Translating the Agta Language

In your daily life, you have probably encountered a situation where you could not understand things written in another language. With the help of computers, you can translate things from one language to another very easily. But how does a computer actually do translation? Does it have to understand the language and learn about the grammar? There is an area of research in computer science called Machine Translation where scientists are finding ways to do translation automatically using computer software. To show you the kinds of challenges that a machine has to overcome to translate from one language to another, in this activity you will help to translate a very rare language to English. Central Cagayan Agta, also known as Labin Agta, is a language spoken in the Philippines, in a region known as the northern Cagayan Province. It is spoken by only about 600 people. We will provide with you a list of words in Agta and their corresponding English words and your task is to translate another list of English words back to Agta. To do so, it will help if you can try to notice patterns or repetitions that will help you learn about the language.

List of Agta-English word pairs

- wer (creek)
- balabahuy (little pig)
- talobag (beetle)
- bakbakat (granny)
- palapirak (little money)
- bahuy (pig)
- bag (loincloth)
- walawer (little creek)
- balabag (little loincloth)
- takki (leg)
- labang (patch)

How does it work?

Now, translate the following English words and phrases into Central Cagayan Agta:

1. (little leg)
2. (money)
3. (little beetle)
4. (little patch)

Challenge: Think about how you have come up with the translations, and try to write down a set of rules for the Agta language. An example rule is: in compound words made up of an adjective and a noun (for example, balabahuy, or little pig), the first letter of the adjective in the compound (bala, little) is the same as the first letter of the noun (bahuy, pig) in the compound.

This activity is adapted from the North American Computational Linguistics Open Competition sample problem written by Tom Payne. [https://www.nacloweb.org/resources/problems/sample/Agta.pdf]