

# Die Chemie in Spielfilmen, Cartoons und Kinderzeichnungen

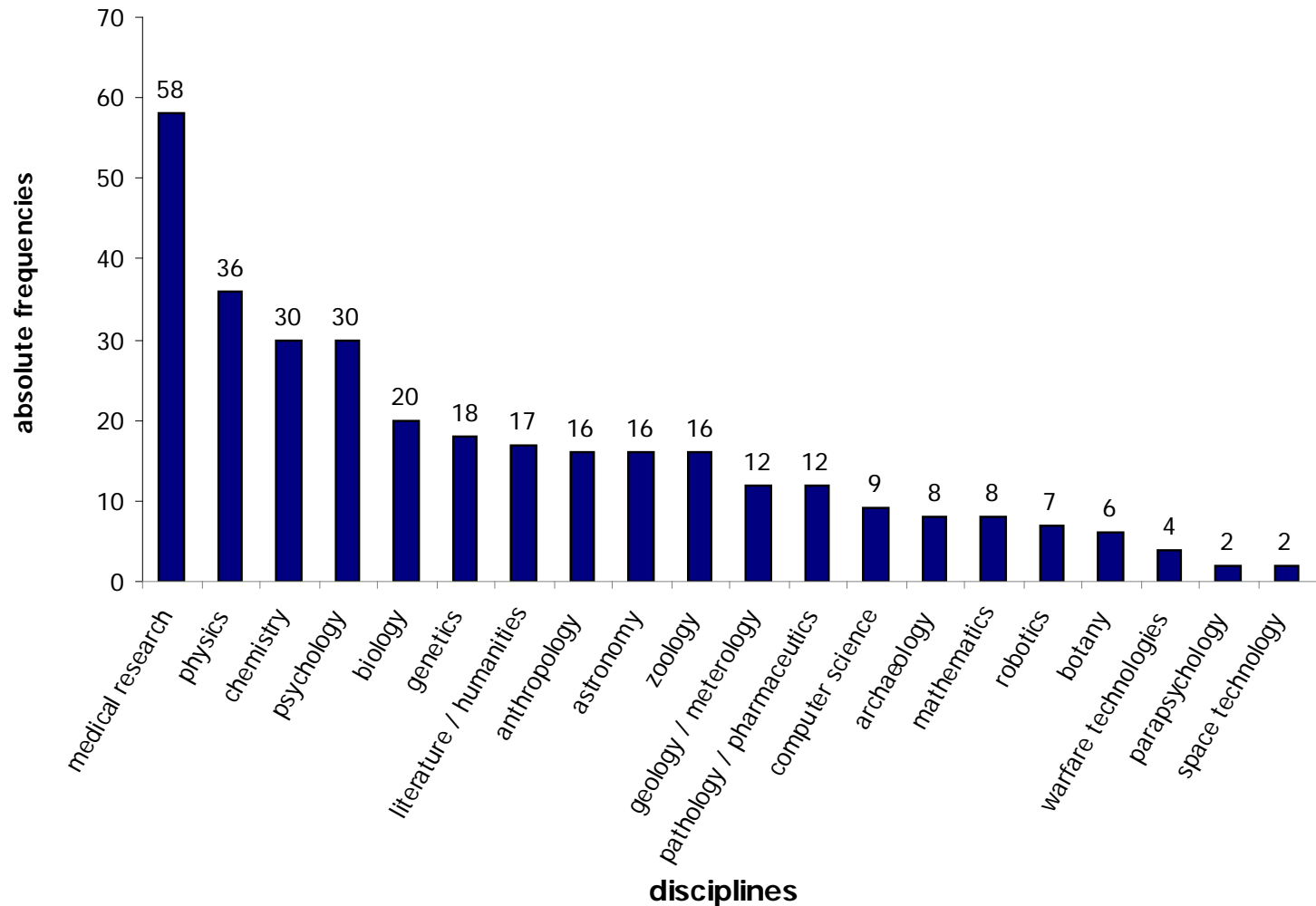
Material aus der Untersuchung „Perception and Representation of Science by Hollywood“, Universität Bielefeld 2000 – 2002;

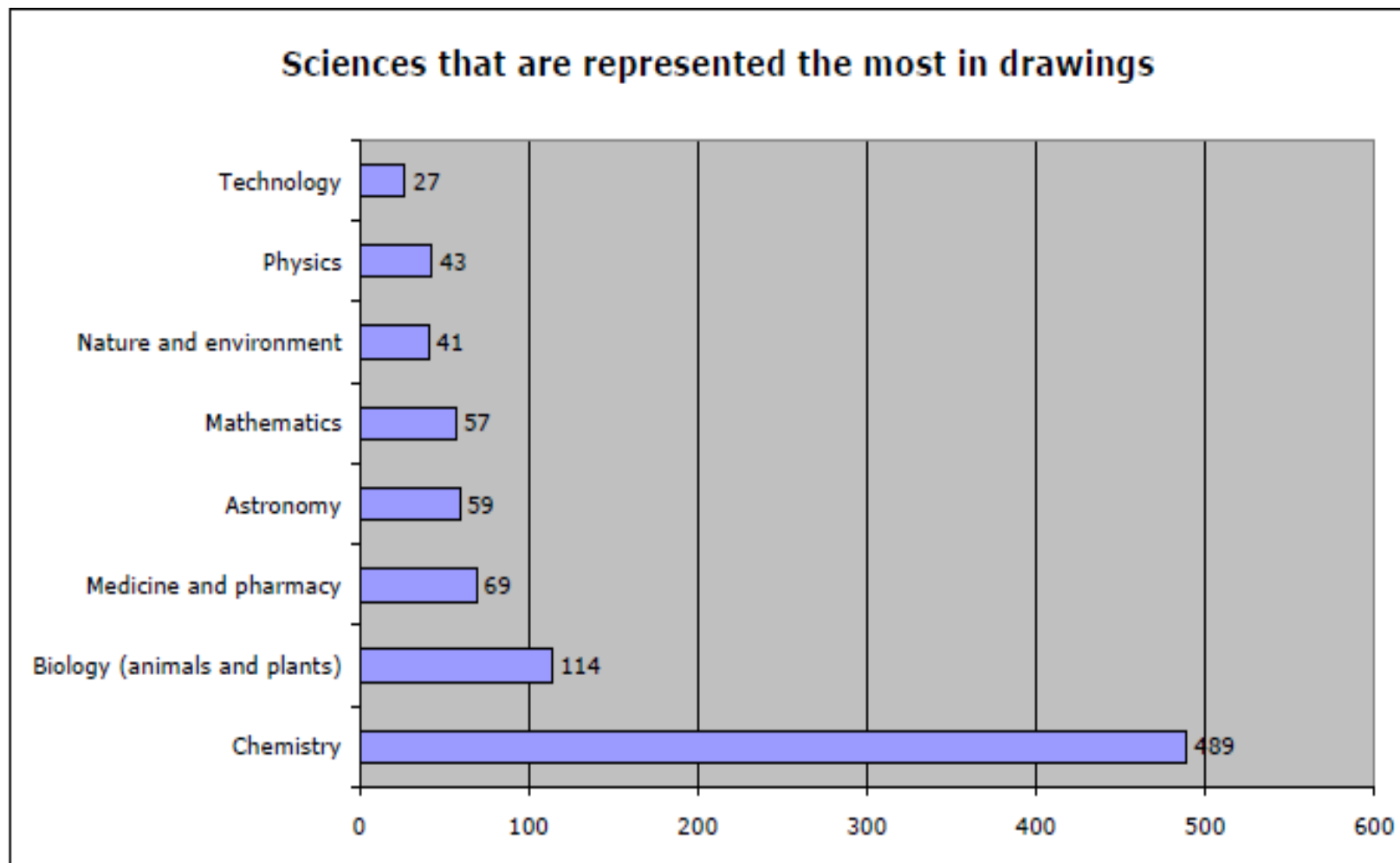
Dissertation von Luz Maria Hernandez Nieto: What do cartoons tell children about science?

Universität Bielefeld December 2014

Paola Rodari, Science and scientists in the drawings of European children, JCOM 6 (3), September 2007

# Which Disciplines are Popular in the Movies?





**Table 3.** Sciences that are represented the most in drawings.

**Aus: Paola Rodari , Science and scientists in the drawings of European children**

SISSA – International School for Advanced Studies , Journal of Science Communication

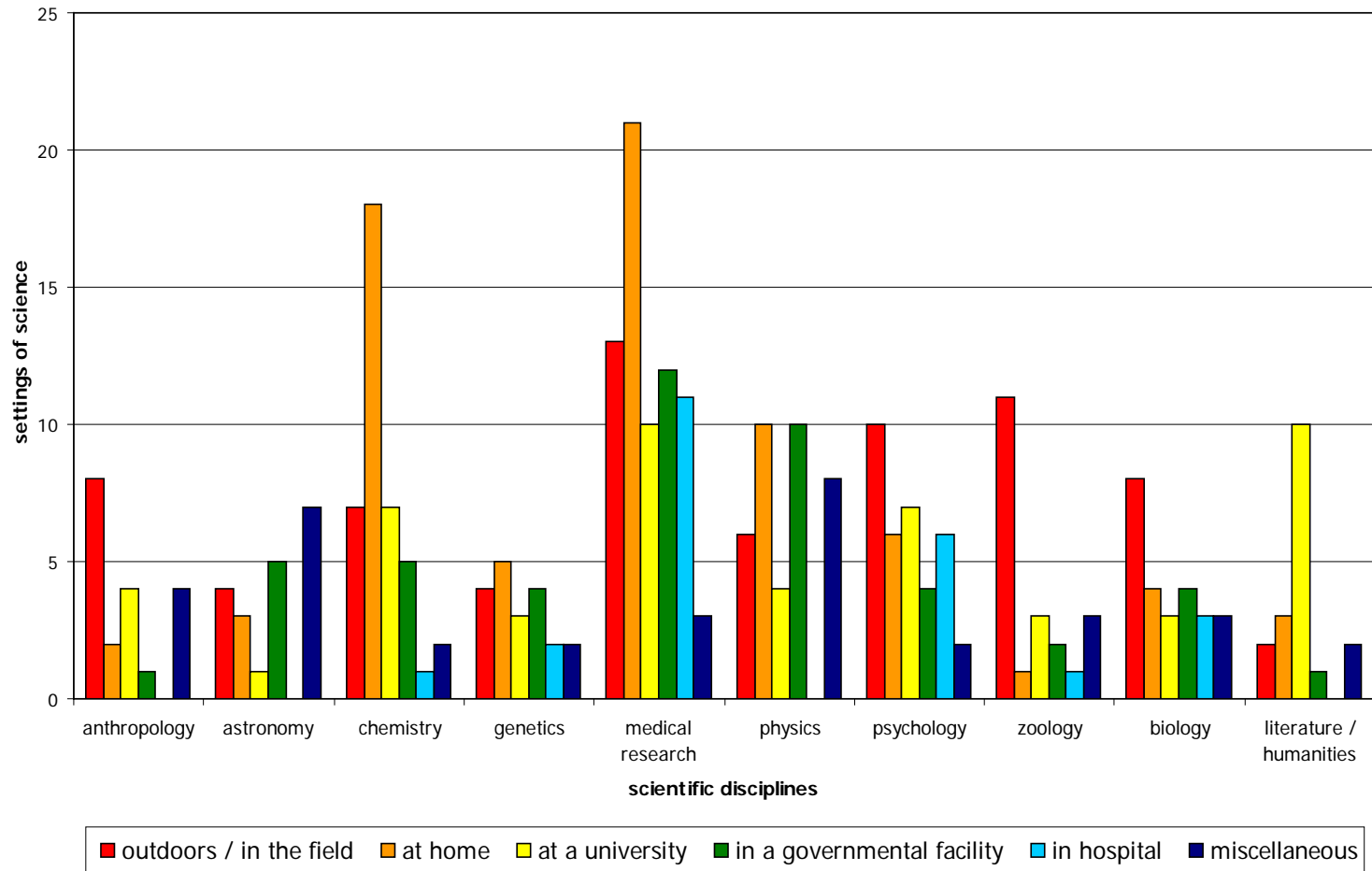
# The Setting of Chemistry in Fiction Film

- At home (42%)
- Outdoors/ in the field (16%)
- At a university (16%)
- In a governmental facility (12%)
- In a private company (9%)

*The Secret Show, Professor Professor's lab*



# Secrecy and Adventure - Settings of Scientific Work by Field

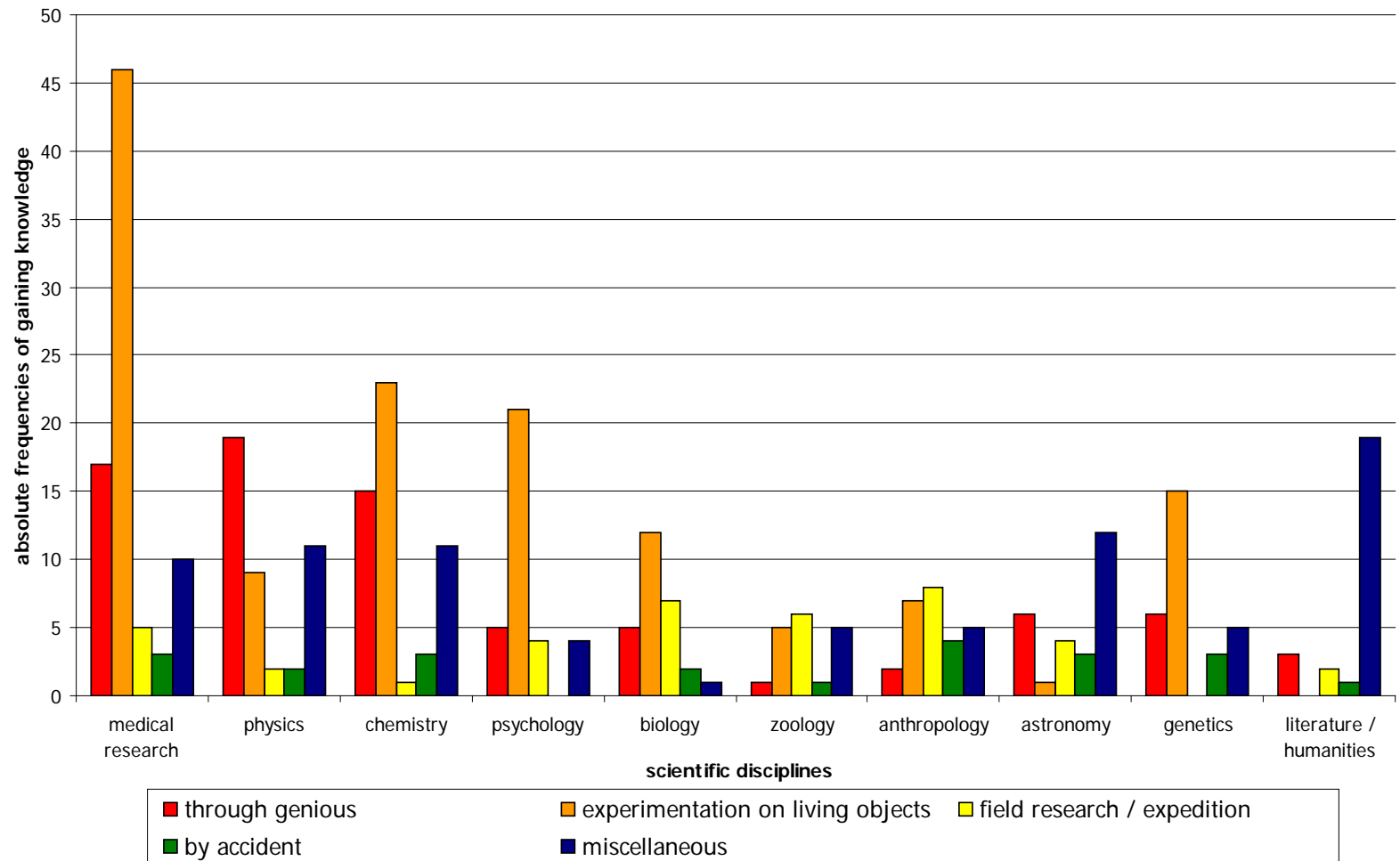


# Secrecy of research by field

Discovery/invention is kept secret from the public:

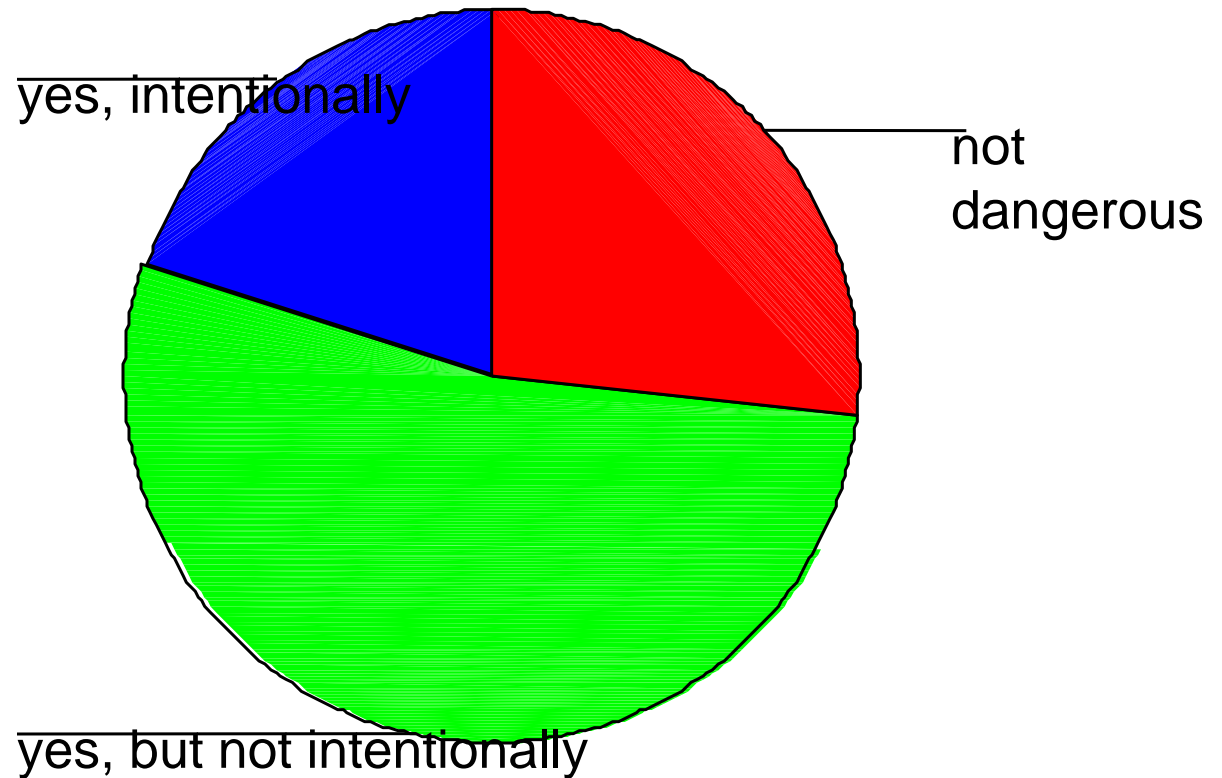
- Robotics: 85,7%
- Chemistry: 73,5%
- Genetics: 66,7%
- Physics: 66.6%
- Medical Research: 55,2%

# How Knowledge is Gained





# Dangerous discovery/invention

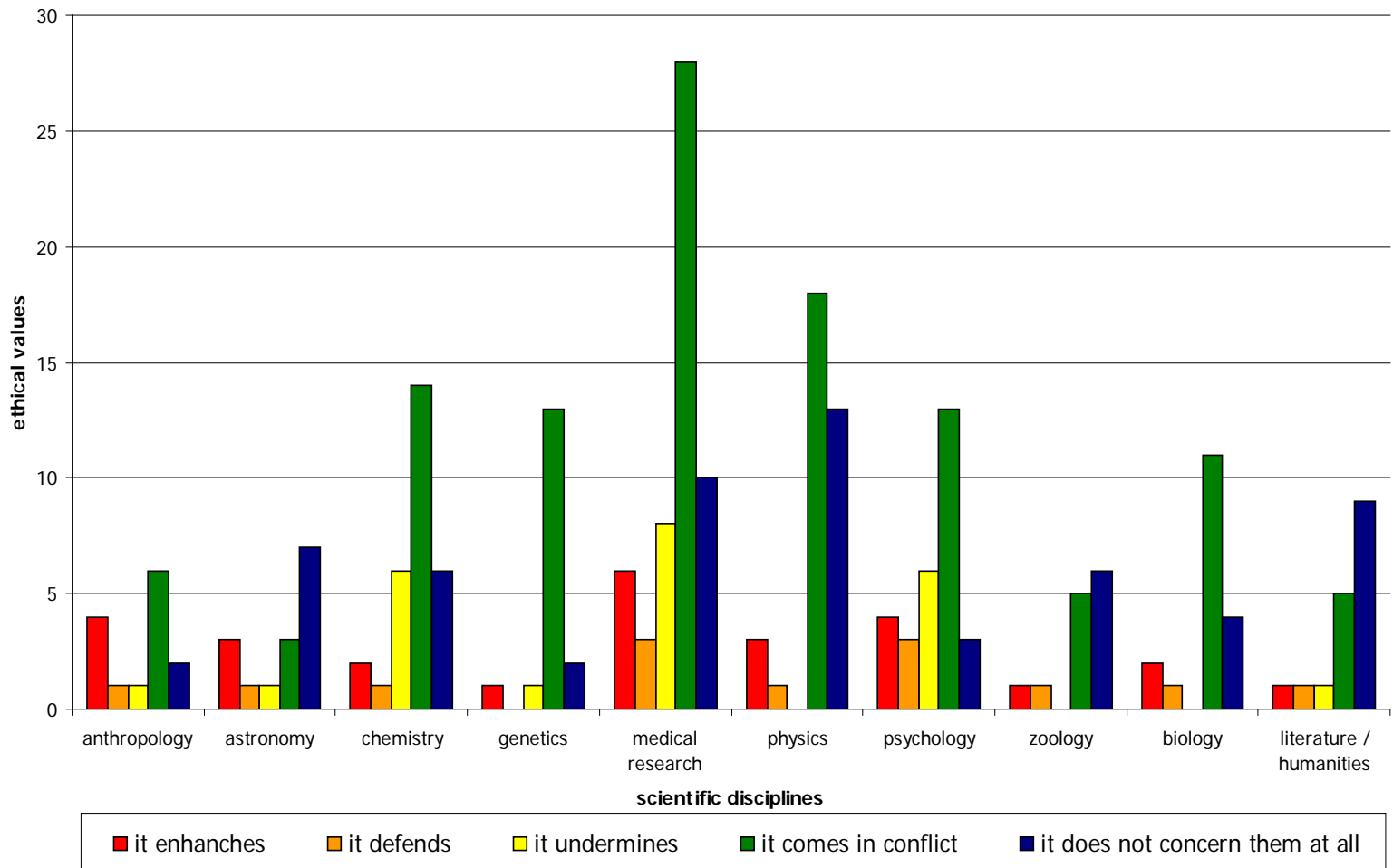


# Victims generated by discovery/invention

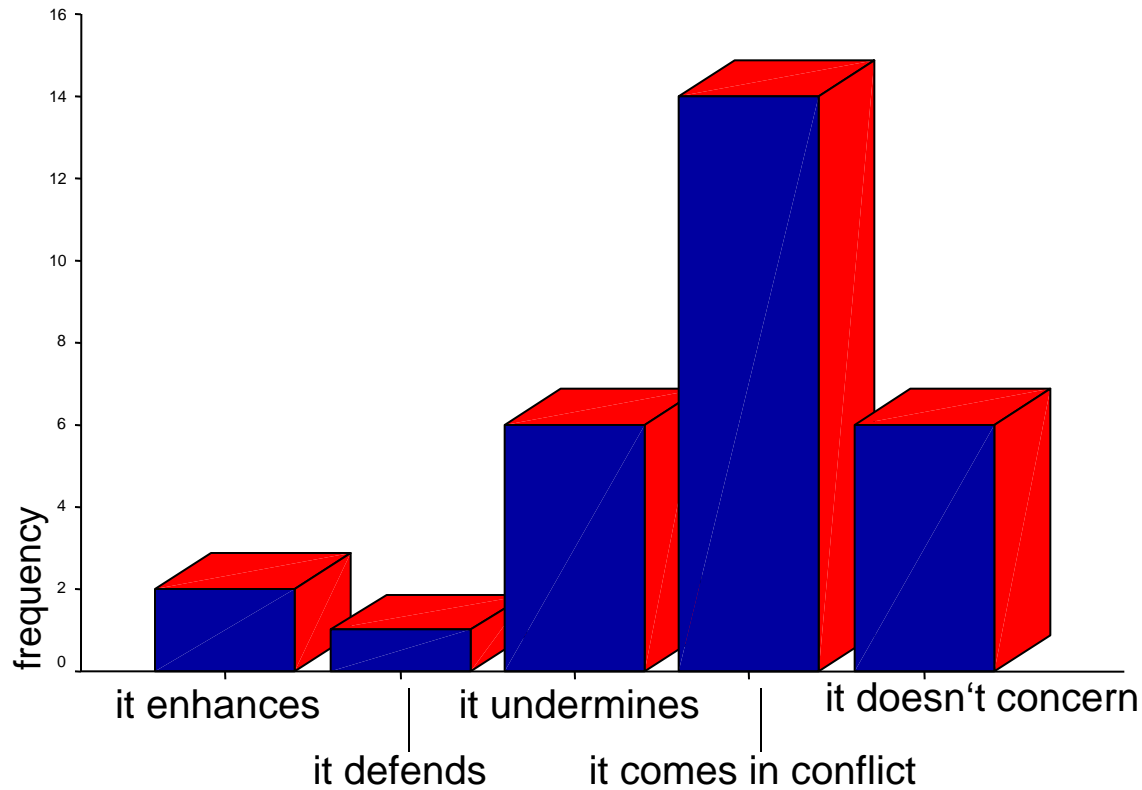
- The scientist himself (30%)
- The colleague/s, assistant/s (20%)
- Opponent, critics (13%)
- Uninvolved people (53%)

(multiple answers possible)

# Good or Bad... – Relation to Ethical Values by Field



# Chemistry concerns ethical values

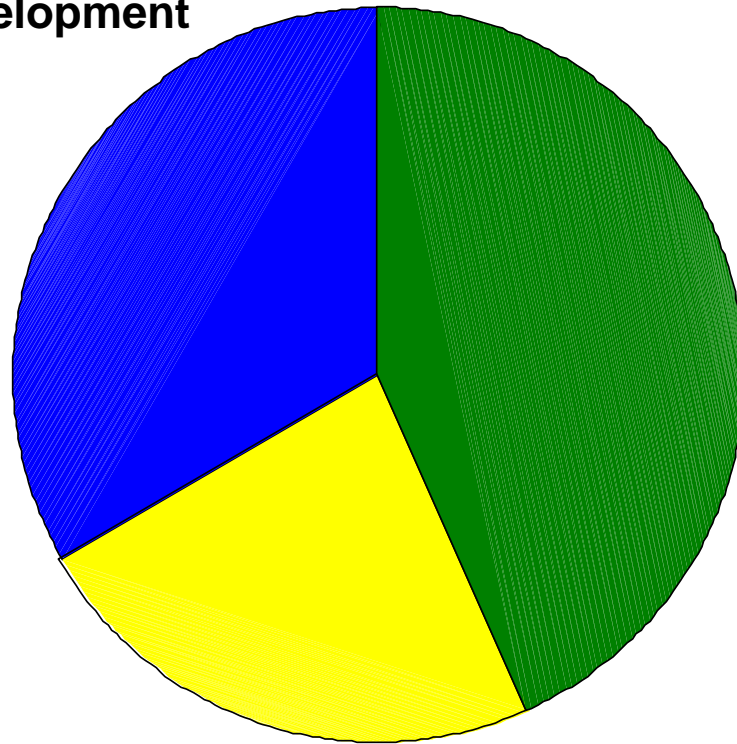


# Scientific misconduct by discipline

- % of films depicting misconduct:
- 70% - 80%: **chemistry**, genetics, pathology
- 60% - 70%: medical research, biology, computer sciences
- 10% - 20%: literature, humanities

# Factual status of the scientific field

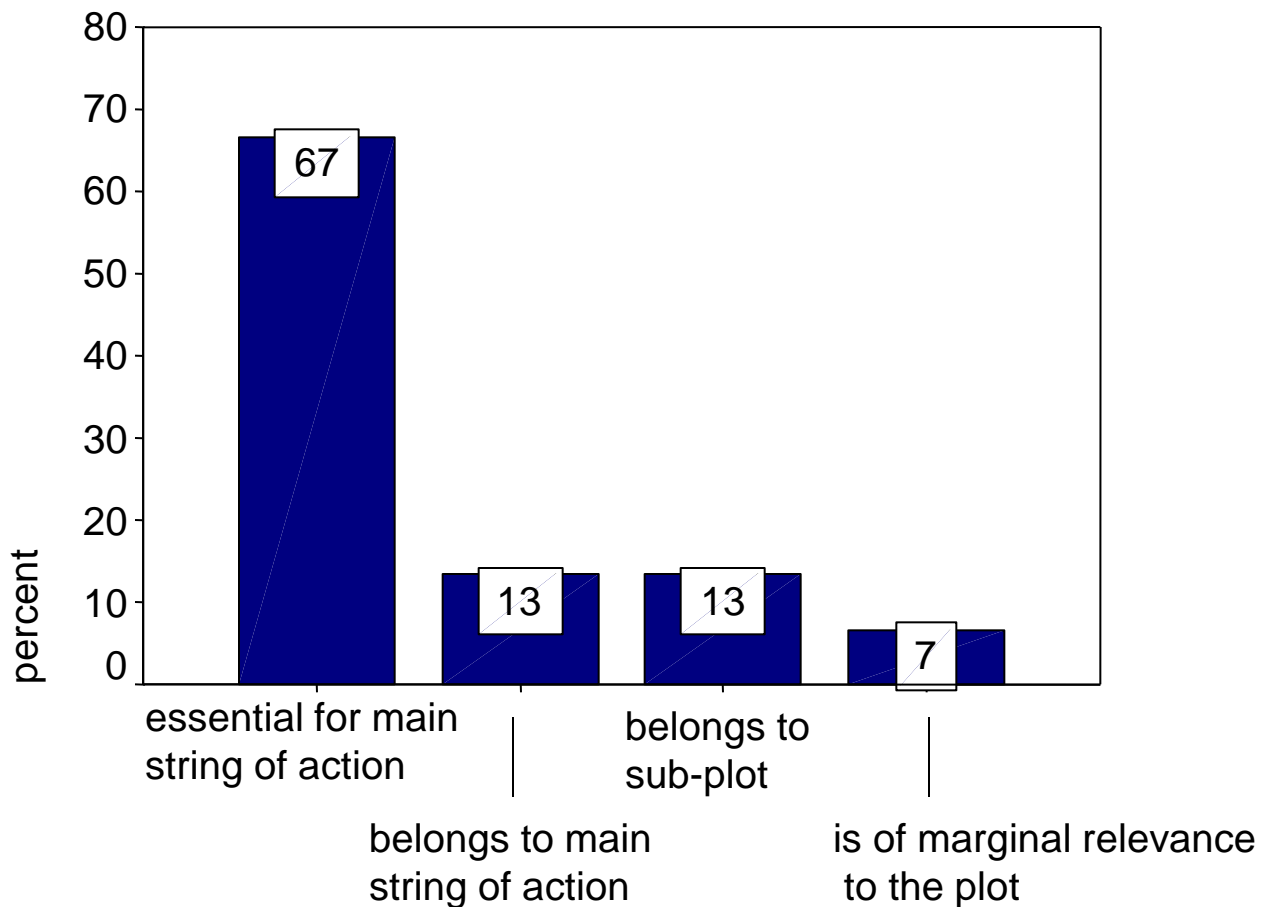
**fictional level of development**



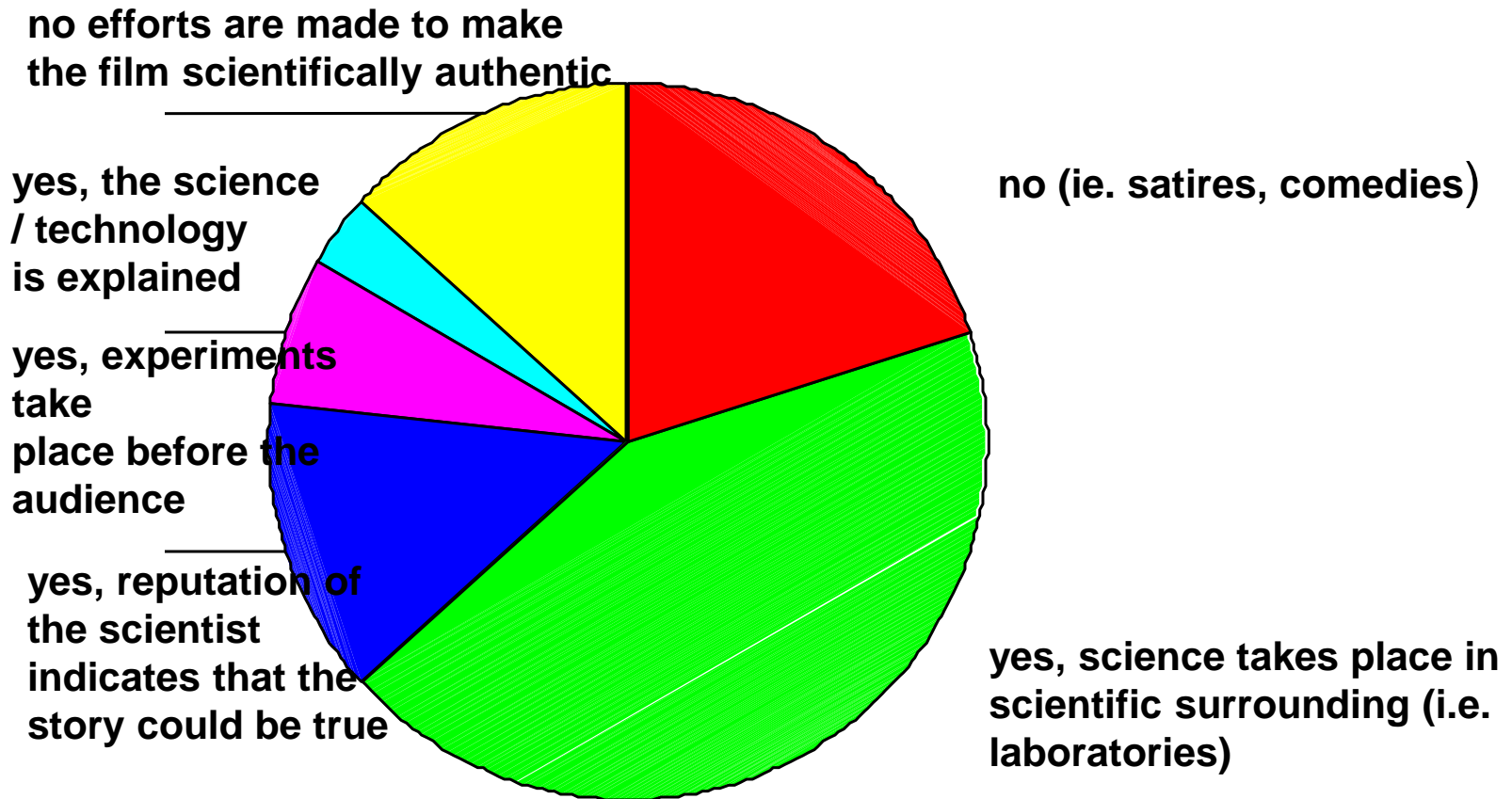
**non fictional scientific field**

**fictional scientific field**

# Importance of chemistry/ chemists to the plot



# Story meant to be plausible/authentic



no efforts are made to make the film scientifically authentic

yes, the science / technology is explained

yes, experiments take place before the audience

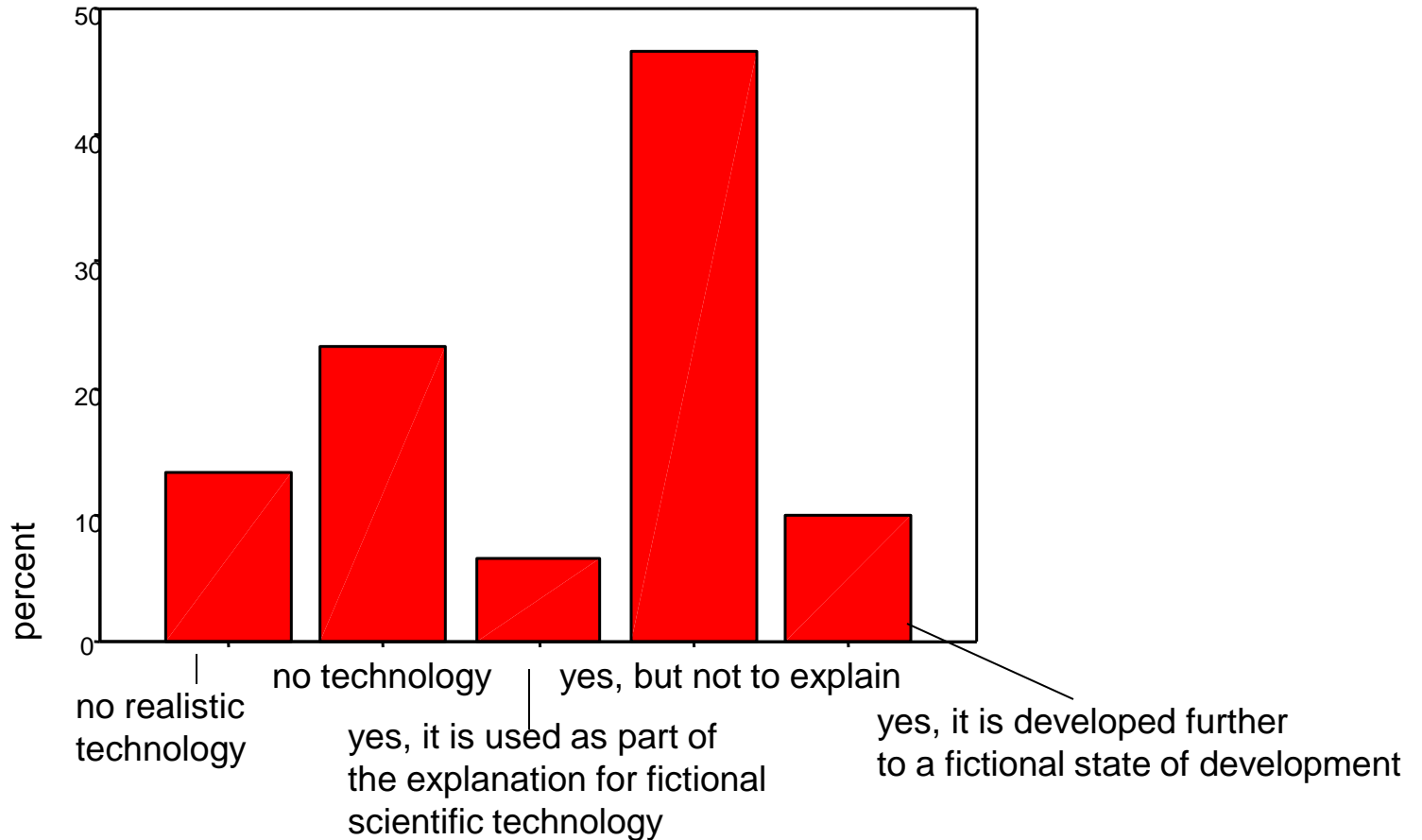
yes, reputation of the scientist indicates that the story could be true

no (ie. satires, comedies)

yes, science takes place in scientific surrounding (i.e. laboratories)



# Do films depict non-fictional technology?



# Films show that scientists...



# Chemistry by Genre

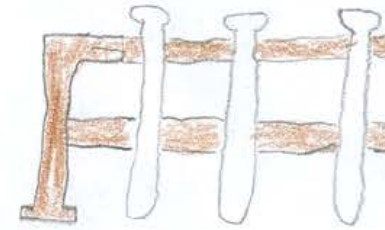
Action (4,4%)	Adventure (3,3%)
Animation (3,3%)	Comedy (13,3%)
Crime (4,4%)	Drama (8,8%)
Family (4,4%)	Fantasy (0%)
Film-Noir (0%)	<b>Horror (24,4%)</b>
Musical (0%)	Mystery (2,2%)
Romance (0%)	Science-Fiction (8,8%)
Satire (0%)	Thriller (13,3%)
War (3,3%)	Western (0%)

# Preoccupation with the past - alchemy

- The Hallucinated Alchemist (1897, USA)
- The Clown and the Alchemist (1900, USA)
- The Alchemist (1913, USA)
- Homunculus (1916, Germany)
- Der Alchimist (1918, Germany)
- The Alchemist's Hourglass (1936, USA)
- Alchimie (1952, France)
- Une Alchimie (1966, Belgium)
- Alchimisten (1968, GDR)
- Alchemik (1990, Poland)
- Des alchimistes / Alchemists (1991, Canada)
- Alchemy (1997, USA, TV)

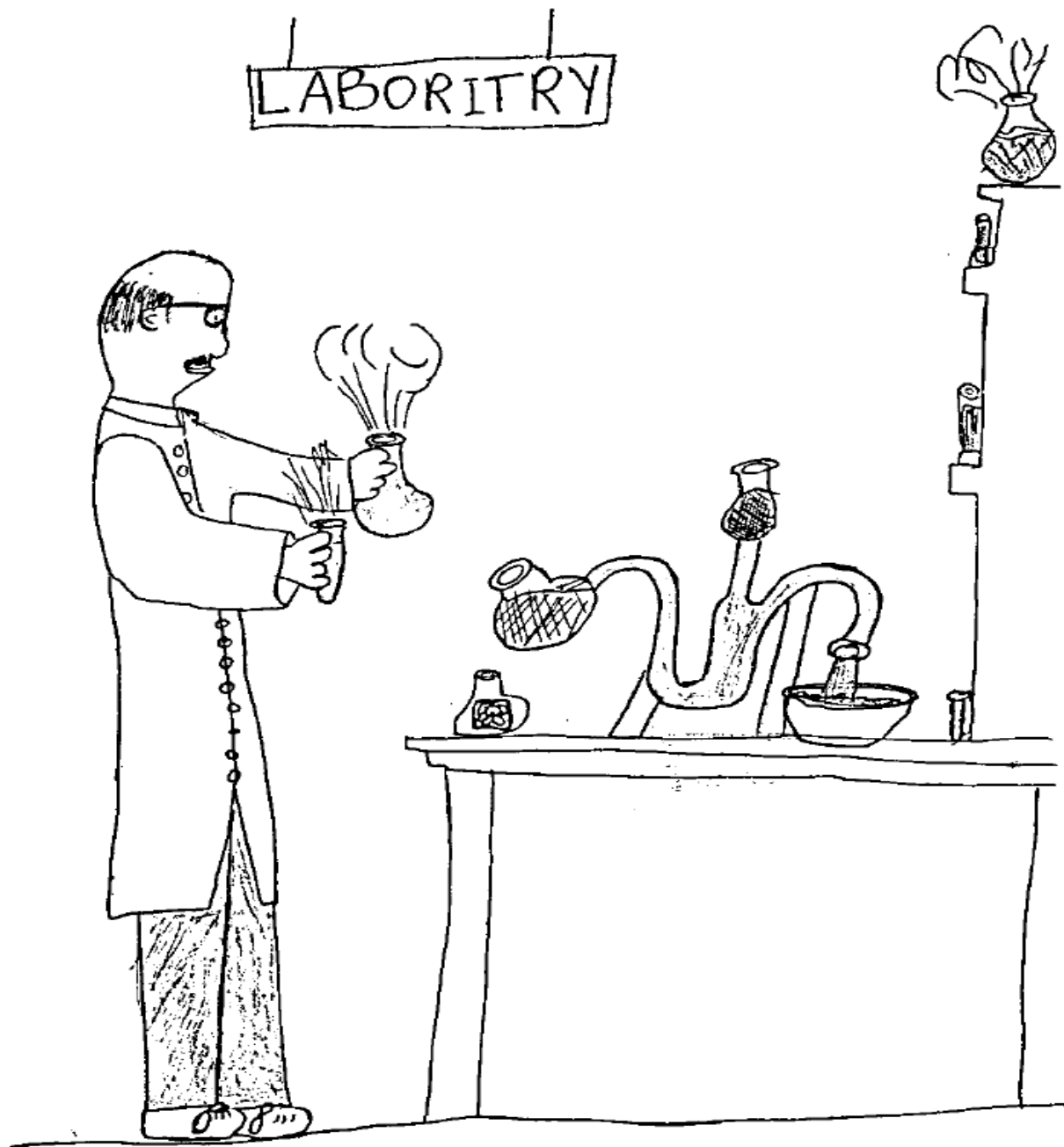


Klasse: 5/3



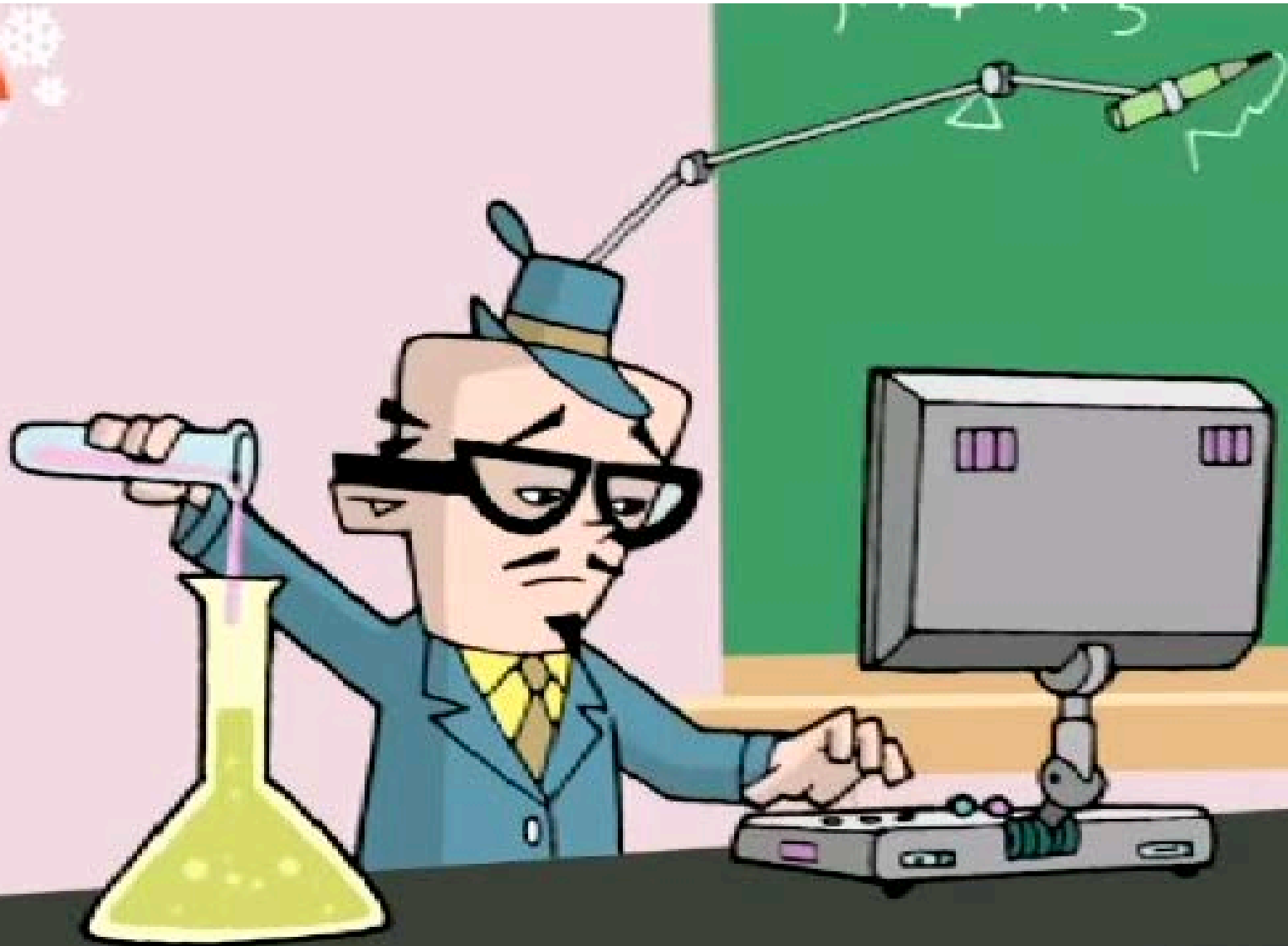
Verrückter  
Professor →





**Figure 8. Chemical apparatus, drawn by a ten-year-old boy.**

*I Got a Rocket, Professor Q*



*Pat and Stan, Profesor Chi-chi (in German: Prof. Zweistein)*





*Pat and Stan, Profesor Chi-chi's laboratory (in German: Prof. Zweistein)*



*The League of Super Evil, Dr. Frogg's laboratory (In German: Dr. Schrott)*



*George of the Jungle, Dr. Towel Scott*



*George of the Jungle, Dr. Towel Scott*

