Danish, German, English and French contrast in the distribution of simple \textit{wh}-phrases and \textit{NEG}-phrases and DPs that contain \textit{wh}-phrases and \textit{NEG}-phrases. These asymmetries will be accounted for by differences between overt and covert licensing of \{wh\} and \{NEG\} as well as differences in the structural position of DP-internal \textit{wh}-phrases and \textit{NEG}-phrases.

1 Simple \textit{wh}-phrases and \textit{NEG}-phrases

1.1 \textit{wh}-movement

In Danish, German and English, a \textit{wh}-object must undergo overt \textit{wh}-movement (except for echo-questions or multiple questions\(^1\)). It occurs in clause-initial position, SpecCP.

\begin{enumerate}
  \item Da a. \textit{*Du} har mødt \textbf{hvem}?
      \item b. \textbf{Hvem} har \textit{du} mødt \textit{t}_{\textit{wh}}?

  \item Ge a. \textit{*Du} hast \textbf{wen} getroffen?
      \item b. \textbf{Wen} hast \textit{du} \textit{t}_{\textit{wh}} getroffen?

  \item En a. \textit{*You} have \textit{met} \textbf{who}?
      \item b. \textbf{Who} have \textit{you} \textit{met} \textit{t}_{\textit{wh}}?
\end{enumerate}

In contrast, overt \textit{wh}-movement is optional in French main clauses. A \textit{wh}-object may stay \textit{in situ} or occur in SpecCP.\(^2\)

\begin{enumerate}
  \item Fr a. \textit{Tu} as \textit{rencontré} \textbf{qui}?
      \item b. \textbf{Qui} as-tu \textit{rencontré} \textit{t}_{\textit{wh}}?
\end{enumerate}

Similar to \textit{wh}-objects, \textit{wh}-subjects move to SpecCP overtly in the V2-languages Danish and German.

\begin{enumerate}
  \item Da a. \textit{*I dag} er \textbf{hvem} kommet?
      \item b. \textbf{Hvem} er \textit{t}_{\textit{wh}} kommet \textit{i dag}?
\end{enumerate}
In the non-V2 languages English and French, it is not obvious which structural position a clause-initial wh-subject occupies, SpecCP or SpecIP. However, as overt wh-movement is obligatory for objects in English, I assume that it also takes place with wh-subjects (see Rizzi 1996, 1997, Radford 2004, den Dikken 2006). Accordingly, I assume that wh-subjects may appear in SpecIP in French, where wh-movement need not take place overtly.

(7) En \[CP \text{Who} \ e \ [IP t_{wh} e \ [VP \text{came today}]]\]?

(8) Fr \[IP/CP \text{Qui} \ \text{est arrivé aujourd'hui}]

1.2 NEG-shift

Under a sentential negation reading, a NEG-object cannot occur in its base position to the right of a non-finite verb in Danish but must undergo negative shift (henceforth NEG-shift), which places the negative phrase in SpecNegP; see K. K. Christensen (1986, 1987), Rögnvaldsson (1987), Jónsson (1996), Svenonius (2000, 2002), K. R. Christensen (2005), and Engels (2009a,b).

Likewise, NEG-shift is considered to take place overtly in German (though this is not obvious from surface order in an OV-language).

(9) Da a. *Han har sagt ingenting.

b. Han har ingenting sagt t_{NEG}.

(10) Ge Er hat [NegP nichts [VP t_{NEG} gesagt]]

In English and French, in contrast, a NEG-object occurs to the right of a main verb in situ, indicating that NEG-shift does not take place overtly.

(11) En a. He said nothing.

b. *He nothing said t_{NEG}.

(12) Fr a. Il n’ a vu personne.

b. *Il n’ a personne vu t_{NEG}.

While there is cross-linguistic variation as to overt movement of a NEG-object, a NEG-subject can appear in the canonical subject position SpecIP in all the languages under discussion.

(13) Da I dag er ingen kommet.
1.3 Licensing of [wh] and [NEG]

Wh-movement and NEG-shift have been assumed to be triggered by the need to license the features [wh] and [NEG] in Spec-head configuration (wh-Criterion, Rizzi 1996: 64; NEG-Criterion, Haegeman & Zanuttini 1991: 244, Haegeman 1995: 106). Contrasts in the distribution of wh-phrases and NEG-phrases can be accounted for by differences in whether licensing of [wh] and [NEG] takes place by overt or covert movement of the phrase to SpecCP and SpecNegP, respectively (e.g. Bošković 1997). This is illustrated in Figure 1.

<table>
<thead>
<tr>
<th></th>
<th>Da</th>
<th>Ge</th>
<th>En</th>
<th>Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td>wh-movement</td>
<td>overt</td>
<td>overt</td>
<td>overt</td>
<td>overt/covert</td>
</tr>
<tr>
<td>NEG-shift</td>
<td>overt</td>
<td>overt</td>
<td>covert</td>
<td>covert</td>
</tr>
</tbody>
</table>

Though a NEG-object does not surface in SpecNegP in English and French, (11) and (12), this does not mean that NEG-phrases cannot undergo overt movement: A NEG-subject appears in the canonical subject position, SpecIP; cf. (15) and (16). In this case the NEG-phrase is moved to SpecIP by subject movement; in other words, the trigger for movement of the NEG-subject seems to be phi-features not the [NEG]-feature, which is licensed in a lower position, SpecNegP. Wh-movement, in contrast, targets a position above the canonical subject position, namely SpecCP; see the syntactic tree in (17).

![Syntactic Tree](image-url)
2 DP-internal wh-phrases and NEG-phrases

2.1 French: Object/subject and wh-phrase/NEG-phrase asymmetries

Apart from the variation as to the distribution of simple wh-phrases and NEG-phrases observed in section 1, there are asymmetries in the distribution of DPs that contain possessive wh-phrases and NEG-phrases. In French, for example, a DP with an embedded NEG-phrase may occur in object position but not in subject position while a simple NEG-phrase is acceptable in both positions; compare the examples in (18) and (19).

(18) Fr.
   a. Lise n'a rencontré personne.
   b. Lise n'a rencontré le frère de personne.
   Lise NE have met nobody/the brother of nobody

(19) Fr.
   a. Personne n'est arrivé.
   b. *L'assistant de personne n'est arrivé.
   nobody/the assistant of nobody NE is arrived

(Moritz & Valois 1994: 674/687)

This contrast can be accounted for under the assumption that personne but not the entire phrase le frère de personne/l'assistant de personne 'the brother/the assistant of nobody' carries [NEG] and may thus take part in feature checking: Licensing under Spec-head configuration requires that the phrase in specifier position carry the relevant feature itself.

Recall that French does not require overt NEG-shift. Thus, a NEG-element in object position can be licensed by covert movement to SpecNegP, irrespective of whether it is simple, (18)a/(20)a, or DP-internal, (18)b/(20)b.

(20) [NEG] licensing by covert movement of personne to SpecNegP
   [IP Lise n'a [NegP <personne_NEG> Neg° [VP rencontré [personne_NEG]]]]
   [IP Lise n'a [NegP <personne_NEG> Neg° [VP rencontré [le frère de [personne_NEG]]]]]

In contrast, a simple NEG-subject moves through SpecNegP on its way to SpecIP, (21).

(21) [NEG] licensing by overt movement of personne through SpecNegP
   [IP Personne_NEG] n'est [NegP <personne_NEG> Neg° [VP arrivé <personne_NEG>]]

However, if the NEG-phrase is embedded in a subject DP as in (19)b, licensing of [NEG] is not possible. Movement of the entire DP l'assistant de personne 'the assistant of nobody' through SpecNegP on the way to SpecIP cannot license [NEG] since this phrase does not carry [NEG], only embedded personne 'nobody' does; see (22).

(22) No [NEG] licensing by overt movement of the entire subject DP through SpecNegP
   *[IP L'assistant de [personne_NEG]] n'est [NegP <[l'assistant de [personne_NEG]> Neg° [VP arrivé <[l'assistant de [personne_NEG]>]]]

If only the NEG-element is moved covertly to SpecNegP to make licensing of [NEG] possible, overt movement of the entire subject phrase is blocked (Relativized Minimality, Rizzi 1990).
Covert movement of personne to SpecNegP blocks subject movement to SpecIP

\[
\begin{align*}
\text{NegP } & \{\text{personne}_{\text{NEG}}\} \text{ n'est} \\
\text{Neg°} & \{\text{personne}_{\text{NEG}}\} \\
\text{VP arrivé } & \{\text{L'assistant de [personne]}_{\text{NEG}}\} \\
\end{align*}
\]

In addition, the distribution of DPs with embedded wh-phrase is expected under the above assumptions. Overt wh-movement of a simple object wh-phrase is optional in French; see (4) and (24)a/(25)a. In contrast, a wh-phrase embedded in an object DP is acceptable if the object occurs in situ, (24)b, but not if it occurs in SpecCP, (25)b.

(24) Fr.

a. Tu as rencontré qui?
you have met who

b. Tu as rencontré le frère de qui?
you have met the friend of whom

(25) Fr.

a. *Qui as-tu rencontré?
who have-you met

b. Le frère de qui as-tu rencontré?
the friend of whom have-you met

(Moritz & Valois 1994: 701)

Similar to personne in (18)/(20), qui in (24) can covertly move to SpecCP, as shown in (26).

(26) [wh] licensing by covert movement of qui to SpecCP

\[
\begin{align*}
\text{CP } & \{\text{qui}_{\text{wh}}\} \text{ as-tu [IP tu as [VP rencontré [qui]_{\text{wh}}]]} \\
\text{CP } & \{\text{le frère de [qui]}_{\text{wh}}\} \text{ as-tu [IP tu as [VP rencontré [le frère de qui]}_{\text{wh}}]]
\end{align*}
\]

Licensing of [wh] by overt movement to SpecCP is possible if the wh-phrase is simple but not if it is embedded within the object DP: Only qui 'who' but not the phrase le frère de qui 'the brother of whom' carries [wh] and thus permits checking in SpecCP; see (27) and (28).

(27) [wh] licensing by overt movement of qui to SpecCP

\[
\begin{align*}
\text{CP } & \{\text{qui}_{\text{wh}}\} \text{ as-tu [IP tu as [VP rencontré [qui]_{\text{wh}}]]} \\
\text{CP } & \{\text{le frère de [qui]}_{\text{wh}}\} \text{ as-tu [IP tu as [VP rencontré [le frère de qui]}_{\text{wh}}]]
\end{align*}
\]

(28) *[CP [le frère de [qui]_{wh}]] as-tu [IP <tu> <as> [VP rencontré [le frère de qui]_{wh}]]

In contrast, a possessive wh-phrase can be embedded in a clause-initial subject DP, (29). Given that overt wh-movement is optional in French, the subject can be located in SpecIP and licensing of [wh] may thus be carried out by covert movement of qui to SpecCP as in (30).

(29) Fr.

Le frère de qui est venu?
the friend of whom is come

(30) [wh] licensing by covert movement of qui to SpecCP

\[
\begin{align*}
\text{CP } & \{\text{qui}_{\text{wh}}\} \text{ as-tu [IP tu as [VP rencontré [le frère de qui]}_{\text{wh}}]]
\end{align*}
\]
The contrast between NEG-phrases and wh-phrases as to subject-internal occurrence, (19)b and (29), follows from differences in the licensing position of [wh] and [NEG] – above (SpecCP) vs. below (SpecNegP) the canonical subject position (SpecIP); see the syntactic tree in (17) above. Licensing of a DP-internal wh-/NEG-phrase is only possible in French if the DP is located below the licensing position, SpecCP/SpecNegP. In this case, covert movement of the wh-/NEG-element alone is possible. Licensing cannot be carried out by movement of the entire DP to or through SpecCP/SpecNegP as it requires the phrase in Spec-head configuration to carry the relevant feature itself.

2.2 Danish: Feature percolation from specifier position vs. complement position

In Danish, a possessive phrase as in (31) may occur in pre-nominal (specifier) position or post-nominal (complement) position.

(31) Da a. barnets far  
child-the’s father  

b. faren til barnet  
father-the of child-the

As shown by the contrast between (32) and (33), a DP with a NEG-phrase in pre-nominal position is acceptable whereas one with a NEG-phrase in post-nominal position is ungrammatical.

(32) Da a. Vi giver intet ultimatum, og vi truer intet lands sikkerhed.  
we give no ultimatum and we threaten no country’s security

b. Efter disse beretninger fra det virkelige liv forekommer ingen krimis handling spor usandsynlig.  
after these tales from the real live seems no crime novel’s story at all implausible (KorpusDK)

(33) Da a. *Vi giver intet ultimatum, og vi truer sikkerheden i intet land.  
we give no ultimatum and we threaten the security in no country

b. *Efter disse beretninger fra det virkelige liv forekommer handlingen i ingen krimi spor usandsynlig.  
after these tales from the real live seems story-the in no crime novel at all implausible

The same holds for wh-phrases in DP-internal positions. The sentences in (34) with the wh-phrase in pre-nominal position are proper interrogative clauses whereas the sentences in (35) with the wh-phrase in post-nominal position are only acceptable as echo-questions; see footnote 1.

(34) Da a. Hvilke landes kulturprodukter gider vi at engagere os i om ti år?  
which countries’ cultural products care we to engage us in in 10 years  

http://www.cifs.dk/scripts/artikel.asp?id=85&lng=1

b. Hvilket lands salgsteam har solgt bedst?  
which country’s sales team has sold best (KorpusDK)
(35) Da a. *Præsidenten fra hvilket land har Dronning Margrethe inviteret til klimaforandringsconference?  

b. *Præsidenten fra hvilket land har inviteret Dronning Margrethe til klimaforandringsconference?

The above data point to the conclusion that the position of the wh-/NEG-phrase within DP matters for whether or not licensing of [wh]/[NEG] can take place. Given that the phrase in Spec-head configuration needs to carry the respective feature itself for licensing to be possible, a wh-/NEG-phrase in specifier position but not one in complement position seems to be able to induce feature percolation; see e.g. Webelhuth (1992) and Horvath (2005). A wh-/NEG-phrase in pre-nominal position but not one in post-nominal position is thus expected to be acceptable in Danish, where both [wh] and [NEG] need to be licensed by overt movement.

(36)

(37)

Hence, wh-phrases and NEG-phrases must apparently undergo leftward movement within DP in order to be able to take scope, just as they need to undergo leftward movement within the clause (to SpecCP and SpecNegP, respectively).

2.3 German & English: Feature percolation from post-nominal position

As in Danish, wh-movement and NEG-shift must take place overtly in German; see section 1. However, in contrast to Danish, (32)-(35), wh-phrases and NEG-phrases may occur in a post-nominal PP in German, (38) and (39). In addition, possessive wh-phrases and NEG-phrases may emerge as post-nominal genitives, (40) and (41).
Given that licensing of [wh] and [NEG] must be carried out by overt movement in German and that licensing under Spec-head configuration requires that the phrase in specifier position carry the relevant feature itself, feature percolation would seem to be possible from post-nominal position in this language.12

Similarly, wh-phrases and NEG-phrases may appear in a post-nominal PP in English, (42) and (43), alongside occurrence in the pre-nominal position, (44) and (45).

(42)  En a. The president of which country did Queen Elisabeth encourage to take a risk and pursue his dreams?
b. The president of which country abrogated the country's constitution this week?  http://en.wikinews.org/wiki/Wikinews:Dynamic_quiz/quiz/2009/16
(43) En a. Emily Benton stood in the shadow of no man. (COCA)
b. Contrary to what Polk says, the doors of none of these rooms had been "blasted apart". http://entertainment.timesonline.co.uk/tol/arts_and_entertainment/books/article388156.ece

(44) En a. Which team's cap would you like to wear into the Hall of Fame?
b. Which team's players will benefit the most from their schedule? (COCA)

(45) En a. The threats we face today as Americans respect no nation's borders.
b. No individual's life can be sustained by role-playing, … (COCA)

Remember that NEG-shift need not take place overtly in English (see Figure 1). However, the fact that a subject DP may contain a NEG-phrase in post-nominal position suggests that feature percolation is possible from that position in English, just as it is in German: Licensing of [NEG] must take place by moving the subject DP through SpecNegP on its way to SpecIP; compare (22) above. Moreover, the fact that a subject or object in SpecCP may contain a wh-phrase in post-nominal position, which needs to be licensed by overt movement, points to the same conclusion.

3 A cross-linguistic contrast in the structural position of post-nominal phrases?
The previous sections have shown that there is cross-linguistic variation as to the ability of post-nominal wh-phrases and NEG-phrases to induce feature percolation and pied-piping. This seems to be possible in German and English but not in French and Danish. In contrast, feature percolation and pied-piping is generally permitted with possessive wh-phrases and NEG-phrases in pre-nominal position.

In section 2.2, the contrast between pre-nominal and post-nominal wh-phrases and NEG-phrases in Danish was accounted for by the common assumption that feature percolation is possible from specifier position but not from complement position (Webelhuth 1992 and Horvath 2005; see also (36) and (37) above). The acceptability of post-nominal wh-phrases and NEG-phrases in German and English might then be taken to suggest that feature percolation is possible from complement position in these languages.

Figure 2: Cross-linguistic variation as to feature percolation from complement position

<table>
<thead>
<tr>
<th>feature percolation from</th>
<th>Da</th>
<th>Fr</th>
<th>Ge</th>
<th>En</th>
</tr>
</thead>
<tbody>
<tr>
<td>specifier position</td>
<td>+</td>
<td>%13</td>
<td>+14</td>
<td>+</td>
</tr>
<tr>
<td>complement position</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Alternatively, adhering to the hypothesis that feature percolation is restricted to phrases in specifier position, it might be assumed that post-nominal wh-phrases and NEG-phrases are actually not situated in complement position but in a specifier position in German and English DPs. This hypothesis will be investigated in the remainder of this section.

Figure 3: Cross-linguistic variation as to the structural position of post-nominal phrases

<table>
<thead>
<tr>
<th>structural position of</th>
<th>Da</th>
<th>Fr</th>
<th>Ge</th>
<th>En</th>
</tr>
</thead>
<tbody>
<tr>
<td>pre-nominal phrases</td>
<td>spec</td>
<td>%</td>
<td>spec</td>
<td>spec</td>
</tr>
<tr>
<td>post-nominal phrases</td>
<td>compl</td>
<td>compl</td>
<td>spec</td>
<td>spec</td>
</tr>
</tbody>
</table>
Den Dikken (1998: 195) suggests a predicational structure for possessive constructions. He assumes that the base structure of a possessive construction is a small clause (XP), with a PP possessor phrase in complement position and the possessum in specifier position, (46).\(^{15}\)

\[(46)\]

\[
\begin{array}{c}
\text{DP} \\
\text{Spec} \\
D' \\
D° \\
\text{FP} \\
\text{Spec} \\
F' \\
F° \\
\text{XP} \\
\text{POSSESSUM} \\
\text{father} \\
X° \\
\text{PP}_{\{\text{wh}\}/\text{NEG}} \\
\text{POSSESSOR} \\
\text{which child} \\
\text{no child} \\
\end{array}
\]

In the pre-nominal possessive construction, the PP possessor phrase moves out of the small clause XP to the specifier position of the functional projection FP dominated by DP. In addition, the head of the possessor phrase P° undergoes head movement through the head of XP to the head of FP, where the complex head is spelled out as 's. This is illustrated in (47). Apparently, feature percolation from the possessor PP in SpecFP up to DP is possible: Pre-nominal \textit{wh}-phrases and \textit{NEG}-phrases are generally acceptable.\(^{16}\)

\[(47)\]

\[
\begin{array}{c}
\text{feature percolation} \\
\text{DP}_{\{\text{wh}\}/\text{NEG}} \\
\text{Spec} \\
D' \\
D° \\
\text{FP} \\
\text{PP}_{\{\text{wh}\}/\text{NEG}} \\
\text{POSSESSOR} \\
\text{which child} \\
\text{no child} \\
\text{XP} \\
\text{POSSESSUM} \\
\text{father} \\
t_j \\
t_i \\
\end{array}
\]
For post-nominal possessor constructions, den Dikken (1998) assumes that the remnant small clause undergoes movement to the specifier of DP, with the complex head moving on to D\(^{\circ}\), where it is realized as *of*.

(48)

\[
\begin{array}{c}
\text{Spec} \\
\text{POSSESSUM} \\
\text{father} \\
t_i \\
\end{array} \quad \rightarrow \quad \begin{array}{c}
\text{DP}_{[wh]/[NEG]} \\
\text{D}^\circ+\text{F}^\circ+\text{X}^\circ_j+\text{P}^\circ_k \\
of \\
t_\text{i} \\
\end{array} \quad \begin{array}{c}
\text{FP} \\
\text{PP}_{[wh]/[NEG]} \\
\text{POSSESSOR} \\
t_f \\
\text{XP} \end{array}
\end{array}
\]
\hspace{1cm}
\begin{array}{c}
t_k \\
\text{which child} \\
\text{no child} \end{array}

Under the assumption that the possessor phrase in SpecFP is still able to percolate its features up onto DP, (48), it is expected that licensing of *[wh]* and *[NEG]* can be carried out by movement of the entire DP to the relevant specifier position. This seems to be the case in German and English, where a DP may contain post-nominal *wh*-phrases and *NEG*-phrases. In addition, the fact that DP-internal post-nominal *wh*-phrases and *NEG*-phrases cannot be licensed by movement of the entire DP to or through the relevant specifier position in Danish and French would then point to the conclusion that post-nominal possessive constructions do not involve the structure in (48) in these languages. Instead, they have the more basic structure in (46), in which the possessor phrase occurs in the complement position of the small clause, from which feature percolation cannot take place.\(^{17}\) Hence, the contrast between German and English on the one hand and Danish and French on the other hand as to the ability of licensing *wh*-phrases and *NEG*-phrases in post-nominal position would derive from a structural contrast, having to do with whether or not the possessum phrase can undergo leftward movement to SpecDP.

4 Conclusion

*Wh*-phrases and *NEG*-phrases carry features ([*wh*] and [*NEG*], respectively) that need to be licensed in Spec-head configuration (*wh*-Criterion, *NEG*-Criterion). Languages differ as to overt and covert movement of *wh*- and *NEG*-phrases. While overt *wh*-movement is obligatory in Danish, German and English, it is optional in French. Moreover, overt *NEG*-shift is obligatory in Danish and German but only takes place covertly in English and French.

The licensing requirements on DP-internal *wh*/*NEG*-phrases are the same as the ones on simple *wh*/*NEG*-phrases. This means, if a simple *wh*/*NEG*-phrase cannot occur *in situ* (having to be licensed by overt movement), a DP that contains a *wh*/*NEG*-phrase cannot do so, either. However, it might not be possible to fulfil the licensing conditions due to the embedding of the *wh*/*NEG*-phrase: Licensing in Spec-head configuration requires that the phrase in specifier position carry the relevant feature itself. As a consequence, licensing of a DP-internal *wh*/*NEG*-phrase can only be carried out by movement of the entire DP to the relevant specifier position (SpecCP/SpecNegP) if *[wh]/[NEG]* is able to percolate up to DP. In case feature percolation is excluded, licensing cannot take place and asymmetries in the distribution of simple and complex *wh*/*NEG*-phrases arise.

Feature percolation is generally possible from specifier position, accounting for the fact that DPs with pre-nominal *wh*/*NEG*-phrases show the same distribution as simple *wh*/*NEG*-
phrases. In contrast, post-nominal phrases seem to vary cross-linguistically as to the ability to induce feature percolation. They seem to be able to do so in German and English but not in Danish and French. In section 3, I suggested that this might be due to contrasts in the structural position of the post-nominal phrases: They were assumed to be located in specifier position in German and English but in complement position in Danish and French, from where feature percolation cannot take place (see Figure 4).

**Figure 4**

<table>
<thead>
<tr>
<th></th>
<th>Da</th>
<th>Ge</th>
<th>En</th>
<th>Fr</th>
</tr>
</thead>
<tbody>
<tr>
<td>overt movement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>wh</em>-phrase</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>±</td>
</tr>
<tr>
<td><em>NEG</em>-phrase</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>feature percolation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre-nominal position</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>%</td>
</tr>
<tr>
<td>post-nominal position</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

In German and English, post-nominal *wh*-phrases and *NEG*-phrases are acceptable (in the relevant positions). In contrast, in Danish, where both *wh*-movement and *NEG*-movement must take place overtly, DP-internal post-nominal *wh*-phrases and *NEG*-phrases are excluded as they cannot be licensed by movement of the entire DP to SpecCP and SpecNegP, respectively (but see also footnote 10). In French, the pattern is more complex since *wh*-movement and *NEG*-shift need not/must not take place overtly. DP-internal post-nominal *wh*/-NEG-phrases are only acceptable if the DP surfaces in a position below the licensing position, SpecCP/SpecNegP, such that covert movement of the *wh*/-NEG-element is possible, thereby giving rise to asymmetries between subjects and objects as well as between *wh*-phrases and *NEG*-phrases.
Notes

1 In echo-questions, (i), and multiple questions, (ii), a wh-phrase may occur in situ in the languages under discussion.

(i)  En     John ate WHAT?

(ii)  En     What did you give to whom?

According to Reis (1991, 1992), echo-questions are not interrogative clauses but are only questions from a pragmatic perspective. The wh-phrase is not marked for [wh], and consequently, it is not subject to the conditions on [wh] licensing. In multiple wh-questions, absorption takes place. The in situ wh-phrase is absorbed into the one in SpecCP such that it need not undergo wh-movement itself to licence its [wh] feature (see Higginbotham & May 1981, May 1985).

2 Bošković (1997) and Cheng & Rooryck (2000) claim that wh-in situ is restricted to matrix clauses in French; cf. Pollock (1998). (See also Chang (1997) and Mathieu (2004) on other contexts in which wh-movement is obligatory.)

(i)  Fr a. *Pierre a demandé qui tu a vu qui?
b.   Pierre a demandé qui tu a vu t,oh?
      Pierre has asked who you have seen (Bošković 1997: 46)

(ii)  Fr a. *Jean et Pierre croient que Marie a vu qui?
b.   Qui Jean et Pierre croient-ils que Marie a vu qui?
      who Jean and Pierre think-they that Marie has seen (Bošković 1997: 48)

3 Empirical support for the SpecCP analysis of wh-subjects comes from wh-island effects and intensifiers like the hell/on earth (Pesetsky 1987). In contrast to non-subject questions, however, subject questions do not give rise to do-support. On the lack of do-support in subject questions see Bobaljik (1995), Lasnik (1995) and Pesetsky & Torrego (2001).

4 In situ occurrence of a negative object is possible under a narrow scope reading (see Svenonius 2002).

(i)  Da a.   Jeg har [VP fået ingen point]
        I have received no points
        'I scored zero points.'
      Jeg har [NegP ingen point [VP fået t,oh]]
        I have no points received
        'I haven’t got any points yet/I haven’t been judged yet.' (K. R. Christensen 2005: 83)

In addition, Svenonius (2002) claims that a negative object in situ can be licensed by another VP-external NEG-phrase in Norwegian (giving rise to a double negation reading); see also footnote 1 on multiple wh-questions.

(ii)  No a. *Studentene kunne [VP svare på ingen oppgaver]
      students-the could answer on no assignments
      Jeg har [Neg ingen point [VP svare på ingen oppgaver]]
      no students could answer on no assignments (Svenonius 2002: 142)

5 Haegeman (1995) presents data that support the hypothesis that NEG-shift takes place overtly in German. Under a sentential negation reading the negative complement of an adjective must occur to the left of the adjective, (i), while it may remain inside AdjP under a narrow scope reading, (ii).

(i)  Ge     Ich hatte gerade ein sehr schwieriges Gespräch mit Peter über unseren Lösungsvorschlag. (I had just a very difficult conversation with Peter about our new proposal for solution)
      a. *Das ist immer so, weil Peter zufrieden mit nichts ist.
      b. Das ist immer so, weil Peter mit nichts zufrieden ist.
      that is always so as Peter with nothing pleased is

      (Haegeman 1995: 167/68)
(ii) **Ge**
Warum ist Peter stolz auf dieses miese Ergebnis?
(why is Peter proud of this bad result)

Weil Peter stolz auf **nichts** ist.
(because Peter proud of **nothing** is) (Haegeman 1995: 169)

In contrast to *personne* 'nobody', *rien* 'nothing' precedes a non-finite verb in French; compare (i) with (12).

(i) **Fr**

a. *Il n’ a dit **rien**.
  he NE has **nothing** said

b. Il n’ a **rien** dit t_{neg}.

However, Rowlett (1998: 191-193) claims that *rien* does not move to SpecNegP (which hosts the negation marker *pas* 'not') but to a lower position, as indicated by its position relative to the adverb *encore* 'yet'.

(ii) **Fr**

a. Jean n’ a encore **rien** mangé.
  Jean NE has not yet **nothing** eaten (Rowlett 1998: 192)

b. Jean n’ a **pas** encore mangé.

In the following, I will concentrate on the syntactic behaviour of *personne* 'nobody'.

However, note that overt extraction of a *wh*-phrase is possible out of an object DP but not out of a subject DP; compare (i) with (ii).

(i) **Fr**

a. ?*De qui a-t-il rencontré le frère t_{wh}?
  of who has-he met the brother

b. *De qui est-t-il venu le frère t_{wh}?
  of who is-he come the brother

(ii) **Fr**

a. ?*De qui le frère t_{wh} est-t-il venu?
  of who the brother is-he come

b. *De qui le frère t_{wh} est-t-il venu?

Since *in situ* occurrence of a *NEG*-phrase is ungrammatical, (9) and (i), movement of the complex object/subject to/through SpecNegP must have taken place in (32).

(i) **Da**

a. *Vi har truet intet lands sikkerhed.
we have threatened no country’s security

b. *Vi har intet lands sikkerhed truet.

However, note that movement of a complex *NEG*-phrase across a verb *in situ* is at least strongly marked. This might have to do with the fact that more complex *NEG*-phrases do not easily undergo non-string-vacuous *NEG*-shift as shown in (iii); see Rögnvaldsson (1986) and K. R. Christensen (2005).

(ii) **Da**

a. *Vi har intet lands sikkerhed truet.

(b) *Vi har intet lands sikkerhed truet.

(iii) **Da**

a. Jeg har intet t_{neg}.

b. Jeg har intet nyt t_{neg}.

K. R. Christensen (2005: 65)


10 Notice that a *wh*-phrase may occur in post-nominal position as long as it is licensed by another *wh*-phrase in SpecCP; see also footnote 1.

(i) **Da**

Inden de er ret gamle, ved de, **hvem der er forældre til hvilke børn** på stuen.

before they are really old know who that is parents of which children in room-the

Moreover, Svenonius (2002) claims that a *NEG*-phrase may occur in DP-internal complement position in Norwegian if it is licensed by a higher *NEG*-phrase; see also footnote 4.
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(ii) No a. *Artistene* beholdt rettighetene til ingen av låtene sine.
    b. *Ingen av artistene* beholdt rettighetene til ingen av låtene sine.

*none of* artists-the retained rights-the to none of songs RFX

(Svenonius 2002: 143)

11 The hypothesis that DPs that contain a NEG-phrase undergo NEG-shift in overt syntax in German is supported by the fact that they must precede an adjective under a sentential negation reading; see footnote 5 above.

(i) Ge a. *?*Martin ist zufrieden mit dem Vater von keinem Kind.
    b. Martin ist mit dem Vater von keinem Kind zufrieden.

Martin is with the father of no child pleased

(ii) Ge a. *?*Martin ist zufrieden mit dem Vater keines Kindes.
    b. Martin ist mit dem Vater keines Kindes zufrieden.

Martin is with the father of no child content

12 In embedded questions, pied-piping of the entire DP does not seem to be possible. Instead, only the post-nominal PP moves to SpecCP. (See also footnote 2 on differences between main questions and embedded questions.)

(i) Ge a. *?Er fragt, Reiseführer von welchem Anbieter du t empfehlen kannst.*
    b. Er fragt, von welchem Anbieter du Reiseführer t empfehlen kannst.

he asks of which provider you travel-guides recommend can

13 *Wh*-phrases and NEG-phrases never surface in pre-nominal position in French.

14 The German *wh*-NEG-phrases discussed in section 2.3 are all post-nominal. However, feature percolation is clearly possible from pre-nominal specifier position in German, too.

(i) Ge a. *Wessen Bruders Ehefrau hast du getroffen?*
    b. *Wem seine Ehefrau hast du getroffen?*

whose brother wife have you met

who his wife have you met

15 There is one well-known exception to the prohibition against feature percolation from complement position: The complement of a preposition is able to – and in many languages must – pied-pipe PP (see Webelhuth 1992 and Horvath 2005). Preposition stranding as found in English and the Scandinavian languages is cross-linguistically rather rare. Thus, the entire PP in (46) can be marked \[wh]/[NEG].

(i) Da a. *Hvem har du snakket med t?*
    b. *Med hvem har du snakket t?*

with whom have you spoken

(ii) Ge a. *?Wem hast du mit t gesprochen?*
    b. *Mit wem hast du gesprochen t?*

with whom have you spoken

16 Radford (2004) also assumes that a pre-nominal possessor appears in the specifier of a functional projection between DP and NP (namely, NumP). He suggests that the features of the phrase in SpecNumP percolate onto D° "perhaps via some form of agreement parallel to agreement between a complementiser and a subject in a number of languages" (Radford 2004: 413). In complementiser agreement cases, C° agrees in number and person with the specifier of its TP complement, as illustrated by the West Flemish example in (i).

(i) WF a. *… da den inspekteur da boek gelezen eet.*
    b. *… dan d’inspekteurs da boek gelezen een*

… that the inspector that book read has
… that the inspectors that book read have

17 This is possibly not in line with den Dikken's (1998) analysis, where the overt preposition in possessive constructions is taken to be a morphologic reflex of head movement to D°.