Chapter Three Exercise Answers

http://www-rohan.sdsu.edu/~gawron/semantics

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Overview

Outline

Question 1

a. Every possum was brown.	$\forall x\,[\text{possum}(x) \rightarrow \text{brown}(x)]$
b. John ate a sandwich.	$\exists x\,[\,\text{sandwich}(x)\,\&\,\text{eat}(j,\,x)\,]$
c. A young woman spoke	$\exists x\,[\,\text{woman}(x)\,\&\,\text{young}(x)\,\&\,\text{speak}(x)\,]$
d. Kerry filled all the gaps.	$\forall x\,[\text{gap}(x) \rightarrow \text{fill}(\text{k},\,x)]$
e. Every guest thanked Jones.	$\forall x\,[\text{guest}(x) \rightarrow \text{thank}(x,\,\text{j})]$

Question 2

a. There was a black hat on the bed. = A black hat was on the bed.	$\exists x\,[\,\text{hat}(x)\,\&\,\text{black}(x)\,\&\,\text{on}(x, \text{the bed})\,]$
b. All roads lead to Rome	$\forall x\,[\text{road}(x) \rightarrow \text{lead-to}(x,\ \text{r})]$
c. Utopia welcomes all travelers from Spain.	$\forall x\,[(\text{traveler}(x)\,\&\,\text{from}(x, \text{s})) \rightarrow \text{welcome}(\text{U},\ x)]$
d. Clive got murdered. = Clive was murdered. = Someone murdered Clive.	$\exists x\,[\text{murder}(x,\ \text{c})\,]$
e. Jones read every book in the library.	$\forall x\,[(\text{book}(x)\,\&\,\text{in}(x, \text{library})\,) \rightarrow \text{read}(\text{j},\ x)\,]$

Question 3d

Breaking the sentence into two pieces

C. gave $[_{NP}$ every child$]$ $[_{NP}$ either a bisc. or a Bc$]_z$

$\rightarrow$

$[_{NP}$ either a bisc. or a Bc$]_z$ C. gave $[_{NP}$ every child$]$ z

either a biscuit or $\exists z[\,\text{biscuit}(z) \vee \text{Bc}(z)\,]\,\&\,\ldots$
a batman comic

Clive gave every $\quad \forall x\,[\,\text{child}(x) \rightarrow \text{give}(\text{c}, z, x)\,]$
child z

1. $\exists z[\,[\,\text{biscuit}(z) \vee \text{Bc}(z)\,]\,\&\,\forall x\,[\,\text{child}(x) \rightarrow \text{give}(\text{c}, z, x)\,]\,]$
2. $\forall x\,[\,\text{child}(x) \rightarrow \exists x[\,[\,\text{biscuit}(x) \vee \text{Bc}(z)\,]\,\&\,\text{give}(\text{c}, z, x)\,]\,]$

There's no biz like show biz!

$$\sim \exists x\,[\text{business}(x)\,\&\,\text{like}(x,\,\text{sb})\,]$$

Or if you think show business is a business and you think show business is like itself (and you don't think the semantics should be contradictory), then you think the sentence means something like *There's no business like show business — except show business*.

$$\sim \exists x\,[\text{business}(x)\,\&\,x \neq \text{sb}\,\&\,\text{like}(x,\,\text{sb})\,]$$