

Identity Theory Jigsaw Lesson  
Work Group: At Least

I. Translation key:

b: Berkeley; c: *The Critique of Pure Reason*; d: Descartes; f: Frege  
Cx: x is a coherentist; Ix: x is an idealist; Mx: x is a materialist; Px: x is a philosopher  
Mxy: x is read more widely than y; Rxy: x respects y; Sxy: x studies y; Wxy: x wrote y

II. Examine the translations below, which use the key in I.

1. At least one materialist respects Berkeley.

$$(\exists x)(Mx \cdot Rxb)$$

2. At least two materialists respect Berkeley.

$$(\exists x)(\exists y)(Mx \cdot Rxb \cdot My \cdot Ryb \cdot x \neq y)$$

3. There are at least three materialists who respect Berkeley.

$$(\exists x)(\exists y)(\exists z)(Mx \cdot Rxb \cdot My \cdot Ryb \cdot Mz \cdot Rzb \cdot x \neq y \cdot x \neq z \cdot y \neq z)$$

4. At least two idealist philosophers respect each other.

$$(\exists x)(\exists y)(Ix \cdot Px \cdot Iy \cdot Py \cdot x \neq y \cdot Rxy \cdot Ryx)$$

5. At least three coherentists respect some book by Descartes.

$$(\exists x)(\exists y)(\exists z)\{Cx \cdot Cy \cdot Cz \cdot x \neq y \cdot x \neq z \cdot y \neq z \cdot (\exists w)[(Bw \cdot Wdw) \cdot Rxw] \cdot (\exists w)[(Bw \cdot Wdw) \cdot Ryw] \cdot (\exists w)[(Bw \cdot Wdw) \cdot Rzw]\}$$

III. Try these, using the key in I.

6. At least two philosophers are read more widely than Frege.

7. There are at least three philosophers who are read more widely than Frege.

8. At least four idealists study *The Critique of Pure Reason*.