'Extraction'

Examples of so-called ‘extraction’:

(1) a. What magazine did John buy?  
(wh-question)

b. This is the magazine that John bought.  
(relative clause)

c. It is this magazine that John bought.  
(it-cleft)

d. This magazine, John bought.  
(topicalization)

e. John bought, and Bill read, this  
magazine. (right node raising)
(2) a. John bought the book.
   
   b. What book did John buy?

(3) a. John bought the book and read the magazine.

   b. * What book did John buy and read the magazine?

   c. * What magazine did John buy the book and read?

(4) a. * This is the book that John bought and read the magazine.

   b. * This is the magazine that John bought the book and read.
• The Coordinate Structure Constraint (Ross, 1967)

In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct.

• But what about “across the board” extraction?

(5) a. John bought and Bill read the book.
    b. What book did John buy and Bill read?
    c. This is the book that John bought and Bill read.
Some counterexamples:

(6) a. I went to the store and bought some whiskey.

   b. Here’s the whiskey which I went to the store and bought.

(7) a. Harry went to the store, bought a cake, loaded it in his car, drove home, and unloaded it.

   b. What did Harry go to the store, buy, load in his car, drive home, and unload?
(8)  a. You can sip this brandy after dinner, watch TV for a while, sip some more of it, work a bit, finish it off, go to bed, and still feel fine in the morning.

   b. This is the sort of brandy that you can sip after dinner, watch TV for a while, sip some more of, work a bit, finish off, go to bed, and still feel fine in the morning.
More counterexamples:

(9)  a. You can drink two six packs and still stay sober.

       b. How much can you drink and still stay sober?

(10) a. The guys in the Caucasus drink that stuff and live to be a hundred.

       b. That’s the stuff that the guys in the Caucasus drink and live to be a hundred.
A Familiar Pattern

Resemblance relations:

• Extraction allowed, but must be across-the-board:

(11) a. John bought the book and read the magazine.

b. * What book did John buy and read the magazine?

c. What book did John buy and read?
A Familiar Pattern

Cause-Effect relations:

(12) a. The guys in the Caucasus drink that stuff and live to be a hundred.

b. That’s the stuff that the guys in the Caucasus drink and live to be a hundred.

(13) a. You can drink two six packs and still stay sober.

b. How much can you drink and still stay sober?
A Familiar Pattern

- Contiguity relations

  (14)  a. I went to the store and bought some whiskey.
  
      b. Here’s the whiskey which I went to the store and bought.

- Often require extraction from the final clause:

  (15)  a. I went to the store and bought some whiskey.
  
      b. Here’s the whiskey which I went to the store and bought.
  
      c. ?? Here’s the whiskey which I went to the store, bought, came home, and took a bath.
The CSC

- Small alterations can change the relation

  \[(16)\]  a. ?? How big a meal did he eat and feel satisfied?

  b. How small a meal can you eat and feel satisfied?

- In sum, not much is left of the CSC

  - Three types of relation; none of which completely bar extraction
  - How can we explain the remaining constraints on extraction?
A topichood condition on extraction (Kuno, 1987):

Only those constituents in a sentence that qualify as the topic of the sentence can undergo extraction processes (i.e., WH-Q Movement, Wh-Relative Movement, Topicalization, and It-Clefting).
    b. I lost a book about John Irving.

(18) a. Who did you buy a book about?
    b. ?? Who did you lose a book about?

    b. ?? Speaking of John Irving, I just lost a book about him.
Resemblance again:

(20) a. John bought the book and read the magazine.

b. * What book did John buy and read the magazine?

c. What book did John buy and read?

(21) a. Speaking of reading materials, John bought the book and Bill read the magazine.

b. Speaking of junk from Joe’s garage sale, I hear John bought the book and Bill read the magazine.

(22) # Speaking of the book, John bought it and Bill read the magazine.
Topichood and the CSC

Cause-Effect:

(23) a. The guys in the Caucasus drink that stuff and live to be a hundred.
   b. That’s the stuff that the guys in the Caucasus drink and live to be a hundred.

(24) a. You can drink two six packs and still stay sober.
   b. How much can you drink and still stay sober?

(25) Speaking of minikegs, John can drink one and still stay sober.

(26) Speaking of that stuff, the guys in the Caucasus drink it and live to be a hundred.
Contiguity relations:

(27) a. I went to the store and bought some whiskey.

b. Here’s the whiskey which I went to the store and bought.

c. Here’s the whiskey which I went to the store, bought, came home, and took a bath.

(28) a. Speaking of the whiskey, I went to the store and bought it.

b. ?? Speaking of the whiskey, I went to the store, bought it, came home, and took a bath.