1 Introduction

Along with raising constructions from non-finite complements, English has a phenomenon where the referent of the subject of certain predicates must be identical to the referent of the subject of its complement clause. This is exemplified in the following data:

(1)a. Bush seems like he’s stating the facts.
   (seattletimes.nwsource.com/html/politics/2002051082_undecideds01m.html)

b. Peyroux sounds as if she’s found a comfortable niche there.
   (www.contraostatesnews.com/old/entertainment/music/9928358.htm?template=content\&module=printstory.jsp)

In these sentences, the subject of seem or sound is identified with the subject of its complement clause, which is marked with like or as if. In fact, this construction occurs with many verbs of perception (e.g. look, feel, taste, smell, appear) and any one of three clause markers (like, as if, as though). I will assume in this paper that these are syntactically and semantically empty markers, as per the analysis of that in Pollard & Sag (1994), although this is not essential.

This phenomenon has been dubbed “copy raising”, and the first attempt at its explanation was by Rogers (1972,1974a,1974b), with the whimsically named “Richard” transformation. This construction has also been analyzed by Asudeh (2002) and Potsdam & Runner (2001), each of which have several empirical problems. In this paper, I will argue for a lexicalist analysis of this phenomenon in the framework of Head-Driven Phrase Structure Grammar (HPSG) that addresses each of the problems with the previous analyses. My analysis demonstrates the necessity of lexical items having access to the subject of their complement clauses.
The Phenomenon

The evidence that the copy-raising constructions involve a type of “raising”, that is, they require the identity of their subject with the subject of their finite complement, comes from the fact that they may take an expletive subject if the verb in their complement requires it. This is evidenced by the following data:

(2)a. There looks like there could be a tone-on-tone pattern.
   (www.allegeatscratch.com/lotr/ElflArwen/WhiteWeta.htm)
   b. ...it seems like it’s raining inside the ER.
   (www.dvdverdict.com/phpBB2/viewtopic.php?t=6064&view=previous)

The key generalization here is that the expletives in the complement and the matrix clause must match. This phenomenon is not to be confused with the cases where the copy-raising verbs appear in a construction where they take an expletive-it subject and a complement clause marked by like, as if, or as though, much like subject-to-subject raising verbs (except SSRV’s complement clauses are marked by that). Examples of this construction are as follows:

(3)a. ...it smells like he’s been there for a while.
   (www.popmumoar.com/popculture/features/20/nardquietriot.html)
   b. So it sounds like there is nothing we can do.
   (reviews.cnet.com/5208-3518-0-10.html?forumID=104&threadID=38140&messageID=447215&start=-1)

However, as these are not cases of raising, only it can be the subject. there may not appear as the subject of a copy-raising verb unless there is a verb in its complement that licenses a there-subject. Thus the following sentence, where there is no licenser in the complement, has highly degraded acceptability:

(4) *There looks like it’s going to rain.

Another argument that CR constructions involve raising comes from Potsdam & Runner, who point out that idiom chunks can appear as the subjects of CRV’s. They actually claim that this is only acceptable to some speakers. Some examples are as follows:

(5)a. But somehow, moments later, the shoe seems like it’s on the other foot.
   b. Running from the masquerade, since the shit looks like it’s hit the fan.
3 copy-raising verbs

The reader should note that the copy-raising construction is a violation of the locality of selection: the copy-raising verb places syntactic requirements on one of the arguments of its complement clause. It is desirable that grammars constrain the selection domains of predicates. For example, in natural language, one finds verbs that select for complement clause, or and object NP and an infinitival VP complement, but not verbs that select for a sentential complement that contains a VP with a direct object NP. A grammar that had no locality restrictions would vastly overgenerate these types of constructions. There is evidence, however, that limiting locality of selection to a verb’s own complements is too constrained. Levine (2000) argues that in many languages the subject of finite complement clauses is available for selection by the main verb. He has proposed a head feature SUBJ in HPSG to allow for only this type of extraclausal selection. This is all I need to model the copy raising constructions. Thus the constraints on the copy-raising verb (crv) seem are as follows (I will show later that this may be derived from more general lexical semantics and the hierarchical lexicon):

Note that this sign requires the token identity between the index value of the matrix subject and the complement subject, via the SUBJ feature. I assume, following Pollard & Sag (1994) that indices are classified into the following sorts:

This predicts the identity between the expletive subjects of the matrix and complement clauses shown in (2).

This analysis predicts that copy-raising verbs have the same monadic semantics as those that participate in “garden-variety” subject-raising (srv), where
the subject is token identical to the single NP on the complement predicate’s unsaturated SUBCAT list:

\[
(8) \begin{array}{c}
\text{subj-to-subj-raising-verb} \\
\text{PHON} \quad \text{seem/appear} \\
\text{SUBCAT} \quad \langle \text{NP}, \text{SUBCAT} \langle \text{ONT} \text{ CONT} \rangle \rangle \\
\text{SEM—CONT} \quad \text{seem/appear(□)}
\end{array}
\]

The situation is complicated somewhat by the fact that there is a construction identical to the copy raising construction in all respects except for the token identity of the indices of the two subjects and the monadicity of the verb. In these constructions, the subject of the main verb need not be referred to in the complement clause and is entailed to be doing something to cause the perception (described by the main verb) that the state of affairs obtains that is described by the complement clause. Examples of this are as follows:

(9)a. The only thing I can suggest is to try rubbing some anbesol on his gums when he seems like they are bothering him.

(www.mothering.com/discussions/archive/index.php/t-40073.html)

b. “He looks like they did the biggest plastic-surgery job in the history of the world,” Alex says.

(www.eonline.com/Gossip/Morton/Archive/98/980701b.html)

This is the first area where my analysis differs from that of Asudeh. He predicts that sentences such as (9) should be unacceptable, but they are obviously good because one readily finds them on the web. He claims that such sentences only occur with a subset of the copy-raising verbs; those he dubs the physical perception verbs, which include smell, feel, look, sound, and taste. His analysis, in the Lexical Functional Grammar framework, assumes that like and as in these constructions are predicative prepositions that take a subject and a complement. Further, the phonetic form of these prepositions actually have two lexical entries, one where the preposition is a raising predicate, taking an athematic subject, and another where the subject is thematic. For example, when raising-like occurs as the complement of another raising verb such as seem, the copy-raising behavior occurs where the subject of seem is token-identical with the subject of the complement clause of like. When non-raising predicative like occurs with a physical perception verbs verb like look, either copy-raising constructions or non-copy-raising constructions like (9) occur. Asudeh employs an argument using Glue Semantics to ensure that only physical perception verbs
verbs can occur in both copy-raising and non-copy-raising constructions. Besides the empirical problem that this model predicts examples like (9) to be unacceptable, its assumption that there exist predicative versions of like and as causes it to overgenerate, predicting the following sentences to be acceptable (where like in (a) is not to be confused with quotative like, c.f. so Bush is like, “He’s stating the facts.”):

(10)a. *Bush is like he’s stating the facts.

b. *Peyroux is as if she’s found a comfortable niche there.

If like and as are predicative, they should be able to appear as the complements of the copula, thus the model incorrectly generates the sentences above.

The key to analyzing these constructions is that the verbs involved are semantically dyadic and require a thematic subject. Potsdam & Runner accept some of these constructions. They argue that CR “exists only where the pronominal copy is in subject position.” Thus, instances where the pronominal copy is in a non-subject position, or where there is no pronominal copy at all, do not involve raising. Their actual argument is stronger, however: that all instances where the pronominal copy is in subject position are CR, and that CR constructions do not actually involve raising, which I interpret here in HPSG terms to mean token identity between the subjects of the matrix and complement clauses.

They offer several pieces of evidence in support of this, all of which, I argue, are empirically inadequate. First, citing an argument by Kaplan-Myrth (2000), they claim CRVs cannot take as an argument “like there’s no tomorrow” because this requires that the subject of the verb be thematic. However, examples of this construction are easy to find on the web:

(11)a. Alice learns that even when your life seems like there is no tomorrow, there is and if you just live day by day, you will put your life back together.

(www.adult-chat-world.net/books-plain/0689851898.html)

Another problem with Potsdam & Runner’s analysis is that it puts limits on the interpretation of CR sentences that are not empirically verified. They argue, within an analysis in the Minimalist Framework, that the relation between the matrix and complement clause subjects is a base-generated A-chain. They claim that this predicts that the argument will only be interpreted in the matrix
subject position. Their evidence is that a bare plural subject of a CR construction can only be bound by an adverb of quantification in the matrix clause. The reason for this is that the adverb of quantification must bind something, but the plural subject is not available in the lower clause. Thus, they predict that such an adverb will not be found in the lower clause of a CR construction, and that such a configuration will be judged anomalous. Again, such examples are easy to find on the web:

(12)a. Cats seem like they often cause sneezing and itchy eyes.

(b. As long as the group still delivers those goods, **reunited heroes rarely seem like pale shadows of their earlier selves**.

The above data show that a quantificational adverb may appear in either the matrix clause or the complement clause. Therefore, the matrix subject may be interpreted in either clause, which is consistent with a raising analysis: there is token identity between the matrix subject and the pronominal subject of the complement clause.

### 4 like-complement verbs

I have shown before that these perception verbs can also be semantically dyadic and appear in constructions where they have a thematic subject. I term the verbs in these constructions where there is no token identity between matrix and complement clause subjects **like-complement verbs** (LRVs). They have fewer constraints on them, as the following lexical entry shows:

(13) \[ \text{like-complement-verb} \]

\[
\begin{align*}
\text{PHON} & \quad \text{seem/look/smell} \\
\text{SUBCAT} & \quad \langle \text{NP}_1, \text{CAT marking like} \text{SUBCAT} \langle \rangle, \text{CONT} \rangle \\
\text{SEM—CONT} & \quad \text{seem/look/smell(1,2)} 
\end{align*}
\]

These verbs simply require a like complement as one of their two syntactic and semantic arguments.

As I hinted previously, the behavior of these constructions reflects the interaction within the hierarchical lexicon between the arity of the relation and the
particular semantics of the perception relation of the verbs involved. Specifically, the relation described by these verbs may have monadic or dyadic semantics, as reflected in the following type hierarchies:

(14) \[
\text{arity} \quad \text{appearance-rel} \\
\text{monadic} \quad \text{dyadic} \quad \text{seem-rel} \quad \text{look-rel} \quad \text{sound-rel} \\
\text{seem(lcv)} \quad \text{seem(crv)}
\]

Thus, only the monadic \textit{seem-rel} is compatible with the \textit{crv} construction, and only the dyadic \textit{seem-rel} is compatible with the \textit{lcv} construction.

The reader may already have noted that this analysis predicts that since these perception verbs (such as \textit{seem}) are either monadic or dyadic, and therefore are compatible with either copy-raising or like-complement constructions, there should be an ambiguity in sentences like (6): these sentences could be either copy-raising or mere like-complement. This is exactly the case. Imagine the following sentence being uttered in two different contexts, (a) by someone grading Pat’s assignment and (b) by someone seeing Pat come out of a tough examination:

(15) Pat seems like she’s going to fail the course.

In context (a), Pat is clearly doing nothing at the time to give the impression that she’s going to fail, so it is a monadic, CR construction. In context, (b) it is Pat’s long face that gives this impression, so it is a dyadic, like-complement construction.

Here my analysis again differs from Potsdam & Runner (2001)’s. Our data agree on many points, including their acceptance of \textit{seem} in non-copy-raising like-complement constructions, contrary to Asudeh. However, they argue that copy-raising sentences with coreferential subject pronouns are always copy-raising, while pronouns in non-subject positions (or not present at all) never involve copy-raising. I agree with them on this last point, but, as I showed above, there is an ambiguity when the subject of a like-complement clause has the same agreement features as the subject of the matrix copy-raising-verb.

5 Further evidence for the lexical hierarchy

The lexical hierarchy in (14) makes two further predictions. In addition to “verbs of appearance” that are both monadic and dyadic, there should also be
such verbs that are purely monadic, as well as those that are purely dyadic. A purely monadic verb would participate in copy raising, but not in the dyadic like-complement contexts. *Appear is one such verb:

(16)a. On the end pieces there appears like there are two sterling silver collars tied around the neck of the eels on the band.

b. *He appears like they did the biggest plastic-surgery job in the history of the world.

(16b) has considerably degraded acceptability compared to (16a), and I could find no examples of *appear in the like-complement context on the web. A purely dyadic verb would not participate in copy-raising at all, and only appear in like-complement contexts. *Act is such a verb, as the following data demonstrate:

(17)a. You act like they should be expected to overclock well.

b. *There acts like there could be a tone-on-tone pattern.

We now have a more complete picture of the lexical semantic hierarchy:

![Lexical Semantic Hierarchy Diagram]

6 Conclusion

The class of perception verbs has very interesting behavior with respect to the copy-raising construction. I have shown that many of them have both monadic and dyadic interpretations which interact in interesting ways with the hierarchy of constructions such as the copy-raising construction and the like-complement construction. I have also shown the necessity of allowing the grammar to access one argument in the clause. In the case of CR, access to the subject by the copy-raising verb is essential in predicting the raising behavior of these verbs.

References

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