

Identity Theory Translation II Handout

I. The Rule ID

ID Rule #1. Reflexivity: $a=a$

ID Rule #2. Symmetry: $a=b :: b=a$

ID Rule #3. Indiscernibility of Identicals

$$\begin{array}{c} \mathcal{F}a \\ a=b \quad / \quad \mathcal{F}b \end{array}$$

II. 'Exactly'

1. There are exactly two chipmunks in the yard.
2. There are at least two applicants.
3. There are at most two applicants.
4. There are exactly two applicants.
5. Two is the only even prime number.
6. There is exactly one even prime number.
7. There are exactly three aardvarks on the log.

III. Bertrand Russell's analysis for definite descriptions:

8. The king of America is bald.
9. The king of America is not bald.
10. Devendra Banhart is not bald.
11. $\sim Bk \bullet \sim \sim Bk$
12.
 - A. There is a king of America.
 - B. There is only one king of America.
 - C. That thing is bald.

13. The country called a sub-continent is India.

A. There is a country called a sub-continent.

B. There is only one such country.

C. That country is identical with India.

14. The author of Waverly was a genius: $(\exists x)\{Wx \bullet (y)[Wy \supset y=x] \bullet Gx\}$

IV. More translation examples, including some review

1. Everything is identical with itself.

2. Nothing is distinct from itself.

3. Everything is identical with something.

4. John loves Mary.

5. John only loves Mary.

6. Only John loves Mary.

7. Everyone loves Mary.

8. Everyone except John loves Mary.

9. Everyone deems all Beatles' records except *Let It Be* to be classics.

10. Adriana is a bigger mouse than Rene. (Bxy : x is bigger than y)

11. Adriana is the biggest mouse.

12. Bill Gates is the geek with the most money.