Knowledge Type 1:

P [instance_of: PROP, is_trait_of: X_1, ..., is_trait_of: X_m]
prevents
E [instance_of: A, rel_1: Y_1, ..., rel_n: Y_n]
implies
X=Y

where, m, n ≥ 1, $X \in \bigcup_{i=1}^{m} \{X_i\}$, and $Y \in \bigcup_{j=1}^{n} \{Y_j\}$

Intuitively, a statement of the above category means that, if a property P prevents an event E then an entity X associated with P is same as the entity Y that participates in E.

Examples from the Winograd Schema Challenge corpus:

1. The trophy doesn't fit into the brown suitcase because it's too small. What is too small?
   Correct Answer: The suitcase.

   Knowledge Instance:
   P [instance_of: small, is_trait_of: X [instance_of: entity]]
   prevents
   E [instance_of: fit, location: Y [instance_of: container, instance_of: entity]]
   implies
   X=Y

2. The trophy doesn't fit into the brown suitcase because it's too large. What is too large?
   Correct Answer: the trophy.

   Knowledge Instance:
   P [instance_of: large, is_trait_of: X [instance_of: entity]]
   prevents
   E [instance_of: fit, theme: Y [instance_of: entity]]
   implies
   X=Y

3. The man couldn't lift his son because he was so weak. Who was weak?
   Correct Answer: The man.

   Knowledge Instance:
   P [instance_of: weak, is_trait_of: X [instance_of: person, instance_of: entity]]
   prevents
   E [instance_of: lift, agent: Y [instance_of: person, instance_of: entity]]
   implies
   X=Y

4. The man couldn't lift his son because he was so heavy. Who was heavy?
Correct Answer: the son.

Knowledge Instance:
P [instance_of: heavy, is_trait_of: X [instance_of: person, instance_of: entity]]
prevents
E [instance_of: lift, theme: Y [instance_of: person, instance_of: entity]]
implies
X=Y

5. I was trying to balance the bottle upside down on the table, but I couldn't do it because it was so top-heavy. What was top-heavy?
Correct Answer: the bottle.

Knowledge Instance:
P [instance_of: top-heavy, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: balance, theme: Y [instance_of: entity]]
implies
X=Y

6. I was trying to balance the bottle upside down on the table, but I couldn't do it because it was so uneven. What was uneven?
Correct Answer: the table.

Knowledge Instance:
P [instance_of: uneven, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: balance, location: Y [instance_of: entity]]
implies
X=Y

7. Joe's uncle can still beat him at tennis, even though he is 30 years older. Who is older?
Correct Answer: Joe's uncle

Knowledge Instance:
P [instance_of: 30 years older, is_trait_of: X [instance_of: person, instance_of: entity]]
prevents
E [instance_of: beat, agent: Y [instance_of: person, instance_of: entity]]
implies
X=Y

8. Joe's uncle can still beat him at tennis, even though he is 30 years younger. Who is younger?
Correct Answer: Joe.

Knowledge Instance:
P [instance_of: 30 years younger, is_trait_of: X [instance_of: person, instance_of: entity]]
prevents
E [instance_of: beat, recipient: Y [instance_of: person, instance_of: entity]]

implies
X=Y

9. I couldn't put the pot on the shelf because it was too high. What was too high?
Correct Answer: The shelf.

Knowledge Instance:
P [instance_of: high, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: put, destination: Y [instance_of: shelf, instance_of: entity]]
implies
X=Y

10. I couldn't put the pot on the shelf because it was too tall. What was too tall?
Correct Answer: the pot

Knowledge Instance:
P [instance_of: tall, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: put, theme: Y [instance_of: entity], destination: Y [instance_of: shelf, instance_of: entity]]]
implies
X=Y

11. I can't cut that tree down with that axe; it is too thick. What is too thick?
Correct Answer: The tree

Knowledge Instance:
P [instance_of: thick, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: cut, patient: Y [instance_of:entity]]
implies
X=Y

12. The table won't fit through the doorway because it is too wide. What is too wide?
Correct Answer: The table

Knowledge Instance:
P [instance_of: wide, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: fit_through, patient: Y [instance_of:entity]]
implies
X=Y

13. The table won't fit through the doorway because it is too narrow. What is too narrow?
Correct Answer: the doorway.

Knowledge Instance:
P [instance_of: narrow, is_trait_of: X [instance_of: entity]]
prevents

E [instance_of: fit_through, goal: Y [instance_of: entity]]
implies
X=Y

14. John couldn't see the stage with Billy in front of him because he is so short. Who is so short?
Correct Answer: John.

Knowledge Instance:
P [instance_of: short, is_trait_of: X [instance_of: person, instance_of: entity]]
prevents
E [instance_of: see, agent: Y [instance_of:entity, instance_of: person, trait: P [instance_of: has someone in front]]]
implies
X=Y

15. John couldn't see the stage with Billy in front of him because he is so tall. Who is so tall?
Correct Answer: Billy.

Knowledge Instance:
P [instance_of: tall, is_trait_of: X [instance_of: person, instance_of: entity]]
prevents
E [instance_of: see, agent: Z [instance_of: person, instance_of: entity, trait: P [instance_of: has Y [instance_of: person, instance_of: entity]] in front]]]
implies
X=Y

16. The path to the lake was blocked, so we couldn't reach it. What couldn't we reach?
Correct Answer: The lake.

Knowledge Instance:
P [instance_of: blocked, is_trait_of: Z [instance_of: path, instance_of: entity, belongs_to: X [instance_of: entity]]]
prevents
E [instance_of: reach, destination: Y [instance_of: entity]]
implies
X=Y

17. We had hoped to place copies of our newsletter on all the chairs in the auditorium, but there were simply too many of them. There are too many of what?
Correct Answer: chairs

Knowledge Instance:
P [instance_of: too many, is_trait_of: X [instance_of: entity]]
prevents
E [instance_of: place, destination: Y [instance_of: entity]]
implies
X=Y