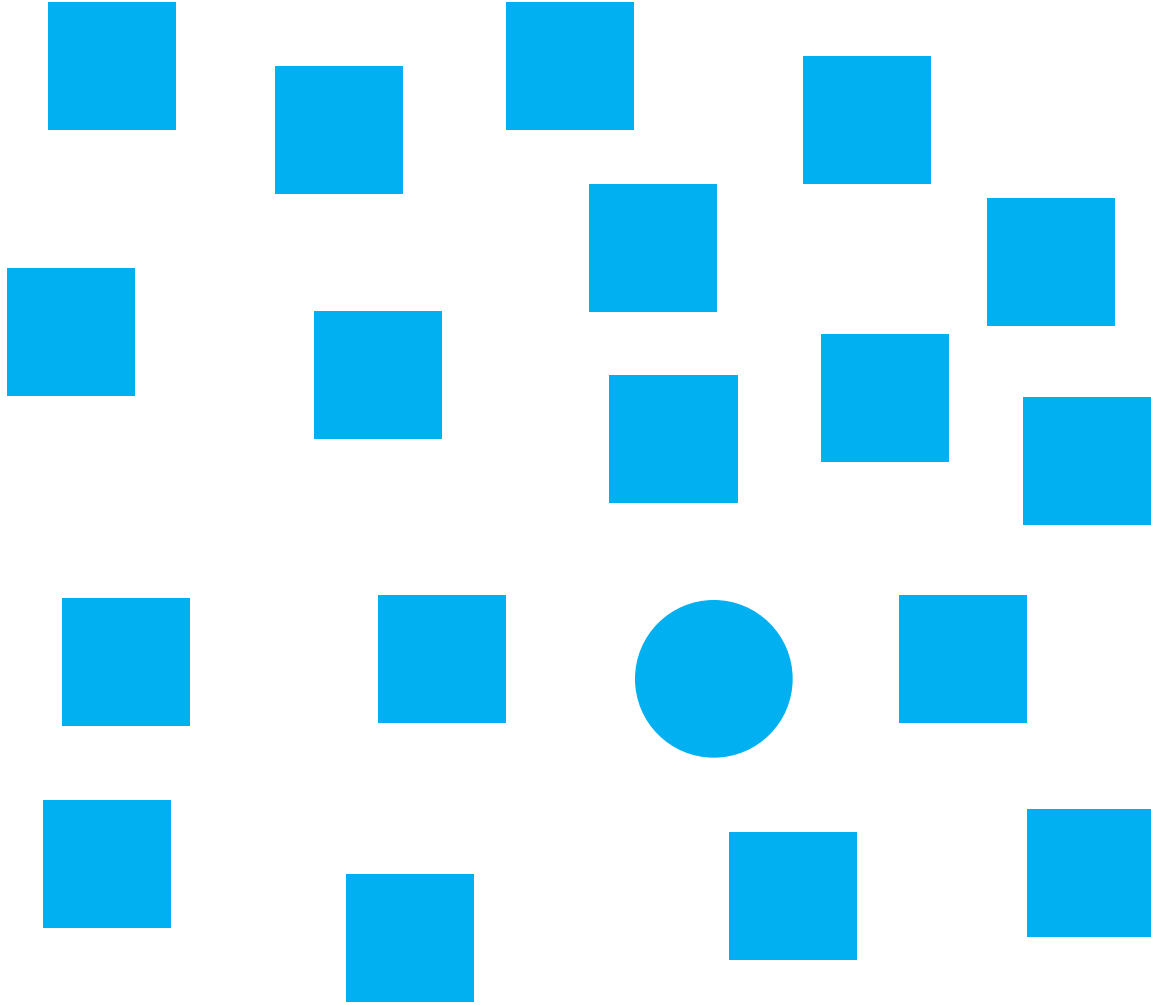
Preattentive Perception

200 – 250 ms

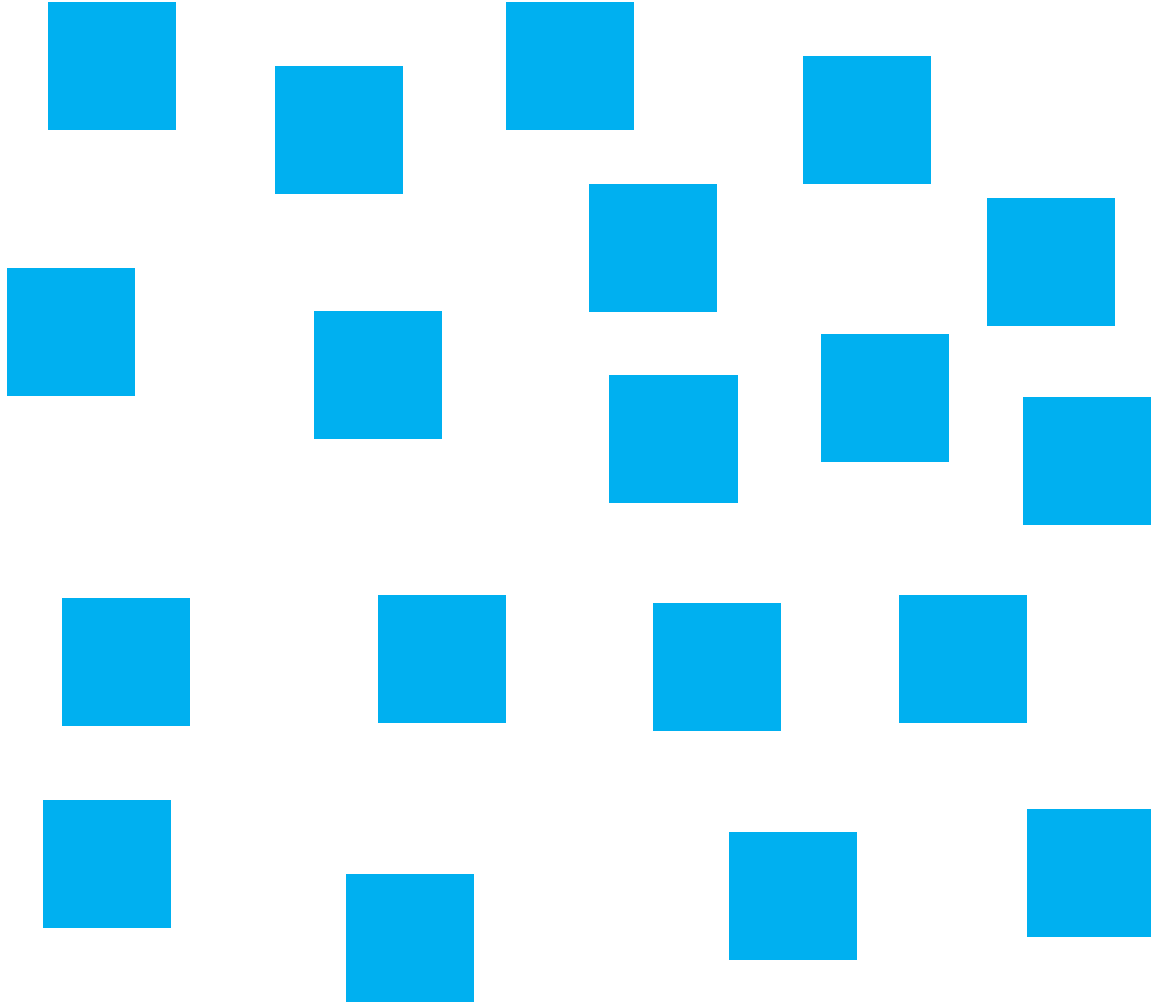
Color pops out



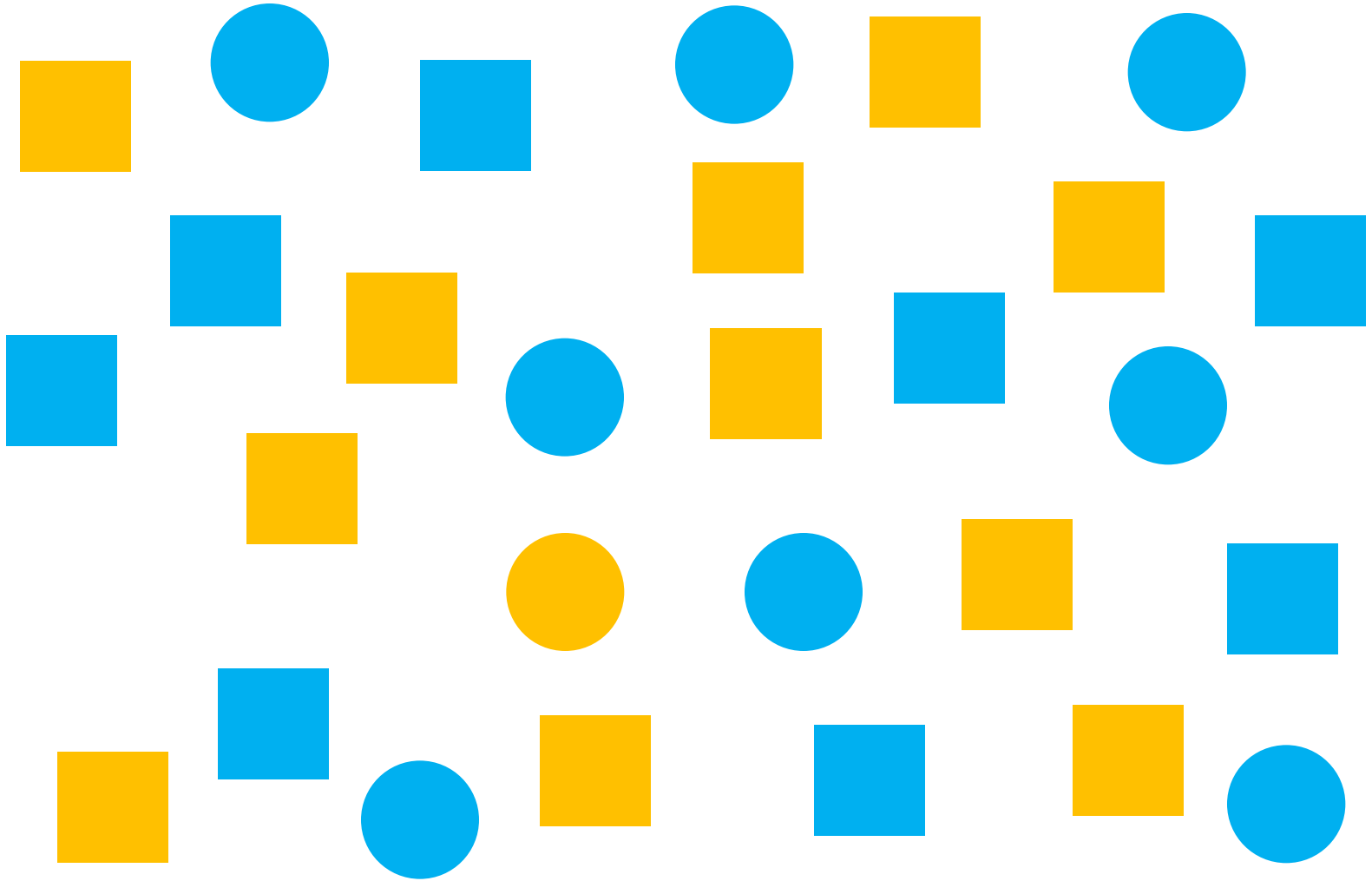
Shape pops out



Flicker pops out



Conjunction does not pop out



**Design and preattentive
perception?**

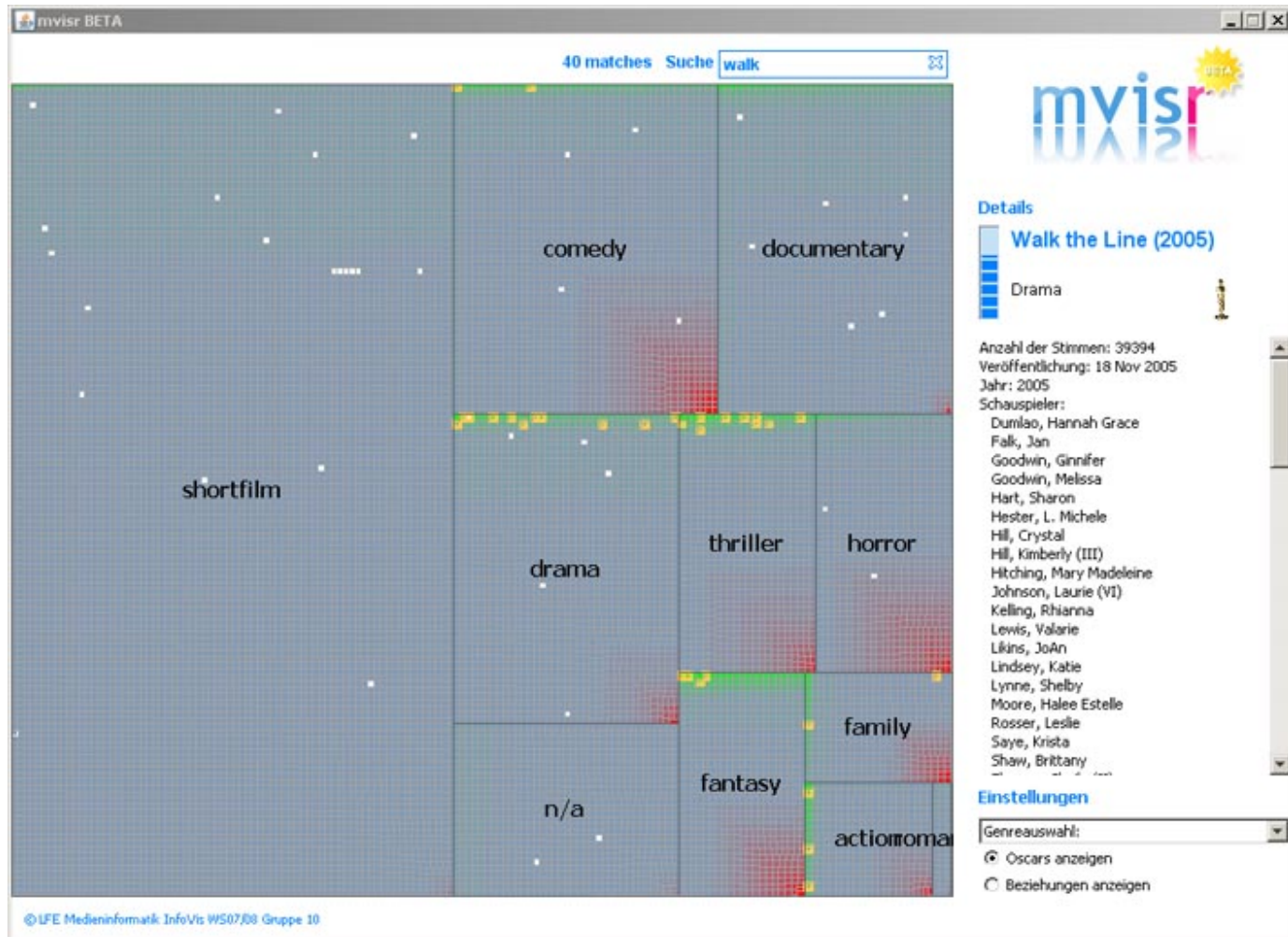
Examples

Wealth distribution in the UK

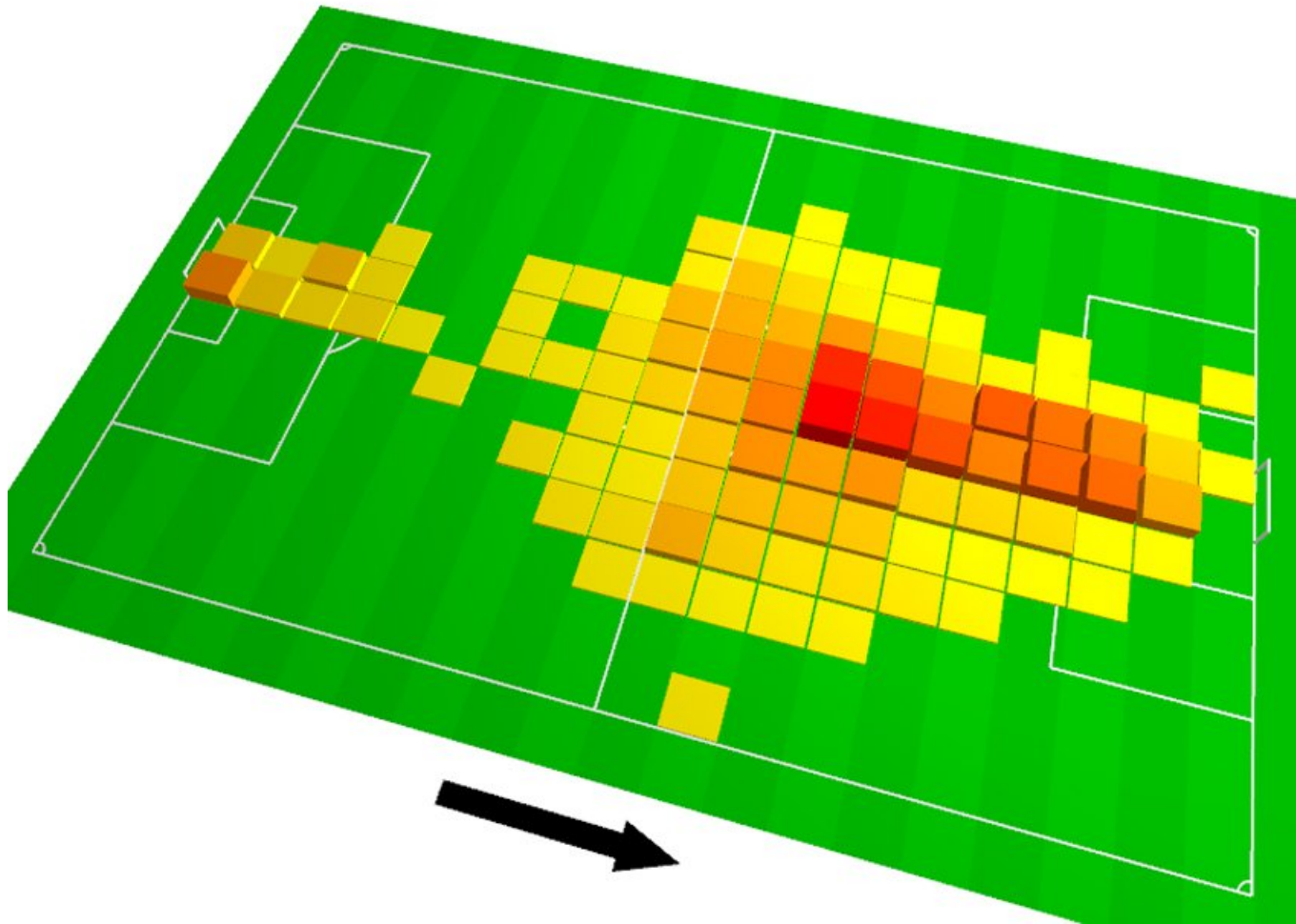


Examples

Movie Visualization

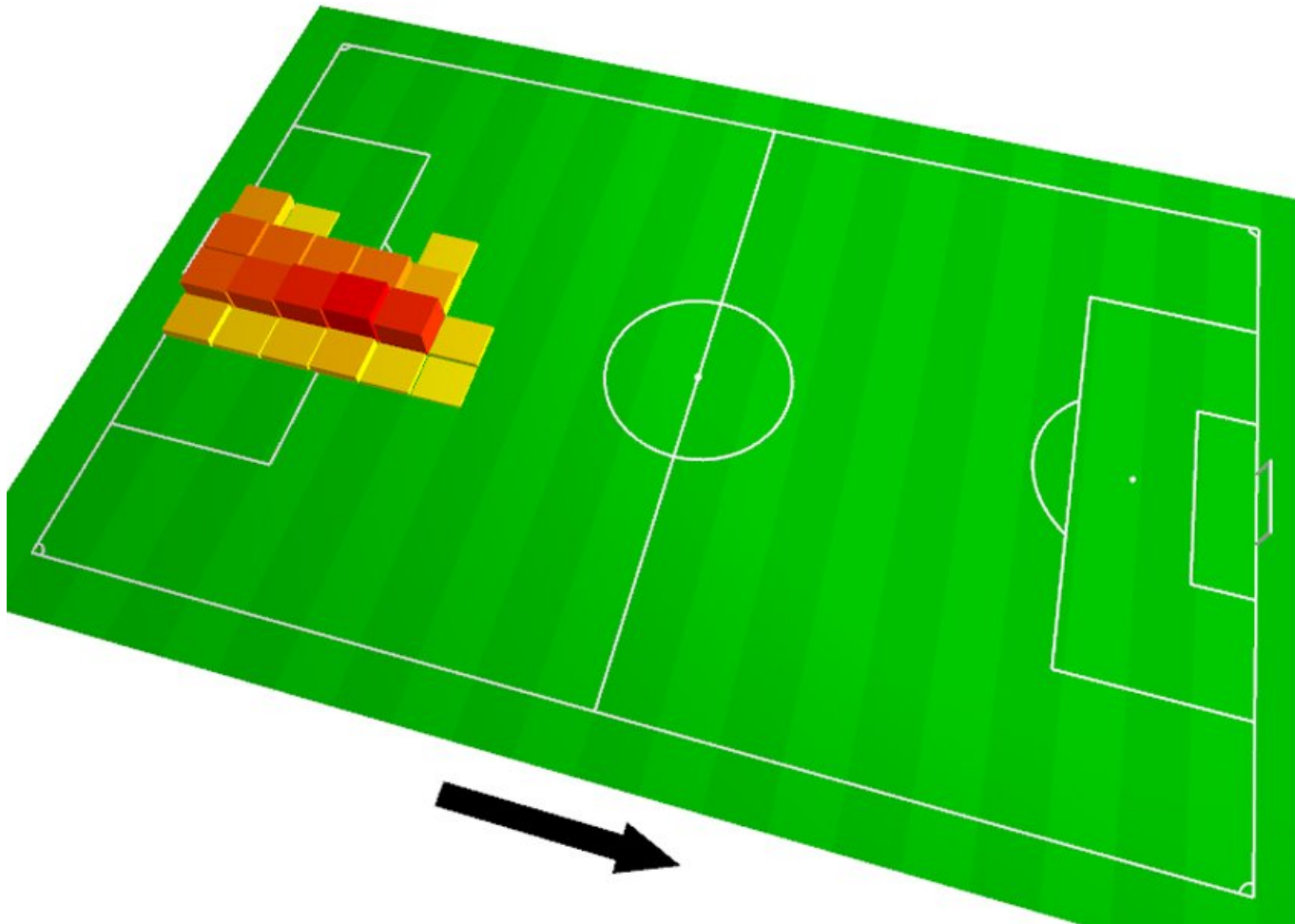


Visualization and Perception



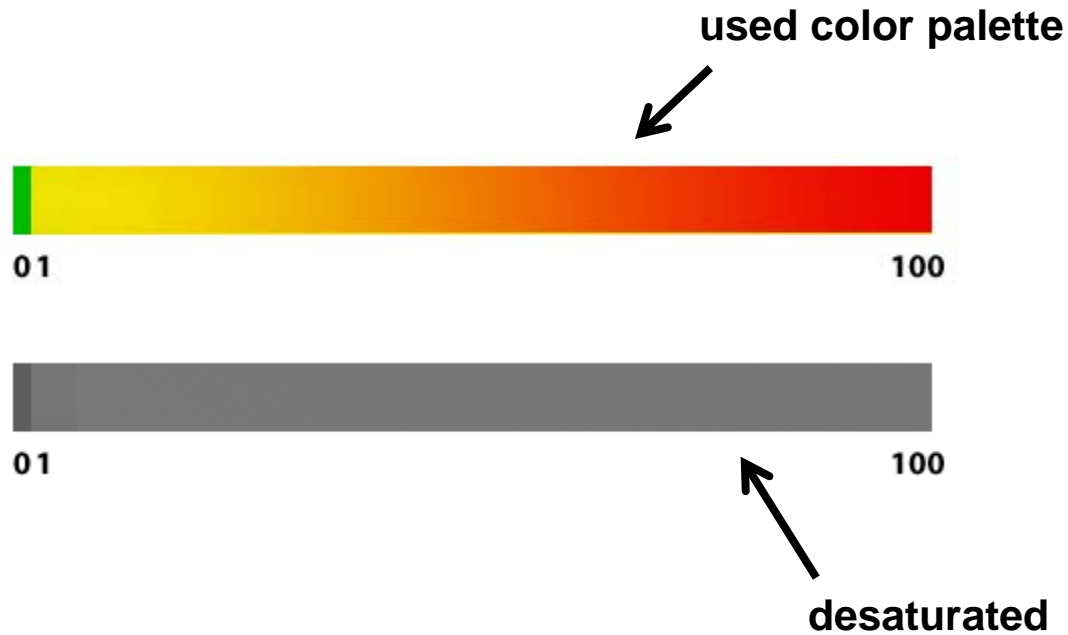
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Visualization and Perception

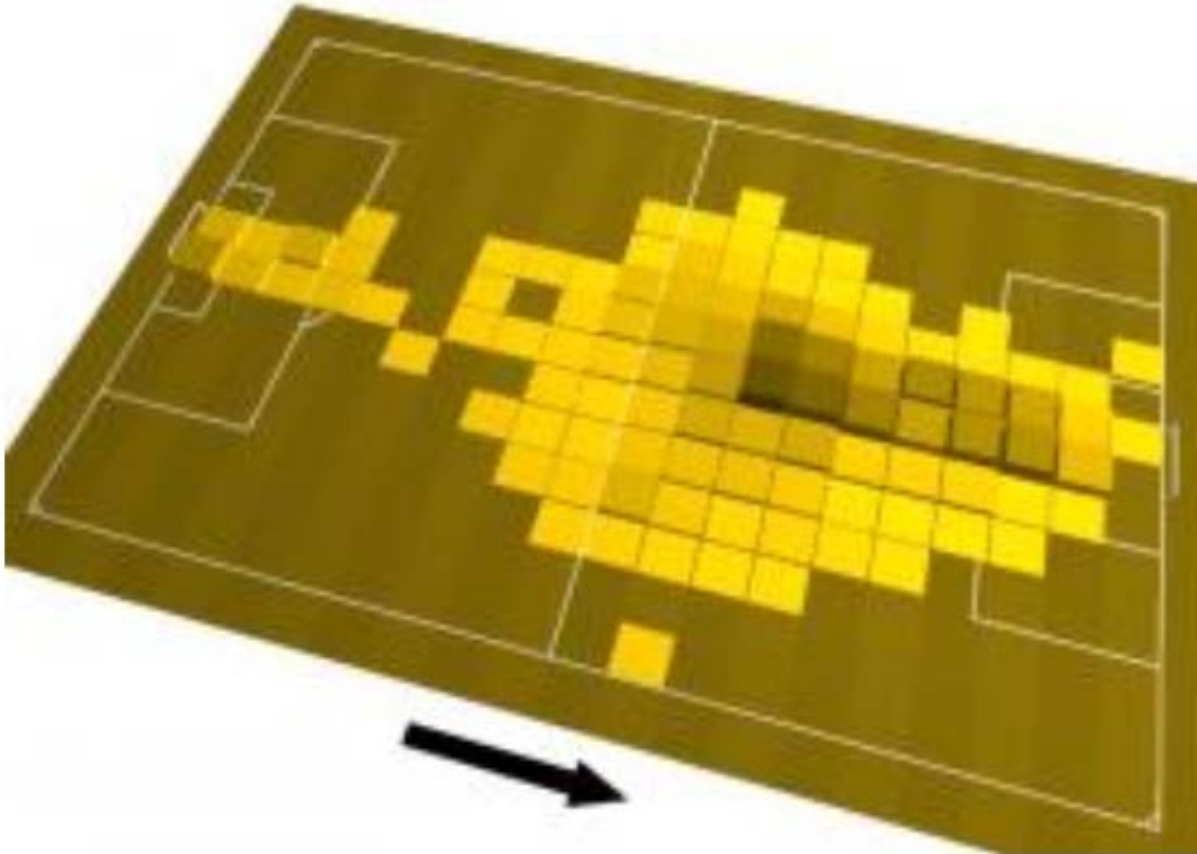


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Visualization and Perception



Visualization and Perception



as perceived by a red-green color blind
(<http://www.etre.com/tools/colourblindsimulator/>)

Change Blindness

Example



Example



Theories

- **Overwriting?**
- **First Impression?**
- **Nothing is Stored?**
- **Everything is Stored, Nothing is Compared?**
- **Feature Combination?**

Further Reading: <http://www.csc.ncsu.edu/faculty/healey/PP/index.html>