

Philosophy 57 — Day 12

- Quiz #3 returned Tuesday
- Mid-Term Tuesday March 18
 - Will cover lectures through next Thursday
 - More details to come next week ...
- Today: Translation from English to CL (section 4.7)



Chapter 4: Categorical Statements — Translation from English Overview

- Many English claims can be translated faithfully into one of the four standard form categorical claims. There are 10 things to look out for.
 - * Terms Without Nouns
 - * Nonstandard Verbs
 - * Singular Propositions
 - * Adverbs and Pronouns
 - * Unexpressed Quantifiers
 - * Nonstandard Quantifiers
 - * Conditional Statements
 - * Exclusive Propositions
 - * “The Only”
 - * Exeptive Pronouns
- You do not need to remember the names of these 10 watchwords, but you’ll need to know how to translate English sentences which involve them.



Chapter 4: Categorical Statements — Translation from English III

Singular Propositions

- Specific (named) individual persons, places, things get **parameterized**
 - “Tom” becomes “persons identical to Tom”
 - “San Francisco” becomes “cities identical to San Francisco”
 - “The Moon” becomes “celestial bodies identical to the moon”
 - “Tonight” becomes “times identical to tonight”
- Sentences beginning with “There is” become *particular* claims (“Some”)
 - “There is a radio in the room” \mapsto “Some radios are things in the room”
- Sentences whose subjects are specific (named) individuals become *universal* claims (with a **parameter** replacing the name)
 - “The radio is in the room” \mapsto “All things identical to the radio are things in the room”
 - “The radio is not in the room” \mapsto “No things identical to the radio are things in the room”



Chapter 4: Categorical Statements — Translation from English IV

- **Adverbs and Pronouns:** When a statements contains a spatial adverb like “where”, “wherever”, “anywhere”, “everywhere” or “nowhere” – it may be translated in terms of “places”. Examples:
 - “Nowhere on earth are there any unicorns” becomes “No places on earth are places there are unicorns.”
 - “She goes wherever she chooses” becomes _____?
- Temporal adverbs like “when”, “whenever”, “anytime”, “always” or “never” are translated in terms of “times”. Examples:
 - “She never brings her lunch to school” becomes “No times she goes to school are times she brings her lunch”
 - “He is always clean shaven” becomes _____?
- Pronouns such as “who”, “whoever”, “anyone”, “what”, “whatever” or “anything” get translated in terms of “persons” or “things”. Examples”



- “Whoever works hard will succeed” becomes “All persons who work hard are persons who will succeed”
- “She does whatever she wants” becomes _____?
- More Examples:
 - “He glitters when he walks”
 - “He always wears a suit to work”



Chapter 4: Categorical Statements — Translation from English V

- **Unexpressed Quantifiers:** Many statements in English have quantifiers that are implied but not expressed explicitly. When we add quantifiers, we need to get as close to the original meaning as possible:
 - “Children live next door” becomes “Some children are persons who live next door”
 - “A tiger roared” becomes “Some tigers are animals that roared”
 - “Emeralds are green gems” becomes “All emeralds are green gems”
 - “There are lions in the zoo” becomes _____?
 - “Children are human beings” becomes _____?
 - “Monkeys are mammals” becomes _____?
 - “Dolphins are swimming beneath the breakers” becomes _____?



Chapter 4: Categorical Statements — Translation from English VI

- **Nonstandard Quantifiers:** In English there are many types of quantifiers. In categorical logic, there are only two. Nonstandard quantifiers must be translated into standard quantifiers in a way that best preserves meaning.
 - “A few soldiers are heroes” becomes “____ soldiers are heroes”
 - “Not everyone who votes is a Democrat” becomes ____?
 - “Not a single dog is a cat” becomes ____?
 - “All newborns are not able to talk” becomes ____?
 - “All athletes are not superstars” becomes ____?
- Sometimes, more than one categorical claim will be required to capture the meaning of an English sentence with a nonstandard quantifier:
 - “A small percentage of the sailors entered the regatta” becomes ____?
 - “Few marriages last a lifetime” becomes ____?



Chapter 4: Categorical Statements — Translation from English VII

- **Conditional Statements:** Conditional statements can often be translated into universal categorical claims.
 - “If it’s a mouse, then it’s a mammal” becomes “All mice are mammals”
 - “If an animal has four legs, then it’s not a bird” becomes ____?
- When the “if” occurs in the middle of a sentence, we need to move it to the beginning, then translate into a universal claim:
 - “A person will succeed if he or she perseveres” becomes “If a person perseveres, then they will succeed” and then “All persons who persevere are persons who will succeed.”
 - “Jewelry is expensive if it is made of gold” becomes ____?
- The key is to preserve the meaning of the conditional. A helpful rule about conditionals is called **transposition**, which says that “If p , then q ” is equivalent to “If not q , then not p ”. (looks like *contraposition*!)



- “If something is not valuable then it is not scarce” becomes (by transposition) “If something is scarce then it is valuable” and then ____?
- Whenever you see “*p unless q*”, you can read this as “*p if not q*”.
 - “Tomatoes are edible unless they are spoiled” becomes “If a tomato is not spoiled then it is edible.” and then ____?
 - “Unless a boy misbehaves he will be treated decently” becomes ____ and then ____?



Chapter 4: Categorical Statements — Translation from English VIII

- **Exclusive Propositions:** Many propositions involve the words “only”, “none but”, “none except” and “no . . . except” are exclusive propositions. We must be careful to get the subject and predicate terms right in such examples. It helps to translate into a conditional statement first, then into a universal categorical statement:
 - “Only elected officials will attend the convention”. Which is correct: “All elected officials are persons who will attend the convention” or “All persons who will attend the convention are elected officials”?
 - “None but the brave deserve the fair”. Which is correct: “All persons who deserve the fair are brave persons” or “ All brave persons are persons who deserve the fair”?
 - ”No birds except peacocks are proud of their tails.”
 - **General hint:** “Only *A* are *B*” becomes “All *B* are *A*”. The same goes for “none but . . .” and “no . . . except”.



Chapter 4: Categorical Statements — Translation from English IX & X

- **“The Only”:** “The only *A* are *B*” gets translated as “All *A* are *B*”. Note “*the only*” is different than “Only” in this sense.
 - “The only animals that live in this canyon are skunks” becomes “All animals that live in this canyon are skunks”.
 - “Accountants are the only ones who will be hired” becomes ____ and then ____?
- **Exceptive Propositions:** Statements of the form “All except *S* are *P*” require two categorical statements for proper translation.
 - “All except students are invited” becomes “No students are invited persons, and ____”.
 - “All but managers must report to the president” becomes ____ and ____?



Chapter 4: Categorical Statements — Translation from English: Table of Hints

Key Word (to be eliminated)	Translation Hint
Proper names (specific individuals)	<i>Parameterize</i> , and use “all” or “no”
whoever, wherever, always, anyone, never, etc.	use “all” or “no”, together with persons, places, times
a few	“some”
if . . . then	use “all” or “no”
unless	“if not”
only, none but, none except, no . . . except	use “all” and switch order of terms
the only	“all”
all but, all except, few	two statements required
not every, not all	“some . . . are not”
there is, there are	“some”

