Chapter Three Exercise Answers

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

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Introduction
1. Introduction
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. \( \forall x \ [ \text{gap}(x) \rightarrow \text{fill}(k, x)] \)

e. Every guest thanked Jones. \( \forall x \ [ \text{guest}(x) \rightarrow \text{thank}(x, j)] \)
a. There was a black hat on the bed.  
   \[ \exists x \left[ \text{hat}(x) \& \text{black}(x) \& \text{on}(x, \text{the bed}) \right] \]

   = A black hat was on the bed.

b. All roads lead to Rome  
   \[ \forall x \left[ \text{road}(x) \rightarrow \text{lead-to}(x, r) \right] \]

c. Utopia welcomes all travelers from Spain.  
   \[ \forall x \left[ (\text{traveler}(x) \& \text{from}(x, s)) \rightarrow \text{welcome}(U, x) \right] \]

   = Clive was murdered.

d. Clive got murdered.  
   \[ \exists x \left[ \text{murder}(x, c) \right] \]

   = Someone murdered Clive.

e. Jones read every book in the library.  
   \[ \forall x \left[ (\text{book}(x) \& \text{in}(x, \text{library})) \rightarrow \text{read}(j, x) \right] \]
Breaking the sentence into two pieces

C. gave $[\forall x \text{ child}(x) \rightarrow \exists z [\text{give}(c, z, x)]]$

$\rightarrow$

$[\forall x \text{ child}(x) \rightarrow \exists x [\text{give}(c, z, x)]]$

either a biscuit or $\exists z [\text{biscuit}(z) \lor \text{Bc}(z)]$

a batman comic

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

child $z$

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

2. $\forall x [\text{child}(x) \rightarrow \exists x [\text{biscuit}(x) \lor \text{Bc}(z)] \land \text{give}(c, z, x)]]$
There’s no biz like show biz!

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

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.*

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