Noun phrases
http://www-rohan.sdsu.edu/~gawron/syntax

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### Tests

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjecthood</td>
<td>An amazing feast greeted him upon his arrival.</td>
</tr>
<tr>
<td>Wh-cleft</td>
<td>What greeted John saw was an amazing feast.</td>
</tr>
<tr>
<td>Object of PP</td>
<td>I gave thanks for an amazing feast.</td>
</tr>
</tbody>
</table>
1. John
2. John’s book
3. The book/every book/all books/ most books
4. All the books/both the books
5. More men/three more men/ as many as three more men
6. more men than women/fewer men than women/as many men as women/
7. three times as many men as women/as many as three times as many men as women
8. such a book/so impressive a book/too great a book
1. John’s gift to Mary
2. The billionaire’s gift of 1 million dollars to the university
3. The capital of Spain/a picture of Marty/a credit to his people
4. The idea [that people can overcome their baser instincts]
5. The suggestion [that our mayor might be guilty of grand larceny]
6. The instincts [that people can overcome]
7. * The instincts [that people can overcome their impulses]
Examples

(i) John bought a red car.
(ii) John bought an extremely red car.
(iii) John bought an extreme red car.
(iv) John bought an extreme car.
(v) John bought a large expensive red car.
Diagnostic properties

Subjecthood  An extremely red car honked at him.
Wh-cleft  What honked at him was an extremely red car.
Object of PP  I looked at an extremely red car.
Noun phrase rules

Trees

NP → (D)(AP)N
AP → (Adv) Adj

NP → (D)(Adv) (Adj) N
Complex determiners

Examples

All the at least three a good deal more than five a career-high 70
All the fine young men At least three polliwogs. John has written a good deal more than five books.
Barry Bonds hit a career-high 70 home runs.
Noun complements

Noun phrases
a. The *belief* that he would prevail
b. The *claim* that he would prevail
c. The *fact* that he would prevail

Sentences
a. John believed that he would prevail.
b. John claimed that he would prevail.
The belief that he would prevail kept John going.

What kept John going was the belief that he would prevail.

John clung to the belief that he would prevail.
The belief that he would prevail kept John going.

What kept John going was the belief that he would prevail.

John clung to the belief that he would prevail.
Subjecthood  The belief that he would prevail kept John going.

Wh-cleft  What kept John going was the belief that he would prevail.

Object of PP  John clung to the belief that he would prevail.
Relative clauses

<table>
<thead>
<tr>
<th>Relative clause</th>
<th>[NP The attack [s that the Allies launched ] ] was a complete success.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complement clause</td>
<td>[NP The claim [s that the Allies launched an attack ] ] was widely disbelieved.</td>
</tr>
<tr>
<td>Disallowed</td>
<td>[NP The attack [s that the Allies launched an attack ] ] was a complete success.</td>
</tr>
</tbody>
</table>

Relative clause constraint

A relative clause contains an NP gap:

[NP The attack [s that the Allies launched [NP e ] ] ] was a complete success.
Other examples

Relative clause variety

<table>
<thead>
<tr>
<th>Rel pro</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>that</strong></td>
<td>OBJ</td>
</tr>
<tr>
<td><strong>which</strong></td>
<td>OBJ</td>
</tr>
<tr>
<td><strong>∅</strong></td>
<td>OBJ</td>
</tr>
<tr>
<td><strong>who</strong></td>
<td>SUBJ</td>
</tr>
<tr>
<td><strong>∅</strong></td>
<td>POBJ</td>
</tr>
<tr>
<td><strong>whom</strong></td>
<td>OBL</td>
</tr>
</tbody>
</table>

Pied piping

Relative clauses in which there is a relative pronoun that does not equal the gap exhibit pied piping. The gap filler contains more syntactic material than just the relative pronoun, and the gap corresponds to the gap filler not the relative pronoun, but the relative pronoun still refers to the head noun.
that the allies launched e
Trees

NP

D

the

N

attack

S

C

that

S

the allies launched e
Trees

NP

D
the

N
attack

S
that

S

NP
Det
the
NP
allies
VP
V
launched

Gawron: Noun phrases
Jean Mark Gawron (SDSU)
Ross (1967)

the reports \[ \bar{S} [_{NP \text{ which }}] [_{S \text{ the government prescribes the height of the letters on the covers of }}] \]

the reports \[ \bar{S} [_{PP \text{ of which }}] [_{S \text{ the government prescribes the height of the letters on the covers }}] \]

the reports \[ \bar{S} [_{NP \text{ the covers of which }}] [_{S \text{ the government prescribes the height of the letters on }}] \]

the reports \[ \bar{S} [_{PP \text{ on the covers of which }}] [_{S \text{ the government prescribes the height of the letters }}] \]

the reports \[ \bar{S} [_{NP \text{ the letters on the covers of which }}] [_{S \text{ the government prescribes the height of }}] \]

the reports \[ \bar{S} [_{NP \text{ the height of the letters on the covers of which }}] [_{S \text{ the government prescribes }}] \]
Relative clauses versus Complement clauses

<table>
<thead>
<tr>
<th>Relative clauses</th>
<th>Noun Complement clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contain a gap</td>
<td>Full clauses (like verb complement clauses)</td>
</tr>
<tr>
<td>Adjuncts (any noun)</td>
<td>Complements</td>
</tr>
<tr>
<td>Preceded by relpro</td>
<td>Preceded by complementizer</td>
</tr>
<tr>
<td>Pied piping rel pro (\neq) gap</td>
<td></td>
</tr>
</tbody>
</table>
### Possessors/Subjects

<table>
<thead>
<tr>
<th>Nominalization: Verbal subject $\rightarrow$ Nominal possessor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong> John believed $[\overline{S} \text{ that he would prevail}]$.</td>
</tr>
<tr>
<td><strong>NP</strong> John’s belief $[\overline{S} \text{ that he would prevail}]$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
</tr>
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<tbody>
<tr>
<td><strong>S</strong> * John believed $[\overline{S} \text{ that he would prevail}]$ kept him going.</td>
</tr>
<tr>
<td><strong>NP</strong> John’s belief $[\overline{S} \text{ that he would prevail}]$ kept him going.</td>
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<table>
<thead>
<tr>
<th>Yes-No question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong> Did John believe $[\overline{S} \text{ that he would prevail}]$?</td>
</tr>
<tr>
<td><strong>NP</strong> * Did John’s belief $[\overline{S} \text{ that he would prevail}]$?</td>
</tr>
</tbody>
</table>
### English nominalization

Spielberg lavishly produced the movie.

<table>
<thead>
<tr>
<th>N</th>
<th>For Spielberg to lavishly produce the movie</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>Spielberg lavishly producing the movie</td>
</tr>
<tr>
<td>m</td>
<td>Spielberg’s lavishly producing the movie</td>
</tr>
<tr>
<td>i</td>
<td>Spielberg’s lavish producing of the movie</td>
</tr>
<tr>
<td>n</td>
<td>Spielberg’s lavish production of the movie</td>
</tr>
<tr>
<td>a</td>
<td>Spielberg’s lavish movie production</td>
</tr>
</tbody>
</table>

* Spielberg’s lavish producing the movie
* Spielberg’s lavishly producing of the movie
* Spielberg’s lavish production the movie
<table>
<thead>
<tr>
<th>Kinds of English nominalization</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ing</td>
<td>Spielberg’s making the movie is a real advantage.</td>
</tr>
<tr>
<td>for-to</td>
<td>For Spielberg to make the movie would be a great triumph.</td>
</tr>
<tr>
<td>-tion</td>
<td>Spielberg’s objection to the movie ...</td>
</tr>
<tr>
<td>-al</td>
<td>Spielberg’s refusal to compromise ...</td>
</tr>
<tr>
<td>-ment</td>
<td>Spielberg’s abandonment of narrative convention ...</td>
</tr>
<tr>
<td>-ure</td>
<td>Spielberg’s failure to realize this vision ...</td>
</tr>
<tr>
<td>∅</td>
<td>Spielberg’s move to LA</td>
</tr>
<tr>
<td>←`</td>
<td>Spielberg’s progress in this regard ...</td>
</tr>
</tbody>
</table>

English stress-shift nominalizations (Raffelsiefen 1993): *address, abstract, conflict, decrease, export, misprint, survey, protest, remake* (and a host of two-syllable *re-* verbs: *refill, redo, reprint, retread*, but NOT if the *re-* prefix is Latinate: *reward, reform, report, resign, retort*, except *record*)
Noun to verb

Malouf (1998), p 31, citing Quirk et al. (1985)

a. Brown’s painting(s) of his daughter hang(s) in the town museum.
b. Brown’s deft painting of his daughter is a delight to watch.
c. Brown’s deftly painting his daughter is a delight to watch.
d. I dislike Brown (deftly) painting his daughter.
e. Brown is (deftly) painting his daughter. / Brown might be painting his daughter.

Five properties

1. Finite verb (takes modal test): e only
2. Direct case subject: d, e
3. Adverb modifier: c, d, e
4. Direct case object: c, d, e
5. Morphological verb form: b, c, d, e (no plural)

Finite → D.case → D.case → Adv. → Verb
Verb subj obj mdr form
Cross-linguistic statement

Verbalization hierarchy Croft (1991)

If a verbal form inflects for tense-aspect-modality like a predicated verb [= finite verb], then it will take subject and object dependents like a predicated verb. If verbal form takes a subject dependent like a predicated verb, then it will take an object dependent like a predicated verb.

p. 83

Finite → D.case → D.case
Verb subj obj
The hierarchy of nouniness properties on the previous slide

\[
\text{Finite} \rightarrow \text{D.case} \rightarrow \text{D.case} \\
\text{Verb} \quad \text{subj} \quad \text{obj}
\]

is called an **implicational hierarchy**.

Ross (1973)b is another example of such a hierarchy which arranges NPs on a scale from most prototypical to least prototypical based on a variety somewhat different tests, ranging from expletives (*it, there*) through idiom chunks (*kicked the bucket*) to ordinary proper names.

Implicational hierarchies play a role in stating many linguistic generalizations:

\[
\text{Obj agreement} \rightarrow \text{Subj agreement}
\]
Implicational universals

If a language has voiced obstruent phonemes, then it has voiceless obstruents.
voiced obstruents → voiceless sonorants

If a language has voiceless sonorant consonants it has voiced sonorant consonants.
voiceless sonorants → voiced sonorants

If a language has fricative, then it has stops.
If a language has affricates, then it also has stops and fricatives.
affricates → fricatives → stops
1. Ross (1973)a, Ross (1973)b: Original work identifying variability on the concept of an NP category.

2. Sankoff and Cedergren (1976): Foundational work in establishing dimensionality in linguistic variation using a statistical method called *multidimensional scaling*.

3. Malouf (1998): develops a theory of mixed categories (form can mix noun and verb properties) which captures the above implicational hierarchy; applied to English as well to “noun incorporating” languages like Greenlandic Eskimo.
*Syntactic categories and grammatical relations.*
Chicago: University of Chicago Press.

*Mixed categories in the hierarchical lexicon.*

*A comprehensive grammar of the English language.*
London: Longman.

Relating words: A model of base recognition.

*Constraints on variables in syntax.*
PhD thesis, MIT.

Nouniness.

Ross, J.R. 1973b.
A fake np squish.