# Target Semantic Representations

February 16, 2026

1. John eats
   $\exists e.(Eat(e) \wedge Eater(e, John))$

2. a student eats
   $\exists e \exists x.(Eat(e) \wedge Eater(e, x) \wedge Student(x))$

3. all students eat
   $\forall x(Student(x) --> \exists e.(Eat(e) \wedge Eater(e, x)))$

4. John eats a sandwich
   $\exists e \exists x.(Eat(e) \wedge Eater(e, John) \wedge Sandwich(x) \wedge Eaten(e, x))$

5. all students eat or drink
   $\forall x(Student(x) --> \exists e.((Eat(e) \wedge Eater(e, x))|(Drink(e) \wedge Drinker(e, x))))$

6. John drinks a soda or eats a sandwich
   $(\exists e1 \exists x.(Drink(e1) \wedge Drinker(e1, John) \wedge Soda(x) \wedge Drunk(e1, x)))|(\exists e2 \exists y.(Eat(e2) \wedge Eater(e2, John) \wedge Sandwich(y) \wedge Eaten(e2, y)))$

7. John or Mary eats
   $\exists e.(Eat(e) \wedge (Eater(e, John)|Eater(e, Mary)))$

8. a student writes an essay or eats
   $\exists x.(Student(x) \wedge ((\exists e1.(Eat(e1) \wedge Eater(e1, x)))|(\exists e2 \exists y.(Write(e2) \wedge Writer(e2, x) \wedge Essay(y) \wedge Written(e2, y)))))$

9. every student eats a sandwich or drinks a soda
   $\forall x(Student(x) --> (\exists e1 \exists y.(Eat(e1) \wedge Eater(e1, x) \wedge Sandwich(y) \wedge Eaten(e1, y))|\exists e2 \exists z.(Drink(e2) \wedge Drinker(e2, x) \wedge Soda(z) \wedge Drank(e2, z))))$

10. John eats every sandwich
    $\forall x(Sandwich(x) --> \exists e.(Eat(e) \wedge Eater(e, John) \wedge Eaten(e, x)))$

11. John eats every sandwich or bagel
    $\forall x((Sandwich(x)|Bagel(x)) --> \exists e.(Eat(e) \wedge Eater(e, John) \wedge Eaten(e, x)))$

12. nobody eats a bagel
    $\neg \exists e \exists x \exists y.(Eat(e) \wedge Eater(e, x) \wedge Bagel(y) \wedge Eaten(e, y))$

13. a person does not eat
$\exists x.(Person(x) \wedge \neg \exists e.(Eat(e) \wedge Eater(e, x)))$

14. Jack does not eat or drink
$\neg(\exists e1.(Eat(e1) \wedge Eater(e1, Jack))|\exists e2.(Drink(e2) \wedge Drinker(e2, Jack)))$

15. no student eats a bagel
$\forall x(Student(x) --> \neg \exists e \exists y.(Eat(e) \wedge Eater(e, x) \wedge Bagel(y) \wedge Eaten(e, y)))$