First: islands
There are certain kinds of questions that you can’t really ask, not because they wouldn’t be meaningful, but because you just can’t ask them.

Complex Noun Phrases. A noun phrase (DP) that has enough stuff inside it that one might want to ask a question about some of it. Includes but is not limited to relative clauses.

(1) a. John believed [the claim that Japanese is head-initial].
   b. John heard [a rumor that the president hates broccoli].
   c. John dislikes [the man (who) nominated Mary].
   d. John punched [the man who called him aggressive].

(2) a. [The claim that Japanese is head-initial] was believed by few.
   b. [A rumor that the president hates broccoli] was printed.
   c. [The man (who) nominated Mary] was disqualified.
   d. [The man who called John aggressive] was punched.

(3) a. What did John believe?
   b. What did John hear?
   c. Who does John dislike?
   d. Who did John punch?

(4) a. *What did John believe [the claim that Japanese is t]?
   b. *What did John hear [a rumor that the president hates t]?
   c. *Who did John dislike [the man (who) nominated t]?
   d. *Who did John punch [the man who called t aggressive]?

(5) a. What did John believe (that) Japanese is t?
   b. What did John hear (that) the president hates t?
   c. Who did John say the man nominated t?
   d. Who did John believe the man called t aggressive?

Island: A constituent that “traps” wh-words. A wh-word cannot be moved from a position inside the island to a position outside the island. This is not because it wouldn’t be meaningful, it’s just not syntactically an option.
Several kinds of islands in addition to CNP islands:

**Subject island**
(6)  a. [Talking about these books] became difficult.
    b. [That the earth is round] surprised John.
    c. John said that [talking about these books] became difficult.

(7)  a. John disliked [talking about these books].
    b. John believes [(that) the earth is round].

(8)  a. Which books did John dislike talking about t?
    b. What does John believe [(that) the earth is t]?

(9)  a. *Which books did [talking about t] become difficult?
    b. *What did [that the earth is t] surprise John?
    b. *How would [to behave t] be inappropriate?

**Adjunct island**
(10) a. John bought a token [because Mary took the car].
    b. John bought a token [after Mary took the car].

(11) a. *What did John buy a token [because Mary took t]?
    b. *What did John buy a token [after Mary took t]?

Certain *wh*-words seem to be more sensitive than others—they can’t move out of the **strong islands** (subject, CNP, adjunct), but also seem incapable of moving out of other islands (**weak islands**). These *wh*-words include *how, why, when.*

**Negative (inner) island**
    b. John didn’t behave erratically.
    c. How did John behave t?
    d. *How didn’t John behave t?

(13) a. Mary said (that) John retired because he won the lottery.
    b. Mary said (that) John didn’t retire because he won the lottery.
    c. Why did Mary say that John retired?
    d. *Why didn’t Mary say that John retired t?

(14) a. [\text{CP} Why did [\text{TP} t \text{Mary (not) say [CP that John retired ] } ] ]
    b. *[\text{CP} Why did [\text{TP} Mary (not) say [CP that t John retired ] ] ]
(15)   a. What didn’t John buy?  
b. Who didn’t meet Eric?

Factive island
(16)   a. John said he won the race narrowly.  
b. John regrets that he won the race narrowly.  
c. John managed to win the race narrowly.

(17)   a. What did John say he won t narrowly?  
b. What did John regret that he won t narrowly?  
c. What did John manage to win t narrowly?

(18)   a. How did John say he won the race t?  
b. *How did John regret that he won the race t?  
c. *How did John manage to win the race t?

Extraposition island
(19)   a. [To drive bulldozers recklessly] is unwise.  
b. It is unwise [to drive bulldozers recklessly]

(20)   a. *What is [to drive t recklessly] unwise?  
b. *How is [to drive bulldozers t ] unwise?  
c. What is it unwise [to drive t recklessly]?  
d. *How is it unwise [to drive bulldozers t]?

Two kinds of islands (strong, weak), two kinds of wh-words (arguments, adjuncts).  
Arguments: get a θ-role. Adjuncts: don’t.

Strong islands are simply islands for (overt) movement, you just can’t move out of them.  
This is something about (overt) movement. Subjacency.  
The name comes from the idea that movement has to be from a subjacent position,  
which means, basically, structurally nearby but lower.

Weak islands clearly do not block movement per se. There’s something that it causes  
particular trouble for with adjuncts.

The standard idea: The verb “protects” its arguments, the θ-role tells us something must  
have been there, the trace is identified by the verb. Adjuncts get no such protection.  
Adjunct wh-movement is possible when the trace can be identified by the moved wh-  
word—that is, so long as the wh-word stays nearby.
The ECP (Empty Category Principle): A wh-trace must be identified (“properly governed”), and happens in one of two ways:

- The verb identifies it (“θ-governed”)
- The wh-word identifies it if it is close enough (“antecedent governed”)

Weak islands are those things that block antecedent government. For arguments, this is no big deal, their trace is θ-governed. For adjuncts, this spells disaster.

Subjacency violations are generally felt to be less bad than ECP violations:
(21) ??What did you wonder [whether John bought t]?
(22) *How did you wonder [whether John fixed the car t]?

Both Subjacency and the ECP constrain movement relations.

Now, we’re ready to get back to the Big Question: When you have a wh-word that has not moved on the surface, does it move “covertly”?

If it does, we expect that it should act like movement (otherwise, it’s not a very apt label for what’s happening). We would expect to find Subjacency and ECP effects, for example.

Hmm.
The second wh-word in English can be in an island.

(23)  
a. John said that [talking about questions] became difficult.
 b. Who said that [talking about questions] became difficult?
 c. *What did John say [that talking about t] became difficult?
 d. Who said that [talking about what] became difficult?

(24)  
a. John heard that you found [a book that discusses islands].
 b. Who heard that you found [a book that discusses islands]?
 c. *What did John hear that you found [a book that discusses t]?
 d. Who heard that you found [a book that discusses what]?

(25)  
a. John heard that you left [without speaking to Mary].
 b. Who heard that you left [without speaking to Mary]?
 c. *To whom did John hear that you left [without speaking t]?
 d. Who heard that you left [without speaking to whom]?
As long as it isn’t an adjunct, anyway…

(26)  a.  John said that [speaking loudly] became difficult.
    b.  Who said that [speaking loudly] became difficult?
    c.  *How did John say that [speaking t] became difficult?
    c.  *How loudly did John say that [speaking t] became difficult?
    d.  ??Who said that [speaking how] became difficult?
    d.  *Who said that [speaking how loudly] became difficult?

(27)  a.  John found [a book that discusses islands carefully].
    b.  Who found [a book that discusses islands carefully]?
    c.  *How did you find [a book that discusses islands t]?
    c'.  *How carefully did you find [a book that discusses islands t]?
    d.  *Who found [a book that discusses islands how]?
    d'.  *Who found [a book that discusses islands how carefully]?

So wh-in-situ in English seems to obey the ECP but not Subjacency.

Hypothesis (Huang 1982):  Subjacency only constrains overt movement.
                           The ECP constrains all movement.

This is not a comfortable position to be in. If we want to call what happens to wh-in-situ
movement, we’d be happier to find that it acted just like overt movement. It isn’t clear why
Subjacency should hold just of overt movement. Accordingly, there has been much debate
on this question.

The alternative is to assume that wh-in-situ can be interpreted without movement (hence,
no expectation that the relation between the scope position and the wh-word would respect
Subjacency), but then this leaves open the question of why the ECP seems to hold. It
would have to be that whatever non-movement mechanism allows interpretation of wh-in-
situ doesn’t work for adjuncts. (Perhaps: a category difference. Arguments are DPs,
adjuncts are not?) More on this in a while…
**Wh-in-situ languages: No overt movement—islands? Subjacency? ECP?**

**Chinese**

(28) a. ta xihuan ni.
    he likes you
    ‘He likes you.’

b. ta xihuan shei ( ne)?
    he likes who Q
    ‘Who does he like?’

(29) a. [shei lai] zui hao?
    who come most good
    ‘Who is the x such that [x come] is the best?’
    ‘*Who is [that t comes] the best?’

b. ni xihuan [shei xie de shu]?
    you like who write DE book
    ‘*Who do you like the book that t wrote?’

c. ta [ yinwei ni shuo shenme hua] hen shengqi?
    he because you say what word very angry
    ‘*What was he angry because you said t?’

From this, we might conclude that *wh*-words in Chinese don’t actually move. Except:

(30) a. * ni xihuan [ta weishenme xie de shu]?
    you like he why write DE book
    ‘Why do you like the book that he wrote t?’

b. * ta [ yinwei ni weishenme shuo hua] hen shengqi?
    he because you why say word very angry
    ‘Why was he angry because you said words t?’

So, adjuncts are disallowed in islands, but arguments are allowed in islands.

Looks like English. Huang (1982): The ECP effects tell us that movement is happening, Subjacency doesn’t care about covert movement.

<table>
<thead>
<tr>
<th>What is the connection between <em>wh</em>-movement and meaning?</th>
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<tbody>
<tr>
<td>Some have taken the position that <em>wh</em>-movement is important in <em>wh</em>-questions for establishing the meaning of the question. So, even in languages where <em>wh</em>-movement doesn’t appear to be happening, it still does happen.</td>
</tr>
</tbody>
</table>
Multiple wh-questions:

(31) Who brought what?
    Answer: John brought the salad, Mary brought the Guinness, Sue brought the pizza, Bill brought his apologies.

Meaning: For what person x, and what thing y, is it the case that x brought y?

(32) Who told Jerry that Ben brought what?
    Answer: John told Jerry that Ben brought the cookie dough, Mary told Jerry that Ben brought the chocolate, …

Meaning: For what person x, and what thing y, is it the case that x told Jerry that Ben brought y.

(33) John told me who brought what.

Meaning: John told me [for what person x, and what thing y, it is the case that x brought y].

The idea: The meaning of what (in situ) manages to be turned into something that takes scope at the question clause with which it is associated.

The question: How does this meaning arise?

Movement: Constrained by islands

(34) a. What did you hear (that) John bought t?
    b. *What did you hear a rumor that John bought t?

Binding: Not constrained by islands

(35) a. No boy thinks Mary likes him.
    b. No boy heard a rumor that Mary likes him.

The meaning that arises from each is roughly the same:

(36) Who told Mary that he lost his keys?
    For what x is it the case that x told Mary that x lost x’s keys?

What this means: There are in principle two ways to get an interpretation of something like
(37) Who heard [a rumor that John bought what]?

One way is to move what up to the matrix SpecCP, yielding (38). But this would be movement that can escape from an island.

(38) For what person x, and what thing y, is it the case that x heard a rumor that John bought y

The other is to imagine that the what in situ can be interpreted like a pronoun, bound by C but without moving there. Same interpretation. This wouldn’t be sensitive to islands.

(39) Who knows where we bought what? (Baker 1968)
(40) Who knows when we bought what?

These questions have two possible meanings, as revealed by their answers:
   a. John knows where we bought what (he knows the list).
      (“narrow scope” reading for what)
   b. John know where we bought the book,
      Mary knows where we bought the record, …
      (“wide scope” reading for what)

We assume this means that what can associate with either interrogative clause (the main clause or the embedded clause). And what’s remarkable about that is that if what associates with the main clause, it should be a wh-island violation (if what moved there).

(41) What does John know [where we bought t]?
(42) What does John know [when we bought t]?

So, either:
   1) Covert wh-movement can escape islands.
   2) Wh-in-situ is interpreted not by movement but by binding.
Reading for next time: Pesetsky (1987).

The basic plot goes like this:

- Is there covert movement of *wh*-phrases?
- There are these two options (movement and binding), it could be either way.
- But it turns out that the answer is: we need both options.
- There are two different kinds of *wh*-phrases: D-linked (discourse linked) and not.
- D-linked phrases (*which book*) don’t move, don’t obey movement restrictions.
- Non-D-linked phrases (*who, who the hell*) do have to move, and do obey movement restrictions.
- That idea that covert movement isn’t subject to island constraints was an illusion.
  (The reason is that covert movement doesn’t move *out* of the island, it takes the island with it when it moves)

Reading notes

**p.100.** *(8) Every quantifier (operator) occupies an *$\lambda$*-position (nonargument position) at LF.* According to this proposal (Chomsky 1976), this means that a *wh*-word (which is a quantifier, see *(9)—it means for which *x* or something like that) cannot stay in its *q*-position (a *q*-position is an *A*-position, an argument-position, a place where arguments are found), it has to move out of the clause to a non-argument position... that is, it either has to adjoin to TP or move into SpecCP.

**Section 5.1.2. Indefinites.** There is a well-known problem with the interpretation of “donkey sentences,” which are sentences such as *If a man owns a donkey, he always beats it.* The problem is hard to describe succinctly, but here’s an attempt: Consider *If every man plays, he always wins.* This does not seem to mean “For every man *x*, if *x* plays, *x* always wins.” Rather, *he* here seems to have to refer to some third party. But yet *If a man plays, he always wins* does seem to have an interpretation where *a man* controls the reference of *he.* So the *indefinite a man* in an *if*-clause seems to be able to pass on reference to the pronoun outside of the *if*-clause, even though the *universal every man* cannot. What Heim (1982) proposed is that indefinites are special, different from universal (and other) quantifiers. While a universal quantifier like *every man* means something like “The following property holds of *x* for every *x* that is a man”, an indefinite like *a man* means something more like “*x*, where *x* is a man” (rather than meaning “The following property holds of *x* for some *x* that is a man”). The “there is some *x*” meaning that indefinites come to have (e.g., *A man is in the park = There is an *x*, where *x* is a man, such that *x* is in the park*) doesn’t come from the indefinite itself but from a kind of “default existential” meaning that applies over the whole sentence.

What Pesetsky alludes to in discussing *(10) and (11) (p. 101)* is that because an indefinite doesn’t have any “quantificational character”, it picks up whatever quantificational
character happens to be lying around—or else a default existential character if there isn’t anything lying around. So, *In most cases*, or *Sometimes*, or *Very rarely* quantify over situations in some way (most situations, some situations, few situations), and this affects the interpretation of the indefinite, such that *In most cases, if a table lasts for 50 years, it will last for another 50* ends up meaning basically *most tables that last for 50 years last for another fifty*. (And not *in most cases, there is a table that lasts 100 years*).

As I say, this is kind of complicated and very semanticsy. It’s not absolutely crucial that you understand the story about indefinites, the main point about the story is simply that indefinites are more like pronouns (or *wh*-traces) than they are like quantifiers. They represent the *x* in the logical form, and need to be bound by something else. At least part of the evidence for this is that indefinites seem oblivious to movement islands, whereas other quantifiers don’t.

**p. 104. (19) Superiority Condition.** In a multiple interrogation, where a *wh*-phrase is in Comp and another is in situ, the S-structure trace of the phrase in Comp must c-command the S-structure position of the *wh*-in-situ.

That’s the same thing basically as the Superiority condition we’re familiar with: When there’s a choice between two *wh*-phrases, it is the highest *wh*-word (the one closest to C) that has to move. The highest one will be the one that originally c-commanded the lower one, meaning that trace (after movement) of the highest one will still c-command the lower one.

As for the Nested Dependency Condition part (from “If embedded as is…” on p. 105 to the end of section 5.2.1 on p. 106), feel free to read about it, but understanding it isn’t really vital for the purposes of the paper. It’s a way to make Superiority seem more natural, but “attract the closest *wh*-word as you build from the bottom up” is also a pretty natural interpretation of Superiority.

**p.107. “for example, a Baker-style representation, with unselective binding by Q.”** What he means here is (referring back to the beginning of the article), the idea that a *which*-phrase *in situ* can be interpreted not by movement but by coindexing Q (that is, an interrogative C) and the *wh*-phrase. Also, strictly speaking, this is not *unselective* binding, it is *selective*—it’s just regular binding. That’s essentially an error on Pesetsky’s part (the binding of indefinites like *a man* as discussed in an earlier section is unselective, though).

**p.107. “Roughly, *which*-phrases are discourse-linked (D-linked).”** Just to call attention to that, this is what this paper is most famous for.

**p. 108. (33) Non-D-linked *wh*-phrases are quantifiers and adjoin to S’. (34) D-linked *wh*-phrases are not quantifiers.**
This is cast in some older terminology, but the idea is that non-D-linked \textit{wh}-phrases (such as \textit{who} and \textit{what}) have to move between SS and LF ("covertly"), and he proposes that they move to adjoin to CP (\textit{S'} is an old name for CP). By contrast, D-linked \textit{wh}-phrases (such as \textit{which book}) are not quantifiers and don’t have to move anywhere, they can be interpreted where they are (through binding).

p.114. "As both Choe and Nishigauchi note, these facts immediately suggest pied-piping."

Pied-piping (a term again due to Ross 1967) is the name for the situation in which a \textit{wh}-word, when moved, can "drag along" a larger phrase in which it is contained. For example, you can ask either \textit{Who did you give the book to?} or \textit{To whom did you give the book?} In the second case, the whole PP moves, not just the \textit{who(m)} inside it—that’s pied-piping. The name comes from the story of the pied piper who rid Hamelin of rats by playing some sort of magical flute that caused them all to follow him to their demise in a river (the story gets nastier after that, but it doesn’t matter for the purposes of doing syntax). In the context of \textit{wh}-movement, the \textit{wh}-word can optionally take on an “enchanted flute” property that can lure more material to come with it on its journey to SpecCP.

In the context of Japanese, Choe, Nishigauchi, and Pesetsky, what “these facts immediately suggest” is that the \textit{wh}-word inside the island in Japanese actually doesn’t move out of the island to SpecCP—rather, the \textit{whole island} goes along, with the \textit{wh}-word inside, to SpecCP. So, since the island makes it to SpecCP, the \textit{wh}-word never had to leave the island. This proposal is often referred to as “LF pied-piping” (it’s pied-piping, but it occurs covertly, so it’s less obvious that it is happening).

p.115. "Clearly, the examples with \textit{ittai} must prohibit LF pied-piping for some reason." You may need to read this a couple of times to see what’s going on here, but essentially there’s a kind of problem with the predictions. Earlier, \textit{ittai} was shown to cause Subjacency effects, which was interpreted as indicating that “aggressively non-D-linked” \textit{wh}-phrases have to move, and can’t get out of islands. Now, Pesetsky has introduced the idea that \textit{wh}-phrases have the option of dragging their islands along, and so it’s not clear why we saw Subjacency effects with \textit{ittai} in islands—why couldn’t the island come along then too? The only answer—if the pied-piping story is right otherwise—is that \textit{ittai} not only forces \textit{wh}-phrases to move but blocks up the magic flute as well, leaving \textit{wh}-words only the option of moving all by themselves. Pesetsky goes on to say “yes, but, you can’t combine pied-piping and …\textit{the hell} in English either” (that is, it may be mysterious, but at least it is true of languages other than Japanese too). If you follow up footnote 27 (p. 126), though, you’ll see that it isn’t even that simple: \textit{ittai} is allowed to co-occur with pied-piping, but only if \textit{ittai} itself is outside the island. Basically, it’s not as clear as we might have hoped.
Section 5.5. You can safely skip over this, it’s more about the connection with the semantics of indefinites.

p.121. (69) The Q morpheme must cliticize to a wh-phrase or Infl (S-structure).

This is basically just saying that interrogative C has a strong [wh] feature in English. There has to be a wh-phrase next to C (the claim here is that it is phonological—C, although silent, needs to be “pronounced” next to a wh-phrase). The alternative is to attach to T (“Infl”), which is never going to be possible in English (although formulating it this way does allow Pesetsky to assume, if he wishes, that subject wh-words do not move to SpecCP), because the subject appears between C and T. In Japanese, though, all of the heads are on the right, and so T and C are right next to each other and nothing needs to move in order to allow C to be next to T. It’s possible that (69) sounds more elegant than it is: it essentially says “Move wh-phrases in SVO languages, not in SOV languages.”