Abstract
We investigate the etymologically related words: so and such (English); så and sådan (Danish); and so and solch (German). Similarities and differences that have to be accounted for cross-linguistically are i) position (pre- or post- indefinite article), ii) semantics (degree or referential readings) and iii) agreement morphology (in Danish and German). English such may have either a degree reading or an identifying (referential) reading and may only precede the indefinite article. Danish and German allow inflected sådan/solch to follow the article. English and Danish so/så only have a degree reading, while German so may be identifying. We discuss two possible syntactic derivations, predicate raising and XP movement from an attributive adjective position within the nominal. The analysis accounts for the morphological agreement of predicate and attributive adjectives in Danish and German.
1. Parallels between DPs and clauses

This work is/was part of a larger project on parallels between nominals and clauses, trying to push such a parallelism to \( \text{DP} \sim \text{CP} \), \( \text{NumP} \sim \text{IP} \), and \( \text{NP} \sim \text{VP} \):

\[
\begin{align*}
\text{(1)} & & \text{DP} \\
& & \text{Spec} \\
& & \text{D'} \\
& & \text{D}^\circ \\
& & \text{NumP} \\
& & \text{Spec} \\
& & \text{Num'} \\
& & \text{Num}^\circ \\
& & \text{NP} \\
& & \text{AdjP} \\
& & \text{Spec} \\
& & \text{NP} \\
& & \text{Spec} \\
& & \text{N'} \\
& & \text{N}^\circ \\
& & \text{PP} \\
\end{align*}
\]

\[
\begin{align*}
\text{(2)} & & \text{CP} \\
& & \text{Spec} \\
& & \text{C'} \\
& & \text{C}^\circ \\
& & \text{IP} \\
& & \text{Spec} \\
& & \text{I'} \\
& & \text{I}^\circ \\
& & \text{VP} \\
& & \text{AdvP} \\
& & \text{Spec} \\
& & \text{VP} \\
& & \text{Spec} \\
& & \text{V'} \\
& & \text{V}^\circ \\
& & \text{DP} \\
\end{align*}
\]

2. Introduction to so and such

Larger question: What types of movement can be found in nominals?

The focus in this paper is on two etymologically related words used to express degree in three Germanic languages: so and such in English, så and sådan in Danish, and so and solch in German.

\[
\begin{array}{llll}
(3) & \text{a. En.} & \text{so} & \text{such} \\
& \text{b. Da.} & \text{så} & (slig) & \text{sådan} \\
& \text{c. No.} & \text{så} & \text{slik} \\
& \text{d. Sw.} & \text{så} & (slik) & \text{sån} \\
& \text{e. Ge.} & \text{so} & \text{solch} \\
& \text{f. Du.} & \text{zo} & \text{zulk} \\
\end{array}
\]

Syntax: position (pre- or post-indefinite article)
Morphology: agreement morphology (in Danish and German)
Semantics: whether an AdjP or a DP/NP is modified

Expressions involving these two words are particularly interesting as they may occur on the left periphery of nominals, preceding the indefinite article.
In the traditional grammar terms of Quirk et al. (1985:257), *such* is a "predeterminer". But it is a special predeterminer which, in English, may only precede the indefinite article and not the definite article:

(4) En. a. ... which are a **major part** of the present system.
    b. ... which are **such a** major part of the present system.

(5) En. a. ... which are the **major part** of the present system.
    b. *... which are **such the major part** of the present system.

Similarly, English expressions involving *so, too, as, how, this, that* plus an adjective precede the indefinite article.

(6) En. a. which are a **big part** of the present system.
    b. ... which are **so big a** part of the present system. (COCA)

In the main part of this paper we focus on the syntactic derivation by comparing these two expressions in English, Danish and German, but first, we take a brief look below at how these words are etymologically related.

### 2.1 A note on etymology

In Germanic, the word *such/solch/slig* is a grammaticalised form of *so* formed from *swa, 'so' + *lîko, 'body', 'form*. In Danish, *slig* (also from *swa + *lîko*) is archaic and is now superseded by *sådan: så + dan* from Low German *dôn 'do' (cf. *hvordan 'how': 'where' + dan*).

The examples below from Søren Kierkegaard's diaries (1834-1846) show that *slig* was still used in the mid 19th century:

(7) Da. Engang traf han paa slig-t et Sted sammen med en Reisende ...
    *Once met he in such. NEUT a. NEUT place up with a traveller*
    'Once he met a traveller in such a place ...'

(8) Da. Hver Gang en Slig Tanke falder mig ind ...
    *Every time a. COM such. COM thought falls me in*
    'Every time such a thought occurs to me ...'

As may be seen here, Danish *slig* may occur both before and after the indefinite article. The same holds for Danish *sådan* and German *solch*. This is impossible in English, and has been impossible since the 14th century (Wood 2003: 315):

(9) ME þis kniðes þoþte wonþer gret þat a such heiard ...
    *the knights thought wonder greatly that a such herdsman*
    (c1290, St. Eustace 144 in S.E. Leg. 397)

The starting point, however, will be synchronic and syntactic, on what the *so* and *such* expressions modify in each language, the DP/NP, or the adjective phrase.
2.2 Overview of possible word orders

Here is a summary of the possible word order and agreement morphology in the three languages:

(10)

<table>
<thead>
<tr>
<th></th>
<th>pre-article</th>
<th>post-article</th>
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<tbody>
<tr>
<td>modifying the whole DP/NP</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>modifying only the AdjP</td>
<td>c</td>
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(11) English

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<th>pre-article</th>
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<tr>
<td>DP/NP</td>
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<td>AdjP</td>
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(12) Danish

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<th></th>
<th>pre-article</th>
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<tbody>
<tr>
<td>DP/NP</td>
<td>sådan(t)</td>
<td>sådant</td>
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<tr>
<td>AdjP</td>
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<td>så</td>
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(13) German

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<th>pre-article</th>
<th>post-article</th>
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<tr>
<td>DP/NP</td>
<td>solch</td>
<td>solches</td>
</tr>
<tr>
<td>AdjP</td>
<td>-</td>
<td>solch</td>
</tr>
</tbody>
</table>

English: Pre-article *such* modifies the DP (11)a:

(14) En. In education *such a policy* would improve performance indicators immediately.

(BNC, *The Scotsman*)

English: Pre-article *so* modifies the AdjP (11)c:

(15) En. ... who was clearly unhappy at the arrival of *so powerful a neighbour*.


German: Post-article *solch(es)* modifies the DP (13)b:

(16) Ge. Die Sache muß jedenfalls eine solche Dimension gehabt haben, daß Kohl und Boenisch schnell handeln wollten.

*The case must at-any-rate a such dimension had have that Kohl and Boenisch quickly act wanted*  
(Die Zeit, 21.06.1985, www.zeit.de)

German: Post-article *solch* modifies the AdjP (13)d:

(17) Ge. Auf ein Länderspiel wurde eine solch hohe Summe gesetzt, dass sich sogar Staatspräsident Saakashwili einschaltete.

*On an international match was a such high amount bet that REFL even president Saakashvili got-involved*  
(Die Zeit, 26.11.2009, www.zeit.de)
2.3 Possible derivations

With respect to the syntax, two possible derivations of pre-article *such* and *so* in English, have been suggested in the recent literature. In one derivation, there is movement from the prototypical Germanic adjective position preceding the noun to a position preceding the indefinite article, as in (18):

(18) \([\textit{such / so bad}]_i \ a \ t_j \text{ hotel}\)

The other suggestion is that *such* and *so* expressions originate as predicates in a small clause that has a DP subject as in (19):

(19) \([\textit{such / so bad}]_k \ a \text{ hotel} \ [\text{ec} \ t_k]\)

We compare *so* and *such* to their equivalents in Danish, *så/sådan*, and in German, *so/solch*, in order to decide which of the two derivations above is most plausible.

German and Danish differ morphologically and syntactically from English.

- It is possible to find *så/sådan* and *so/solch* following as well as preceding the indefinite article.
- German and Danish have morphological agreement on adjectives.
- Danish: both predicative and attributive adjectives agree
- German: adjectives only agree when they are attributive.

(20) a. Ge. Ein Bus ist grün_, die anderen sind gelb_
b. Da. En bus er grøn_, de andre er gul

\(\text{One bus.MASC/COM is green, the others.PL are yellow}\)

(21) a. Ge. Ein Haus ist grün_, die anderen sind gelb_
b. Da. Et hus er grøn\textsubscript{t}, de andre er gul

\(\text{One house.NEUT is green the others.PL are yellow}\)

(Vikner 2001:399-400)

We will argue, on the basis of adjectival agreement morphology, that post-article expressions are represented by the base order of (18), *a so bad hotel*, but that pre-article ones are derived from predicate raising as in (19), from *a hotel so bad to so bad a hotel*. 
3. so-constructions in English, Danish and German

English degree adverbs: so, how, as, too, this, that.
Danish: så, for, hvor.
German so, zu, wie.

The tables below set out the logical possibilities in the three languages:

(22)  

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<tr>
<th>modulating the whole DP/NP</th>
<th>pre-article</th>
<th>post-article</th>
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<tbody>
<tr>
<td>modifying only the AdjP</td>
<td>a</td>
<td>b</td>
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(23) **English**

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<tr>
<th>DP/NP</th>
<th>pre-article</th>
<th>post-article</th>
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</thead>
<tbody>
<tr>
<td>AdjP</td>
<td>so</td>
<td>*so</td>
</tr>
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</table>

- a. *so a hotel*
- b. *a so hotel*
- c. *so bad a hotel*
- d. *? a SO bad hotel*

(24) **Danish**

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<tr>
<th>DP/NP</th>
<th>pre-article</th>
<th>post-article</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdjP</td>
<td>så</td>
<td>så</td>
</tr>
</tbody>
</table>

- a. *så et hotel*
- b. *et så hotel*
- c. *så dårligt et hotel*
- d. *et så dårligt hotel*

(25) **German**

<table>
<thead>
<tr>
<th>DP/NP</th>
<th>pre-article</th>
<th>post-article</th>
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</thead>
<tbody>
<tr>
<td>AdjP</td>
<td>so</td>
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</table>

- a. *so ein Hotel*
- b. *ein so Hotel*
- c. *so schlecht ein Hotel*
- d. *ein so schlechtes Hotel*

- **English**: if native speakers accept (23)d at all, it is with heavy stress on *so*
- **English** and **Danish**: *so/så* only modifies an adjective phrase and has to be immediately adjacent to that phrase.
- **German** and **Danish**: *so/så* plus adjective may either precede or follow the indefinite article
- **German** and **Danish**: obligatory agreement between the adjective and the (neuter) noun.
- **German**: pre-article *so* is possible without a following adjective. This means that it is possible for *so* in German to modify the entire DP as well as the AdjP or NP, unlike English and Danish *so* and *så* which only modify the AdjP (or NP), not the entire DP.
3.1 Deriving pre-article *so*

Two possible derivations: In one possible derivation of pre-article *so*, (which we will not be adopting) the adjective phrase *so bad* would be base-generated in the prototypical adjective position (i.e. following the article and preceding the noun) and then move into Spec-NumP, as was described in (18) above, shown in (26) below (Matushansky 2002; Wood 2002, 2004):

(26)  

An alternative derivation (which we prefer) would be through predicate raising from the small clause, which has the same position that a relative clause would have, i.e. right-joined to the NP as in (19) above, shown in (27) below: (e.g. Zamparelli 1995; Bennis, Corver and den Dikken 1998; Corver 1997; Wood 2002:106).

(27)
3.2 Support for the predicate raising analysis

Firstly, constructions with the surface word order of pre-movement of (27) are possible:

(28) Da. Hvordan kan det være, at en forelskelse så stærk og vidunderlig som vores er endt i næsten åben krig?

How can it be that a love as strong and wonderful as ours is ended in almost open war? (KorpusDK, magazine, 1990)


King Gustav imposed a war-tax so high as no Danish king had dared to demand it. (KorpusDK, written, 1987)

(30) En. I said I've never seen a star so bright way down there. (BNC, spoken, 1988)

(31) En. It is rare to see a house so little altered. (BNC, written, 1991)

(These are possibly reduced relative clauses.)

The second piece of evidence comes from the constructions below, from Zamparelli (1995: 132-33), and from COCA. Many dialects of English have an optional of in so + adjective constructions.

(32) En. so tall (of) a man (that he had to lean on the basket)

(33) En. I was so cold of a person at one time in my life; closed off all my own feelings (COCA)

This of is not a case-assigning preposition, nor a possessive of or a partitive of. It is similar to the meaningless element, Dutch van, argued by Bennis, Corver and den Dikken (1998:86) to be a functional head parallel to the clausal copula in examples such as the following:

(34) En. The island is a jewel.

(35) En. a jewel of an island

(36) Da. Statsministeren i tegneserien var en lille nar.

Prime-minister-the in cartoon-the was a little fool

(37) Da. en lille nar af en statsminister

a little fool of a prime-minister (KorpusDK)
A third piece of evidence is that in English, adjectives that are usually only predicative (e.g. alike, awake, ashamed, upset, afloat, alone) appear to be better in these constructions than when they occur in the canonical attributive position. Comparing the (b) and (c) examples in (38) and (39) below it may be seen that the c examples are grammatical.

(38) En. a. The shoplifter is ashamed.
  b. *The ashamed shoplifter was taken to the police station.
  c. The so ashamed shoplifter was taken to the police station.
  d. So ashamed a shoplifter have I never seen.

(39) En. a. The twins are alike.
  b. *The alike twins had their picture taken.
  c. The so alike twins had their picture taken.

If the (c) examples are derived through predicate raising it would explain why they are grammatical, even though the (b) examples are not.

The same argumentation can be made for the Danish expression ked af det, 'sad of it', which just means 'sad'. It can be used predicatively, not attributively, but it is OK when used in a so-construction:

(40) Da. a. Den studerende var ked af det.
  The student was sad of it.
  b. *Jeg har aldrig set en ked af det studerende.
  c. Jeg har aldrig set så ked af det en studerende.
  *I have never seen a/so sad of it (a) student

A fourth piece of evidence is provided by Lenerz and Lohnstein (2004:83), who point out that although (41)b is ungrammatical, native speakers nevertheless have clear intuitions of what the form should be, not only uninflected (as predicate adjectives are in German, see e.g. Vikner 2001) but also in the predicate form, hoch. Therefore, although both are ungrammatical, (41)b is better than (41)a.

(41) Ge. a. *so *hoh- ein Haus
  so high-ATTR a house
  (cf. c. ein hohes Haus )
  a high house

  b. *so hoch ein Haus
  so high-PRED a house
  (cf. d. Das Haus ist hoch )
  the house is high

We argued above that the predicate raising analysis is the preferred analysis for expressions involving pre-article so, så and so. Below we argue that also for pre-article such, sådan and solch expressions, the predicate raising analysis is preferred over fronting from attributive position.
4. such constructions in English, Danish and German

Also for such/sådän/solch there are four possible combinations of word order and modification. Such obligatorily precedes the article in present-day English (although, as pointed out in Wood 2004:315, in earlier English and in some dialects, post-article such is found). However, in both Danish and German, both pre- and post-article orders are found:

(42)

modifying the whole DP/NP
modifying only the AdjP
pre-article post-article

- a. such a hotel
- b. *a such hotel
- c. *such bad a hotel
- d. *a such bad hotel

(43) English

<table>
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<tr>
<th>DP/NP</th>
<th>AdjP</th>
<th>pre-article</th>
<th>post-article</th>
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<tr>
<td>such</td>
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(44) Danish

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(45) German

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<tr>
<td>solches</td>
<td>solch</td>
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- English: is the most restrictive because such must precede the article, (43)a.

- English, German and Danish: pre-article such modifies the entire DP; it cannot just modify an adjective.

- Danish allows both a pre-article sådan, which modifies the DP, (44)a, and a post-article sådant, (44)b, which modifies the NP. Post-article sådan is always inflected, whereas pre-article sådan may or may not be inflected.

- German: Like English and Danish, it has a pre-article solch, which modifies the DP, (45)a, but in addition, it has two different forms of post-article solch. Inflected post-article solch modifies the NP, (45)b, whereas uninflected post-article solch modifies an AdjP, (45)d.
4.1 German post-article *solch*

For (45)d, there might seem to be two possibilities, as *solch* could also have been inflected in this position (i.e. following an article and preceding an adjective -- *ein solch_ schlechtes Hotel* and *ein solches schlechtes Hotel*, see also (51) and (52) below). However, when *solch* is inflected in this position, it modifies the NP, and so this would really be a subcase of (45)b (i.e. *ein solches Hotel*).

Therefore (45)d, where *solch* in the post-article position modifying an AdjP, only exists in one version, uninflected, where we suggest that *solch* is an adverb, not an adjective (see below). In other words, when post-article *solch* modifies the NP, it inflects like an adjective:

(46) Ge.  ... was *ein solcher* Künstler für eine Gage bekommt.
       ... *what a such artist for a fee receives*

However, when post-article *solch* modifies an adjective, it is never inflected:

(47) Ge.  ... mit *einem solch großen* Aufwand.
       ... *with a.DAT such big.DAT effort*  (Fabricius-Hansen et al. 2005:330)

(48) Ge.  Selten hat *ein solch dicker* Buch meine Aufmerksamkeit mehr gefesselt als dieses
       *Seldom has a.NOM such thick.NOM book my attention more captured than this*
       (Fabricius-Hansen et al. 2005:332)

This difference is parallel to the difference between attributive adjectives (inflected) and adverbs (uninflected) in German:

(49) Ge.  *ein ungläubliches* Buch
       *an incredible.NEUT book*

(50) Ge.  *ein ungläublich gutes* Buch
       *an incredibly good.NEUT book*

That the difference in inflection is linked to the NP-modifying vs. the AdjP-modifying reading of *solch* is clear from differences in interpretations such as the following:

(51) Ge. a.  Einige Supermärkte bieten ebenfalls *ein solches schwarzes* Brett
           *Some supermarkets also offer a such.NEUT black NEUT board*
           (= such a notice board)  (www.talkteria.de/forum/topic-30812.html)

           b.  Einige Supermärkte bieten ebenfalls *ein solch schwarzes* Brett
               *Some supermarkets also offer a such black NEUT board*
               (= so black a board)

(52) Ge. a.  Wir brauchen einen *solchen runden* Tisch
           *We need a.MASC.ACC such.MASC.ACC round.MASC.ACC table*
           (= we need such negotiations)

           b.  Wir brauchen einen *solch runden* Tisch
               *We need a.MASC.ACC such.MASC.ACC round.MASC.ACC table*
               (= we need so round a table)
4.2 Deriving pre-article *such*

One possible derivation of pre-article *such* is for it to be base-generated in the prototypical adjective position (i.e. following the article and preceding the noun) and then moved to a position preceding the indefinite article. One implementation based on Ritter (1991) was advocated by Wood (2002) (see also Matushansky 2002:48). Here, *such* moves from the prototypical attributive adjective position\(^1\), which is left-adjointed to the NP:

\[(53)\]
\[
\text{DP} \\
\text{D'} \\
\text{D}^o \\
\text{(no)} \\
\text{(any)} \\
\text{AdjP}_k \\
\text{NumP} \\
\text{Num'} \\
\text{such} \\
\text{a} \\
\text{t}_k \\
\text{NP} \\
\text{N'} \\
\text{N}^o \\
\text{hotel}
\]

Another possible derivation is predicate raising, as in Wood (2002:112), who takes the idea from Zamparelli (1995) and from Bennis, Corver & den Dikken's (1998) derivation of *wat voor* constructions. The main idea is that *such* originates as a predicate in a verbless clause (a so-called small clause). This small clause has the same position that a relative clause would have, i.e. right-adjointed to the NP.

\[(54)\]  
\[
\text{[Small Clause [SC-subject teachers] [SC-predicate such as these]] is what every student fears.}
\]

\[(55)\]
\[
\text{DP} \\
\text{D'} \\
\text{D}^o \\
\text{no} \\
\text{any} \\
\text{AdjP}_k \\
\text{NumP} \\
\text{Num'} \\
\text{such} \\
\text{a} \\
\text{t}_k \\
\text{NP} \\
\text{SC} \\
\text{hotel}
\]

\(^1\) We are abstracting away from the internal structure of the adjective phrase (see e.g. Bresnan 1973, Corver 1997, Wood 2002).
4.3 Support for the predicate raising analysis

4.3.1 Morphology and German pre-article solch

Deriving German pre-article solch from a predicate as illustrated in (55) would account for why it is never inflected (similar to German manch ein 'many a' and welch ein 'what a') given that predicate adjectives are never inflected in German, as opposed to Danish, cf. e.g. Vikner (2001):

\[(56) \text{Ge. Dann wird es klar, wie klug und peinlich genau solch ein Künstler wie Wagner war.} \]

*Then becomes it clear how clever and pedantically exact such an artist as Wagner was.* (Fabricius-Hansen et al. 2005:331)

\[(57) \text{Ge. a. Wo findet man solch ein Hotel?} \]
\[b. *Wo findet man solches ein Hotel? \]

*Where finds one such a hotel*

\[(58) \text{a. Ge. Ein Bus ist grün, die anderen sind gelb} \]
\[b. Da. En bus er grøn, de andre er gule \]

*One bus.MASC/COM is green, the others.PL are yellow*

\[(59) \text{a. Ge. Ein Haus ist grün, die anderen sind gelb} \]
\[b. Da. Et hus er grønt, de andre er gule \]

*One house.NEUT is green the others.PL are yellow*

4.3.2 Morphology and Danish pre-article sådan

The derivation of Danish pre-article sådan from a predicate as illustrated in (55) is at first glance less obvious than the parallel derivation for German pre-article solch. We need to explain the agreement morphology of sådån.

− Danish predicative adjectives always agree as in (59)b
− Danish predicative sådan does not behave as a prototypical adjective because agreement is an option, not obligatory.
− Danish pre-article sådan, derived from a predicate, may be inflected, but most often is not, (44)a.
− Despite the optional morphology we still argue for the predicate derivation because if pre-article sådân were derived from an attributive, it would be expected to always inflect.

The predicate derivation analysis receives further support from the following corpus data.

\[^2 \text{As pointed out by Harry Perridon (p.c.), German may leave pre-article all uninflected. This is not possible in Danish, where inflection on alle is obligatory.} \]

\[(i) \text{a. Ge. mit all diesen Büchern} \]
\[b. Da. *med al disse bøger} \]

*with all these books*

\[(ii) \text{a. Ge. mit allen diesen Büchern} \]
\[b. Da. med alle disse bøger} \]

*with all.PL these books*

Although the possibility of leaving all uninflected in German is reminiscent of pre-article solch, it is not clear to us whether (ia) could or should be derived from a predicative structure, given that all is not a very likely candidate for a predicate.
First, consider the following figures for pre-article sådan in Danish (KorpusDK, November 2009):

- Pre-article sådan always modifies a DP, regardless of whether this DP contains an unmodified noun (60) or also an AdjP, (61)
- Inflection of pre-article sådan is possible, but clearly not preferred (the b-figures are very much bigger than the a-figures).

(60) a. sådant et + NOUN 52 (such.NTR a.NTR + NOUN)
    b. sådan et + NOUN 1460 (such.COM a.NTR + NOUN)
    c. sådant en + NOUN 0 (such.NTR a.COM + NOUN)
    d. sådan en + NOUN 3400 (such.COM a.COM + NOUN)

(61) a. sådant et + ADJ + NOUN 9 (such.NTR a.NTR + ADJ + NOUN)
    b. sådan et + ADJ + NOUN 227 (such.COM a.NTR + ADJ + NOUN)
    c. sådant en + ADJ + NOUN 0 (such.NTR a.COM + ADJ + NOUN)
    d. sådan en + ADJ + NOUN 600 (such.COM a.COM + ADJ + NOUN)

Compare these figures to the following figures from a search\(^3\) of Infomedia, a newspaper database, of Danish sådan as a predicate (these strings are not sufficiently frequent to show up in KorpusDK):

(62) a. det er sådant at .. 3 (it.NTR is such.NTR that ...)
    b. det er sådan_ at .. 1462 (it.NTR is such.COM that ...)
    c. den er sådant at .. 0 (it.COM is such.NTR that ...)
    d. den er sådan_ at .. 9 (it.COM is such.COM that ...)

- Predicative sådan may be inflected, but like pre-article sådan, the non-inflected form, (62)b, is very much more frequent than the inflected one, (62)a.
- Predicative sådan inflects following the same pattern as pre-article sådan.
- There is a sharp contrast with the figures for post-article sådan, (KorpusDK, November 2009):

(63) a. et sådant + NOUN 1639 (a.NTR such.NTR + NOUN)
    b. et sådan_ + NOUN 116 (a.NTR such.COM + NOUN)
    c. en sådant + NOUN 7 (a.COM such.NTR + NOUN)
    d. en sådan_ + NOUN 5207 (a.COM such.COM + NOUN)

(64) a. et sådant + ADJ + NOUN 102 (a.NTR such.NTR + ADJ + NOUN)
    b. et sådan_ + ADJ + NOUN 7 (a.NTR such.COM + ADJ + NOUN)
    c. en sådant + ADJ + NOUN 0 (a.COM such.NTR + ADJ + NOUN)
    d. en sådan_ + ADJ + NOUN 399 (a.COM such.COM + ADJ + NOUN)

These figures show that inflection of post-article sådan is not only possible, but clearly also preferred (the b-figures are very much smaller than the a-figures).

The figures cited here support our analysis that pre-article sådan is derived from a small clause predicate (both are only inflected in a small minority of the total cases) and not from post-article sådan (which is inflected in a large majority of the total cases).

---

\(^3\) The search was carried out in July 2010. The results were checked for mistakes and repetitions. For (62)b, the figures have been estimated based on the first 100 returns. Note that a Google search (July 2010) returned 6,030 cases for (62)a (compared to the 488,000 cases returned by (62)b). We take this as support for the 3 occurrences in (62)a representing a real option.
5. Conclusion

Shown below is a summary of the possible word order and agreement morphology in the three languages:

(65)

<table>
<thead>
<tr>
<th></th>
<th>modifying the whole DP/NP</th>
<th>modifying only the AdjP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pre-article</td>
<td>post-article</td>
</tr>
<tr>
<td>DP/NP</td>
<td></td>
<td>a</td>
</tr>
<tr>
<td>AdjP</td>
<td>-</td>
<td>b</td>
</tr>
</tbody>
</table>

(66) **English**

<table>
<thead>
<tr>
<th></th>
<th>pre-article</th>
<th>post-article</th>
<th>pre-article</th>
<th>post-article</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP/NP</td>
<td><strong>such</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AdjP</td>
<td>-</td>
<td>-</td>
<td>so</td>
<td>%so</td>
</tr>
</tbody>
</table>

(67) **Danish**

<table>
<thead>
<tr>
<th></th>
<th>pre-article</th>
<th>post-article</th>
<th>pre-article</th>
<th>post-article</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP/NP</td>
<td>sådan(t)</td>
<td>sådant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AdjP</td>
<td>-</td>
<td>-</td>
<td>så</td>
<td>så</td>
</tr>
</tbody>
</table>

(68) **German**

<table>
<thead>
<tr>
<th></th>
<th>pre-article</th>
<th>post-article</th>
<th>pre-article</th>
<th>post-article</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP/NP</td>
<td><strong>solch</strong></td>
<td>solches</td>
<td>so</td>
<td>-</td>
</tr>
<tr>
<td>AdjP</td>
<td>-</td>
<td>solch</td>
<td>-</td>
<td>so</td>
</tr>
</tbody>
</table>

In the post-article versions the *so, så, so* and *such, sådán, solch* expressions are generated as attributives as in (69) and in the pre-article ones they are generated as predicates as in (70).

(69)

```
  DP
   \___ D'
       \   NumP
          \   (no)
          \   (any)
             Num'
                Num°
                  a

  AdjP
     \____ such
        \  so good
           \ hotel
```

```
• As (69) shows, (65)b,d (i.e. post-article so/such) are base-generated in situ, and inflected as are all attributive adjectives in most Germanic languages.

• As (70) shows, we derive (65)a,c (i.e. pre-article so/such) by movement out of a postnominal predicate position, which is why pre-article so/such are inflected only in languages where predicative adjectives are inflected.

• The reason why German pre-article solch/so-phrases (i.e. (65)a,c) are never inflected is that they are derived from a predicate.

• The reason why the post-article solch that modifies an AdjP (i.e. (65)d) is not inflected is that it is an adverb, not an adjective.

• In Danish, there is no post-article sådan that modifies an adjective (i.e. (65)d).

• Danish pre-article sådan (i.e. (65)a,c) is peculiar in that it may, but most often doesn’t, show agreement with the NP. This is completely in line with it being derived from a predicate, because also with predicative sådan agreement is only a rarely used option, not a must.

• The structure in (70) is fully compatible with complicated examples such as (71), where such follows any but precedes a, as any is in D° and a is in Num°:

    (71) En. on the basis of any such a proposal or application form

    • The structure is also compatible with examples that show indefinite determiner doubling, cf. the suggestions in Wood & Vikner (2013):

    (72) Da. Det modsatte er, at du er en sådan en smart fyr, der er meget ude om natten.  
    _The opposite is that you are a such a smart guy who is much out at night_  
    (KorpusDK, novel, 1999)

    (73) En. During our interview, he ticks off what he believes the daily life of a such a worker would have been like.  
    (COCA, written, 2010)
Sources

British National Corpus (BNC) http://corpus.byu.edu/bnc
Corpus of Contemporary American English (COCA) www.americancorpus.org
KorpusDK http://ordnet.dk/korpusdk


References
