

### 2.4.1. Translation Problems

**A. 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 magic show, but she failed to do so.
6. Suki will drink snake wine, though Neko won't.
7. Trixie is a skilled poker player, yet she failed to go to the playoffs.
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. Dr. Slim is a weasel who isn't a weasel.
11. Logic Warrior is a video game that you won't find addictive.
12. Jack went surfing unless he didn't.
13. They won't hold a third day of Logicpalooza unless the weather improves.
14. Dr. Slim's weight loss cream will be approved unless its ingredients are illegal.
15. Trixie passed Chemistry without passing Chemistry.
16. Jack will neither eat fish tacos nor drink snake wine.

17. Either the results are atypical, or the experiment has failed to confirm our hypothesis.

18. Trixie passed the exam without studying for it, and so did Suki.

19. Neko ate the fish, and she did so without cooking it.

**B.** For each of the following sentences with a **relative clause**, (a) **write a bracket** around the relative clause, and (b) **rephrase** the whole sentence using a **conjunction phrase** in place of the relative clause – as in the following example.

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

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

Jack is a surfer **and** Jack 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.

**C.** For each of the following sentences with “without,” **rephrase** the whole sentence using a **conjunction phrase** and a **negation phrase** in place of the “without” – as in the following example.

Elvis drove through the desert **without** watching the road.

Elvis drove through the desert **but** he **didn’t** watch the road.

1. Kitty attended the Anniversary Sale without buying shoes.
2. Dr. Slim practices medicine without having a license.
3. Neko made sushi without telling Suki.
4. Letitia reset the wireless network without asking Lucretia for help.
5. Trixie will drive to Las Vegas without making a reservation.

**D.** 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.