English has the option of stranding prepositions (Ps) when unbounded rules apply, or pied piping them along with a moved constituent. There are mysterious and hitherto undescribed constraints on the stranding option, as we shall show. The possibility of extraction is not at issue in our discussion, since as readers may verify for themselves, in every case of ungrammaticality we mention, pied piping in the same structure would yield well-formed results.

We note first that Ps cannot be extracted immediately before certain phrasal categories. In (1) the bracketed string that follows the stranded P would generally be analyzed as a VP.

(1a) *These chairs, which two of ___ [are broken], are too old.
    b. *I saw the box which Amy said out of ___ [came a toad].

In (2) an adjective phrase (AP) is involved.

(2a) *Who does the chair feel to ___ [very hard]?
    (Cf. Who does the chair feel [very hard] to ___?)

Finally, in (3) the P is stranded immediately before an NP.

(3a) *Which room is there in ___ [a strange beast]?
    (Cf. Which room is there [a strange beast] in ___?
    b. *Pam, we received from ___ [several long letters].
    (Cf. Pam, we received [several long letters] from ___.)
    c. *Who did you mention to ___ [that it was too late]?
    d. *Who were you shown by ___ [that the door was stuck]?

On the other hand, it is permissible for Ps to be stranded before two other phrasal categories: PPs, as illustrated in (4), and instances of S that are not direct-object NPs, e.g. extraposed Ss and complements that are not direct objects, as shown in (5).

(4a) Who did you talk to ___ [about Dot]?
    b. Who did you talk about ___ [about Dot]?
    c. Who was the money kept by ___ [in a vault]?
    d. What was the money kept in ___ [by Jack]?
    e. Jim, I'm proud of ___ [for speaking up].

(5a) Who did you mention it to ___ [that it was too late]?
    b. Who does it suggest nothing to ___ [that Max vanished]?
    c. Who isn't it apparent to ___ [that this example is fine]?
    d. Who were you persuaded by ___ [that I was wrong]? (Cf. 3d)

We could provide a description of these facts, though hardly an explanation for them, by formulating each unbounded rule in question so as not to leave Ps behind in the environments ___VP, ___AP, and ___NP. The problem is to find some way of expressing the generalization that this restriction holds for each unbounded rule of English grammar; in this respect it is like the problem of providing a unified account of island phenomena.
We turn now to a consideration of other facts for which we have scarcely an inkling of a solution. There are a number of quite unexpected contrasts between cases in which Ps can be stranded before complement clauses and cases in which they cannot.

One class of unstrandable Ps comprises those in the environment it..._S, where the S cannot grammatically replace the it; that is, clefts as in (6) and Extraposition cases with seem-type verbs as in (7).

(6) *Who was it to __ [that you spoke]?
(7) *Who does it appear to __ [that this sentence is fine]?

The rest are cases in which either Raising or Equi is involved, so that the complement clause is lacking an NP (subject or object) linked to the subject of the higher clause. Examples are given in (8).

(8)a. *Who does this sentence appear to __ [to be fine]?
b. *Who is the library difficult for __ [to get to]?
c. *Who did you promise to __ [to be quiet]?
d. *Who did you admit to __ [to [being unhappy]]?

The mystery, then, is why there should be contrasts of the sort we show paired in the following examples, where presumed movement sites are indicated as indexed dashes, and presumed Equi deletion sites are shown as indexed zeroes.

(9)a. Who₁ is it apparent to __₁ [that you're a spy]?
b. *Who₁ does it appear to __₁ [that you're a spy]?
(10)a. Who₁ is it hard for __₁ [Ø₁ even to be polite to us]?
b. *Who₁ are we₁ hard for __₁ [Ø₁ even to be polite to __₁]?
(11)a. Who₁ are you₁ considered by __₁ [__₁ to be a spy]?
b. *Who₁ do you₁ seem to __₁ [__₁ to be a spy]?
(12)a. Who₁ did you₁ appeal to __₁ [Ø₁ to be gentle]?
b. *Who₁ did you₁ appeal to __₁ [__₁ to be gentle]?
(13)a. Who₁ did you₁ yell to __₁ [Ø₁ to keep quiet]?
b. *Who₁ did you₁ promise to __₁ [Ø₁ to keep quiet]?
(14)a. Who₁ did you₁ laugh at __₁ [for [Ø₁ being mad]?
b. *Who₁ did you₁ admit to __₁ [to [Ø₁ being mad]?

We stress again that it is stranding, not extraction, that is at issue. What are the constraints on P stranding that are at work here?