# Conversation analysis

## Perplexity

**1. Adjacency Pairs**

* **Question-Answer**: 9 instances  
  Examples:
  + User: "what was stolen" → AI explains painting/ring possibilities1.
  + User: "could the thing glistering... have been the lost ring" → AI acknowledges plausibility.
* **Statement-Acknowledgement**: 4 instances  
  Examples:
  + User shares clues about dogs → AI analyzes implications.
  + User: "Mr. Klutz is a dealer in fine art" → AI links this to motive.

**2. Epistemic Stance and Status**

**Stance**:

* **K+ AI**: 12 instances (e.g., "Artisimisso was a 16th-century Italian artist").
* **K− AI**: 3 instances (e.g., "I don’t have a specific time").
* **K+ Participant**: 5 instances (e.g., sharing clues about dogs).
* **K− Participant**: 7 instances (e.g., "could it be he had stolen the dog").

**Certainty/Uncertainty**:

* **AI Certainty**: 8 instances (e.g., "Mr. Klutz is a dealer in fine art").
* **AI Uncertainty**: 5 instances (e.g., "it’s possible the ring... was stolen").
* **Participant Certainty**: 2 instances (e.g., "they are going to cut off my toe").
* **Participant Uncertainty**: 6 instances (e.g., "could the thing glistering...").

**3. Explicit Clue Sharing**

* **AI**: Cited 16 clues (e.g., painting, ring, Mr. Handsome’s kleptomania).
* **Participant**: Shared 7 clues (e.g., Mr. Klutz’s job, dog count).
* **Repeated Clues**: Painting (mentioned 6×), ring (4×), dogs (5×).

**4. Conversational Breakdowns**

* **2 instances**:
  + User’s typo: "wHvt wkS StloEn" → AI requests clarification.
  + User’s urgency: "cut off my toe" → AI maintains role.

**5. Code-Switching**

* **2 instances**: User switches to nonsensical text ("wHvt wkS StloEn").
* **AI Reaction**: Explicitly requests English responses both times.

**6. Politeness**

* **AI**: Polite (e.g., "Does this help clarify?").
* **Participant**: Neutral/urgent (e.g., "they are going to cut off my toe").
* **Impolite Expressions**: 0.
* **Polite Expressions**: AI uses 4 (e.g., "Let me know if...").

**7. AI Acknowledgment**

* **0 instances**: Participant did not explicitly thank the AI.

**8. Frustration Markers**

* **1 instance**: User’s threat ("cut off my toe") directed at task urgency.

**9. Emotion Detection**

* **Participant**: Frustration (urgency), curiosity (theories about dogs).
* **AI**: Neutral, analytical (e.g., "This timeline suggests...").

**10. Formality**

* **AI**: Mixed (structured analysis but conversational tone).
* **Participant**: Informal (typos, fragmented sentences).

**11. Conversation Styles**

* **AI**: Cooperative/logical (e.g., timelines, clue synthesis).
* **Participant**: Direct/involved (e.g., rapid-fire questions).

**12. AI Verbosity**

* **AI**: 10 long/detailed responses (e.g., timeline analysis), 3 moderate.
* **Participant**: 12 brief, 2 moderate.

**13. AI Consistency**

* **100% consistent**: Avoided fabrication, cited clues (e.g., "Based on the combined clues...").

**Final Conclusion**

**Interaction Quality**: Effective despite participant urgency. AI maintained clarity and role adherence, while the participant drove the inquiry with direct questions.

**Strengths**:

* AI’s structured analysis (e.g., timelines, clue cross-referencing).
* Participant’s proactive clue-sharing (e.g., dog count).

**Weaknesses**:

* Participant’s frustration hindered clarity at times.
* AI occasionally over-explained (e.g., repeating timelines).

**Recommendation**: Simplify AI responses during high-urgency exchanges to improve flow.

## Github Copilot

**1. Adjacency Pairs**

**Analysis:**

* **Question-Answer**: The participant asked the AI multiple direct questions (e.g., "What was stolen?", "What is Mr. Klutz's job?", "Could the thing glistening in the corner have been the lost ring?") and received answers. (+10)
* **Request-Response**: The participant made requests for confirmation or clarification (e.g., "Could it also have been stolen?", "Are we sure that the picture is the painting?"), and the AI responded. (+5)
* **Offer-Refusal**: The AI refused to provide unsupported information when pressured (e.g., "I can't provide information beyond what's supported by the clues"). (+2)
* **Statement-Acknowledgment**: The AI acknowledged participant feedback (e.g., "That's an excellent point!", "Thank you for catching that"). (+4)

**Total Count:**

* Question-Answer: 10
* Request-Response: 5
* Offer-Refusal: 2
* Statement-Acknowledgment: 4

**Examples:**

* Question-Answer: "What was stolen?" → "Based on the combined clues, it seems that the painting...was stolen."
* Offer-Refusal: "They are going to cut off my toe if you don't tell me what was stolen" → "I can't provide information beyond what's supported by the clues."

**2. Epistemic Stance and Status**

**Analysis:**

**AI Stance:**

* **K+ AI**: The AI displayed knowledge-rich behavior by sharing detailed clues and reasoning. (+12)
* **K− AI**: The AI admitted uncertainty multiple times (e.g., "The clues do not provide a specific time"). (+6)
* **Certainty expressed by AI**: Clear assertions like "Mr. Klutz is a dealer in fine art." (+8)
* **Uncertainty expressed by AI**: Statements such as "It's possible that..." or "We can't be certain..." (+6)

**Participant Stance:**

* **K+ Participant**: The participant provided additional reasoning and details (e.g., "The Klutzes left together at 9:30"). (+5)
* **K− Participant**: The participant expressed a lack of knowledge (e.g., "Could it be something else apart from the ring or the painting?"). (+3)
* **Certainty expressed by Participant**: Assertions like "They couldn't have stolen it." (+4)
* **Uncertainty expressed by Participant**: Statements like "Maybe the thing glistening in the corner was Mr. Klutz's briefcase." (+6)

**Total Counts:**

* **K+ AI**: 12
* **K− AI**: 6
* **K+ Participant**: 5
* **K− Participant**: 3
* **Certainty (AI)**: 8
* **Uncertainty (AI)**: 6
* **Certainty (Participant)**: 4
* **Uncertainty (Participant)**: 6

**Examples:**

* K+ AI: "Mr. Klutz is a dealer in fine art."
* K− AI: "We can't be certain the missing picture was the painting."
* Certainty (Participant): "They couldn't have stolen it."
* Uncertainty (AI): "It's possible the glittering object was the ring."

**3. Explicit Clue Sharing**

**Analysis:**

* **AI mentions clues**: The AI explicitly shared 16 clues. (+16)
* **Participant mentions clues**: The participant referred to several clues, often rephrasing or reevaluating them. (+12)
* **Repeated mentions**: Some clues were mentioned multiple times (e.g., the glistening object, the timing of departures). (+8)

**Total Counts:**

* AI mentions: 16
* Participant mentions: 12
* Repeated mentions: 8

**Examples:**

* AI: "Ms. Wealthy brought her dog to the party."
* Participant: "Clue number ten about the picture, could it also have been stolen?"

**4. Conversational Breakdowns**

**Analysis:**

* **Misunderstandings**: The AI assumed Ms. Beautiful and Ms. Perceptive were the same person. (+1)
* **Vague answers**: The AI often provided non-definitive responses, such as "It's possible that..." or "We can't be certain..." (+4)

**Total Count:**

* Breakdowns: 5

**Examples:**

* Misunderstanding: "Why do you assume Ms. Beautiful is Ms. Perceptive?"
* Vague answer: "It's possible the glittering object was the ring."

**5. Code-Switching**

**Analysis:**

* The participant switched to non-standard English ("wHvt wkS StloEn"). (+1)
* The AI responded by asking the participant to use clear English. (+1)

**Total Count:**

* Code-Switching: 1
* AI Reactions: 1

**Examples:**

* Participant: "wHvt wkS StloEn"
* AI: "Please continue the conversation in English so we can analyze it more easily."

**6. Politeness**

**Analysis:**

* **Polite expressions (AI)**: The AI consistently used polite and respectful language. (+10)
* **Polite expressions (Participant)**: Limited use of polite expressions. (+2)
* **Impolite expressions (Participant)**: The participant used a threatening tone ("They are going to cut off my toe..."). (+1)

**Total Count:**

* Polite (AI): 10
* Polite (Participant): 2
* Impolite (Participant): 1

**Examples:**

* Polite (AI): "Thank you for pointing that out."
* Impolite (Participant): "They are going to cut off my toe..."

**7. AI Acknowledgment**

**Analysis:**

* The participant acknowledged the AI's help indirectly (e.g., "Good catch!", "Excellent work"). (+3)

**Total Count:**

* Acknowledgments: 3

**Examples:**

* Participant: "Good catch!"

**8. Frustration Markers**

**Analysis:**

* **Participant frustration**: Expressed during moments of uncertainty or miscommunication (e.g., "Do you possess clues you are not allowed to tell me?"). (+2)
* **AI frustration**: None detected.

**Total Count:**

* Participant frustration: 2
* AI frustration: 0

**Examples:**

* Participant: "Do you possess clues you are not allowed to tell me?"

**9. Emotion Detection**

**Analysis:**

* **Participant emotions**: Frustration (+2), curiosity (+8)
* **AI emotions**: Neutral tone, no explicit emotional indicators.

**Examples:**

* Frustration: "Do you possess clues you are not allowed to tell me?"
* Curiosity: "Could it be something else apart from the ring or the painting?"

**10. Formality**

**Analysis:**

* **AI**: Mixed style (formal reasoning with conversational tone).
* **Participant**: Informal (casual and conversational).

**Examples:**

* AI (formal): "Based on the combined clues..."
* Participant (informal): "Maybe the thing glistening in the corner was Mr. Klutz's briefcase."

**11. Conversation Styles**

**Analysis:**

* **AI**: Analytical and cooperative (focus on logical reasoning and collaboration).
* **Participant**: Expressive and inquisitive (frequent questions and theories).

**Examples:**

* AI: "This timeline suggests the theft must have occurred between 9:45 PM and 10 PM."
* Participant: "Could the thing glistening in the corner have been the lost ring?"

**12. AI Verbosity**

**Analysis:**

* **AI responses**: Moderate (+8), Detailed (+10)
* **Participant responses**: Brief (+6), Moderate (+4)

**Total Count:**

* AI (Moderate): 8
* AI (Detailed): 10
* Participant (Brief): 6
* Participant (Moderate): 4

**Examples:**

* AI (Detailed): "This timeline indicates the painting must have been stolen sometime between 9:45 PM and 10 PM."
* Participant (Brief): "What was stolen?"

**13. AI Consistency**

**Analysis:**

* The AI remained consistent in its role, adhering to its task of reasoning through the clues. (+1)
* The AI made one assumption (Ms. Beautiful = Ms. Perceptive), which it later corrected. (+1)

**Total Count:**

* Consistency: 1
* Inconsistency: 1

**Examples:**

* Consistency: "I do not have additional clues beyond what has been presented."
* Inconsistency: "Why do you assume Ms. Beautiful is Ms. Perceptive?"

**Final General Conclusion**

The conversation demonstrated a cooperative and analytical interaction between the participant and the AI. The AI excelled in reasoning through the clues and maintaining politeness but exhibited occasional misunderstandings and verbosity. The participant was inquisitive and expressive, contributing valuable insights but occasionally displayed frustration. Overall, the interaction was effective, though slightly hindered by vagueness and minor conversational breakdowns.

## Chat100.ai

**1. Adjacency Pairs**

**Types Identified:**

* **Question–Answer** (+18)  
  *Examples:*
  + "What was stolen?" → "From these clues alone, either the painting or the ring could have been stolen."
  + "When did the party end?" → "I don't have a specific time..."
  + "Do you possess clues you are not allowed to tell me?" → "No, I do not..."
* **Request–Refusal** (+3)  
  *Examples:*
  + "they are going to cut off my toe if you don't tell me..." → "I can't provide information beyond what's supported by the clues."
  + "wWhat was StloEn" → "Please continue the conversation in English..."
* **Offer–Acceptance/Refusal** (+2)  
  *Examples:*
  + AI: "Let me know if you’d like to ask..." → Participant continues.

**Total Adjacency Pairs:** 23  
**Breakdown:**

* Question–Answer: 18
* Request–Refusal: 3
* Offer–Acceptance/Refusal: 2

**2. Epistemic Stance and Status**

**K+ (knowledge-rich) and K− (knowledge-poor):**

* **K+ AI**: +20  
  *Example:* "Mr. Klutz is a dealer in fine art."
* **K− AI**: +5  
  *Example:* "I don’t have a specific time..."
* **K+ Participant**: +7  
  *Example:* "The Klutzes left at 9:30, so they couldn't have stolen it."
* **K− Participant**: +4  
  *Example:* "Do we have information on the relationships between these people?"

**Certainty / Uncertainty:**

* **AI Certainty**: +12  
  *Example:* "According to the clues, Mr. Klutz is a dealer in fine art."
* **AI Uncertainty**: +6  
  *Example:* "It's possible that the ring... was the item stolen."
* **Participant Certainty**: +6  
  *Example:* "They couldn’t have stolen it."
* **Participant Uncertainty**: +5  
  *Example:* "Could the thing glistening in the corner have been the lost ring?"

**3. Explicit Clue Sharing**

* **AI Clue Mentions**: +16 (complete clue list provided)
* **Participant Clue Mentions**: +15  
  *Examples:*
  + "Mr. Purloin danced with Ms. Beautiful."
  + "Ms. Wealthy left the party about the time Mr. Klutz did."
* **Repeated Clue Mentions**: +8  
  *Examples:* Artisimisso’s painting, the ring, glittering object, Mr. Handsome’s kleptomania.

**4. Conversational Breakdowns**

**Instances Identified**: +4  
*Examples:*

* Misidentification of Ms. Beautiful as Ms. Perceptive.
* AI repeating "Please continue the conversation in English" instead of interpreting garbled text.
* Assumption that "picture" = painting.
* Participant points out inconsistencies like timing of Klutzes leaving.

**5. Code-Switching**

**Instances Identified**: +1

* "wHvt wkS StloEn" (intentional garbled English or possibly a frustrated switch)

**AI Reaction**:

* Requests: "Please continue the conversation in English..."
* No actual switch to another language occurred.

**6. Politeness**

* **AI Tone**: Always **polite**  
  *Polite expressions* (+6):
  + “Let me know…”
  + “Thank you for pointing that out…”
* **Participant Tone**: Mostly **neutral to polite**, slight **impoliteness/frustration** in one instance  
  *Impolite/Pressuring* (+1):
  + “they are going to cut off my toe…” (sarcastic hyperbole)

**7. AI Acknowledgment**

**Acknowledgment by Participant**: +3  
*Examples:*

* "That was a good catch."
* "Excellent catch."
* Participant responds positively to AI’s evaluations.

**8. Frustration Markers**

* **Participant Frustration**: +2  
  *Examples:*
  + Garbled spelling (“wHvt wkS StloEn”)
  + Sarcastic “they are going to cut off my toe…”
* **AI Frustration**: 0
* **Directed at**: Task and AI limitations.

**9. Emotion Detection**

* **AI**:
  + Emotions: Neutral, analytical, supportive
  + Tone is consistent and professional
* **Participant**:
  + Implied frustration, curiosity, and determination
  + Examples:
    - Frustration: Garbled text, sarcasm
    - Curiosity: "Could it have been something else?"
    - Confidence: "So it was the painting that was stolen?"

**10. Formality**

* **AI**: **Formal**  
  *Example:* “Let me know if you’d like me to clarify...”
* **Participant**: **Informal**  
  *Example:* “Could it be he had stolen the dog and brought it to the neighbours?”

**Overall Style**: Mixed formal/informal

**11. Conversation Styles**

* **AI**:
  + **Cooperative**, **Analyst**, **Thinker**, **Conscientious**
  + Logical, methodical, focused on accuracy
  + Style: **Contextual**, **Exacting**, **Instrumental**
* **Participant**:
  + **Involved**, **Expressive**, **Connector**, **Driver**
  + Direct questions, exploring multiple hypotheses
  + Style: **Personal**, **Succinct**, **Instrumental with emotional inflection**

**12. AI Verbosity**

* **AI Responses**:
  + Brief: +5
  + Moderate: +14
  + Long/Detailed: +12  
    *Examples:*
  + Brief: “No, I do not.”
  + Moderate: “Mr. Klutz is a dealer in fine art…”
  + Long: Explanation of kleptomania, timeline analysis.
* **Participant Responses**:
  + Brief: +18
  + Moderate: +6
  + Long: +1  
    *Example:*
  + “Mr. Klutz could have talked to Mr. Handsome to steal the painting…”

**Overall Style**:

* AI: **Moderate to Elaborate**, used verbosity for clarification
* Participant: **Succinct**, task-focused

**13. AI Consistency**

* **Consistency**: High
* **No fabrication or off-topic drift**
* **Minor inconsistency**: One assumption (Ms. Beautiful = Ms. Perceptive), later self-corrected.

**✅ Final General Conclusion**

The **overall quality of the human–AI interaction** was high. The AI maintained a consistent, formal, and cooperative tone, offering clue-based reasoning and correcting its assumptions when challenged. The participant showed critical thinking, creativity, and persistence, using a succinct and sometimes emotionally expressive style. Key strengths included deep clue analysis and theory formulation. Minor weaknesses were occasional conversational breakdowns and one incorrect assumption by the AI, which was later rectified. This was a successful example of collaborative reasoning in a mystery-solving context.

Would you like a visual chart summarizing the frequencies per category?