Introduction. An important question about ellipsis concerns the representation that mediates interpretation at ellipsis sites. Reactivation occurs in order to resolve some dependency (e.g., filler-gap, anaphora). Ellipsis instantiates such a dependency, but is unique in that the material involved is not overt. Knowing that dependencies are resolved via reactivation, and that one of the constituents involved in an ellipsis dependency is not overt we can ask: What is the depth of the reactivation that occurs at ellipsis sites? The present study uses Noun Phrase Ellipsis (NPE) to investigate both the kind and extent of information reactivated at ellipsis sites.

NPE is illustrated by (1).

(1) Mary read John’s letter and Sarah read Mark’s <letter>.

Based on 4 reading-time experiments, we find that some, but not all, syntactic information is reactivated at the site of ellipsis in NPE.

To test reactivation, a probe is needed to distinguish the size of the reactivated material. We use number features, as these can feed agreement attraction (AA) [3-5], a process sensitive to morpho-syntactic information. In AA, an intervening NP—the attractor—agrees with the verb as opposed to the subject NP containing it, as seen in (2).

(2) The keySG to the cabinetsPL werePL on the table.

When NPE elides a complex NP, would an attractor in the antecedent generate attraction following the elided NP? The exhaustivity of reactivation will reactivate different number features. If the antecedent were reactivated fully (including the attractor), it is predicted to cause attraction; but if reactivated only partially (just the head noun), no attraction is predicted.

Experiment 1. We first created a set of complex NPs that could serve as antecedents for NPE. These included a possessor and were all of the form: Name’s Noun Prep the Noun, as in, “Scarlett’s memo from the editor,” In a self-paced reading experiment, we tested whether these were effective at generating attraction. Materials in a 2x2 design crossed attractor number and grammaticality of the agreeing verb, given in (3).

(3) a. Scarlett’s memo from the editorSG wasSG/werePL on the table. Singular Attractor
   b. Scarlett’s memo from the editorsPl wasSG/werePL on the table. Plural Attractor

In the region after the verb, we found a main effect of grammaticality and a significant interaction of attractor with grammaticality: ungrammatical, plural attractor sentences were read faster than ungrammatical, singular attractor sentences, the characteristic AA pattern [4].

Experiments 2&3. After finding that NPE-licensing NPs could generate AA in simple sentences, we then created 2-clause sentences in which these NPs were antecedents in the first clause. The singular subject of the second clause either contained a possessor (triggering NPE) or did not, (4a) v. (4b). The critical verb was either grammatical or ungrammatical. Experiment 2 used contrastive subordinators and Experiment 3, temporal subordinators, to join the clauses.

(4) Ann’s memo from the editor’s got lost
   a. … whileContrastive/beforeTemporal Jo’s <> luckily was/were at the office. NPE
   b. … whileContrastive/beforeTemporal Jo luckily was/were at the office. No NPE

Across both experiments, we found a main effect of grammaticality. There was no interaction with attractor number. From this we conclude that reactivation is partial—only the head noun is reactivated.
Experiment 4. To follow up on the claim of partial reactivation, we place the licensor of ellipsis inside of the AA-triggering complex nominal; only the attractor is elided, which is the head.

(5) Before the memo from John’s architect/s could be found …
   a. … the report from Mark’s <> was/were sent to the engineer.  \( NPE \)
   b. … the report from Mark surprisingly was/were sent to the engineer.  \( No \ NPE \)

We find an effect of Grammaticality and a significant interaction of Attractor and Grammaticality. When only the head is elided, agreement attraction occurs, thus supporting that heads are reactivated at ellipsis sites.

Conclusion. Experiment 1 provided evidence that complex AA-triggering nominals generate agreement attraction. Using these same nominals, Experiments 2&3 show significant main effects of Grammaticality, but no evidence of agreement attraction. We conclude that syntactic information about the head is reactivated, but that such reactivation is not exhaustive—only the head noun is reactivated. Experiment 4 corroborates this claim by illustrating agreement attraction when only the head is elided. Further, sensitivity to the morpho-syntactic number features suggests that the representation is, in part, syntactic.