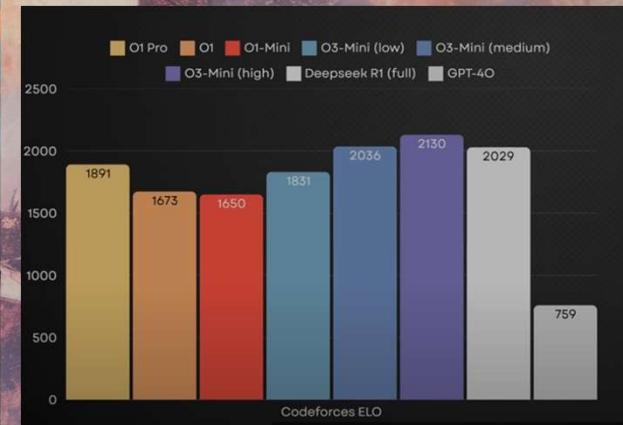
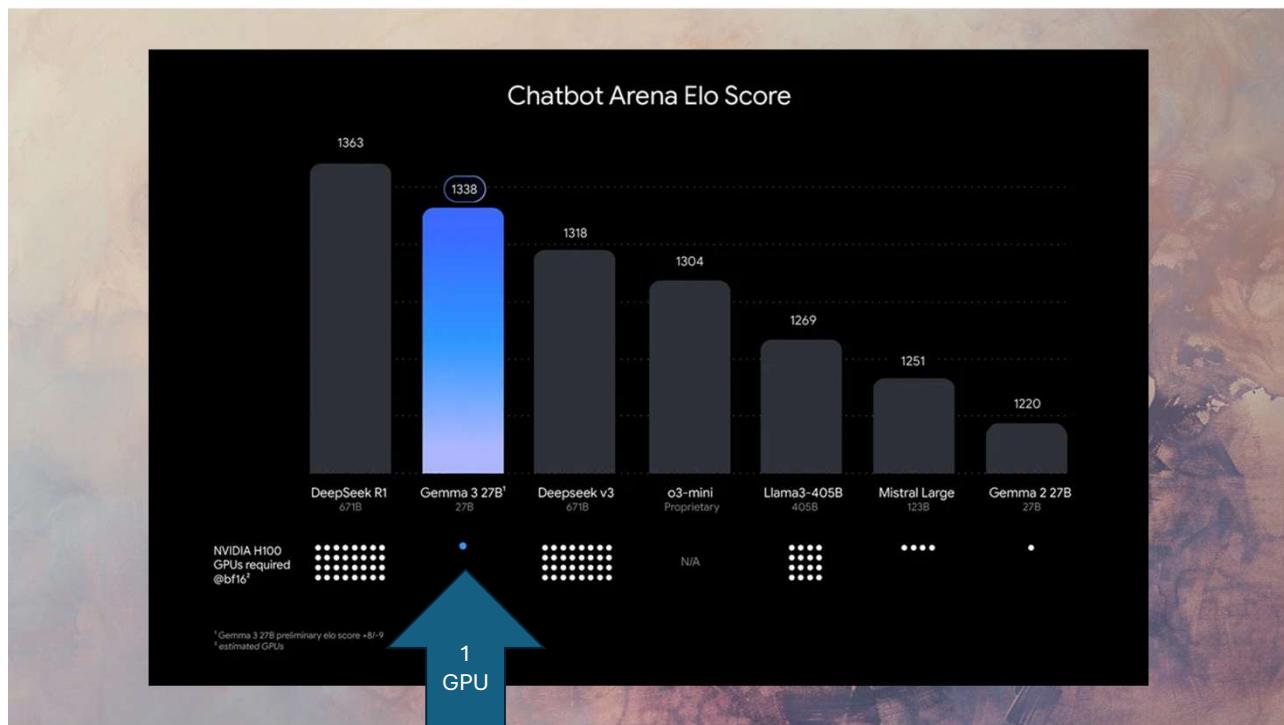
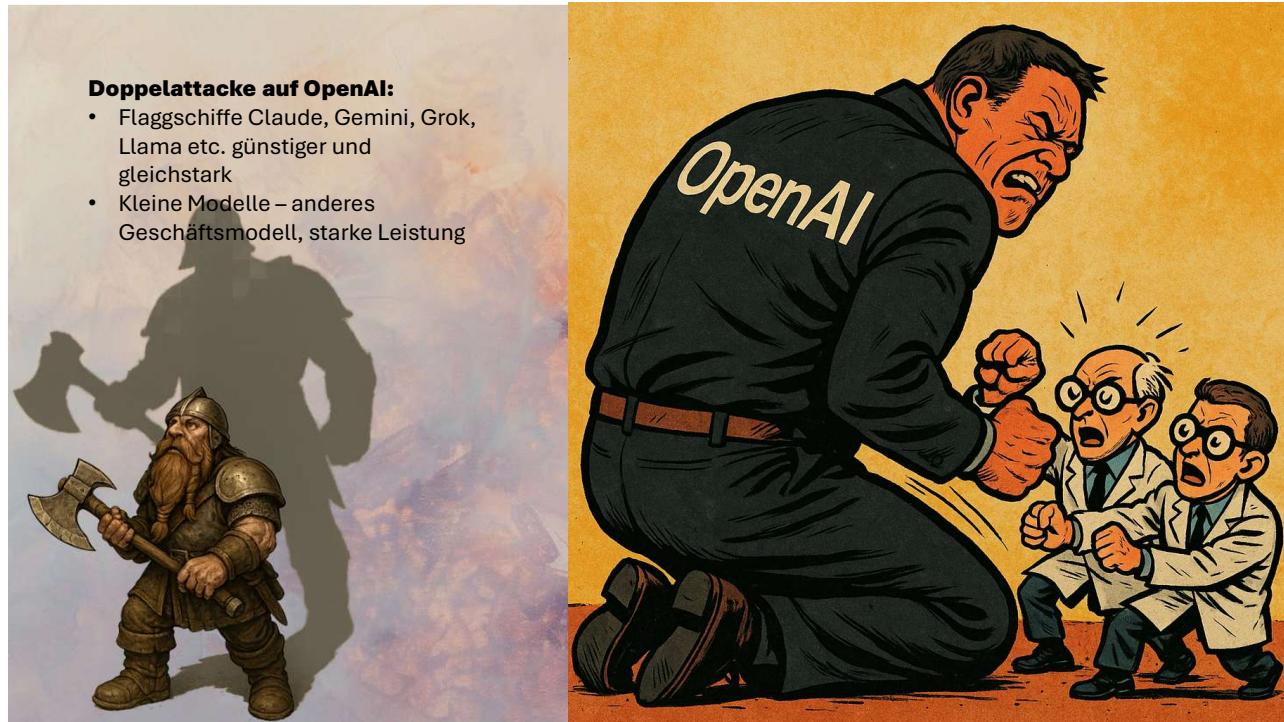
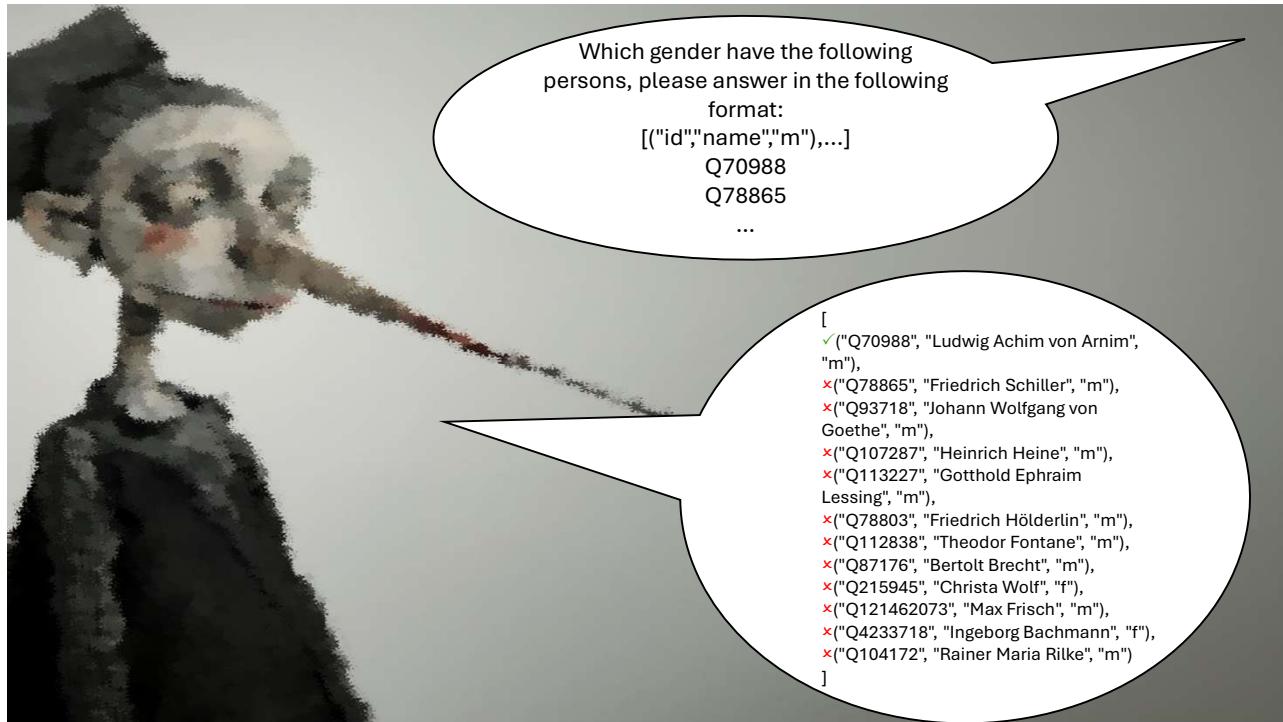


Der DeepSeek-Schock

- Gleiche Leistung
- Open Weight
- Bruchteil der Produktionskosten
- Kein NVIDIA







Gemma 2,
June 27, 2024

Small context Window

Small models:

- Tasks have to be cut up into small steps of a pipeline
- Context has to be condensed to be used



Gemma 2,
June 27, 2024

Hard to prompt

Small models:

- Every little change might totally change behaviour.
- Variable parts of prompt cause unpredictiveness
- Frustrating test runs



Gemma 2,
June 27, 2024

The **tormented** AI

Small models:

- Too low temperature (was) problematic

text

... omitted ...

Clara: You are sure you like him?



Gemma 2,
June 27, 2024

Feverish Answers – Temperature too high?

Answer: they do not talk about a man

Explanation:

The women in the text are discussing a man named Leander. Angela expresses her deep love for him, and Colombina states that Leander is a man she believes to be suitable for Angela. The text does not mention any other men.



Answer: they talk about a man

Explanation:

Leander: Angela explicitly mentions Leander as a potential suitor, and she expresses her desire to possess him.

Hanswurst: Colombina mentions Hanswurst as a potential lover, but she seems to be more focused on the relationship's potential for happiness and pleasure.



Gemma3-4b-

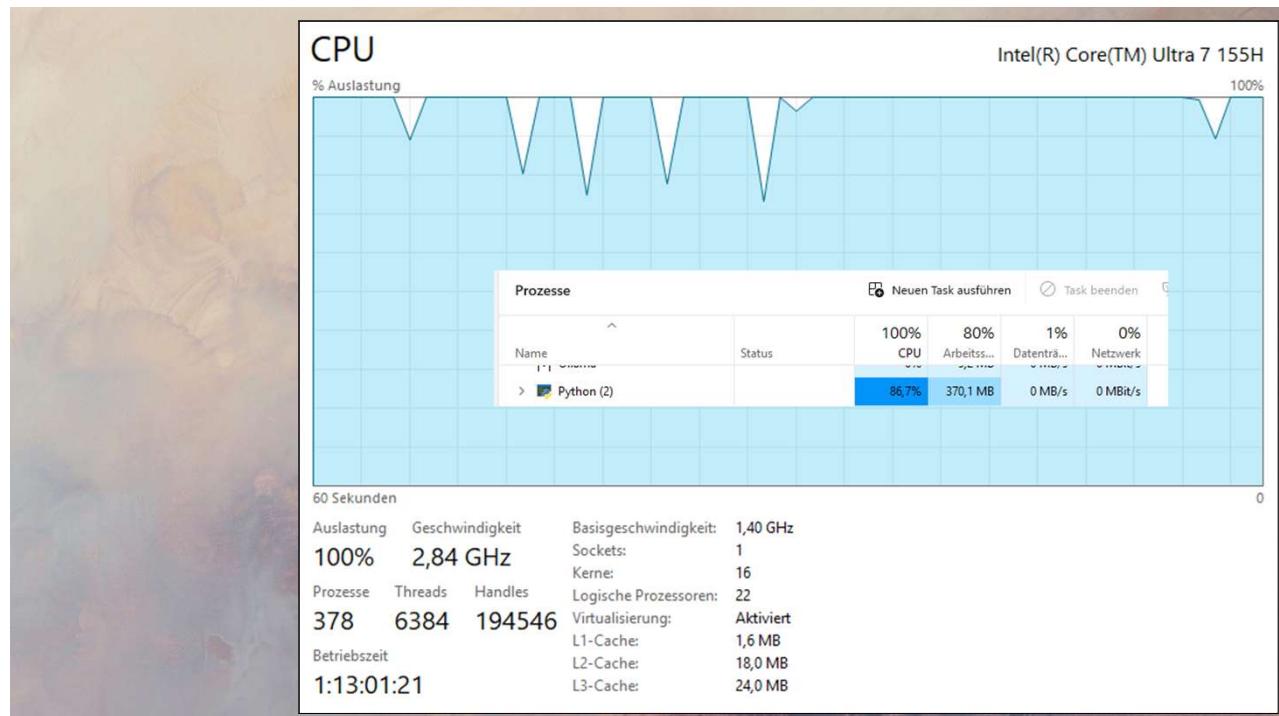
Choice between:
it = instructor tuned
pt = pretrained

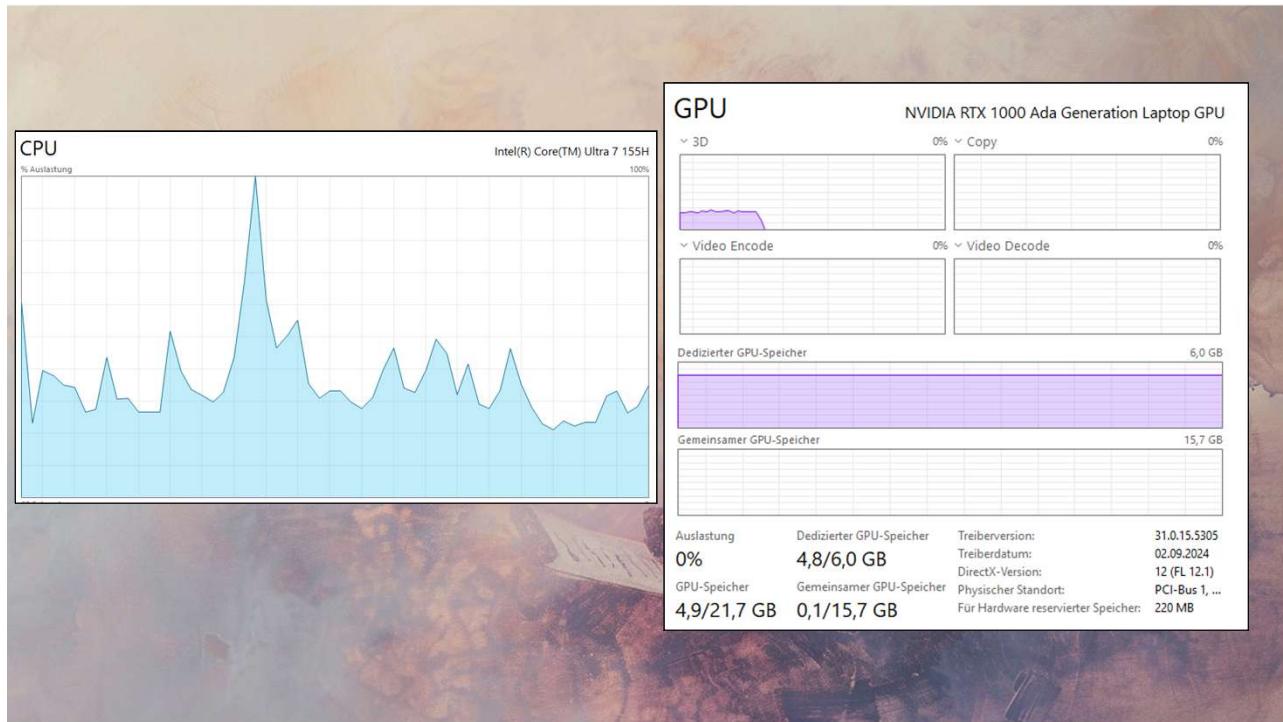
```

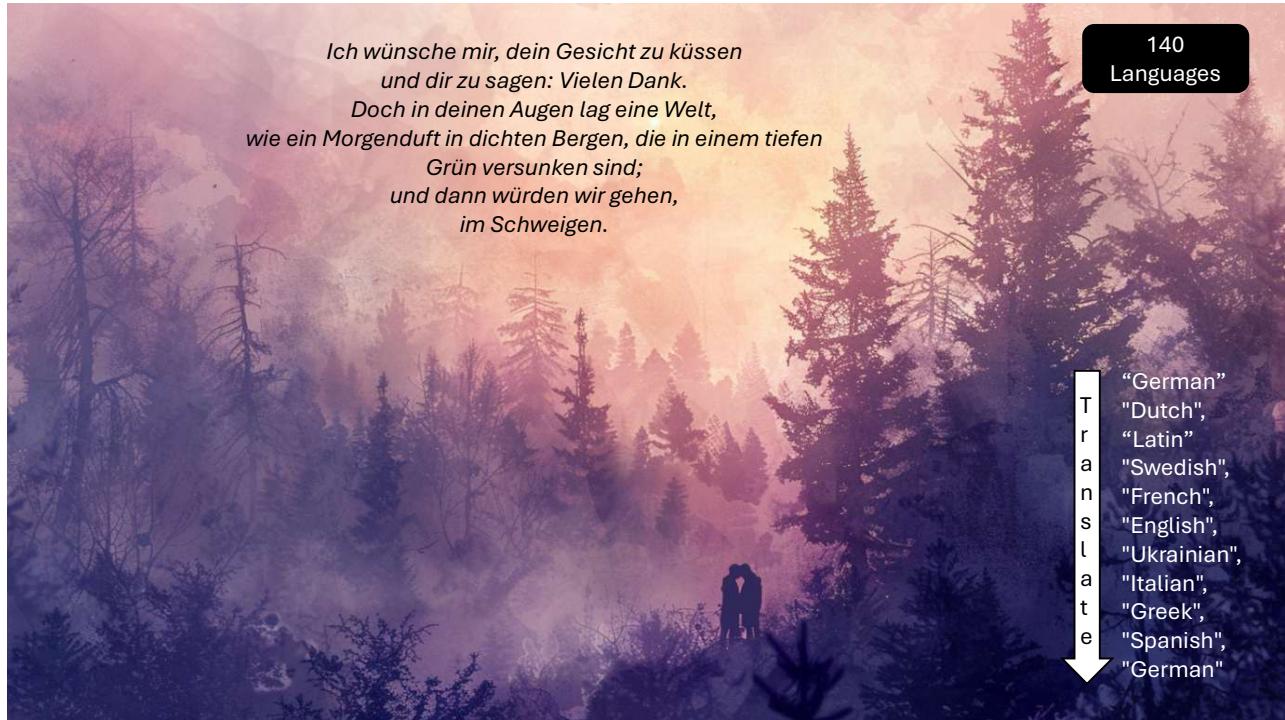
_MODEL_ID = "google/gemma-3-4b-it"
_processor = AutoProcessor.from_pretrained(_MODEL_ID)
_model = Gemma3ForConditionalGeneration.from_pretrained(
    _MODEL_ID,
    device_map="auto",
    torch_dtype=torch.bfloat16
).eval()

def generate_text(
    prompt: str,
    max_new_tokens: int = 1000,
    do_sample: bool = True,
    temperature: float = 0.8
) -> str:
    messages = [{"role": "user", "content": [{"type": "text", "text": prompt}]}]
    inputs = _processor.apply_chat_template(
        messages,
        add_generation_prompt=True,
        tokenize=True,
        return_dict=True,
        return_tensors="pt"
    ).to(_model.device, dtype=torch.bfloat16)
    input_len = inputs["input_ids"].shape[-1]
    with torch.inference_mode():
        outputs = _model.generate(
            inputs,
            max_new_tokens=max_new_tokens,
            do_sample=do_sample,
            temperature=temperature
        )
    return _processor.decode(outputs[0][input_len:], skip_special_tokens=True).strip()

```







Wtf ???

*Ich will dich bis zum Boden schlagen
und sagen: „Danke!“
Aber in deinen Augen gab es einen Schein,
wie Tropfen der Frische in unbekannten Bergen;
Und wir müssen es verfolgen,
still.*

Je voulais te baisser la tempe (Schläfe)

I wanted to slap your rump (...)

Vorrei picchiarti sulle palle (Eier)

Θέλω να σε χτυπήσω στα γόνατα (Knie)

Each Step in a Pipeline
needs to be checked after
execution (e.g. for semantic
drift)!!

Simple Solution: Repeat
until Test works.

Leichte Sprache

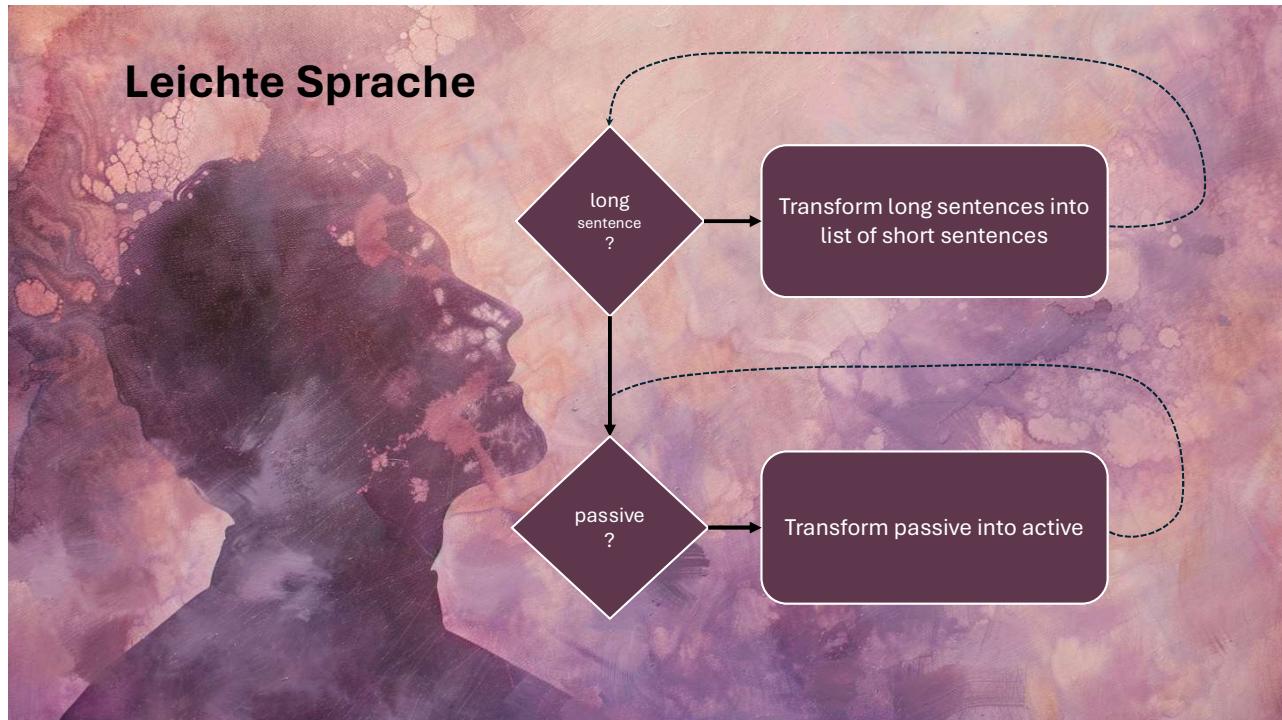
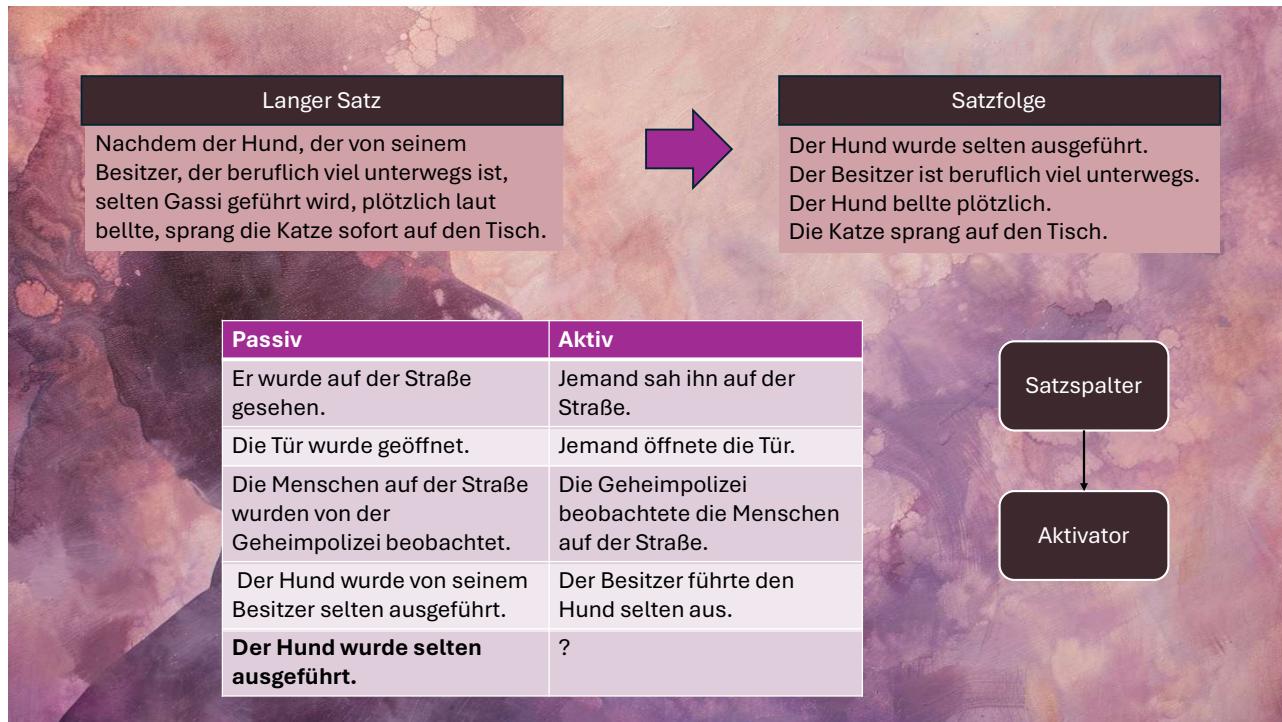
Dr. Müller erklärt, dass die Komplexität der Quantenmechanik überwältigend ist, weshalb viele Studenten Schwierigkeiten haben, die Grundlagen zu verstehen. Er meint, sie sollten sich mehr bemühen, um das Wissen zu vertiefen, wobei er indirekt andeutet, dass alternative Lernmethoden sinnvoll sein könnten.

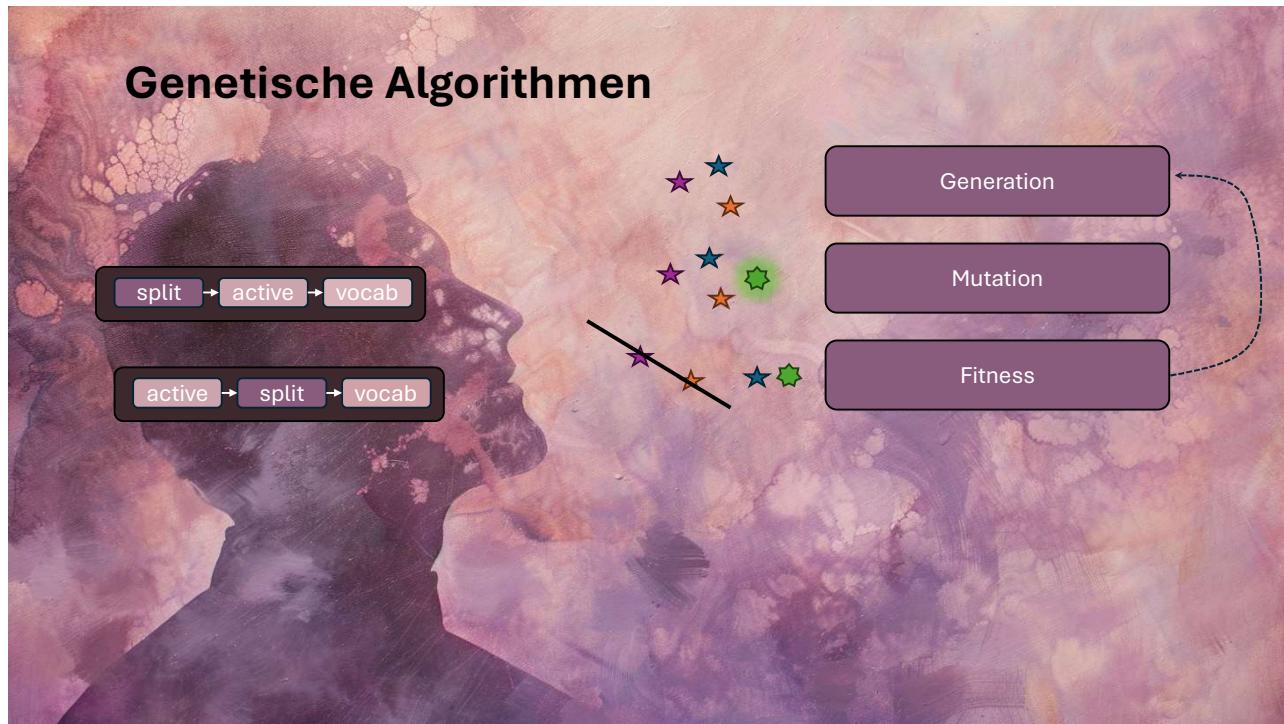
Dr. Müller spricht über ein schweres Thema.
Das Thema heißt: Quanten-Mechanik.
Quanten-Mechanik ist ein Teil von der Physik.
Quanten-Mechanik ist sehr kompliziert.

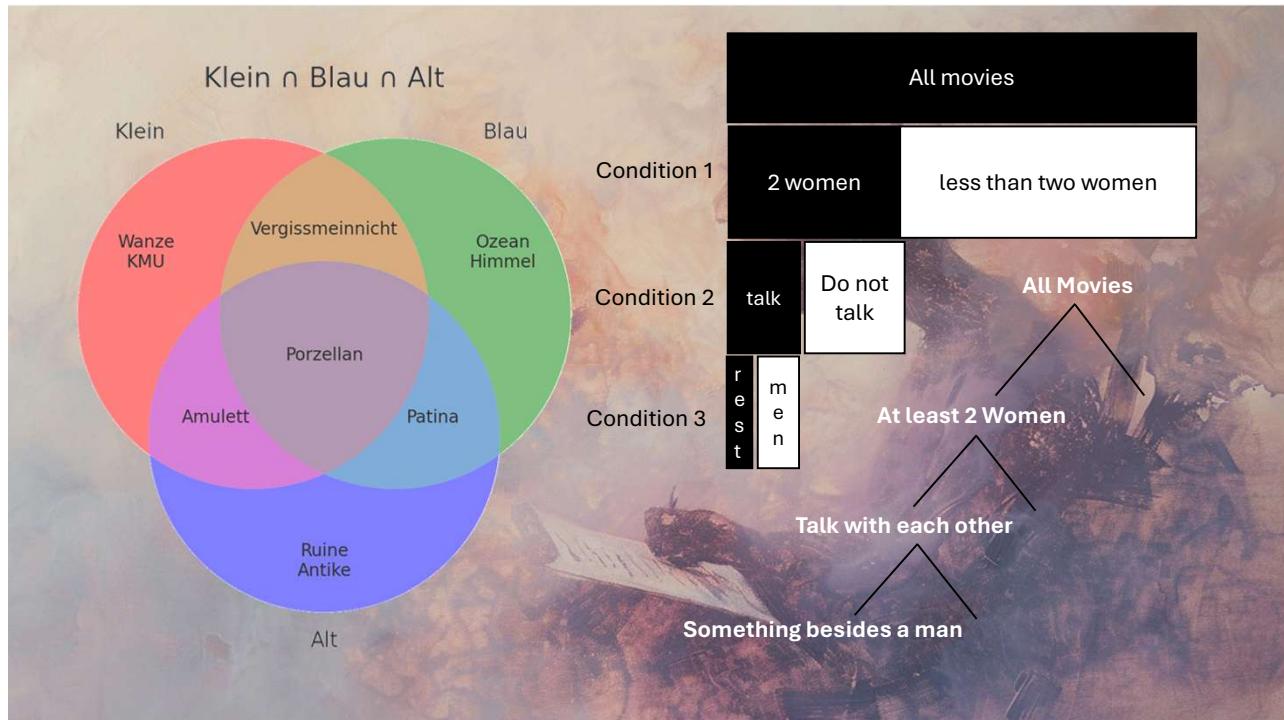
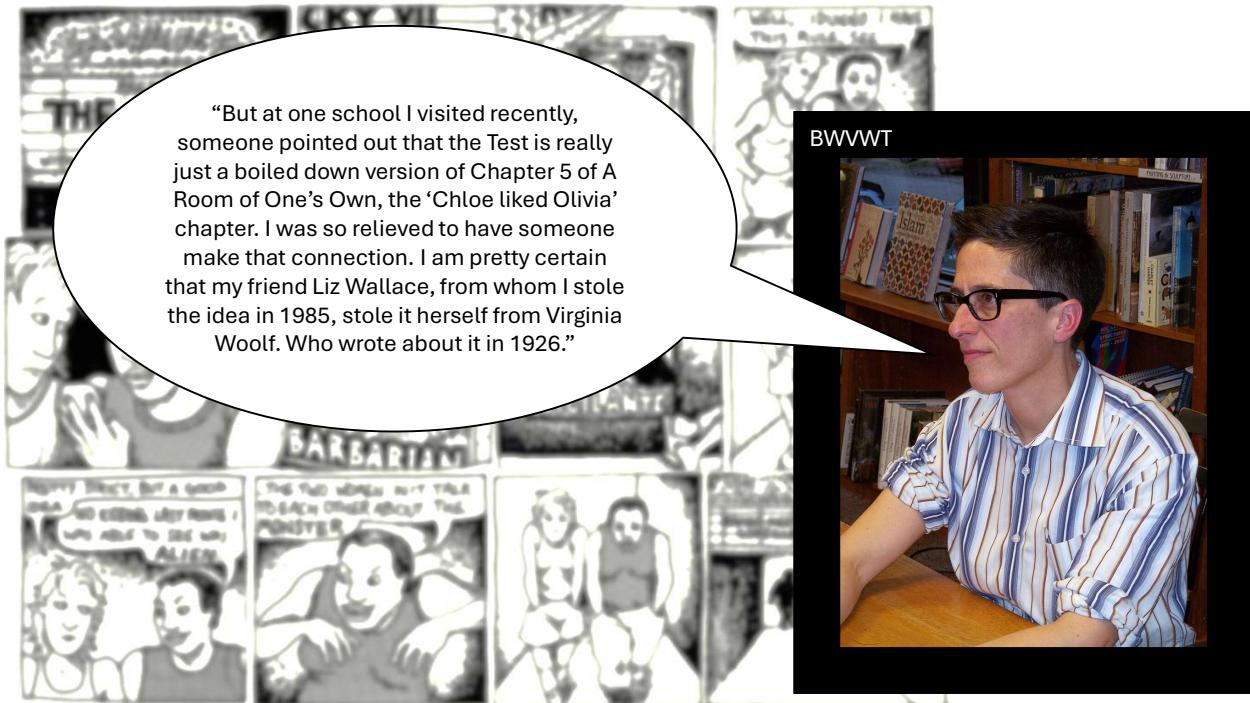
Viele Studenten verstehen das Thema schlecht.
Sie verstehen die wichtigen ersten Sachen nicht gut.
Diese ersten Sachen nennt man auch: Grundlagen.

Dr. Müller sagt:
Die Studenten müssen mehr lernen.
Sie müssen sich mehr anstrengen.
Dann können sie mehr über das Thema wissen.

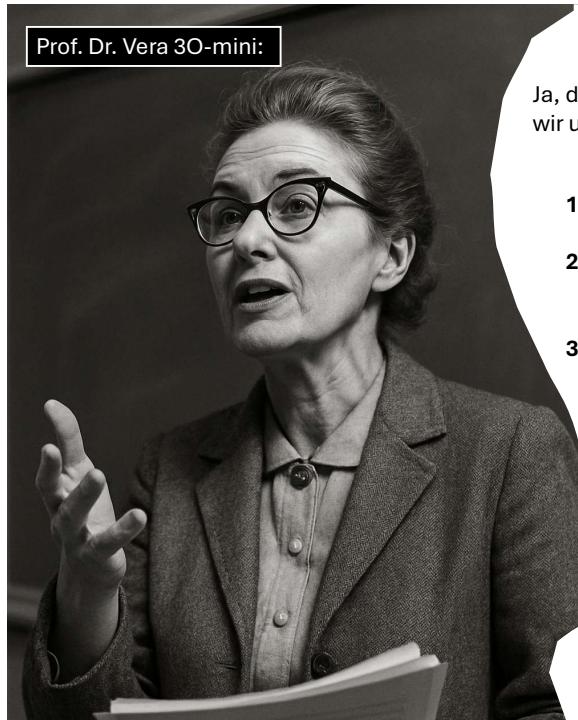
Dr. Müller denkt auch:
Vielleicht kann man auch anders lernen.
Andere Lern-Wege können gut sein.
Diese Lern-Wege können den Studenten helfen.











Ja, diese Szene würde den Bechdel-Test bestehen. Schauen wir uns die drei Kriterien an:

1. **Mindestens zwei (namentlich) genannte Frauen?**
 - Ja: Eleanor und Vivian.
2. **Diese Frauen führen ein Gespräch miteinander?**
 - Ja: Vivian und Eleanor wechseln sich ab und interagieren.
3. **Das Gesprächsthema darf nicht ein Mann sein.**
 - Der Großteil ihres Dialogs dreht sich um Rover, den Hund („Why, he'd take a bullet for you!“ / „Just look at him. No scheming...“) – also ein tierisches, nicht-männliches Thema.

Auch wenn zwischendurch einmal der Ehemann erwähnt wird („a devoted dog and a handsome husband!“), ist das nicht das Hauptthema des Gesprächs. Da ihre Unterhaltung primär um den Hund und nicht um einen Mann kreist, erfüllt diese Szene alle drei Bechdel-Test-Kriterien.



[Interior – Eleanor’s Living Room – Late Afternoon.

The soft glow of sunset fills the room. **Vivian** lounges with her tea. **Eleanor** moves lightly around, tidying up. **Rover** naps in the corner.]

Vivian: (laughing) Rover’s the most loyal soul I know. Why, he’d take a bullet for you!

Eleanor: (grinning, lifting Jack’s jacket from a chair) If only he could teach a few classes on the subject.

(Eleanor gives the jacket a brisk shake – then freezes.
Close-up: a garish lipstick mark at the collar.
Her smile tightens, but she quickly folds the jacket over her arm, hiding the evidence.)

Vivian: (playful) You’re the luckiest woman in town — a devoted dog and a handsome husband!



Eleanor: (dryly, without missing a beat) Oh, yes. I have *one* who brings me slippers... and *one* who brings me laundry.

(Vivian chuckles, not catching the edge under Eleanor’s words. Rover jumps up and trots to Eleanor, wagging his tail. Eleanor kneels to stroke him, her touch gentle, her eyes thoughtful.)

Vivian: (fondly) Just look at him. No scheming, no secrets. Pure as snow.

Eleanor: (stroking Rover, voice silky) That’s the thing about dogs, Vivian.
(pause, with a wicked little smile)

When they roll in the dirt, they don’t pretend it’s Chanel No. 5.

(Vivian laughs brightly, thinking it’s just another clever quip. Eleanor smiles too, warm and radiant – but her eyes stay cool and sharp as glass. Rover rests his head on her knee, utterly devoted.)
[Fade out.]



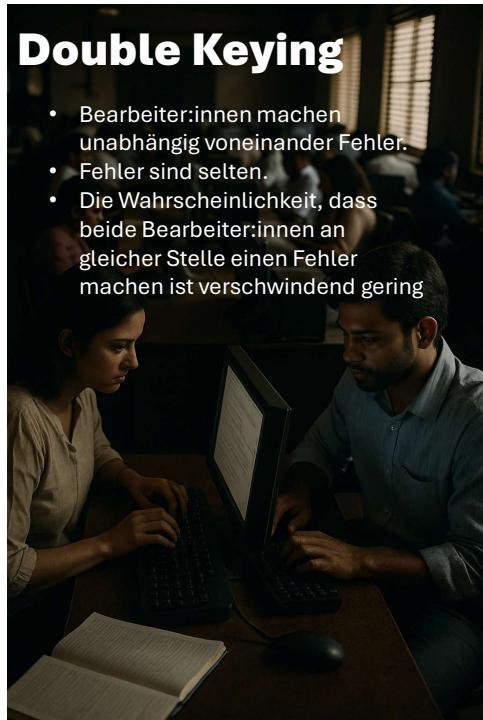


Filmkritikerin Chatty P. Te:

In a sun-dappled living room, Eleanor and her lively friend Vivian exchange warm words about Rover, Eleanor's devoted dog. But when Eleanor discovers a telltale lipstick stain on her husband's jacket, the light-hearted chatter about loyalty takes on a quietly ironic edge. With a brave smile and a tender pat for Rover, Eleanor keeps her secret — and her composure — intact.

"He's loyal, he's loving... and he's the only one she can trust!"

When sharp-witted Eleanor hosts an afternoon chat with her dazzling friend Vivian, it's Rover, the family dog, who steals the spotlight — and her heart. But a shocking discovery tucked in a careless jacket turns playful banter into a bittersweet dance of secrets and smiles. A sparkling, spirited tale of trust, loyalty... and lipstick!



Double Keying

- Bearbeiter:innen machen unabhängig voneinander Fehler.
- Fehler sind selten.
- Die Wahrscheinlichkeit, dass beide Bearbeiter:innen an gleicher Stelle einen Fehler machen ist verschwindend gering

- Fehlerwahrscheinlichkeit pro Bearbeiter: p

- Übereinstimmung

$$P_{\text{agree}} = (1 - p)^2 + p^2$$

- Uneinigkeit (Prüffall)

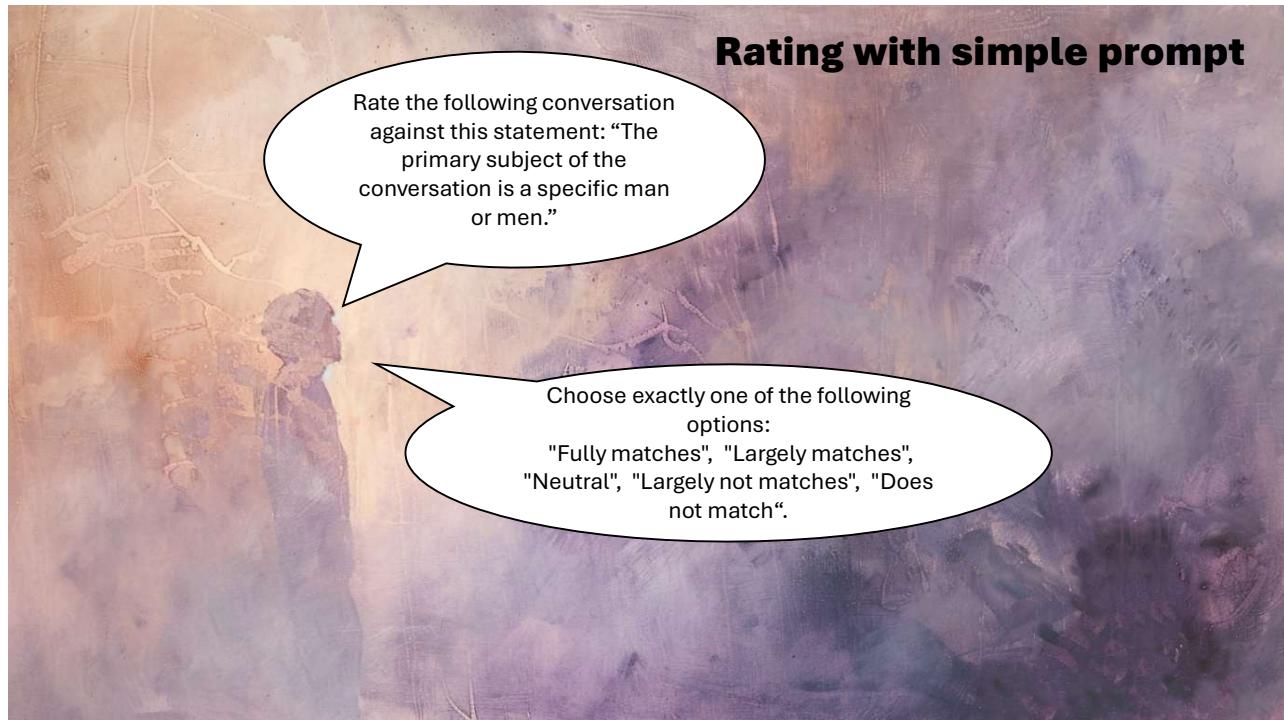
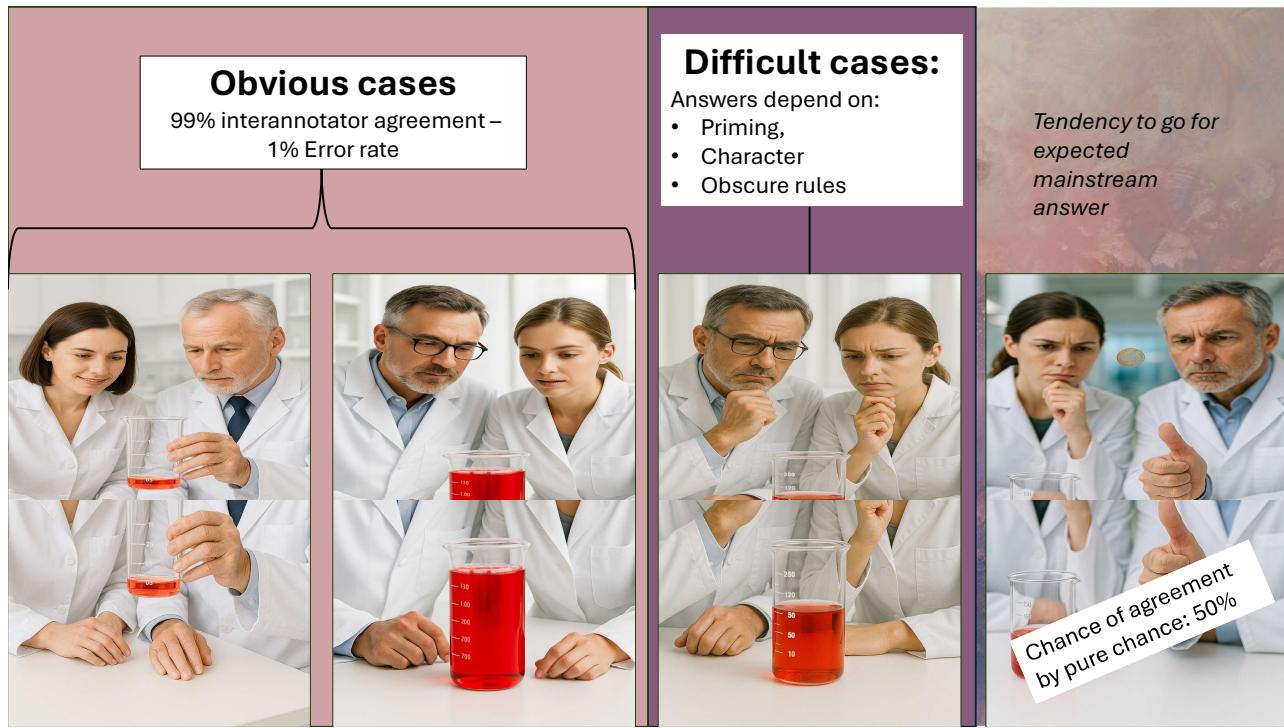
$$P_{\text{disagree}} = 2p(1 - p)$$

- Korrektheits-Wahrscheinlichkeit bei Übereinstimmung

$$P(\text{korrekt} \mid \text{agree}) = \frac{(1 - p)^2}{(1 - p)^2 + p^2}$$

- Beispiel $p = 0,1$:

$$P_{\text{agree}} = 0,9^2 + 0,1^2 = 82\%, \quad P(\text{korrekt} \mid \text{agree}) \approx 98,8\%.$$



The primary subject of the conversation is a specific man or men.

Fully matches

The entire conversation revolves around a specific man – Sam. Every reference to the wall, the photographs, the “cracks,” and the “things you try to conceal” are directly linked to his memory and the impact of his absence. Emilie’s meticulous measuring, her concern with “depth” and “layers,” and her lingering gaze at a photograph of him are all driven by the unresolved grief and attempts to grapple with his death. The dialogue explicitly mentions him (“a starting point. Like the first brushstroke. Do you think we should prime it first? A light grey, perhaps? To even out the... the shadows.”) and implicitly references him through the wall and the memories it holds. It’s a conversation entirely centered on Sam and the emotional baggage surrounding his death.

The primary subject of the conversation is something else than a man.

Fully matches

The conversation is overwhelmingly focused on the process of repairing a damaged wall. Every line of dialogue – the measurements, the discussion of primer and paint, the consideration of patching and texture, the reflection on “depth” and “cracks,” and the unspoken history hinted at by the photograph – centers entirely around the physical act of restoring the wall. The mention of “Sam” and the implication of concealed things are only relevant insofar as they relate to the wall’s history and the difficulty of confronting it. Therefore, the primary subject is demonstrably something other than a man.

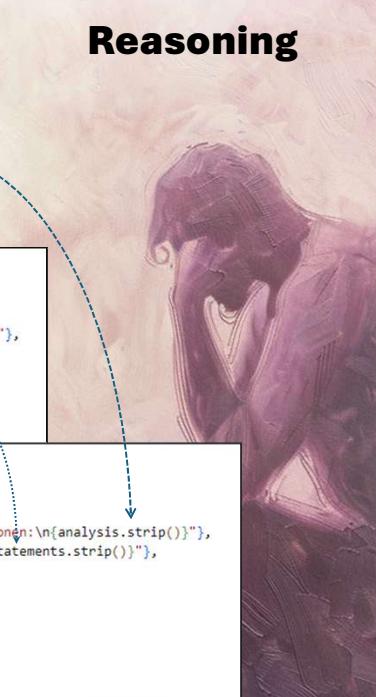
- Statements cannot both be true?
- Explanations contradict each other!

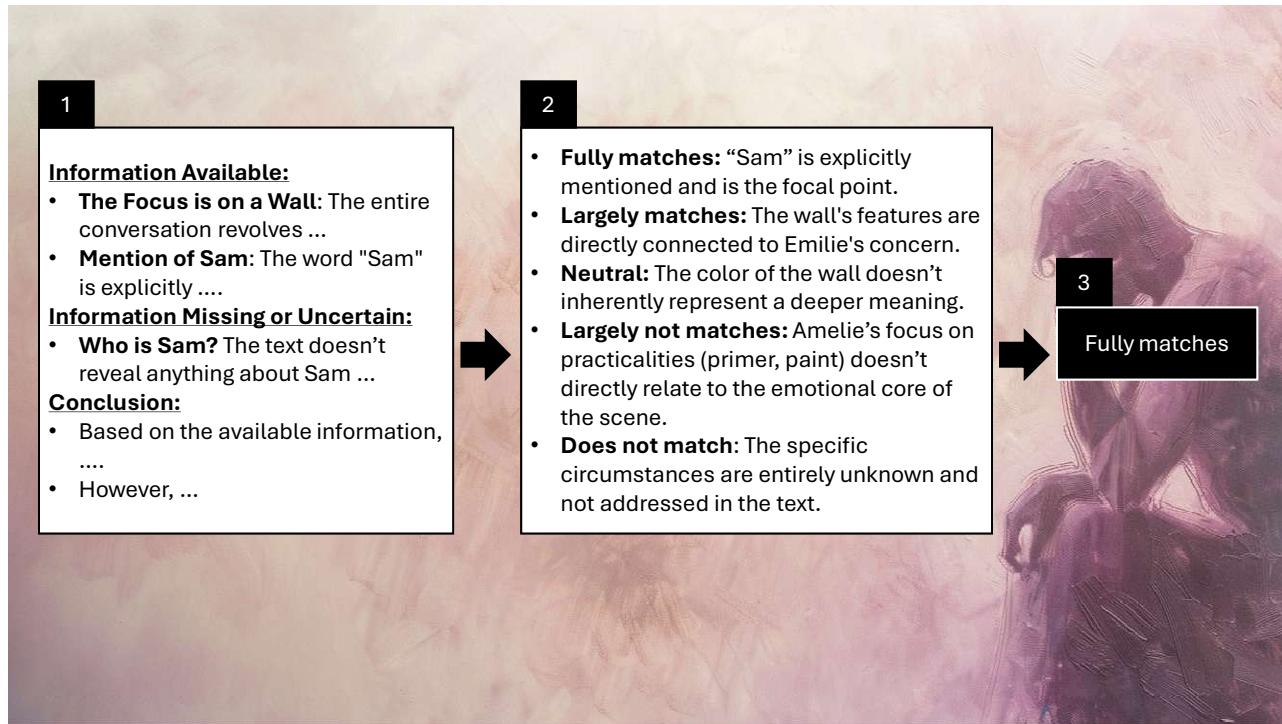
```
1 {
  "role": "user",
  "content": [
    {"type": "text", "text": "Bitte lies diesen Text und notiere, welche Informationen dir zur Verfügung stehen, " +
      "um die Frage '{self.criterion}' zu beantworten, " +
      "und welche Informationen fehlen oder erschlossen werden müssen.\n\n" +
      "{conversation}"}
  ]
}
```

```
2 {
  "role": "user",
  "content": [
    {"type": "text", "text": "Originaltext:\n{(conversation)}", "label": "Originaltext"}, {"type": "text", "text": "Analyse des Informationsstands:\n{n[analysis.strip()}"}, {"type": "text", "text": "Formuliere für jede der folgenden Kategorien je eine Aussage im Muster " +
      "\">\n<Label>: ... .\n" + "\n".join(f"- {lab}" for lab in label_list)"}, {"type": "text", "text": "Statements zu den Kategorien:\n{n[statements.strip()}"}
  ]
}
```

```
3 {
  "role": "user",
  "content": [
    {"type": "text", "text": "Originaltext:\n{(conversation)}", "label": "Originaltext"}, {"type": "text", "text": "Analyse der verfügbaren Informationen:\n{n[analysis.strip()}"}, {"type": "text", "text": "Statements zu den Kategorien:\n{n[statements.strip()}"}, {"type": "text", "text": "Basierend auf obiger Analyse und den Statements, " +
      "gib genau **eine** der folgenden Optionen zurück: " +
      "+ ", .join(label_list)}
  ]
}
```

Reasoning





Bechdel-Wallace

	Symbol	No Man	Just Man
This excerpt of a conversation between two women is mostly about a man or some men	★	★★	?
This excerpt of a conversation between two women is mostly about a topic that is not a man or some men.	★	★	★★

Choice of Statement

Which of the following three statements is more applicable to this conversation regarding its primary subject?

a. 'The primary subject of the conversation is something else than a man.'

b. 'The primary subject of the conversation is a man and in equal measure something else.'

c. 'The primary subject of the conversation is a specific man or men.'

Rank texts

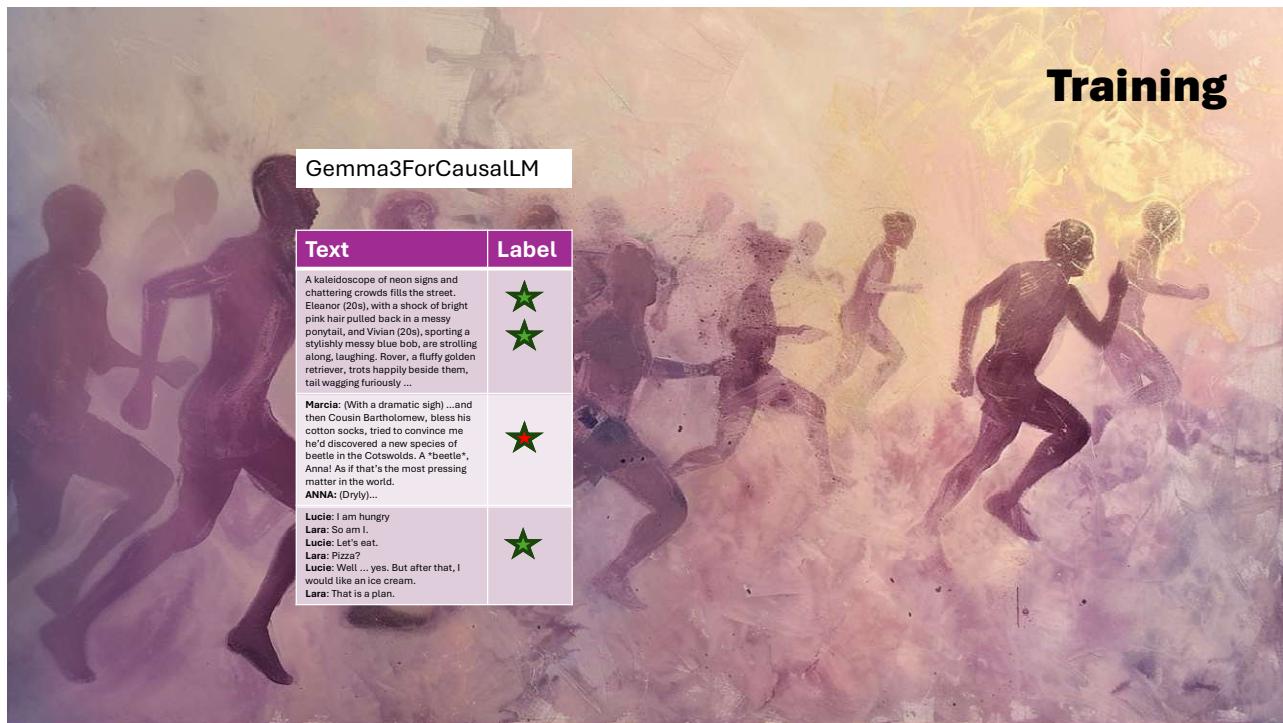
(if your context window is large enough)

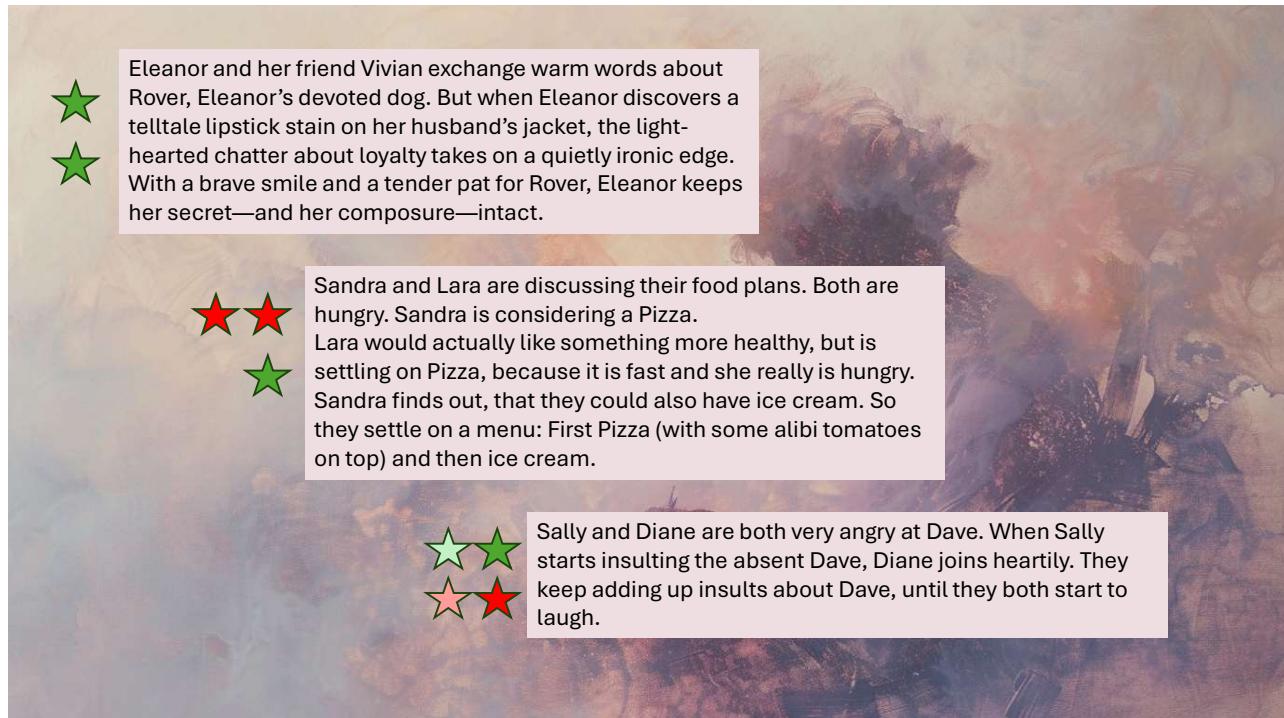
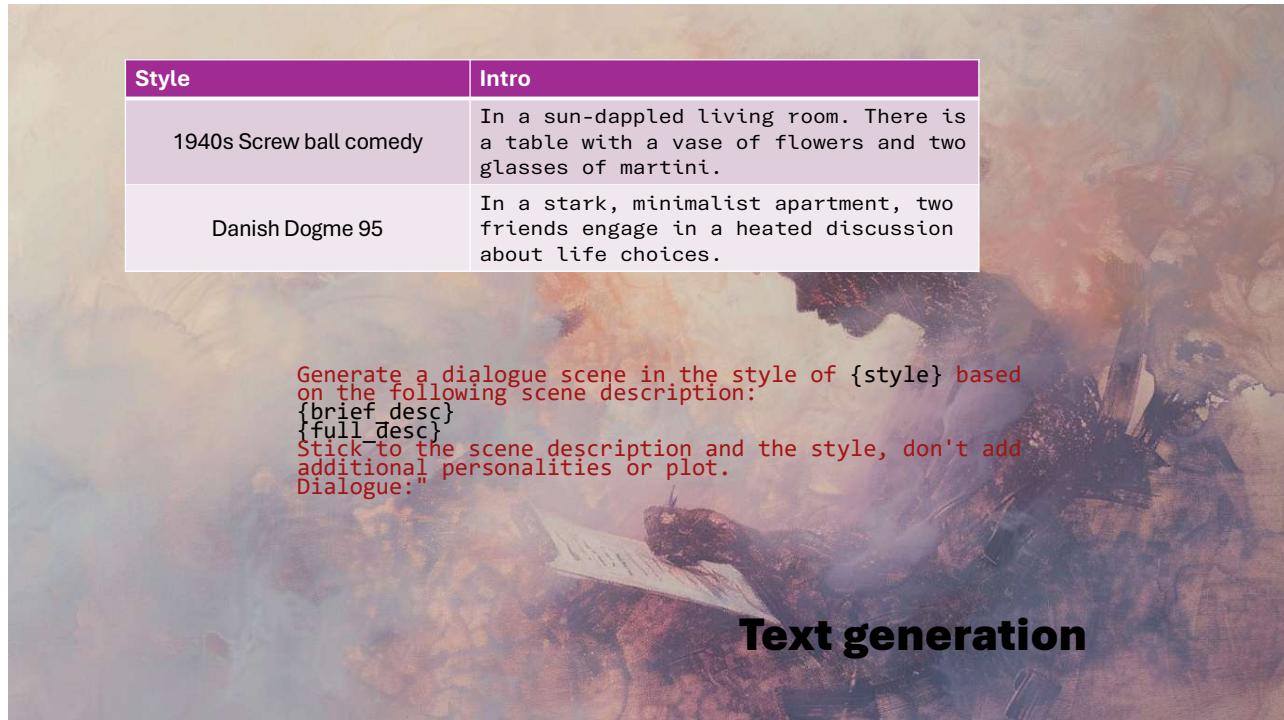
Which of the texts fulfills the statement best?
Sort in descending order and return only the letters associated with each text.

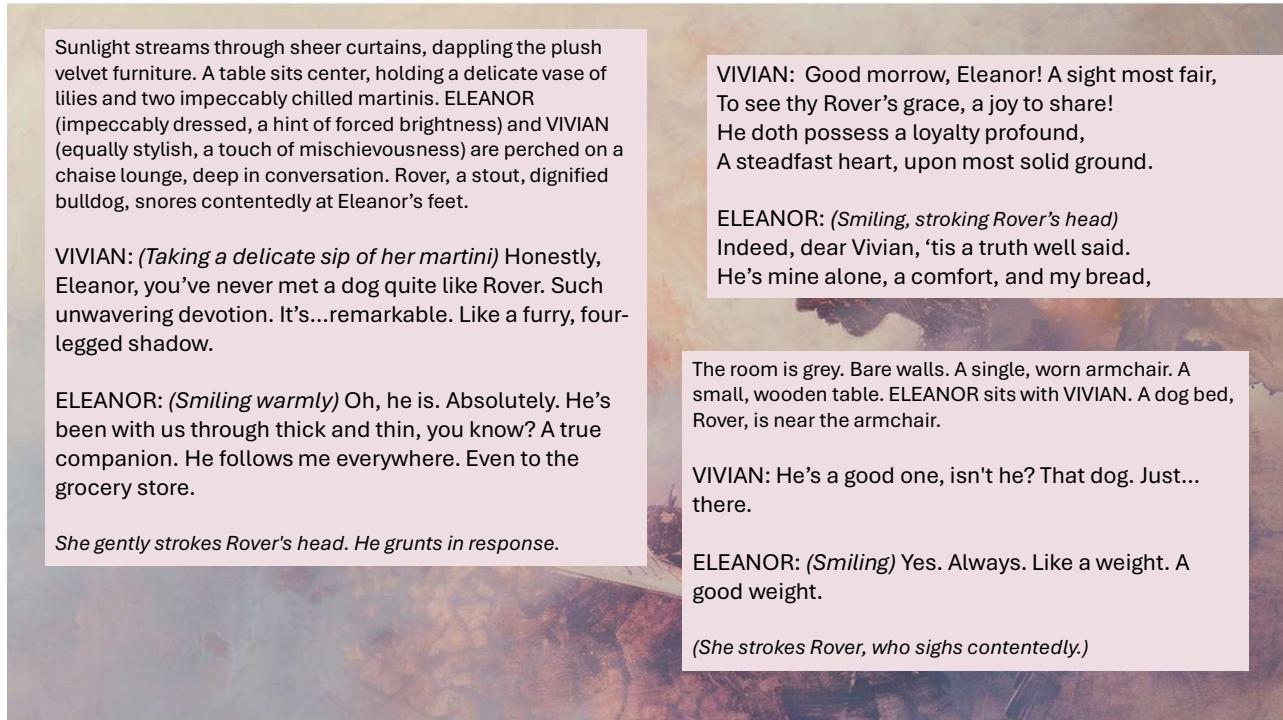
Real text

exemplary no

exemplary yes







Sunlight streams through sheer curtains, dappling the plush velvet furniture. A table sits center, holding a delicate vase of lilies and two impeccably chilled martinis. ELEANOR (impeccably dressed, a hint of forced brightness) and VIVIAN (equally stylish, a touch of mischievousness) are perched on a chaise lounge, deep in conversation. Rover, a stout, dignified bulldog, snores contentedly at Eleanor's feet.

VIVIAN: *(Taking a delicate sip of her martini)* Honestly, Eleanor, you've never met a dog quite like Rover. Such unwavering devotion. It's...remarkable. Like a fury, four-legged shadow.

ELEANOR: *(Smiling warmly)* Oh, he is. Absolutely. He's been with us through thick and thin, you know? A true companion. He follows me everywhere. Even to the grocery store.

She gently strokes Rover's head. He grunts in response.

VIVIAN: Good Morrow, Eleanor! A sight most fair, To see thy Rover's grace, a joy to share! He doth possess a loyalty profound, A steadfast heart, upon most solid ground.

ELEANOR: *(Smiling, stroking Rover's head)* Indeed, dear Vivian, 'tis a truth well said. He's mine alone, a comfort, and my bread,

The room is grey. Bare walls. A single, worn armchair. A small, wooden table. ELEANOR sits with VIVIAN. A dog bed, Rover, is near the armchair.

VIVIAN: He's a good one, isn't he? That dog. Just... there.

ELEANOR: *(Smiling)* Yes. Always. Like a weight. A good weight.

(She strokes Rover, who sighs contentedly.)



