

Anaphoric Reference to Gradable Adjectives

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German so

- **discourse particle** – introducing subsequent actions (Ehlich 1986)
 - (1) (Teacher, after talking about birds)
So, jetzt sprechen wir über die Säugetiere.
'Let us now talk about mammals.'
- **connective** – indicating a consequence or elaboration relation
 - (2) **Die Regierung beklagte sich über die mangelnde Unterstützung aus der EU. So hat Finnland bislang sehr wenige bosnische Flüchtlinge aufgenommen.**
'The government complained about lack of support by the EU. Finland, for example, accommodated very few refugees from Bosnia.'
- introducing a **result clause construction** (Meier 2001)
 - (3) **Anna ist so groß, dass sie an das oberste Regal kommt**
'Anna is so tall that she can reach the top shelf.'
- **equative comparison constructions** (Bierwisch 1989)
 - (4) a. **Anna ist so groß wie Marie.** 'Anne is as tall as Mary.'
b. **Anna ist so gefahren wie Marie.** 'Anne took the same route as Mary.'

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Deictic and anaphoric uses of so

primary use of German **so**: **demonstrative expression** (Zifonun et al. 1997)

deictic

- (5) a. (pointing to a cabrio:) **So ein Auto will Marie kaufen.**
'Mary wants to buy a car like this'
- b. (pointing to a map:) **So bin ich gefahren.**
'I went this way.'

anaphoric

- nominal attribute:
 - c. **Anna hat ein Auto [mit Alarmanlage]₁. Marie will auch so₁ ein Auto kaufen.**
'Anna has a car with an automatic alarm. Marie wants to buy such a car, too.'
- manner modifier (Katz & Umbach 2006)
 - d. **Anna ist [über Dresden]₁ nach Prag gefahren. Marie ist auch so₁ gefahren.**
'Anna went to Prague via Dreden. Marie went also that way.'

(cf. also Landman & Morzycki 2003)
(antecedents may be more complex, e.g. propositional)

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side note: "auch so ..."

The examples will always be of the form "**auch so ...**" ('also like this')

- (5c) ... **Marie will auch so ein Auto kaufen.**
'... Marie wants to buy such a car, too.'
- (5d) ... **Marie ist auch so gefahren.**
'... Marie went also that way'

Krifka (1999): Stressed additive particles allow to get around the distinctiveness constraint (imposed by parallel information structure)

Anaphoric **so** need not be combined with **auch**.

- ... **Marie hat so ein Auto noch nie gesehen.**
'... Marie never saw a car like this before'
- ... **Marie ist so gefahren, als sie letztes Jahr nach Bratislava musste.**
'... Marie went that way when she had to go to Bratislava last year.'

For convenience, we will use examples of the form "**auch so ...**", but the contribution of **auch** is not relevant here

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Anaphoric so: Reference to properties

simple representations

nominal attribute

$[[so_{\text{attributive}}]] = \lambda Q \lambda x. Q(x) \wedge P^*(x)$ P^* anaphoric property of individuals

- (5) c. Anna hat ein Auto [mit Alarmanlage]₁. Marie will auch so₁ ein Auto kaufen.
'Anna has a car with an automatic alarm. Marie wants to buy such a car, too.'

$[[\text{mit Alarmanlage}]] \leftarrow P^*$

$[[so \text{ ein Auto}]] = \exists x. \text{car}(x) \wedge \text{equipped-with-automatic-alarm}(x)$

manner modifier

$[[so_{\text{manner}}]] = \lambda Q \lambda e. Q(e) \wedge P^*(e)$ P^* anaphoric property of events

- (5) d. Anna ist [über Dresden]₁ nach Prag gefahren. Marie ist auch so₁ gefahren.
'Anna went to Prague via Dresden. Marie went also that way.'

$[[\text{über Dresden}]] \leftarrow P^*$

$[[so \text{ nach Prag gefahren}]] = \lambda e. \text{go-to-Prag}(e) \wedge \text{via-Dresden}(e)$

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The Puzzle

- Why do the predicates in the (a)-sentences not qualify as antecedents for *so*?
- Why is it obligatory to repeat the expression licensing the anaphor (cf. (b)-sentences)?

- (6) a. Anna ist groß₁. #Marie ist auch so₁.
b. Anna ist groß₁. Marie ist auch so₁ groß.
'Anna is tall. Marie is (tall) like this, too.'

- (7) a. Anna hat ein schönes₁ Haus. #Marie hat auch so₁ ein Haus.
b. Anna hat ein schönes₁ Haus. Marie hat auch so₁ ein schönes Haus.
'Anna has a beautiful house. Marie has a house like this, too.'

- (8) a. Anna hat laut₁ gesungen. #Marie hat auch so₁ gesungen.
b. Anna hat laut₁ gesungen. Marie hat auch so₁ laut gesungen.
'Anna sang loudly. Marie sang like this, too.'

→ What does the anaphor *so* in the (b)-sentences refer to?

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Hypothesis

- (6) b. Anna ist groß₁. Marie ist auch so₁ groß. 'Anna is tall. Marie is (tall) like this, too'.

groß ('tall') – gradable adjective
– unmodified positive
– relative standard of comparison
(provided by the comparison class + other contextual factors)

Anna ist groß ==> Anna's height exceeds the standard of *groß* in this context.

Marie ist auch so₁ groß. ==> Marie's height also exceeds this standard

Hypothesis

- (i) *so* may pick up degrees (in addition to nominal attributes/ manner modifiers)
- (ii) If the antecedent is an unmodified positive, *so* refers to the standard of comparison, and requires "doubling" (*so*+Adj)
- (iii) "doubling" / references to the standard of comparison is restricted to relative gradable adjectives

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Evidence

- (i) *so* may pick up degrees

(9) a. Anna ist 1,80 groß. Marie ist auch so groß. 'Anna is 1,80. Marie is that tall, too'.
==> Marie's height is 1,80

- (ii) if the antecedent is an unmodified positive, *so* refers to the standard of comparison, instead of Anna's actual height

(10) a. Anna ist groß. Marie ist auch so groß. Anna ist 1,80 und Marie sogar 1,85.
'Anna is tall. Marie is like this, too. Anna is 1,80 and Marie even 1,85.'
==> Anna and Marie need not have exactly the same height.

- b. Betty's Mutter ist groß. ??? Betty ist auch so groß für eine 7-jährige.

'Betty's mother is tall. Betty is like this, too, taking the usual height of a 7-year old girl into account.'

==> the standard of comparison must not be shifted

- (iii) ... (will be discussed later)

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Non-anaphoric / non-deictic so

demonstrative **so** may be used without antecedent / deixis

"intensifying"

- (12) a. (A: Do you want to have my dining table? I don't need it.)
B: **Er ist so groß.** 'It is so big.'
- b. (A: Let us sit on the lawn.)
B: **Der Rasen ist so naß.** 'The lawn is so wet.'
- c. (A: Put the apples in the fridge.)
B: **Er ist so voll.** 'It is pretty full.'

hedging (will be ignored)

- (13) a. (A: What kind of music does he play ?)
B: **Na ja, so klassische.** 'Like classical'

claim: – combined with relative adjectives **so** merely emphasizes the context-dependence of the standard of comparison
– combined with absolute adjectives **so** induces a context-dependent standard of comparison

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Non-anaphoric / non-deictic so (2)

relative adjectives

- (12) a. (A: Do you want to have my dining table? I don't need it.)
B: **Er ist so groß.** 'It is so big.'

↓ standard context-depnt
groß ... -----
marginal effect, ← context-dependence of standard degree emphasized

absolute adjectives

- (12) b. (A: Let us sit on the lawn.)
B: **Der Rasen ist so naß.** 'The lawn is so wet.'

↓ standard = min
naß | -----|
"intensifying", ← minimum standard is shifted to a contextual one
(12) c. (A: Put the apples in the fridge.)
B: **Er ist so voll.** 'It is pretty full.'
"downsizing", ← maximum standard is shifted to a contextual one

→ relative use of an absolute adjective (**Der Rasen ist naß, aber nicht so naß**)

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Anaphoric so, Hyp. (ii) again

Hyp. (ii) If the antecedent is an unmodified positive, **so** refers to the standard of comparison

- (6) b. **Anna ist groß₁. Marie ist auch so₁ groß.**
'Anna is tall. Marie is (tall) like this, too.'

Taking (12a) into account, is **so** in (6b) truly anaphoric ??

But: Provided the context-dependent standard is fixed, there is no difference.

Open question: How much of an antecedent is the first occurrence of **groß** in (6b)?

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The domain of "doubling" – Hyp. (iii)

Hyp. (iii) "doubling" / reference to the standard of comparison is restricted to relative gradable adjectives

→ When to use "doubling" (**so+Adj**)?

non-gradable adjectives do not license "doubling"

- (14) a. **Anna hat ihr Zimmer gelb gestrichen. Marie hat ihres auch so / *so gelb gestrichen.**
'Anna painted her room yellow. Marie painted her room like this, too.'
- b. **Die Reihenfolge der Bücher ist alphabetisch, die der Ordner ist auch so / *so alphabetisch.**
'The order of the books is alphabetically, the order of the folders is also like this.'

BUT: not all non-gradables license plain **so**:

- (15) a. **Anna spricht französisch. Marie spricht auch *so / *so französisch.**
'Anna speaks French. Marie, too'
- b. **Annas Kleid ist gelb. Maries Kleid ist auch ??so. / *so gelb.**
'Anna's dress is yellow. Marie's dress is also like this.'

Why ?

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Do absolute gradable adjectives license "doubling"?

- (16) a. **Hans ist bedächtig. Marie ist auch so / so bedächtig.**
'Hans is a thoughtful person. Marie is also like that.'
- b. **Hans hat sich abfällig über die Inszenierung geäußert. Marie hat sich auch so / so abfällig geäußert.**
'Hans commented the production derogatorily. Marie did, too.'
- (17) a. **Annas Schuhe sind naß. Maries Schuhe sind auch *so / so nass.**
'Anna's shoes are wet. Marie's shoes are like this, too.'
- b. **Anna hat die Stele naß geschliffen. Die Bodenplatte hat sie auch so / *so naß geschliffen.**
'Anna wet grinded the stele. She did that with the base plate.'
- when picked up by **so**+Adj the min/max standard is shifted to a context-dependent one
- **naß** in (17b) does not allow a relative interpretation (wet / dry grinding)
 - **naß** in (17a) requires a relative interpretation (her shoes were soaked)

→ absolute gradables license "doubling" if they have a relative interpretation

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Do all relative gradable adjectives license "doubling"?

- (18) a. **Anna hat laut gesungen. Marie hat auch *so / so laut gesungen.**
'Anna sang loudly. Marie sang like this, too.'
- b. **Anna hat die Pianostelle laut gesungen. Marie hat sie auch so / ?? so laut gesungen.**
'Anna sang the piano part loudly. Marie sang it like this, too.'
- (many thanks to Martin Schäfer from Leipzig)

but note, that **laut** in (b) means *forte*, which is absolute (if gradable at all)

→ Relative gradables license "doubling" if they have a relative interpretation

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Conclusions

- The anaphoric **so** may pick up degrees (in addition to nominal attributes and manner modifiers)
 - Relating to the unmodified positive of a relative gradable adjective the anaphor **so**
 - refers to the contextually given standard of comparison
 - requires "doubling" (*so gross, so laut*)
 - Non-anaph/non-deictic **so** combined with absolute adjectives shifts the min/max standard of comparison to a context-dependent one (*so naß, so voll*)
 - Absolute adjectives license "doubling" if interpreted in a relative way
- Support for relative – absolute distinction, on the level of usage

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