

Identity Theory Jigsaw Lesson
Work Group: Except

I. Translation key:

a: Aristotle; b: Berkeley; d: Descartes; g: Heidegger; i: Leibniz; l: Locke; n: Nietzsche; p: Plato;
r: Arendt; s: Spinoza; t: Socrates
Bx: x is a book; Mx: x is a materialist; Px: x is a philosopher
Lxy: x likes 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. Every philosopher respects Locke.

$$(\forall x)(Px \supset Rxl)$$

2. Every philosopher except Berkeley respects Locke

$$Pb \cdot \sim Rbl \cdot (\forall x)[(Px \cdot x \neq b) \supset Rxl]$$

3. Nietzsche does not respect any philosopher except Spinoza.

$$Ps \cdot Rns \cdot (\forall x)[(Px \cdot x \neq s) \supset \sim Rnx]$$

4. Some philosopher likes all philosophers except Plato and Aristotle.

$$Pp \cdot Pa \cdot (\exists x)\{Px \cdot (\forall y)[(Py \cdot y \neq p \cdot y \neq a) \supset Lxy]\}$$

5. Every philosopher but Socrates wrote a book.

$$Ps \cdot \sim(\exists x)(Bx \cdot Wtx) \cdot (\forall x)[(Px \cdot x \neq t) \supset (\exists y)(By \cdot Wxy)]$$

III. Try these, using the key in I.

6. All philosophers are materialists except Leibniz and Berkeley.

7. No philosopher but Arendt respects Heidegger.

8. Some books are studied by every philosopher except Nietzsche.