

Symbolizing Arguments: Examples

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(These examples are taken from *Logic: Techniques of Formal Reasoning*, by Donald Kalish and Richard Montague, Harcourt, Brace and World, 1964.)

Example 1. Either love is blind and men are not aware that love is blind, or love is blind and women take advantage of the fact that love is blind. If men are not aware of the fact that love is blind, then love is not blind. Therefore women take advantage of the fact that love is blind.

Let: p = "Love is blind."
 q = "Men are not aware of the fact that love is blind."
 r = "Women take advantage of the fact that love is blind."

The argument is as follows:

$$\frac{(p \wedge q) \vee (p \wedge r) \quad q \rightarrow \neg p}{r}$$

Example 2. Either it is not the case that Alfred pays attention and does not lose track of the argument, or it is not the case that he does not take notes and does not do well in the course. Alfred neither does well in the course nor loses track of the argument. If Alfred studies logic, then he does not do well in the course only if he does not take notes and pays attention. Therefore Alfred does not study logic.

Let: p = "A pays attention."
 q = "A loses track of the argument."
 r = "A takes notes."
 s = "A does well in the course."
 t = "A studies logic."