

2.4.1. Translation Problems

A. Translate each of the following English sentences into formal language (using the **translation key** provided below).

P: Neko is going to Sushi City	S: Rex gives Neko a ride
Q: Suki is going to Sushi City	T: Neko is a sushi lover
R: Neko's inviting Suki to go to Sushi City	

1. Both Neko and Suki are going to Sushi City
2. Neko's going to Sushi City, but Suki's not.
3. Neko is a sushi lover who's going to Sushi City.
4. Neko isn't going to Sushi City unless Rex gives her a ride.
5. Neither Neko nor Suki are going to Sushi City.
6. Neko's going to Sushi City without inviting Suki to go.

B. Translate each of the following English sentences into the formal language. (For each translation, first build a **translation key** linking English subject matter sentences with sentence letters.)

1. Jake joined a cult, and he also shaved his head.
2. Lucretia is a goth but Letitia isn't.
- 3a. Both Lucretia and Letitia enjoyed the movie.
- 3b. Lucretia and Letitia both enjoyed the movie.
4. Rex wears bowling shirts even though he doesn't go bowling.
5. Kitty promised to assist at the trade show, yet she failed to do so.

6. Barbie will drink snake wine, though Jack won't.
7. Trixie is a skilled card shuffler, yet she failed to make the cut.
8. Jake will show up for his bond hearing even though he's irresponsible.
9. Jack's able to hang eight on a surfboard, though Neko is unable to do so.
10. Either the results are atypical, or the experiment failed to confirm Lucretia's hypothesis.
11. Neko built a robot cat unless she didn't.
12. They won't hold a third day of Logicpalooza unless the weather improves.
13. Dr. Slim's weight loss cream will be approved unless its ingredients are illegal.

C. For each of the following sentences with a **relative clause**, **(a) write a bracket** around the relative clause (as in the following example), then **(b)** translate the entire sentence as a conjunction.

Jack is a surfer who drinks a pot of coffee a day.

Jack is a surfer [who drinks a pot of coffee a day].

1. Elvis is a cowboy who counts cards.
2. The Cathedral of Learning is a skyscraper which is made of limestone.
3. Endless Summer is a movie that changed Jack's life.
4. Methods of Logic is a book which Rex has read a dozen times.
5. Dr. Slim is a therapist whose credentials are questionable.
6. Hong Kong is a city where there are lots of neon signs.

D. Translate each of the following English sentences into the formal language. (For each translation, first build a **translation key** linking English subject matter sentences with sentence letters.)

1. Dr. Slim is a weasel who isn't a weasel.
2. Logic Warrior is a video game that you won't find addictive.
3. Jack will neither eat fish tacos nor drink snake wine.
4. Kitty attended the Anniversary Sale without buying shoes.
5. Neko made sushi without telling Suki.
6. Trixie passed Chemistry without passing Chemistry.
7. Trixie passed the exam without studying for it, and so did Suki.
8. Neko ate the fish, and she did so without cooking it.

E. For each pair of English sentences below, translate both sentences into formal language, and then decide: do we translate both English sentences as **the same formal sentence**, or as two **different** formal sentences? (Use the **same translation key** for both sentences in the pair.)

- 1a. The argument is convincing unless it's invalid.
- 1b. Either the argument is convincing or it isn't valid.
- 2a. Either it's raining or it isn't.
- 2b. Either it's not failing to rain, or it's not raining.
- 3a. We'll have truffles but we won't have grog.
- 3b. We'll have truffles even though we'll fail to have grog.
- 4a. It's not the case that: both Neko and Jack will eat fish tacos.
- 4b. Neko and Jack won't both eat fish tacos.
- 5a. Surfing is illegal, and so is mahjongg.
- 5b. Neither surfing nor mahjongg are legal.