

B The strict negations of the sentences on the left can be expressed as on the right:

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| 1. No one loves Jack | Someone loves Jack |
| 2. Only unmarried men love Jill | Someone who isn't an unmarried man loves Jill
(not: Some married man loves Jill—perhaps it is some woman who loves Jill ...) |
| 3. Everyone who loves Jack admires Jill | Someone loves Jack but doesn't admire Jill |
| 4. Someone loves both Jack and Jill | No one loves both Jack and Jill |
| 5. Jill always arrives on time | Jill sometimes does not arrive on time |
| 6. Whoever did that ought to be prosecuted | There's someone who did that who need not be prosecuted (?) |
| 7. Whenever it rains, it pours. | Sometimes it rains without pouring. |
| 8. No one may smoke | There's someone who may smoke |

C The sentences on the right express contraries but not contradictories of the propositions expressed by the sentences on the left.

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| 1. No one loves Jack | Everyone loves Jack (or e.g. Some woman loves Jack or Jill loves Jack ...: <i>there's no unique answer.</i>) |
| 2. Only unmarried men love Jill | Some woman loves Jill |
| 3. Everyone who loves Jack admires Jill | No one who loves Jack admire Jill |
| 4. Someone loves both Jack and Jill | No woman loves both Jack and Jill |
| 5. Jill always arrives on time | Jill never arrives on time |
| 6. Whoever did that ought to be prosecuted | Noone who did that ought to be prosecuted |
| 7. Whenever it rains, it pours. | It never pours when it rains. |
| 8. No one may smoke | Everyone may smoke |

D Using the same translation manual as in §7.5, render the following into PL:

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| 1. Jack is unwise and loves Jill. | $(\neg S \wedge P)$ |
| 2. It isn't true that Jack doesn't love Jill. | $\neg\neg P$ |
| 3. Jack loves Jill and Jo doesn't. | $(P \wedge \neg R)$ |
| 4. Jack doesn't love Jill, neither is he wise. | $(\neg P \wedge \neg S)$ |
| 5. Either Jack loves Jill or Jill loves Jack. | $(P \vee Q)$ |
| 6. Either Jack loves Jill or Jill loves Jack, but not both. | $((P \vee Q) \wedge \neg(P \wedge Q))$ |
| 7. Either Jack is unwise or he loves Jill and Jo loves Jill. | |
| <i>this is ambiguous: it could mean</i> | $((\neg S \vee Q) \wedge R)$ |
| <i>or else</i> | $(\neg S \vee (Q \wedge R))$ |