

# Toward An Analysis of Quantifying In

by Dennis J. Darland

February 21, 2016

(c) 2016 Dennis J. Darland

Consider:

Quine believes Tom believes someone denounced Catiline.  
If this is Quine believes Tom believes (E x) denounced(x, Catiline)

Then

---

belief\_r(Quine, BELIEF\_R, TOM, DENOUNCED, **SOMEONE**, CATILINE)  
symbol\_r(Quine, BELIEF\_R, belief\_r)  
symbol\_r(Quine, SYMBOL\_R, symbol\_r)  
symbol\_r(Quine, TOM, Tom)  
symbol\_r(Quine, DENOUNCED, denounced)  
symbol\_r(Quine, CATILINE, Catiline)  
symbol\_r(Quine, EXISTENTIAL\_VARIABLE\_SYMBOL\_RELATION,  
existential\_variable\_symbol\_relation)  
belief\_r(Quine, SYMBOL\_R, TOM, DENOUNCED2, denounced)  
belief\_r(Quine, EXISTENTIAL\_VARIABLE\_SYMBOL\_RELATION, Tom, **SOMEONE**, set of  
people)  
belief\_r(Quine, SYMBOL\_R, TOM, CATILINE2, Catiline)  
belief\_r(Quine, BELIEF\_R, TOM, DENOUNCED2, **SOMEONE**, CATILINE2)  
Quine expresses **Belief\_r(Tom, Denounced, Someone, Catiline)**  
express\_r(Quine, **Belief\_r, BELIEF\_R**)  
express\_r(Quine, **Tom**, TOM)  
express\_r(Quine, **Denounced**, DENOUNCED)  
express\_r(Quine, **Someone**, **SOMEONE**)  
express\_r(Quine, **CATILINE**, CATILINE)

---

Now Consider:

Quine believes Tom believes someone denounced Catiline.  
If this is Quine believes (E x) Tom believes denounced(x, Catiline)

Then

belief\_r(Quine, BELIEF\_R, TOM, DENOUNCED, **SOMEONE**, CATILINE)  
symbol\_r(Quine, BELIEF\_R, belief\_r)  
symbol\_r(Quine, SYMBOL\_R, symbol\_r)  
symbol\_r(Quine, TOM, Tom)  
symbol\_r(Quine, DENOUNCED, denounced)  
symbol\_r(Quine, CATILINE, Catiline)  
existential\_variable\_symbol\_relation(Quine, **SOMEONE**, set of people)  
belief\_r(Quine, SYMBOL\_R, TOM, DENOUNCED2, denounced)  
belief\_r(Quine, SYMBOL\_R, TOM, CATILINE2, Catiline)  
belief\_r(Quine, BELIEF\_R, TOM, DENOUNCED2, **SOMEONE**, CATILINE2)  
Quine expresses **Belief\_r(Tom, Denounced, Someone, Catiline)**  
express\_r(Quine, **Belief\_r, BELIEF\_R**)  
express\_r(Quine, **Tom**, TOM)  
express\_r(Quine, **Denounced**, DENOUNCED)  
express\_r(Quine, **Someone**, **SOMEONE**)  
express\_r(Quine, **Catiline**, CATILINE)

NOTE: **SOMEONE** has different meanings in the two cases

Also Note: I have been unable to file the logical symbols in LibreOffice.

---