

## Translations of Relational Propositions

### I. Relations without Quantifiers

Romeo loves Juliet.	$Lrj$
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### II. Relations with a Single Quantifier

#### a. With no Qualifications

Romeo loves someone.	$(\exists x) Lrx$
Romeo loves everyone.	$(x) Lrx$
Someone loves Juliet.	$(\exists x) Lxj$
Everyone loves Juliet.	$(x) Lxj$

#### b. With Qualification of the Subject

All Italians love Juliet.	$(x) (Ix \supset Lxj)$
Some Italians love Juliet.	$(\exists x) (Ix \wedge Lxj)$

c. With Qualification of the Predicate

loves all Italians. (= All Italians are loved by Romeo.)	$(x) (Ix \supset Lrx)$
Romeo loves some Italians. (= Some Italians are loved by Romeo.)	$(\exists x) (Ix \wedge Lrx)$

III. With Qualification of Both

All Americans love all Frenchmen.	$(x) (Ax \supset (y) (Fy \supset Lxy))$
All Americans love some Frenchmen.	$(x) (Ax \supset (\exists y) (Fy \wedge Lxy))$
Some Americans love all Frenchmen.	$(\exists x) (Ax \wedge (y) (Fy \supset Lxy))$
Some Americans love some Frenchmen.	$(\exists x) (Ax \wedge (\exists y) (Fy \wedge Lxy))$

	... love all Frenchmen.	... love some Frenchmen.
All Americans ...	$(x) (Ax \supset \dots$ $\dots (y) (Fy \supset Lxy))$	$(x) (Ax \supset \dots$ $\dots (\exists y) (Fy \wedge Lxy))$
Some Americans ...	$(\exists x) (Ax \wedge \dots$ $\dots (y) (Fy \supset Lxy))$	$(\exists x) (Ax \wedge \dots$ $\dots (\exists y) (Fy \wedge Lxy))$