



Salient situations:

A semantic reanalysis of RELative marking in Hausa (Chadic)

GWIS 3: Under one roof – Sharing a form with focus

Karl-Franzens-Universität Graz, 25-26 September 2015

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Objectives:

- i. **Semantic reanalysis of REL-marking in Hausa**, which typically shows up in the presence of focus/A'-fronting.

- ii. **Two-factorial analysis of information structure**
 - **FoC** [Kratzer & Selkirk 2007]: **A'-Fronting**
 - **Topic Situation** s_{TOP} [Kratzer 2007]: **REL**

Objectives:

iii. Discussion of **theoretical implications** for:

- Characterization of IS-categories and their linguistic marking: FoC, s_{TOP}

Relation of **A'-fronting** and **FoC** vs QUD

Relation of **REL-marking** and **salient situations**

General Claim:

REL-Marking in Hausa = instance of **formal backgrounding** of situations in natural language

[Delin 1992, Baker & Travis 1997, Larson 2003, Onéa 2007, Hole 2011, Grubic 2015]

⇒ **REL-Marking not indicative of focus per se**

General Claim:

REL-Marking presupposes the contextual presence of a unique salient situation constraining the topic situation of the clause.

$[[\text{REL}]]$ = $\lambda p_{\langle i,t \rangle} \lambda s_{\text{top}} \cdot p(s_{\text{top}})$; defined iff
 there is a salient situation s , $s \leq s_{\text{top}}$

Outline of the talk:

1. Introduction
2. Focus/REL-patterns in Hausa & 1-factor analysis
3. Empirical challenges for standard analysis
4. Revised 2-factor analysis: FoC & s_{TOP}
5. Conclusion

This is work in progress !

- Empirical data collected in [SFB 632](#) *Information Structure*, projects [B2](#) (PI: Hartmann) and [A5](#) (PI: Zimmermann; 2007-2015)
- Theoretical analysis inspired by discussions in DFG-funded Network on [Questions in Discourse](#) (Onéa & Zimmermann, 2011-2015)

Background on Hausa [Newman 2000, Jaggar 2001] :

- West Chadic, Afro-Asiatic
- Tone language (H, L`), length contrast
- Word order: SVO(X)
- Person-Aspect Complex (**PAC**) preceding V

(1) Kànde **taa** dafà kiifii.
Kande 3sg.F.PFV.ABS cook fish
'Kande cooked fish.'

Background on Hausa [Newman 2000, Jaggar 2001] :

- **PAC** comes in two forms in **PFV** and IPFV

- (1) a. Kànde **taa** dafà kiifii. **ABS**
 Kande 3sg.F.PFV.ABS cook fish
 ‘Kande cooked fish.’
- b. *Kànde* **ta** / *taa dafà kiifii. **REL**
 Kande 3sg.F.PFV.**REL** cook fish
 ‘KANDE cooked fish.’

REL-form \Rightarrow Focus?

Background on Hausa [Newman 2000, Jaggar 2001] :

- **PAC** comes in two forms in PFV and **IPFV**

- (2) a. Kànde ta-**nàa** dafà kiifii. **ABS**
 Kande 3sg.F-IPFV.ABS cook fish
 ‘Kande is cooking fish.’
- b. *Kànde* (cèe) ta-**kèe** /*-nàa dafà kiifii. **REL**
 Kande PRT 3sg.F-IPFV.**REL** cook fish
 ‘KANDE is cooking fish.’

REL-form \Rightarrow Focus?

REL-patterns in Hausa:

- REL-form **typically** attested with **A'-fronting**:
focus fronting (3ab)

(3) a.	<i>Kiifii</i>	(nèe)	Kànde	ta / *taa	dafàa.
	fish	PRT	Kande	3sg.F-PFV. REL	cook
	'Kande cooked FISH.'				
b.	<i>Kiifii</i>	(nèe)	Kànde	ta- kèe / *-nàa	dafàa-waa
	fish	PRT	Kande	3sg.F-IPFV. REL	cook
	'Kande is cooking FISH.'				

REL-patterns in Hausa:

- REL-form typically attested with A'-fronting:
... , wh-fronting (4a), REL-clauses (4b)

(4) a. *Wàa(cee cèe) ta dafà kiifii ?*
 who (f-PRT) 3sg.F-PFV.REL cook fish
 'Who cooked fish?'

b. ... *yaarinyà-r [dà (ta)-kèe dafà kiifii]*
 girl-LINK REL 3sg.F-IPFV.REL cook fish
 '(the) girl that is cooking FISH.'

Standard analysis of **REL** [Tuller 1986, Newman 2000]:

- **REL-marking** semantically vacuous =
morphosyntactic reflex of A'-movement

Prediction: No REL-marking w/o A'-movement

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Prediction: No REL-marking w/o A'-movement

⇒ Vacuous movement of focused subjects (1b, 2b):

- (1) b. Kànde₁ **t₁** ta dafà kiifii.
Kande 3sg.F.PFV.**REL** cook fish

Standard analysis of **focus fronting** [Newman 2000, Jaggar 2004, Hartmann and Zimmermann 2007]:

- **Focus fronting** tied to **answerhood**
= QUD-account [Roberts 1996/2012]:

(5) Q: **Mèe (nee nèe)₁** Kànde ta dafàa **t₁**?
What Kande 3sg.F.PFV.REL cook
'What did Kande cook?'

A: **Kiifii₁** Kànde ta dafàa **t₁**?
'Kande cooked FISH.'

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- Focus fronting tied to answerhood = QUD-account [Roberts 1996/2012]:

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 What Kande 3sg.F.PFV.REL cook
 ‘What did Kande cook?’

A: **Kiifii₁** Kànde ta dafàa **t₁**?
 ‘Kande cooked FISH.’

⇒ **Prediction: No in-situ answers**

Challenges I: Fronting = QUD-focus?

Prediction: 1:1-correlation between QUD-focus
and fronting

Challenges I: **Fronting = QUD-focus?**

Prediction: 1:1-correlation between QUD-focus and fronting

Not borne out!

Challenges I: Fronting = QUD-focus?

i. Overmarking of QUD-focus in PFV and IPFV:
fronting (+ PRT) + REL

(6) **Kiifii**₁ (nèe) Kànde ta dafàa t₁.
XP_{FOC} PRT REL

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i. Overmarking of QUD-focus in PFV and IPFV:
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(6) **Kiifii**₁ (nèe) Kànde ta dafàa t₁.
XP_{FOC} PRT REL

Q: Are all of these focus markers? **No!**

Challenges I: Fronting = QUD-focus?

- ii. Frequent occurrences of in situ-(QUD-)focus
[Jaggar 2004, Hartmann & Zimmermann 2007]

Expected: Ex situ answers only

(7) Q: Mèe sukà kaamàa?
'What did they catch?'

A: **dawaakii** (nèe) su-**kà** kaamàa
horses PRT 3pl-PFV.REL catch
'They caught HORSES.'

Challenges I: Fronting = QUD-focus?

- ii. Frequent occurrences of in situ-(QUD-)focus
[Jaggar 2004, Hartmann & Zimmermann 2007]

BUT: In situ answers also possible and frequent!

(8) Q: Mèe sukà kaamàa?
'What did they catch?'

A: Sun kaamà dawaaki (nèe)
3pl.PFV.ABS catch horses PRT

'They caught HORSES.' [Hartmann & Zimmermann 2007]

Challenges I: Fronting = QUD-focus?

- ii. Frequent occurrences of in situ-(QUD-)focus
[Jaggar 2004, Hartmann & Zimmermann 2007]

BUT: In situ answers also possible and frequent!

(9) Q: **dàgà wàné gàrii** ka zoo?
from which town 2MS.PFV.REL come
'From which town do you come?'

A: naa tahoo **dàgà Birnin K'wànni**
1S.PFV come from Birnin Konni
'I come from Birnin Konni' [Jaggar 2004: ex.26cd]

Challenges I: Fronting = QUD-focus?

- ii. Frequent occurrences of in situ-(QUD-)focus
[Jaggar 2004, Hartmann & Zimmermann 2007]

Corpus study (H&Z 2007):

Occurrences of ex situ and in situ focus total

	ex situ	in situ	Σ
#	354	140	494

Challenges I: Fronting = QUD-focus?

- ii. Frequent occurrences of in situ-(QUD-)focus
[Jaggar 2004, Hartmann & Zimmermann 2007]

Corpus study (H&Z 2007): Occurrences of ex situ and in situ focus in wh-questions, answers, and with **other instances of focus**:

	ex situ			in situ		
	wh	answer	other	wh	answer	other
#	175	25	154	29	99	12

Challenges I: Fronting = QUD-focus?

- ii. Frequent occurrences of in situ-(QUD-)focus
[Jaggar 2004, Hartmann & Zimmermann 2007]
- ⇒ Fronting NOT the prototypical answer strategy
- ⇒ Fronting typically marks other (= **selective, corrective, contrastive**) instances of focus
= Focus of Contrast/**FoC** [Kratzer & Selkirk 2007, 2013]

Challenges I: Fronting = QUD-focus?

- iii. **Trigger problem**: If in situ QUD-focus is licit, which factors are responsible for overt fronting?

Other pragmatic factors such as **contrast, emphasis, mirativity**?

not EXH \Rightarrow function of particle *nee/cee*

[Green 1997, H&Z 2007b]

Challenges I: Fronting = QUD-focus?

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Other pragmatic factors such as **contrast, emphasis, mirativity**?

not EXH \Rightarrow function of particle *nee/cee*

[Green 1997, H&Z 2007b]

\Rightarrow Additional factors involved!

Challenges I: Fronting = QUD-focus?

- iv. **Asymmetry problem**: Obligatory marking of QUD-focused subjects, but optional marking of focused non-subjects
[Hartmann & Zimmermann 2007, Fiedler et al. 2010]

Challenges I: Fronting = QUD-focus?

iv. **Asymmetry problem**: SUBJ vs NON-SUBJ

Obligatory marking of QUD-focus on subjects

(10) Q: Who cooked fish?

A1: Kànde (cèe) ta dafà kiifii. REL
 K. PRT 3f.PFV.REL cook fish
 'KANDE cooked fish.'

A2:*Kànde (cèe) taa dafà kiifii. ABS
 3f.PFV

Challenges I: Fronting = QUD-focus?

iv. **Asymmetry problem**: SUBJ vs NON-SUBJ

Optional marking of QUD-focus on non-subjects

(11) Q: What did they catch?

A1: Dawaaki (nèe) su**kà** kaamàa. **fronting**
horses PRT 3pl.PFV.REL catch

A2: **Sun** kaamà dawaaki (nèe) **in situ**
3pl.PFV.REL catch horses PRT

‘They caught HORSES.’

Challenges I: Fronting = QUD-focus?

iv. **Asymmetry problem**: SUBJ vs NON-SUBJ

Optional marking of QUD-focus on non-subjects

Q: Given that in situ QUD-focus is possible in principle, which factors would trigger obligatory vacuous movement of QUD-focused subjects...
... **if** REL-marking with QUD-focused subjects were indeed indicative of (vacuous) movement?

Challenges I: Fronting = QUD-focus?

iv. **Asymmetry problem**: SUBJ vs NON-SUBJ

Optional marking of QUD-focus on non-subjects

NB: QUD-focused subjects not necessarily discourse-marked/mirative/emphatic in the sense of being hearer-unexpected

(12) Q: Who won? A: **Bayern Munich** won.

Challenges I: Fronting = QUD-focus?

iv. **Asymmetry problem**: SUBJ vs NON-SUBJ

Optional marking of QUD-focus on non-subjects

⇒ No obligatory vacuous movement with QUD-focused subjects after all?

SUBJ_{IN SITU} + REL?

Challenges I: Fronting = QUD-focus?

iv. **Asymmetry problem**: SUBJ vs NON-SUBJ

Optional marking of QUD-focus on non-subjects

⇒ No obligatory vacuous movement with QUD-focused subjects after all?

Q: Why obligatory REL-marking?

Interim Conclusion:

No 1:1-correlation between fronting and QUD

- ⇒ Primary function of A'-fronting NOT directly answer-related!
- ⇒ Not all answer constituents front, only some!
- ⇒ Fronting in the presence of contextual alternatives

Digression: Saving a QUD-based account of focus realisation in Hausa

i. Positional licensing: [Büring 2010]

XP_{FOC} must not be positionally less prominent than other constituents on structural hierarchy:

(13) fronted > vp/VP > Spec,TP

⇒ Focused subjects must vacuously front

⇒ Focused non-subjects can remain in situ or front

Digression: Saving a QUD-based account of focus realisation in Hausa

ii. **Prosodic licensing:** [Lovestrland 2009, Féry 2013]

XP_{FOC} must precede a prosodic boundary

- (14) a. (SUBJ PAC V XP_{FOC}) (YP_{FOC})
b. (XP_{FOC}) (SUBJ PAC V YP)
c.* (SUBJ_{FOC} PAC V XP)

⇒ Focused subjects must front: **boundary insertion**

⇒ Focused non-subjects can remain in situ or front

BUT: These accounts have nothing to say on some unexpected findings regarding REL-marking!

Challenges II: REL-marking = A'-movement?

Prediction: 1:1-correlation between REL-marking and A'-movement

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Not borne out!

⇒ Instances of REL-marking w/o movement

⇒ Instances of movement w/o REL-marking

Challenges II: REL-marking = A'-movement?

i. REL-marking without focus movement I:

past-oriented **narrative discourse** [Newman 2000, Jaggar 2006]

(15) suka shigoo, suka tuub'ee taakalmii, sai suka zaunaa

'They entered, pulled off their shoes, and then sat down.'
[Jaggar 2006]

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'They entered, pulled off their shoes, and then sat down.'
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⇒ Sub-events of a larger topic situation!

Challenges II: REL-marking = A'-movement?

- i. REL-marking without focus movement I:
past-oriented **narrative discourse** [Newman 2000,
Jaggar 2006]

NB: Green & Reintges 2003 propose that Narrative REL marks movement of a covert operator,
but what operator would that be?

Challenges II: REL-marking = A'-movement?

i. REL-marking without focus movement II:

Partial focus marking [Hartmann & Zimmermann 2007]

(16)Q: What happened? [QUD-focus: Sentence]

A: **B'àràayii** nèe su-**kà** yi mîn saatàa!

robbers PRT 3pl-PFV.**REL** do to.me theft

'ROBBERS have stolen from me!' [cf. Bolinger 1972]

Challenges II: REL-marking = A'-movement?

i. REL-marking without focus movement II:

Partial focus marking [Hartmann & Zimmermann 2007]

(16)Q: What happened? [QUD-focus: Sentence]

A: **B'àràayii** nèe su-kà yi mîn saatàa!

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'ROBBERS have stolen from me!' [cf. Bolinger 1972]

⇒ Vacuous movement of part of focus?

Challenges II: REL-marking = A'-movement?

ii. Focus movement without REL-marking I:

No REL in sentences with **FUT, HAB, SUBJ, NEG aspect** [Newman 2000, Jaggar 2001]

(17)a. Kànde **zaa-tà** dafà kiifii
'Kande will cook fish.'

b. **Kiifii** Kànde **zaa-tà** dafáa
'Kande will cook FISH.'

Challenges II: REL-marking = A'-movement?

ii. Focus movement without REL-marking I:

No REL in sentences with **FUT, HAB, SUBJ, NEG aspect** [Newman 2000, Jaggar 2001]

(17)a. Kànde **zaa-tà** dafà kiifii
'Kande will cook fish.'

b. **Kiifii** Kànde **zaa-tà** dafáa
'Kande will cook FISH.'

⇒ PFV & IPFV refer to events instantiated in w_0 !

Challenges II: REL-marking = A'-movement?

ii. Focus movement without REL-marking II:

No REL-marking with fronted *har yanzu*, 'until now' under aspectual focus, even with IPFV aspect!

(18) A: Adamu has repaired his bike.

B: *A'à, har yànzuu₁ yanàa* gyaarà-ntá t₁.
no, until now 3SG.M.IPFV.ABS repairing-it
'No, he's STILL repairing it!'

Challenges II: REL-marking = A'-movement?

ii. Focus movement without REL-marking II:

No REL-marking with fronted *har yanzu*, until now' under aspectual focus, even with IPFV aspect!

NB: *har+NP*-phrases base-generated in postverbal position

Challenges II: REL-marking = A'-movement?

ii. Focus movement without REL-marking II:

No REL-marking with fronted *har yanzu*, 'until now' under aspectual focus, even with IPFV aspect!

(19) Ina Kano *har yanzu*.
 1sg-IPFV Kano until now
 'I am still in Kano.'

(20) zaa kà kai *har yàushee* à gàrii?
 FUT 2SG.M.SUBJ reach until when at town
 'Until when will you stay in town?'

Challenges II: REL-marking = A'-movement?

ii. Focus movement without REL-marking II:

No REL-marking with fronted *har yanzu*, until now' under aspectual focus, even with IPFV aspect!

⇒ (18B) involves A'-movement w/o REL-marking:

B: A'à, *har yànzuu*₁ *yan***à**a *gyaarà-ntá* t₁.
no, until now 3SG.M.IPFV.ABS repairing-it
'No, he's STILL repairing it!'

Interim Conclusion:

No 1:1-correlation between fronting and REL

⇒ REL not a morpho-syntactic reflex of A'-movement!

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Q: What IS the function of REL?

Challenges III: REL-marking \neq FoC-Alternatives

No occurrence of REL with expressions that clearly make reference to FoC-Alternatives:

- (21) **Koo jàariirìi yaa** san hakà.
even child 3SG.M.PFV.**ABS** know that
'Even a CHILD knows that.' [Newman & Newman 1990]

Challenges III: REL-marking \neq FoC-Alternatives

No occurrence of REL with expressions that clearly make reference to FoC-Alternatives:

- (21) **Koo jàariirìi yaa** san hakà.
even child 3SG.M.PFV.**ABS** know that
'Even a CHILD knows that.' [Newman & Newman 1990]

⇒ REL-marking independent of FoC-Alternatives

Conclusions:

No neat 1:1-correlation between

QUD-focus and Fronting

Fronting and REL-marking

REL-marking and FoC

Conclusions:

BUT: Possible correlation between

Fronting and FoC [Kratzer & Selkirk 2013,
Katz & Selkirk 2011]

REL-marking and ???

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

- i. **A'-fronting marks FoC**: the presence of salient alternatives in the context.

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

- i. A'-fronting marks FoC: the presence of salient alternatives in the context.
- ⇒ Fronting of FoC-alternatives allows for unambiguous construal of QUD, which serves to restrict a topic situation s_{TOP} [Schwarz 2009]

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

$$\langle XP_{\text{FOC}}, \text{BG} \rangle \Rightarrow \text{QUD} = \lambda s. [\{x_{\text{ALT}} \mid \text{BG}(x)(s)\} = \{x_{\text{ALT}} \mid \text{BG}(x)(w_0)\}]$$

[Groenendijk & Stokhof 1984]

$$S_{\text{TOP}} \in \text{QUD}$$

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[Groenendijk & Stokhof 1984]

$$S_{\text{TOP}} \in \text{QUD}$$

[pace Schwarz 's 2009 *exemplification*:
 $S_{\text{TOP}} = \iota s [\text{EX}(\text{QUD})(s) \ \& \ s \leq w_0]$]

Exemplification in Hausa: **nee/cee**

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

⇒ In addition to A'-fronting, FoC can also be overtly marked by means of alternative-inducing particles, such as *koo* 'even, or'.

No biunique form – function mapping

Analysis: **2-factorial account of IS-marking**

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

⇒ FoC-marking obligatory in Hausa

≠ NEW information [Katz & Selkirk 2011, Halliday 1967]

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

- ii. **REL-marking** triggers a presupposition directly restricting the **topic situation** s_{TOP} .

Analysis: **2-factorial account of IS-marking**

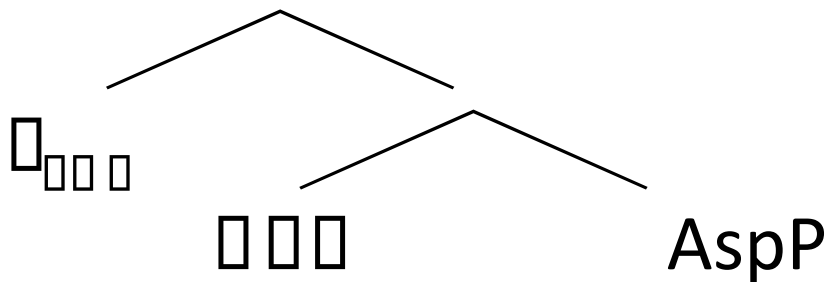
A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

⇒ REL is a variant of Kratzer's (2007) topic operator located in the extended verbal projection above AspP (in T?): It takes a proposition and a situation pronoun as arguments

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

(22)



Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

- (23) $[[\text{REL}]] = \lambda p_{\langle i,t \rangle}. \lambda s_{\text{top}}. p(s_{\text{top}})$; defined iff
there is a salient situation s , $s \leq s_{\text{top}}$

Analysis: 2-factorial account of IS-marking

A'-fronting and REL-marking are distinct grammatical strategies imposing different conditions on utterance context:

(23) $[[\text{REL}]] = \lambda p_{\langle i,t \rangle} \lambda s_{\text{top}} \cdot p(s_{\text{top}})$; defined iff

there is a salient situation s , $s \leq s_{\text{top}}$

Salient context situation not necessarily identical to s_{TOP} of REL-marked clause!

Analysis: 2-factorial account of IS-marking

Crucially, both FoC and REL make reference to the notions of **salience** and (indirectly) to S_{TOP} :

This is the source of the illusion that the two markers code the same information-structural distinction: **FoC-REL Conspiracy**

An aside on **salience**: Barlew (2014)

SALIENCE = CG-supported attention of addressee(s) to discourse referent

(24) Given a context, c , and $i \in D_c$:

$$\text{sal}(i,c) \leftrightarrow \forall a_c, s_c [\text{att}(i, s_c, t_c) \ \& \ \text{CG}_c \text{ entails that } \text{att}(i, a_c, t_c)]$$

An aside on **salience**: Barlew (2014)

SALIENCE = CG-supported attention of addressee(s) to discourse referent

- ≈ A discourse referent i is salient in c iff
- the speaker is attending to i in c AND
 - there is strong contextual evidence that the addressees are attending to i in c

An aside on **salience**: Barlew (2014)

SALIENCE = CG-supported attention of addressee(s) to discourse referent

≈ Salience requires contextual support in the form of linguistic (e.g. preceding utterances) or non-linguistic information (e.g. physical features of utterance setting)

An aside on **saliency**: Barlew (2014)

SALIENCY = CG-supported attention of addressee(s) to discourse referent

Top-Down Saliency

VS

Bottom Up Saliency

An aside on **salience**: Barlew (2014)

SALIENCE = CG-supported attention of addressee(s) to discourse referent

Top-Down Salience: depends on CG-supported intentions and discourse goals of the addressee, which become manifest e.g. by a **QUD** (Roberts 2012), or by continued attendance to a previously introduced DR (\approx strong familiarity, **topic continuity**).

An aside on **salience**: Barlew (2014)

SALIENCE = CG-supported attention of addressee(s) to discourse referent

Bottom-Up Salience: triggered by perceptually prominent features of the linguistic signal or the utterance situation.

An aside on **saliency**: Barlew (2014)

SALIENCY = CG-supported attention of addressee(s) to discourse referent

Both types of saliency play a role in licensing REL-marking in Hausa!

Case Studies I: Fronting + REL-marking (standard)

(3) a. *kiifii* Kànde **ta** dafàa.
 fish Kande 3sg.F-PFV.**REL** cook
 ‘Kande cooked FISH.’

= 1 iff $\exists e [e \subset s_{\text{TOP}}]$: Kande cooks fish in e **PFV**

Case Studies I: Fronting + REL-marking (standard)

(3) a. *kiifii* Kànde **ta** dafàa.
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= 1 iff s_{TOP} is a situation in which Kande cooked fish

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 fish Kande 3sg.F-PFV.**REL** cook
 ‘Kande cooked FISH.’

= 1 iff s_{TOP} is a situation in which Kande cooked fish

FoC/QUD: s_{TOP} is a Kande cooked-situation
 s

REL: (3a) defined **iff there is a salient $s \leq s_{TOP}$**

Case Studies I: Fronting + REL-marking (standard)

(3) a. *kiifii* Kànde **ta** dafàa.
 fish Kande 3sg.F-PFV.**REL** cook
 ‘Kande cooked FISH.’

= 1 iff s_{TOP} is a situation in which Kande cooked fish

FoC/QUD: s_{TOP} is a Kande cooked-situation
 s

REL: (3a) defined iff there is a salient $s \leq s_{\text{TOP}}$

satisfied by **top-down salience (via QUD): $s \leq s_{\text{TOP}}$**

Case Studies I: Fronting + REL-marking (standard)

- (3) a. *kiifii* Kànde **ta** dafàa.
fish Kande 3sg.F-PFV.**REL** cook
'Kande cooked FISH.'

The fact that FoC-marking always allows for the identification of a salient *s* (via QUD-construal) accounts for the almost obligatory co-occurrence of A'-fronting and REL-marking:

FoC-REL Conspiracy

Case Studies II: Fronting + REL-marking in IPFV

(3) b. *kiifii* Kànde **ta-kèe** dafàa-waa
 fish Kande 3sg.F-IPFV.REL cook
 ‘Kande is cooking FISH.’

= 1 iff $\exists e [s_{\text{TOP}} \subset e]$: Kande cooks fish in e **IPFV**

Case Studies II: Fronting + REL-marking in IPFV

(3) b. *kiifii* Kànde **ta-kèe** dafàa-waa
 fish Kande 3sg.F-IPFV.REL cook
 ‘Kande is cooking FISH.’

= 1 iff s_{TOP} is a part of Kande-cooking-fish situation

Case Studies II: Fronting + REL-marking in IPFV

(3) b. *kiifii* Kànde **ta-kèe** dafàa-waa
 fish Kande 3sg.F-IPFV.REL cook
 ‘Kande is cooking FISH.’

= 1 iff s_{TOP} is a part of Kande-cooking-fish situation

FoC/QUD: s_{TOP} is a part of Kande cooking-situation
 s

REL: (3b) defined iff there is a salient $s \leq s_{TOP}$

satisfied by **top-down salience (via QUD): $s \leq s_{TOP}$**

Case Studies III: REL-marking w/o fronting II

(16A) B'àràayii nèe **su-kà** yi mîn saatàa!
robbers PRT 3pl-PFV.REL do to.me theft
'ROBBERS have stolen from me!'

= 1 iff s_{TOP} is a theft of speaker by robbers

FoC/QUD: does not apply/no restriction

Case Studies III: REL-marking w/o fronting II

(16A) B'àràayii nèe **su-kà** yi mîn saatàa!
 robbers PRT 3pl-PFV.REL do to.me theft
 'ROBBERS have stolen from me!'

= 1 iff s_{TOP} is a theft of speaker by robbers

REL: (16A) defined **iff there is a salient $s \leq s_{TOP}$**

Satisfied by **bottom-up** salience:

$s = s_{TOP} =$ contextually given theft circumstance

Case Studies III: REL-marking w/o fronting II

(16A) B'àràayii nèe su-kà yi mîn saatàa!
robbers PRT 3pl-PFV.REL do to.me theft
'ROBBERS have stolen from me!'

⇒ (16A) has the flavor of a contextually licensed
thetic exclamation, commenting on the utterance
situation s_{TOP} [Erteschik-Shir 1997, 2006]

- (25) a. THIEVES!
b. There are THIEVES (in s_{TOP})!

Case Studies IV: REL-marking w/o fronting I

(15) suka shigoo, suka tuub'ee taakalmii, sai suka zaunaa
'They entered, pulled off their shoes, and then sat down.'

In narrative discourse, there is a contextually supplied continuous s_{TOP} commented on by the individual subclauses:

(15') s_{TOP1} suka shigoo, s_{TOP1} suka tuub'ee taakalmii, sai s_{TOP1} ...

Case Studies IV: REL-marking w/o fronting I

(15) suka shigoo, **suka tuub'ee taakalmii**, sai suka zaunaa
'They entered, pulled off their shoes, and then sat down.'

= 1 iff $\exists e < s_{TOP}$ [$e \subset s_{TOP}$]: they pulled off their shoes

REL: (15) defined iff there is a salient $s \leq s_{TOP}$

Satisfied by **top-down** salience:

continued salience of **a currently activated situation-DR** established in the context ($s = s_{TOP}$)

Case Studies V: REL-marking w/o fronting I (IPFV)

The analysis also accounts for why narrative REL-sequences are ruled out with IPFV-marking:

(26) ... they are coming in, pulling off their shoes,...

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The analysis also accounts for why narrative REL-sequences are ruled out with IPFV-marking:

(26) ... they are coming in, pulling off their shoes,...

= 1 iff $\exists e [s_{\text{TOP}} \subset e]$: they pull off their shoes in e

REL: defined iff there is a salient $s \leq s_{\text{TOP}}$

\Rightarrow By transitivity, the contextually given s would have to be smaller than e , but it should be larger!

Case Studies VI: Obligatory REL with Subjects

(10A1) Kànde ta dafà kiifii.
K. 3F.PFV.REL cook fish
'KANDE cooked fish.'

- ⇒ With subject answers or subject FoCs, there is always a salient situation in the context: the situation denoted by the backgrounded VP, here **top-down licensed** by the QUD *Who cooked fish?*
- ⇒ Obligatory marking of backgrounded VPs!
[Zimmermann 2015]

Case Studies VII: Fronting w/o REL-marking I

- (17) a. Kànde **zaa-tà** dafà kiifii
'Kande will cook fish.'
- b. **Kiifii** Kànde **zaa-tà** dafáa
'Kande will cook FISH.'

⇒ HAB-, SUBJ-, and FUT sentence involve quantification over situations [Mucha 2015] and do not have an s_{TOP} pronoun in their logical form:

No anchor point for context situation s !

Case Studies VIII: Fronting w/o REL-marking II

(18) A: Adamu has repaired his bike.

B: *A'à, har yànzuu₁ yanàa gyaarà-ntá t₁.*
 no, until now 3SG.M.IPFV.ABS repairing-it
 'No, he's STILL repairing it!'

⇒ Impossibility of REL comes about through
clash in the aspectual specification:

Contextually given **s located in the past**, BUT
 s_{TOP} is located at UT, hence $s \leq s_{TOP}$ not met

Case Studies IX: No REL-marking with additives

(21) Koo jàariirìi yaa san hakà.
even child 3SG.M.PFV.ABS know that
'Even a CHILD knows that.'

⇒ REL not licensed because of additive nature of *koo*, which presupposes the existence of a **salient distinct situation** in the CG.

⇒ Being distinct, the contextually salient situation cannot be part of or equal to s_{TOP}

Interim Conclusion:

Semantic reanalysis of REL as presupposing the existence of a salient s , related to s_{TOP} , accounts for the distribution of REL, including standard cases and unexpected occurrences or absences

⇒ Analysis superior to standard analysis of REL as a morphological marker of A'-fronting.

Interim Conclusion:

Semantic reanalysis of REL as presupposing the existence of a salient s , related to s_{TOP} , accounts for the distribution of REL, including standard cases and unexpected occurrences or absences

- ⇒ Analysis superior to standard analysis of REL as a morphological marker of A'-fronting.
- ⇒ Analysis makes further correct predictions: **NEXT**

Predictions I: Maximize presupposition effects

Presuppositional meaning of REL predicts maximize presupposition effects [Heim 1991]:

⇒ REL should be obligatory in the presence of explicit situations in the context.

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Presuppositional meaning of REL predicts maximize presupposition effects [Heim 1991]:

⇒ REL should be obligatory in the presence of explicit situations in the context. **BORNE OUT!**

(27) Q: I heard the boys bought something, but WHAT did they buy?

A1: **Kifi** (ne) **suka** sayaa (fronting + REL)

A2: # Sun sayi kifi (in situ, ABS)

Predictions II: Absence of REL-marking

Y/N-questions do not express the existence of a particular situation, but question it.

⇒ Answers to Y/N-questions should come without REL-marking.

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Y/N-questions do not express the existence of a particular situation, but question it.

⇒ Answers to Y/N-questions should come without REL-marking. **BORNE OUT!**

(28) Q: Did the boys buy anything at the market?

A1: # Î, kifi (ne) suka saya. (fronting + REL)

A2: Î, sun sayi kifi. (in situ, ABS)

‘Yes, they bought FISH.’

Predictions III: Absence of special discourse effects

FoC-fronted non-subjects and subject XPs with REL-marking do not necessarily have an emphatic or mirative interpretation.

Licensed by presence of salient alternatives in the context and/or presupposed VP-situation:

e.g. Answers to wh-questions with alternatives, to alternative questions, to subject questions.

⇒ Ex situ answers + REL should be preferred in the absence of special contexts:

Predictions III: Absence of special discourse effects

FoC-fronted non-subjects and subject XPs with REL-marking do not necessarily have an emphatic or mirative interpretation.

(29) Q: What did the men buy?

A1: Kifi (ne) mutane suka saya
fish PTC men 3plPFV-REL buy

A2: Sun sayi kifi (ne)
3plPFV-ABS buy fish PRT

A1 (ex situ, FoC) >> A2 (in situ, new)

Predictions IV: Special discourse effects

Emphatic/ mirative/ exclusive interpretations are contingent on FoC-fronting, as such interpretations rely on the presence of contextually salient alternatives.

[cf. Hartmann & Zimmermann 2007]

(30) A: Musa has been sitting in the garden all day.

B: What is he doing there?

A1: Yana karatu (in situ: nothing special)

A2: Karatu yake (fronted: mirative reading)

‘He’s READING.’ vs ‘He’s READING!’

Predictions V: Exclusive particles

Exclusive particles like *sai* can only associate with FoC-marked constituents [Kraft 1970, Zimmermann 2006; cf. Beaver and Clark 2008]

- (31) a. Bâshîr **sai** **ruwaa** ya kaawoo
 Bashir only water 3sg.m.PFV.REL fetch
 ‘Bashir fetched only water.’
- b.* Bâshîr yaa kaawoo sai ruwaa
 Bashir 3sg.m.PFV fetch only water

Comparison to related approaches:

Current analysis differs in interesting ways from related approaches that also assume background marking of situations through DEF-like operators:

- i. BG-marking turns Asp-/VP-denotation into a **situation description** (Larson 2003, Baker & Travis 1997, Hole 2011, Onéa 2010), presupposing a VP-s.

too strong: does not account for narrative discourse

current approach: CG-situation related to s_{TOP} by \leq

Comparison to related approaches:

Current analysis differs in interesting ways from related approaches that also assume background marking of situations through DEF-like operators:

- ii. BG-marking turns Asp-/VP-denotation into a **situation description**, which is **identified with s_{TOP} of QUD** [Grubic 2015 on Ngamo/Chadic]

Correctly predicts possibility of BG-marked negative indefinites in Ngamo, which does not seem to be possible in Hausa \Rightarrow further research!

Cross-linguistic variation in BG-marking?

At least two potential loci of cross-linguistic (micro)-variation:

- Relation of s and s_{TOP}
- s_{TOP} of containing clause or QUD

More cross-linguistic research required !!!

Conclusions/Theoretical Implications

- i. Analysis of Hausa supports a multi-factorial approach to analysis of information structure ...

... in line with older and more recent work on information structure

[Halliday 1967, Krifka 2008, Féry and Ishihara 2010, Katz & Selkirk 2011]

Conclusions/Theoretical Implications

- ii. 2-factorial model registering **FoC** (alternatives) and constraints on the **topic** situation superior in empirical coverage to a mono-factorial model which only refers to QUDs (answer focus).

Conclusions/Theoretical Implications

- ii. 2-factorial model registering **FoC** (alternatives) and constraints on the **topic** situation superior in empirical coverage to a mono-factorial model which only refers to QUDs (answer focus).
- ⇒ Although REL-marking frequently occurs in FoC- or QUD-contexts it is not a focus marking device!

Conclusions/Theoretical Implications

- iii. In Hausa, no structural coding of QUDs
[cf. Robert 1996/2012, Beaver and Clark 2008]

Hausa marks the more restricted notion of FoC.

⇒ Question-answer test **not** a reliable diagnostic for FoCushood in elicitations, corpus analysis, annotations etc.

Conclusions/Theoretical Implications

- iii. In Hausa, no structural coding of QUDs
[cf. Robert 1996/2012, Beaver and Clark 2008]
Hausa marks the more restricted notion of FoC.
- Discourse models should register presence of alternatives and topic status of DRs (in addition to QUDs)

Conclusions/Theoretical Implications

⇒ Similar facts obtain in Medumba (Grassfield)

(32) nǎná ná[?] fá tʃàŋ nǔm wú
 Nana P₆ give food to who
 ‘To whom did Nana give food?’ (QUD: no á-marking)

(33) nǎná ná[?] fá tʃàŋ á nǔm wú
 Nana P₆ give food FOC to who
 ‘To which of them did Nana give food?’
 (FoC: á-marking)

Conclusions/Theoretical Implications

- iv. Relation between QUD and s_{top} more complex than in Kratzer (2007) & Schwarz (2009), where topic situation pragmatically derived from QUD
- s_{TOP} = situation(s) exemplifying the question denotation (QUD >> s_{TOP})

Conclusions/Theoretical Implications

iv. Relation between QUD and s_{top} more complex than in Kratzer (2007) & Schwarz (2009).

In Hausa:

- Restrictions on s_{TOP} directly coded by REL
- As QUD is not coded in the signal (under-specification), topic information can be used for identifying QUDs ($t_{TOP} \gg$ QUD).

Conclusions/Theoretical Implications

iv. Relation between QUD and s_{top} more complex than in Kratzer (2007) & Schwarz (2009).

(34) **Sun** kaamà dawaakii
3pl.PFV catch horses
'They caught horses.'

s_{TOP} must contain denotation of pronominal subject: zero pronoun \Rightarrow topic continuity

\Rightarrow QUD: What about them? (What did they do?)

Conclusions/Theoretical Implications

- iv. Relation between QUD and s_{top} more complex than in Kratzer (2007) & Schwarz (2009).

Discourse models should register presence of alternatives and topic status of DRs

Conclusions/Theoretical Implications

- ⇒ **Basic status of s_{TOP}** expected in file-card accounts of topicality [Reinhart 1982, Erteshik-Shir 1997, 2006]
- ⇒ First look up filecard and identify DR,
... then request information on DR/filecard

Conclusions/Theoretical Implications

⇒ **Basic status of s_{TOP}** expected in file-card accounts of topicality [Reinhart 1982, Erteshik-Shir 1997, 2006]

⇒ First look up filecard and identify DR,
... then request information on DR/filecard

REL-marking: strategy of identifying situation DRs

Conclusions/Theoretical Implications

- v. Parallels between nominal and sentential domain:
Discourse factors proposed for inducing salience in nominal referents of definite NP [Barlew 2014] also apply to the sentential domain, where they induce salience in situation referents of REL-marked clauses:

Background Markers (of s_{TOP}) =

Definite Markers at clause level

Conclusions/Theoretical Implications

v. Parallels between nominal and sentential domain:

In some languages, such as e.g. Ga, Ewe (both Kwa) and Ngamo (Chadic), background markers and definite articles take the same form:

Ngamo (Grubic 2015): NP-**i/ye** vs BG-**i/ye**

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Ngamo (Grubic 2015): NP-*i/ye* vs BG-*i/ye*

Superficially, *i/ye* could be analyzed as poly-functional focus marker doubling as definite article (same for Hausa REL: FM, narrative marker, ...)

Conclusions/Theoretical Implications

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Ngamo (Grubic 2015): NP-*i/ye* vs BG-*i/ye*

⇒ In the revised analysis of REL and *-i/ye* as background markers imposing restrictions on s_{TOP} , there is no polyfunctionality

THANK YOU!

Questions I: In situ-answers w/o REL

Why are in situ answers (with *nee/cee*) licit answers to overt wh-questions?

Why no REL-marking with in situ answers?

- (34) Q: What did the children catch?
A: Sun / *Sukà kaamà dawaakii nè.

Questions II: Contrastive Topic Patterns

Why do declaratives in contrastive topic-contexts regularly occur without REL-marking (at least when the subject is the CT)?

(35) Q: What did the boys buy?

A: Audu yaa sayi wake, (beans)
Musa yaa sayi shinkafa, (rice)
Bashir kuma yaa sayi gyad'a. (peanuts)

Questions II: Contrastive Topic Patterns

Why do declaratives in contrastive topic-contexts regularly occur without REL-marking (at least when the subject is the CT)?

- ⇒ Boys-buying-situation s not part of s_{TOP} of individual sentences (too big);
Audu buying-situation s not part of Musa-buying situation etc.

Questions III: Role of *nee/cee*

Following Green (1997), Hartmann & Zimmermann (2007b) argue that *nee/cee* induces exhaustivity:

⇒ *nee/cee* indicator of exemplification?

$s_{\text{TOP}} = \iota s [\text{EX}(\text{QUD})(s) \ \& \ s \leq w_0]$

[cf. Renans (forthcoming) on *ni* in Ga]

Questions IV: Why REL in Relative clauses ?

Following Hohaus (2014), s_{TOP} is related to situation introduced by head noun:

(4b)... yaarinyà-r [dà (ta)-kèe dafà kiifii]
 girl-LINK REL 3sg.F-IPFV.REL cook fish
 '(the) girl that is cooking FISH.'

s = girl-situation

s_{TOP} = girl-cooking-fish situation

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