

We are to translate QL expressions into natural English, using the following interpretation:

The domain of discourse is people

'm' stands for Socrates

'n' stands for Plato

'F' means ... *is wise*,

'G' means ... *is a philosopher*

'L' means ... *loves ...*,

We will proceed via stilted translations as a half-way house:

- 1 $(Fn \supset \exists xFx)$
 - \Rightarrow If Plato is wise then there is someone x such that x is wise
 - \Rightarrow If Plato is wise then someone is wise.

- 2 $\exists y(Gy \wedge Fy)$
 - \Rightarrow There is someone y such that y is a philosopher and y is wise
 - \Rightarrow Some philosopher is wise

- 3 $\exists x(Gx \wedge Lmx)$
 - \Rightarrow There is someone x such that x is a philosopher and Socrates loves x
 - \Rightarrow Socrates loves some philosopher

- 4 $\forall x(Gx \wedge Lmx)$
 - \Rightarrow Everyone x such that x is a philosopher and Socrates loves x
 - \Rightarrow Everyone is a philosopher loved by Socrates

- 5 $\forall x(Gx \supset Lmx)$
 - \Rightarrow Everyone x such that, if x is a philosopher, then Socrates loves x
 - \Rightarrow Everyone who is a philosopher is loved by Socrates
 - \Rightarrow Socrates loves every philosopher

- 6 $\exists x\neg(Fx \wedge Lxn)$
 - \Rightarrow Someone x is such that it isn't the case that x is wise and x loves Plato
 - \Rightarrow Someone isn't a wise lover of Plato

- 7 $\neg\exists x(Fx \wedge Lxn)$
 - \Rightarrow It isn't the case that there is someone x such that x is wise and x loves Plato
 - \Rightarrow No-one x is such x is wise and x loves Plato
 - \Rightarrow No-one wise loves Plato

- 8 $(Fn \wedge \forall xLxn)$
 - \Rightarrow Plato is wise and everyone x is such that x loves Plato
 - \Rightarrow Plato is wise and everyone loves him

- 9 $\exists y(Fy \wedge \forall xLxy)$
 - this says of someone what (8) says of Plato*
 - \Rightarrow There is someone wise such that everyone loves him
 - \Rightarrow There is someone wise who is loved by everyone

- 10 $\forall z(Lzm \equiv Lnz)$
 - \Rightarrow Everyone z is such that z loves Socrates if and only if Plato loves z
 - \Rightarrow Plato loves all and only those who loves Socrates

- 11 $(Gn \supset \exists z Lnz)$
 \Rightarrow If Plato is a philosopher then he loves someone
- 12 $(Gn \supset \exists z (Lnz \wedge Fz))$
 \Rightarrow If Plato is a philosopher then he loves someone who is wise
- 13 $\forall y (Gy \supset \exists z (Lyz \wedge Fz))$
this says of everyone what (12) says of Plato
 \Rightarrow Everyone is such that, if s/he is a philosopher, then s/he loves someone who is wise
 \Rightarrow Every philosopher loves someone wise.
- 14 $\exists z (Fz \wedge \forall y (Gy \supset Lyz))$
 \Rightarrow There is someone z such that z is wise and everyone y is such that, if y is a philosopher, then y loves z
 \Rightarrow There is someone z such that z is wise and every philosopher loves z
 \Rightarrow There is someone wise whom every philosopher loves