1. Goals and Objectives

- A unified analysis of aspectual and modal instances of the German particle schon, with particular focus on sentence-evaluating modal schon.

\( \text{s} \text{chon}_{\text{MOD}} \) ‘yes…, but/ alright’ (1) vs \( \text{s} \text{chon}_{\text{ASP}} \) ‘already’ (2)

(1) A: What do you think about St. Pauli? / Tell me something about St. Pauli!
B: Das ist \( \text{s} \text{chon}_{\text{MOD}} \) ‘n gutes TEAM. / Das ist \( \text{SCHON}_{\text{MOD}} \) ‘n gutes Team.
‘Well, St. Pauli is a good TEAM, alright/ St. Pauli IS a good team, but…’

(2) Es REG\( \text{net} \) \( \text{s} \text{chon}_{\text{ASP}} \), eben hat noch die Sonne geschienen.
‘It’s RAINing already. The sun was shining just a minute ago.’

- The analysis accounts for similarities (comparative/scalar nature, non-at issueness) and apparent differences (+/- temporal alignment) of the two particle instances.

- Modifying and generalising Krifka’s (2000) analysis for \( \text{s} \text{chon}_{\text{ASP}} \) to \( \text{s} \text{chon}_{\text{MOD}} \), both instances are analysed as degree operators triggering non-at issue inferences (Simons et al 2010)

\( \Rightarrow \) \( \text{s} \text{chon}_{\text{MOD}} \): non-at issue counterpart of the modal comparative expression eher ‘rather’, evaluating validity of p relative to \( \neg \text{p} \) (Rubinstein & Herburger 2014):

\[
\begin{align*}
(1) & \Rightarrow \text{non-at issue} \\
\text{St. Pauli are rather a good team, than not.}
\end{align*}
\]

- The analysis accounts for all the observable properties of \( \text{s} \text{chon}_{\text{MOD}} \), including secondary pragmatic effects, its distribution in discourse, and its interaction with information structure and prosody (\( \text{s} \text{chon/SCHON} \))

- More generally, the analysis provides a new argument in favour of Kratzer’s (2012) claim that sets of possible worlds are sometimes too coarse-grained for modelling the meaning of modal expressions in natural language \( \Rightarrow \) propositional view

- Structure of the talk:

  §2: Properties of \( \text{s} \text{chon}_{\text{ASP}} \) and \( \text{s} \text{chon}_{\text{MOD}} \): Similarities and differences

  §3: Unified account: schon as an alternative-sensitive degree operator

  §4: Interactions with information structure and prosody

  §5: Conclusions
2. Semantic properties of schon\textsubscript{MOD} and schon\textsubscript{ASP}: Similarities and differences

2.1 Similarities of schon\textsubscript{MOD} and schon\textsubscript{ASP}

i. schon\textsubscript{ASP} & schon\textsubscript{MOD} contribute non-at issue meaning:

(3) Es regnet schon\textsubscript{ASP}.
   at issue: It’s raining at \( t_0 \). non-at issue: It wasn’t raining before \( t_0 \).

(4) St. Pauli ist schon\textsubscript{MOD} ein gutes Team.
   at issue: They are a good team.
   non-at issue: They are rather a good team than not.

- Family of sentences (Simons et al 2010): no visibility to negation, \( Q \), conditionals

(5) a. Es ist nicht der Fall, dass es schon\textsubscript{ASP} regnet.
   ‘It’s not raining now.’ NOT: ‘It’s not the case that it wasn’t raining before \( t_0 \).’

   b. Regnet es schon\textsubscript{ASP}?
   ‘Is it raining now?’ NOT: ‘Is it the case that it wasn’t raining before?’

   c. Wenn es schon\textsubscript{ASP} regnet, müssen wir uns beeilen.
   ‘If it is raining now, …’ NOT: ‘If it wasn’t raining before and is raining now, …’

⇒ FoS-test fails with schon\textsubscript{MOD} because of semantic mismatch: invisibility to operators

(6) *Es ist nicht der Fall, dass St. Pauli schon\textsubscript{MOD} ein gutes Team ist.
   at issue: It’s not the case that they are a good team.
   non-at issue: They are rather a good team than not.

- No direct rejection/ denial of acceptance (e.g. Stephenson 2007, Rett 2012):

(7) A: St. Pauli ist schon\textsubscript{MOD} ein gutes Team.
   B: No, that’s not true! They are a lousy team!
   B’: # No, that’s not true! There are no more reasons to think that they are good than that they are lousy.

(8) A: Es regnet schon\textsubscript{ASP}.
   B: No, that’s not true! It’s not raining!
   B’: # No, that’s not true! It wasn’t raining before.

ii. schon\textsubscript{ASP} & schon\textsubscript{MOD} are comparative/ scale-sensitive (Beaver & Clark 2008):

(9) a. Yasemin hat schon\textsubscript{ASP} DREI Bücher gelesen. (fully ordered scale)
   ‘Yasemin has already read THREE books.’
   ⇒ reading of 3 books > reading of 1 or 2 books

   b. Yasemin hat schon\textsubscript{ASP} Alshe und AnnETT eingeladen. (partially-ordered scale)
   ‘Yasemin has already invited Aishe and Annett.’
   ⇒ invitation of Aishe and Annett > invitation of Aishe, Annett, etc.
c. Yasemin ist schonASP POSTdoc. (pre-ordered scale) ‘Yasemin is already Postdoc.’

⇒ being postdoc > being graduate student, being undergrad, …’

(10) Yasemin HAT schonMOD / hat SCHONMOD drei Bücher gelesen.
‘Yasemin has read three books alright, but …’

⇒ Y. having read 3 books > ¬Y. having read three books.

2.2 Differences between schonMOD and schonASP

i. [+-] temporal ordering: Unlike schonASP, schonMOD does not impose temporal ordering on the compared alternatives, but see (14) below for a qualification!

(11) a. Es regnet schonASP.
⇒ No rain <TEMP rain

b. St. Pauli ist schonMOD ein gutes Team.
//⇒// St. Pauli lousy ≤TEMP St. Pauli good

ii. [+-] focus-sensitivity: Alternatives with schonASP determined by narrow focus

(12) a. Maria hat schonASP ALLE Jungen zu vier Partys eingeladen.
‘Mary has already invited ALL the boys to four parties.’
all boys > most boys > some boys

b. Maria hat schonASP alle Jungen zu VIER Partys eingeladen.
‘Mary has already invited all the boys to FOUR parties.’
4 parties > 3 parties > 2 parties > 1 party

- schonMOD always compares p and ¬p (polar contrast):

(13) Maria hat SCHONMOD ALLESOF Jungen zu 4 Partys eingeladen.

!!! evaluation of p compared to ¬p !!!

⇒ Based on differences as in (i.) and (ii.), schonASP and schonMOD are often treated as synchronically unrelated: König 1977, Löbner 1989, 1999, Jacobs 1991, Ormelius-Sandblohm 1997)

BUT: Both are sensitive to CT-focus-structure in parallel ways, as long as schonMOD is able to compare at propositional level (p, ¬p):

(14) MaRI/a hat EI\nen Bestseller geschrieben, und MEH/met (vorher) schonASP ZWEI\‘MARY has written ONE bestseller and MEHmet had (earlier) already written TWO.’

∃x [x wrote 1 bestseller] ≤ ∃x [x wrote two bestsellers]

(15) LE/verkusen ist KEIN\gutes Team, aber St. PAU/Li ist SCHONMOD\ ein gutes Team.
‘LEverkusen is NOT a good team, but St. Pauli IS.’

∃x [x IS a good team] ≤ ∃x [x is NOT a good team]
Temporal ordering absent with “schonASP” in (14), and sentence-internal evidence-based comparison of p and ¬p missing with “schonMOD” in (15) !!!

⇒ Temporal ordering (schonASP) and modal ordering (schonMOD) just two surface instantiations of the same underlying comparative/scalar semantics?

2.3 Other semantic properties of schonMOD:

The following discussion of further semantic properties of schonMOD provides evidence against existing analyses and prepares for the analysis to come.

i. Unlike doch (Egg & Zimmermann 2012), schonMOD is not discourse-contrastive (pace Egg 2012, 2013):

(16) A: St. Pauli ist ein gutes Team!
B: Ja, die sind SCHONMOD / #DOCH 'n gutes Team, aber …
‘Yes, they Are a good team alright, but…’

ii. Unlike doch (Egg 2012, 2013), schonMOD is not discourse-anaphoric: it does not require a suitable discourse antecedent.

(17) A: Tell me something about St. Pauli!
B: Die sind schon ‘n gutes Team.

iii. schonMOD illicit in contexts of absolute certainty concerning p (18a), or with direct perception reports (18b).

(18) a. #Es spricht überhaupt nichts dagegen, dass St. Pauli schon/SCHON n' gutes Team ist (only temporal ordering)
   INTENDED: There’s nothing indicating that St. Pauli wouldn’t be a good team.

   b. A on hearing the doorbell: #Es hat schon/SCHON an der Tür geklingelt.
   (only temporal ordering)

⇒ Reason for infelicity: non-at issue meaning of schonMOD can be interpreted as weakened commitment on the side of the speaker ( Féry 2010), which clashes with absolute certainty as imposed e.g. by direct perception.

3. A unified account: schon as a discourse-sensitive degree operator

• This section sketches a unified account of schonASP and schonMOD as discourse-sensitive degree operators, taking the analysis of schonASP in Krifka (2000) as a point of departure.

⇒ Cross-linguistic support:
Comparerable flexible behavior with Catalan ja (Castroviejo & Mayol 2012) and, possibly, Hungarian majd (Kiefer 2012).
3.1 Krifka (2000): schon\_ASP as a scale-aligning particle

- Krifka analyses the aspectual particle schon\_ASP ‘already’ as a focus-sensitive particle, the main function of which consists in imposing an intrinsic ordering on contextually salient alternatives to the focus constituent.

⇒ the ordering imposes a contextually relevant scale \( \leq A \), which is structurally aligned with the temporal scale \( T \): if \( x \) is ordered before \( y \) on \( \leq A \) then \( x \) precedes \( y \) on \( T \).

\begin{equation}
\text{ALREADY((B, F, \leq A))} \iff \langle B, F, \leq A \rangle \text{, defined iff } \forall X \in A[X \leq A F] \text{ and } \leq A \text{ is time-aligned}
\end{equation}

- Case studies:

  i. Fully ordered scales:

(20) Lydia ist schon DREI Monate alt     (ALT: 1, 2, 3 months old)
‘Lydia is already three months old.’
⇒ ORDERING: \{<1,1>, <1,2>, <1,3>, <2,2>, <2,3>, <3,3>\} „fewer/less than“

(21) Peter hat schon auf 75 kg abgenommen.
‘Peter already ways in on 75 kg.’     (ALT: 85, 70, 75 kg)
⇒ ORDERING: \{<85,85>, <85,80>, <85,75>, <80,80>, <80,75>, <75,75>\} „more than“

ii. Preordered scales

(22) Q: What is Peter’s rank?
A: Er ist schon FELDwebel     (ALT: private, corporal, sergeant)
‘He’s already sergeant.’
⇒ ORDERING: “less than in rank”

(23) Peter’s career is going down the drain.
Jetzt ist er schon im B-Team.     (ALT: top scorer, exchange player, 2nd team)
‘By now, he’s already in the second team.’
⇒ ORDERING: “more than in rank”

iii. Partially ordered scales:

(9) a. Yasemin hat schon\_ASP AiShe und AnnETT eingeladen.
‘Yasemin has already invited Aishe and Annett.’     (ALT: Ai, An, Ai+An)

iv. Structured sequences of events:

(24) You are always so late to the opera! Otello already found the handkerchief,
ALT: “the previous events of the opera, ordered in the sequence in which they are canonically performed” (Krifka 2000)

(25) Gestern ist Peter in Helsinki angekommen und heute hat er schon eine Freundin.
‘Peter arrived in Helsinki yesterday, and today he has already got a girlfriend.’
⇒ ORDERING: “earlier than” (temporal alignment semantically vacuous)
• **Comments/Discussion:**

  i. The way in which *schon* ‘already’ imposes constraints on licit focus alternatives, and thus on discourse structure, by imposing an intrinsic ordering is similar in spirit to the analysis proposed for exclusive *only* and scalar *even* in Beaver & Clark (2008), on which **focus alternatives are mapped to entailment scales:**

  *only*: excludes all focus alternatives that are stronger on some scale/ordering  
  *even*: presupposes that asserted alternative is the strongest among the contextually salient focus alternatives

  ⇒ Affinity schon_{ASP} and *sogar* ‘even’:

  (26) Maria hat *sogar schon* fünf Bücher gelesen.
  ?‘Mary has even read already five books.’

  ⇒ Aspectual readings of exclusive *only* ‘erst’ in English (König 1991):

  (27) He *only* arrived at 3 o’clock.

  ii. Ordering semantics of schon_{ASP} translatable into comparison degree semantics:

  (28) Ordered(R): \( \forall <x,y> \in R \ [ x \neq y \rightarrow <y,x> \notin R] \)

  (29) Mary is taller than Peter = for each degree x to which Peter is tall, there is an identical or larger degree y to which Mary is tall, but not vice versa: height(peter) \( \leq_{d.TALL} \) height (mary)

  ⇒ schon_{ASP} expresses an implicit comparison (less than, more than) between asserted alternative and focus alternatives OR between polar alternatives (p, ¬p) on some contextually given scale.

• **Intrinsic ordering and/or temporal alignment?**

  In spite of the initial appeal of Krifka’s analysis, there remain some problems with the notion of intrinsic ordering and obligatory scale-alignment with the temporal scale T:

  i. **(20) to (25) and (9a) involve bi-directional mappings from the intrinsic ordering scale and T, so**

  - the relevant meaning contribution could either be formulated directly in terms of mapping/ordering alternatives on T; OR
  - the additional scale-alignment condition, being recoverable, could be omitted from the core meaning of schon_{ASP} altogether.

  ⇒ Temporal alignment only secondary effect, recoverable from intrinsic ordering?  
  ⇒ Temporal alignment semantically vacuous with event-ordering in (24) and (25)  
  ⇒ *Temporal alignment absent in cases of cross-sentential comparison of focus alternatives with schon_{ASP}, cf. (14).*
Temporal alignment makes false predictions for focus on temporal adverbials!

(30) Maria ist **schon** am MONtag angekommen. (ALT: Mon, Tue, Wed)
    ‘Mary already arrived on MONday.’

But, the lower-ranked and weaker alternatives (Tue, Wed) are NOT temporally aligned with T; see Krifka (2000: §4) for an intensionalised analysis of such cases, which involves an ordering of backgrounded intensionalised developments (relations between events and times), **but no scale-alignment with T**.

⇒ Scale-alignment with T recoverable, superfluous, or even harmful…!!!

**ii. What is the source of the intrinsic ordering of \{p, ¬p\}, postulated for (31)?**

(31) Es REG\net **schon** \{¬rain, ¬rain\}, \{¬rain, rain\}, \{rain, rain\}\} (Krifka 2000)
    \approx ¬rain \leq rain

(32) A: If it rains, we cannot go for a picknick. (impl.QUD: ?\{rain, ¬rain\})
    B: Es REG\net **schon**. ‘It’s raining already.’

**BUT:** In what sense would **not-rain** be lower on some scale than **rain**? And how would this be an intrinsic ordering, e.g. in terms of entailment of the lower-ranked element by the higher-ranked element (p //→// not-p)?

⇒ Temporal ordering/ temporal scale as a last resort ordering source in the absence of an intrinsic ordering, i.e. with polar focus \{p, ¬p\} or sentence focus

⇒ For other kinds of focus alternatives (predicates etc.), temporal ordering is not appropriate as a last resort licenser …

(33) A: What is Peter’s profession?
    B #Früher war er BÄCK\er, aber heutzutage ist er **schon** FLEI\ser.
    ‘Before he was a baker, but nowadays he’s already a butcher.’
    (necessary ALTs: baker \leq butcher)

**iii. Degree particle use of schon** with stative/locational predicates (König 1977) **involves no temporal ordering either**, but intrinsic orderings in terms of geographical or political distance instead:

(34) Kreuzlingen ist **schon** mehr als **50 KM** entfernt.
    Kreuzlingen is already more than 50 km away
    >50KM(Kreuzlingen); defined iff \(\forall X \in \text{ALT}: X \leq_{\text{DIST}} 50\text{km}\)

(35) KREUZLINGEN ist **schon** in der SCHWEIZ, aber viel näher als Stuttgart.
    Kreuzlingen is already in Switzerland but much closer than Stuttgart
    in_Switzerland(Kreuzlingen); defined iff \(\forall X \in \text{ALT}: X \leq_{\text{DIST-POL}} \text{Schweiz} \)
• **Conclusion:** As many instances of order-imposing *schon* do not involve temporal alignment, a unified analysis without this meaning component seems preferable

### 3.2 Generalising and extending the analysis to schon$_{MOD}$

• **Revised analysis of schon as a generalized degree operator:**

  *schon* introduces a non-at issue entailment requiring all of the contextually salient alternatives to be lower on some intrinsic or, in the absence thereof, a contextually given last resort scale.

  \( \Rightarrow \) alternatives either entailed or implicated by the at issue meaning component; see Beaver & Clark (2008).

  (36) \([\text{schon}]^C_{<BG, F>} = BG(F); \text{ defined iff } \forall X \in A[X \leq A F]\)

• Orderings and entailments with focus on temporal adjuncts and aspect:

(30’) Mary already arrived on MON\'day.

  \( \Rightarrow \) ‘M’s having arrived by Monday’ is ranked higher on the ‘earlier…than’ scale and entails all intensional alternatives with later points of arrival (Tue, Wed), but no alternatives with earlier points of arrival (Sun)

(36) Maria hatte schon gegessen als Peter anrief.
Mary had already eaten when Peter arrived.

  \( \Rightarrow \) ‘M’s eating at ET’ is ranked higher on the ‘earlier…than’ scale and entails the alternative of ‘M’s eating at RT’ (*aspect focus*)

• **Extending the analysis to instances of modal schon:**

  Next to intrinsic scale/focus-related and pragmatically induced temporal readings, there is another, modal ordering source available with instances of polar focus:

  **A modal dimension of comparison:** Given the available facts \( q_1, \ldots, q_n \) in the circumstantial modal base \( MB \), the number of facts supporting \( p \) is greater than the number of facts supporting \( \neg p \) (= rather \( p \) than not \( p \))

  (37) \( \leq \text{EVAL,x}(\neg p)(p) = 1 \text{ iff } \left| \{ q \mid q \in MB_x \land q \text{ x-supports } \neg p \} \right| \leq \left| \{ q \mid q \in MB_x \land q \text{ x-supports } p \} \right| \)

(38) **St. Pauli again!**

  a. St. Pauli ist schon$_{MOD}$ ‘n gutes Team: Sie haben eine gute Abwehr, eine gute Nachwuchesarbeit, super Zuschauer, aber im Angriff sind sie schwach.

    ‘St. Pauli is a good team alright: the defense is strong, they have many talented players, the spectators are great, but the offense is lousy.’

  b. #St. Pauli ist schon$_{MOD}$ ‘n gutes Team: Sie haben eine schwache Abwehr, praktisch keine Nachwuchesarbeit, ein mieses Publikum, aber im Angriff sind sie stark

    ‘St. Pauli is a good team alright: the defense is lousy, they have practically no talented players, the spectators are terrible, but the offense is very good.’
(39) \([\text{[St. Pauli ist schon ein gutes Team]]}^{\text{Spkr}} = g_{\text{team}}(\text{St.Pauli}, \text{speaker})\);
defined iff \(\forall q \in \{\neg g_{\text{team}}(\text{Pauli}), g_{\text{team}}(\text{Pauli})\}: q \leq_{\text{EVAL,Spkr}} g_{\text{team}}(\text{Pauli})\)

3.4 Further Predictions

The analysis makes additional correct predictions: The specific meaning contribution of \(\text{schen}\) depends on the kind of (intrinsic/extrinsic) ordering scale and on the presence of relevant alternatives, as indicated by focus accenting.

i. Any additional interpretive effects, such as e.g. mirativity, weakened commitment, or positive evaluation (Féry 2010, Egg 2012, 2013) are not mandatory, but \textit{pragmatically derived} as conversational implicatures; cf. Krifka (2000) on \textit{schenASP}.

ii. Since \(\leq_{\text{EVAL}}\) in (37) is not restricted to speaker-centred evaluations, \textit{modal schon can occur embedded under attitude verbs}, when the matrix subject is the attitude bearer (40a), or shifted in indirect attributive reports (narrated thought) (40b):

(40) a. Peter findet, dass St. Pauli \textbf{schen} ’ne gute Mannschaft ist.
   ‘According to Peter, St. Pauli is a good team after all.’

b. Yasemin war sehr aufgebracht: Cems Verhalten war \textbf{schen} eine Zumutung.
   ‘Yasemin was really upset: Cem’s was being quite impertinent indeed.’

iii. Modal \textit{schen} allows for \textit{explicit exhaustive quantification over the modal base} (with \textit{insgesamt} ‘all in all, all factors considered’):

(41) Insgesamt ist St. Pauli \textbf{schen} eine gute Mannschaft.
   ‘All in all, St. Pauli is a good team.’

iv. \textbf{schen} \textit{illicit with absolute certainty contexts and direct perception reports} (18ab): In contexts with uncontroversial circumstances (= clear evidence), the use of \textit{schen} \(p\) would be misleading as it points to the existence of facts supporting not-\(p\)

v. Conversely, \textit{the use of schonMOD should be obligatory in evaluating statements based on potentially conflicting evidence}, because of MAXIMIZE PRESUPPOSITION (Heim 1991); \textit{!!!more empirical work required!!!}

⇒ In (42), \textit{schen} appears to mark the presence of an inconsistent, biased premise set. (✓)

(42) In Neuseeland können Bauern \textbf{schen} für ihre Schafe haften.  (cf. Kratzer 1977)
   ‘In New Zealand farmers may be liable for their sheep.’

vi. \textit{Interactions with other modal operators}: \textit{schen} shows an affinity for modals with a circumstantial modal base: root modals (Kratzer 1991, 2012) ✓

⇒ \textit{WEAKENING} effect with future \textit{werden}, epistemic \textit{werden}, and circumstantial \textit{können}, as local construal of \textit{schen} with embedded proposition points to conflicting evidence for \(\neg p\) in MB (this, in turn, is potential evidence for Matthewson-style FUT-analysis)

(43) a. Keine Sorge! Er wird \textbf{schen} kommen!
   ‘No worries! He will come for sure.’

b. \([[\text{(43a)}]]^{t,w} = \forall w' \in \text{MAXO,INERTIA}(\text{\cap MB}_{\text{CIRC}}(w))): \exists t'>t: \text{come}(g(1), t') \text{ in } w';
defined iff \(\forall q \in \{\neg \text{come}(g(1), t'), \text{come}(g(1),(t'))\}: q \leq_{\text{EVAL,Spkr}} \text{come}(g(1), t')\)
(44) a. Das wird schon stimmen!
   ‘This will be the correct result, for sure.’
   b. $[[((44a))]^w = \forall w' \in \text{MAXO}_{\text{STEREOTYP}}(\cap \text{MB}_{\text{CIRC}}(w))$: CORR(RES) in w'; defined iff $\forall q \in \{-\text{CORR(RES)}, \text{CORR(RES)}\}: q \leq_{\text{EVAL,Spkr}} \text{CORR(RES)}$

(45) a. Hier können schon Hortensien wachsen.
   ‘There can be hydrangeas growing here alright.’
   b. $[[((45a))]^w = \exists w' \in \text{MAX}\emptyset (\cap \text{MB}_{\text{CIRC}}(w))$: GROW(HYD) in w'; defined iff $\forall q \in \{-\text{GROW(HYD)}, \text{GROW(HYD)}\}: q \leq_{\text{EVAL,Spkr}} \text{GROW(HYD)}$

$\Rightarrow$ WEAKENING effect with deontic universals ($müssen$): global or local construal?

   b. In Neuseeland müssen Bauern für ihre Schafe haften.
   ‘In New Zealand, farmers will be liable for their animals (alright).’

3.5 General theoretical Implications

The proposed analysis of modal schon has consequences for the analysis of modality in natural language in general:

i. A new empirical argument for premise sets/ modal bases consisting of propositions instead of possible worlds (Kratzer 2012):

The definition of $\leq_{\text{EVAL,x}}$ in (37) makes crucial use of the existence of propositions in the modal base, and cannot even be formulated over infinite sets of possible worlds:

(47) Kratzer’s example: conflicting instructions
   A: The students practice striding (p) and flying (q). (Te Miti)
   B: The students do not practice striding ($\neg p$). (Te Kini)

(48) Given the recommendations, the students must practice flying.

$\Rightarrow$ Kratzer (2012): It makes a difference for the truth assessment of (48) whether the recommendations of Miti enter the premise set as one proposition ($\{p \cap q\}$) or as two propositions ($\{p, q\}$), even though $\cap \{p \cap q\} = \cap \{p, q\}$ for any propositions p and q.

$\Rightarrow$ The same argument can be made with respect to rational belief revision (Rott 2001):

“Representing the content of recommendations, claims, beliefs, orders, wishes, etc. as premise sets thus offers the priceless opportunity to represent connections between propositions in a given premise set. The content of such speech acts and attitudes can now be seen to have an inherent structure that encodes which propositions stand and fall together under challenge. This structure is lost if information contents are directly represented as sets of possible worlds, as is common in possible worlds semantics, following the lead of Hintikka (1962).” (Kratzer 2012)
ii. The proposed analysis makes modal schon the non-at issue counterpart of the comparative modal adjectival expression eher ‘rather than’ in the analysis of Rubinstein & Herburger (2014).

\[(49)\]  
\[
a. \quad [[\text{eh}]]^z = \lambda p. \lambda d. \text{p is d-clear to } z
\]
\[
b. \quad \text{[[St. Pauli ist eher eine gute Mannschaft ]]^z} =
\]
\[
\text{max}(\lambda d. [\lambda w. \text{St. Pauli is a good team in } w \text{ is d-clear to } z]) >
\text{max}(\lambda d. [\lambda w. \text{St. Pauli is not a good team in } w \text{ is d-clear to } z])
\]

⇒ If the degrees of clearness of p and ¬p to z are reconstructed in terms of the number of facts in the circumstantial MB in favor of p and ¬p, respectively, this is very close to the present analysis of schon in terms of \(\leq_{\text{EVAL}}\)

⇒ schon\text{MOD} paraphrasable in terms of eher ‘rather’:

\[(50)\]  
\[
\text{St. Pauli ist schon ein gutes Team} \approx \text{St. Pauli ist eher ein gutes Team (als nicht).}
\]

‘St. Pauli is rather a good team (than not).’

BUT: Unlike with schon, eher introduces at issue entailments:

- Its meaning contribution is visible to negation, Q, and conditionals (51a-c):

\[(51)\]  
\[
a. \quad \text{Es ist nicht der Fall, dass St. Pauli eher ein gutes Team ist als nicht.}
\]
\[
\quad \text{‘It’s not the case that St. Pauli is rather a good team (than not).’}
\]
\[
b. \quad \text{Ist St. Pauli eher ein gutes Team (als nicht)?}
\]
\[
\quad \text{‘Is St. Pauli rather a good team (than not)?’}
\]
\[
c. \quad \text{Wenn St. Pauli eher ein gutes Team ist (als nicht), gewinnen sie gegen Union.}
\]
\[
\quad \text{‘If St. Pauli is rather a good team (than not), they will win against Union.’}
\]

- Its meaning contribution can be directly challenged (52):

\[(52)\]  
\[
\text{A: St. Pauli ist eher ein gutes Team.}
\]
\[
\text{B: Das stimmt nicht! Die Mannschaft hat viel mehr negative als positive Seiten.}
\]
\[
\quad \text{‘That’s not true! There are more negative than positive sides to the team!’}
\]

- The only way for making the content of schon\text{MOD} at issue is by means of meta-linguistic quotation:

\[(53)\]  
\[
\text{Wenn du sagst: schon, heißt das, es gibt auch Gründe zu denken dass nicht-p?}
\]
\[
\quad \text{‘If you say ‘schon’, are there also reasons to think that not-p?’}
\]

iii. Schon-eher not the only at issue/non-at issue pair among modal expressions:

Epistemic werden and wohl express an at issue/non-at issue weakened commitment to p (de Vaugh Geiss, in prep.). The two expressions frequently co-occur:

\[(54)\]  
\[
a. \quad \text{Hein wird (wohl) auf See sein.} \quad \Rightarrow \text{no weakening of modal relation expressed by werden!}
\]
\[
b. \quad \text{Hein ist wohl auf See.}
\]
Unlike *wohl* (Zimmermann 2004, 2008), *werden* is visible to semantic operators:

(55) a. Es ist nicht der Fall, dass Hein auf See sein wird.  (NEG > werden)
   ‘It’s not the case that Hein will/may be at sea.’
   b. Wird Hein auf See sein?  (Q > werden)
   ‘Would Hein be at sea?’

iv. **schon not the only particle with aspectual/temporal and modal function?**

The modal adjectival expression *eh* in (49a) also doubles as an aspectual particle *eh(e)*, expressing anteriority (49b), Intuitively, both involve orderings/ scales.

(56) a. Peter ist *eh* weggefahren.  
   ‘Peter is gone in any event.’

⇒ The number of facts in favour of p exceeds the contextual threshold for d-clarity

b. Maria hatte gegessen, *eh(e)* Peter anrief.  
   cf. (36)
   ‘Mary had eaten before Peter called.’

⇒ Mary’s eating is earlier than Peter’s calling.

3.6 **Schon** and the notion of CONTRAST: Comparison with alternative analyses

- The present analysis retains the insight that modal *schon* typically expresses a notion of contrast between p and ¬p, while deviating from earlier analyses in important ways:

i. Pace Ormelius-Sandblohm (1997), cf. (59), the meaning of *schon* does not make direct reference to ¬p, and can hence be used to express cross-sentential contrasts with other, similar propositions, cf. (15).

(59) **[[schon]] = it is a fact that not ¬p**

(15) LE/verkusen ist KEIN\ gutes Team, aber St. PAU/Li ist SCHON\ ein gutes Team.  
   ‘LEverkusen is NOT a good team, but St. Pauli IS.’

ii. Contrasting with Egg’s (2012, 2013) analysis in (58), *schon* does not require a propositional discourse antecedent, cf. (1), let alone a contrastive one: Unlike *doch*, *schon* is licensed in non-contrastive (16) above and in (59):

(58) **[[schon]](p)(q);  defined iff both p and q hold, p is evaluated positively, and according to the common ground C, q>¬p,**

   *with p = schon-proposition, q = discourse antecedent*

iii. Pace Féry (2010), *schon* does not indicate a penumbra of uncertainty: it does not express weakened epistemic commitment, unlike *wohl*, cf. (60) (Zimmermann 2004).

(60) St. Pauli ist *wohl / #schon* ein gutes Team, aber vielleicht auch nicht.  
   St. Pauli (would be a good team) / # (is a good team alright), but possibly not.’

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4. **Interactions with information structure and prosody**

The final part of the paper accounts for the different prosodic realisations of the modal particle as unaccented $\text{scho}_{\text{MOD}}$ and accented $\text{SCHON}_{\text{MOD}}$, respectively.

(1) Das ist **scho**n ‘n gutes TEAM. / Das ist **SCHON** ‘n gutes Team.

i. The prosodic differences do not point to the existence of two separate lexical items, as both realisations convey the same lexical meaning, while imposing different information-structure requirements on the context.

ii. Occurrence of accented $\text{SCHON}_{\text{MOD}}$ does not provide evidence against the characterisation of $\text{scho}$n as expressing non-at-issue meaning, which cannot be focused.

$\Rightarrow$ Following Féry (2010), we argue that accenting of $\text{scho}$n follows for independent information-structural reasons: It is not due to focus on $\text{scho}$n, but to givenness of the rest of the clause.

This is the case (A.) when the content of the $\text{scho}$n-clause has been at issue in the preceding context (direct givenness, e.g. in verum focus contexts), cf. (61):

(61) a. Q: Ist St. Pauli eine gute oder schlechte Mannschaft?  
   A: Das ist **SCHON** ‘n gutes Team.  (#scho

b. A: St. Pauli ist eine gute Mannschaft!  
   B: Ja, das ist **SCHON** ‘n gutes Team.  (#scho

c. A: St. Pauli ist keine gute Mannschaft!  
   B: Doch! Die sind **SCHON** ‘n gutes Team.  (#scho

or (B.) when accenting of $\text{scho}$n marks the accommodation of an implicit QUD to a more general question (implicit givenness), such as in (62):

(62) A: Tell me something about St. Pauli!  
   (QUD_{impl}: Are they any good?)  
   B: Das ist **SCHON** ‘n gutes Team.  (scho # with QUD_{impl}; OK without)

5. **Conclusions**

i. A unified analysis of $\text{scho}_{\text{ASP}}$ and $\text{scho}_{\text{MOD}}$ is possible, slightly modifying and generalising Krifka’s unified analysis of $\text{scho}_{\text{ASP}}$ in terms of orderings/ scale alignments of focus alternatives

ii. Modal $\text{scho}$n denotes a degree operator operating over the propositions/facts in the circumstantial modal base: the number of facts supporting $p$ exceeds the number of those supporting not-$p$. 

iii. Modal *schon* is the non-at issue counterpart of the at issue modal degree operator *eher* ‘rather’.


v. The analysis of modal *schon* has general repercussions for the analysis of modal expressions in natural language: *propositional view on modal reasoning*

References


