Meaning Interfaces in Language Change: Free Choice, Unconditionals and Appositives

Marco Degano
University of Amsterdam

Formal Diachronic Semantics 7
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Plan

Outline

Free Choice Indefinites

Free Choice (FC) indefinites are indefinites associated with undefeasible free choice inferences:

(1) a. You can take any book.

b. You can take a book and **every book is a possible option**.

[Chierchia 2013; Dayal 1998; Giannakidou 2001; Jayez and Tovena 2005; Menéndez-Benito 2005]

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They are quite frequent cross-linguistically:

English *anyone*
Spanish *cualquier(a)*
Hungarian *akárki*
Italian *qualunque*
Dutch *wie dan ook*
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They normally cannot occur freely, but they display restricted distributions (e.g., they are licensed by modals):

(2) a. *Anyone fell.

b. Anyone could fall.

[Chierchia 2013; Dayal 1998; Giannakidou 2001; Jayez and Tovena 2005; Menéndez-Benito 2005]

Alternative Semantics

We endorse Alternative Semantics treatments of indefinites: indefinites give rise to **sets of alternatives**.

$[\![\text{SOMEONE}]\!] = \{x|(\text{HUMAN}(x)(w))\}$

Sue	Ron	...

[Kratzer and Shimoyama 2002]

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These alternatives combine with other elements by pointwise functional application, until they are closed by an operator which bounds the set of alternatives.

$$[\exists](A) = \bigcup(A)$$

$$[\forall](A) = \bigcap(A)$$

$$[\text{Neg}](A) = W \setminus \bigcup(A)$$

$$[Q](A) = A$$

[Kratzer and Shimoyama 2002]

FC Indefinites & An Example

FC indefinites: obligatory associated with a propositional [∀] operator and an exhaustivity operator **exh**.

(3) Sue can take any book.

⟦Sue can take any book⟧ =

$$[\forall](\Diamond((\textbf{exh}(\text{take}(\text{Sue}, (\text{any book}))))))$$

[Aloni 2007; Menéndez-Benito 2005]

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Book A	Book B	. . .

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= ◊(**exh**(take(Sue, Book A))) ∧ ◊(**exh**(take(Sue, Book B))) ∧ . . .

Without the intervening ◊, [∀] would yield inconsistency, explaining the ungrammaticaly of FC indefinites in episodic contexts (*Anyone fell.)

[Aloni 2007; Menéndez-Benito 2005]

Outline

Haspelmath Hypotheses

Haspelmath (1997): three possible types of *wh*-based FC indefinites.

(1) The 'it may be' type

(2) The 'want/pleases' type

(3) The 'no matter' type

Haspelmath (1997) hypothesizes on the origins of these types of FC indefinites, arguing also that FC indefinites are typically the origin of other indefinite forms.

Type I: ‘it may be’

Surface Structure:	*wh*-element + (subjunctive mood of) to be
Examples:	French *qui que ce soit* (who that may be) Croatian *ko bilo* (who it be) Dutch *wie dan ook* (who even also) Italian *qualsiasi* (who it may be)
Origin:	Parametric concessive conditional clause

(4) a. You can read a book, what ever it may be.

b. You can read what-ever(-it-may-be) book.

Type II: 'want/pleases'

Surface Structure:	*wh*-element + (subjunctive mood of) to want / it pleases
Examples:	Latin *quivis* (who you want) Spanish *cualquier(a)* (who it may want) Italian *qualsivoglia* (who it may want)
Origin:	Non-specific free relative clause

(5) a. John can take what book you want.

b. John can take what-you-want book.

Type III: ‘no matter’

Surface	*wh*-element +
Structure:	expression with ‘no matter’ meaning
Examples:	French *n’importe qui* (it does not matter who)
	Dutch *onverschilling wie* (indifferent who)
Origin:	Weak grammaticalization

(6) a. You can take a book. It does not matter which.

b. You can take no-matter-which book.

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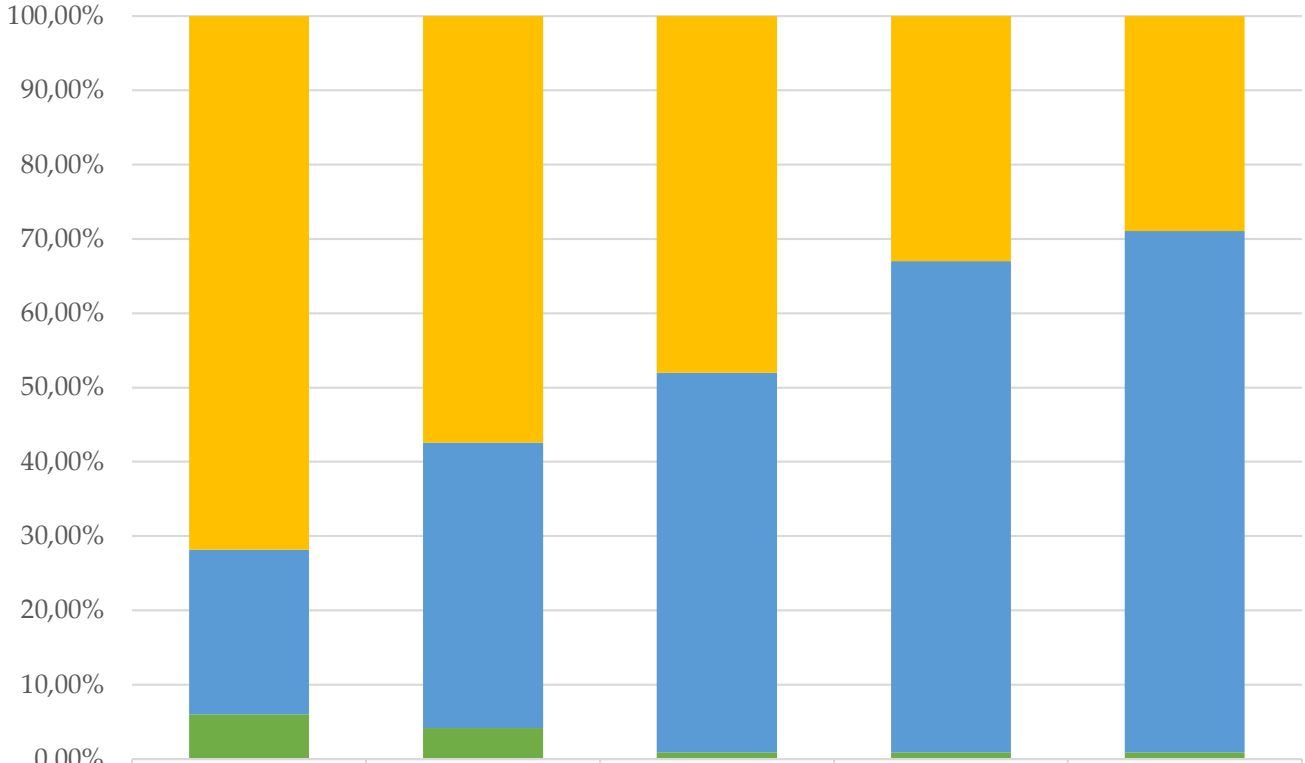
⇒ We study the diachronic development of three indefinites, one for each type.

Outline

FC Indefinites in Italian

Italian displays a variety of FC indefinite forms. Their diachronic competition is also quite revealing:



	1861-1900	1901-1922	1923-1945	1946-1967	1968-2001
Qualunque	71,83%	57,39%	48,01%	32,97%	28,94%
Qualsiasi	22,16%	38,45%	51,07%	66,11%	70,16%
Qualsivoglia	6,02%	4,15%	0,93%	0,92%	0,90%

Figure: Diachronic relative frequency of *qualunque* (yellow), *qualsiasi* (blue), *qualsivoglia* (green) based on DiaCORIS [1861 – 2001]

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✓ full diachronic development

For Type III, the no-matter type, we study the French *n'importe quel* based on data from Pescarini (2010).

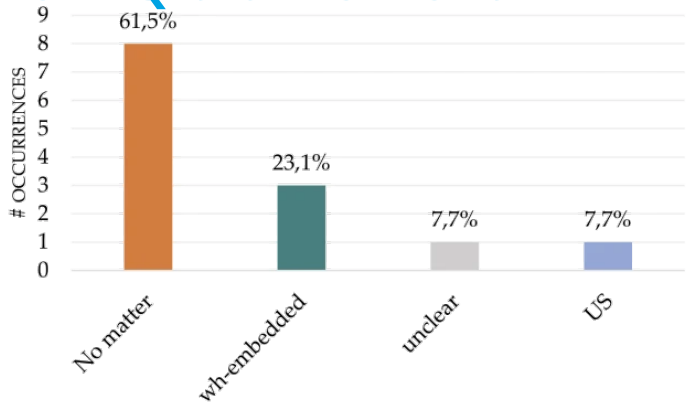
Qualsiasi

The diachronic study on *qualsiasi* is more comprehensive and based on Degano and Aloni (2021).

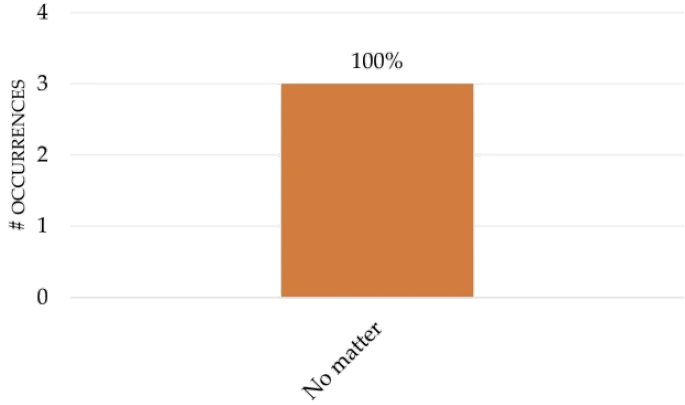
Manually annotated corpus of occorrences of *qualsiasi* and related forms starting from the 10th century until the current uses.

Here we are interested in the data concerning the early stages of grammaticalization of the original expression *qual si sia*.

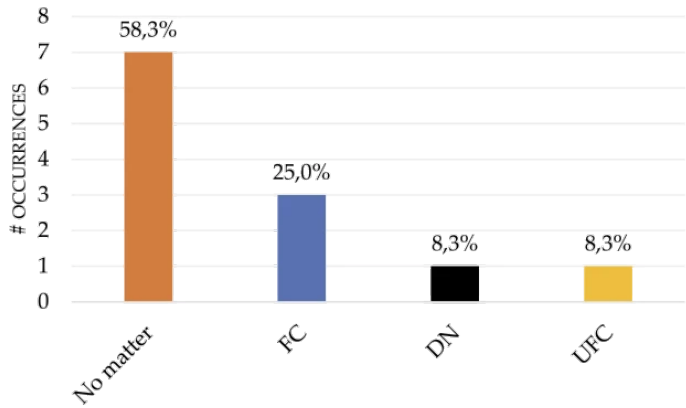
Results: *Qual si sia*



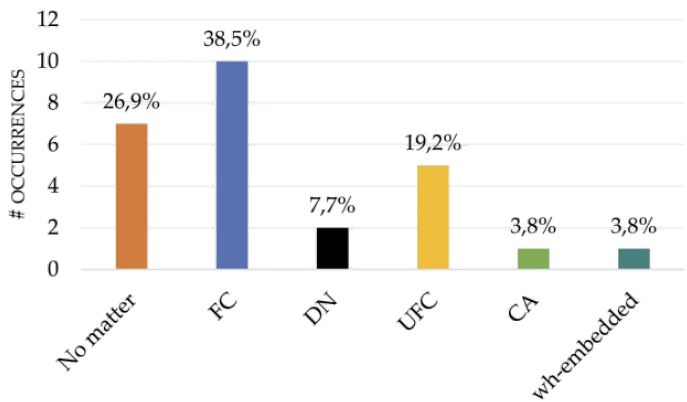
(a) 1300s



(b) 1400s



(c) 1500s



(d) 1600s

The emergence of FC in *qual si sia* – from Degano and Aloni (2021)

Dissecting the No Matter function

The data suggests a prominent role of no-matter constructions in the early stages of development.

We found two main types of no-matter flavour constructions.

The first type, also in order of appearance, are **unconditionals**.

The second type are **appositives**: *qual si sia* often occurred between two commas near the noun they refer to. (Later, we will see that this construction exhibits more variation.)

The Role of Unconditionals

(7) Unconditional headed by *qual si sia*

Qual si sia la cagion del tuo venire, noi
qual si sia the reason of-the your coming, we

vorren sentire perché tal opra a far per
want-1pl.cond listen why that work to do for

te si piglia.
you refl pick.

'Whatever the reason of your arrival is, we would like to know why this work suits you.'

(Anonymous – 1465)

Later, we will claim that the universal operator [∀] associated with *wh*-based FC indefinites comes from these early unconditional constructions.

The Role of Appositives

(8) Apposition with *qual si sia*

Di ciascheduna carrata di legname, qual si sia*,*
of each cartload of lumber, what clitic is.subj,

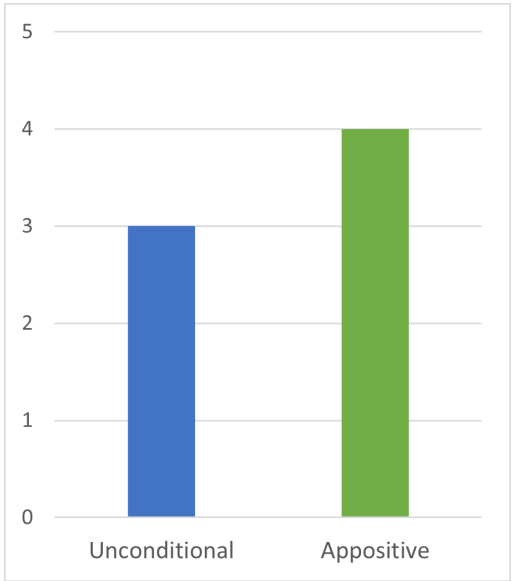
o d'asse o bordoni o trave, venghino dove
or board or staffs or beam, come where

vuole, danari 12.
want, denari 12.

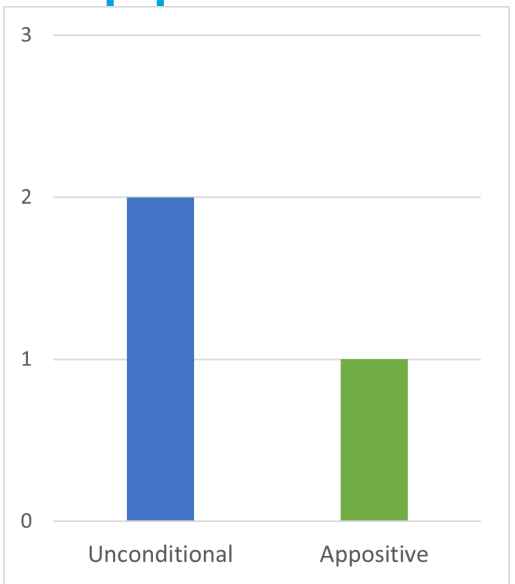
'Of each cartload of lumber, whatever, or boards, or staffs or beams, from wherever you want, 12 denari.'
(Morrocchesi, *Stat. fior.*, 1394)

Later, we will claim that appositives helped the transition from an interrogative (unconditional) to a nominal (indefinite).

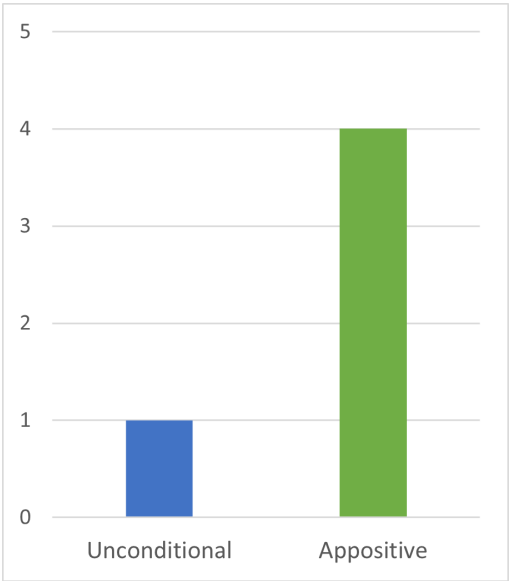
Unconditional and Appositives



1300s



1400s



1500s

After *qual si sia* starts to be used as an indefinite, isolated appositives referring to the nominal are not attested.

'No matter' uses are still present in forms like:

(9) *I coltelli, di qualsiasi tipo, sono pericolosi.*
The knifes, of *qualsiasi* kind, are dangerous.

'Knifes, of any kind, are dangerous.'

Conclusion on *Qualsiasi*

Unconditionals seem to be central to the development of the indefinite and its free choice reading.

Appositives also displays an important role in the early stages of grammaticalization, and their presence disappears after *qual si sia* starts to be consistently used as an indefinite.

With regard to the relevance of unconditional in early uses of FC indefinites, our results are compatibles with the development of the Dutch *akár* paradigm discussed in Halm (2021).

With regard to the appositive stage, our results parallel in part preliminary findings by de de Vos (2010), who examined the diachronic development of Dutch *wie dan ook*.

Qualsivoglia

The indefinite is already (almost) grammaticalized since the first occurrences:

(10) *E certo è viepeggiore gloria gloriarsi, e reputarsi, e credere di essere spirituale, che* ***qualsivoglia*** *altra vanagloria corporale.*

‘And certainly it is a worse arrogance to boast, and to consider oneself, and to believe that one is spiritual, than **any** other physical vainglory.’

(Domenico Cavalca, *Disciplina degli spirituali*, 1341)

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Early stages free relatives (recall Haspelmath’s hypothesis) were still present (mainly in the form of *what you want* and in an indicative, not subjunctive mood).

Some Examples

(11) Unconditional

e *per* *questo* *si* *comprende,* ***quale voglia***
and for this understand, quale voglia
essere *il* *nostro* *operare,* *se* *piacere* *vogliamo* *a*
be the our doing, if like want to
Dio
God

'and for this we understand, whatever our behaviour is, if we want to be liked by God.'

(12) Appositive

ancor *le* *donne* *stesse,* *sia* ***qual si voglia****,* *o* *la*
though the women themselves, be qual si voglia, or the
bianca *o* *la* *bruna,* *pregar* *el* *sol* *e* *scongiurar* *la*
white or the bruin, pray the sun and beg the
luna.
moon

'though the women themselves, sia qual si voglia, white or brown, pray to the sun and conjure the moon.'

French *n'importe quel* [Pescarini 2010]

Also in the case of French *n'importe quel*, a type III FC indefinite, we witness a similar development:

(13) *Unconditional*

n'importe de quel grade, ils s'agenouillent tous
not-matter of which rank, they kneel all
devant Napoléon
in-front-of Napoleon.

'No matter which rank, everyone kneels in front of Napoleon.

(14) *Apposition (a)*

Au soldat, n'importe de quel grade, doit être en
a soldier, not-matter of which rank, must be in
bonne santé.
good health.

'A soldier, no matter which rank, must be in good health.'

During the apposition phase, a change in the prepositional attachment of *n'importe de qu-* occurs:

(15) Apposition (b)
Au soldat, de n'importe quel grade, doit être en bonne santé.
a soldier, of not-matter which rank, must be in good health.

'A soldier, no matter which rank, must be in good health.'

(16) FC Indefinite
n'importe quel soldat doit être en bonne santé.
Not-matter which soldier must be in good health.

'Any soldier must be in good health'.

Interim Conclusions

We have examined the development of **three FC indefinite forms** based on the original Haspelmath (1997)'s classification.

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We found that in each of them, **concessive/unconditional** constructions played an important role in the development of the indefinites.

We also found intermediate phases where the indefinite was used in a separate **appositive**/parenthetical clause before displaying the typical distribution of indeterminate phrases.

Outline

Unconditionals (Basics)[1]

Rawlins (2008a,b) analyzes unconditionals based on a *restrictor* analysis of conditional clauses.

Conditional adjuncts provide a domain restriction to the main clause.

Unlike standard conditionals, unconditionals adjuncts denote a set of propositions. The domain restriction operates pointwise.

(17) a. *Qual si sia* the gift, I should be happy.

b. $[\forall]\,([Q]\,\textbf{exh}\,(\text{qual (si), is the gift}) \Rightarrow \Box(happy(I)))$

c. $[\forall]\left(\begin{array}{|l|}\hline \text{nothing is the gift} \\ \hline \text{only } d_1 \text{ is the gift} \\ \hline \text{only } d_2 \text{ is the gift} \\ \hline \ldots \\ \hline \end{array} \Rightarrow \Box(happy(I))\right)$

[1] In what follows, we will mostly work with toy examples to facilitate the analysis.

Unconditionals and [∀]

$$[\forall]\,(\underbrace{[Q]\ \textbf{exh}\ (\text{qual (si), is the gift})}_{A} \Rightarrow \underbrace{\Box(happy(I))}_{B})$$

Domain restrictions could be due to an indexed modal in the main clause (e.g., Rawlins 2008b) or due to an alternative-based conditional operator (e.g., Ciardelli 2016).

$[\![\Rightarrow (A, B)]\!]^{w,g} = \{p \rightarrow q | p \in [\![A]\!]^{w,g} \text{ and } q \in [\![B]\!]^{w,g}\}$

The universal operator [∀] puts together the set of conditionalized alternatives.

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The universal operator [∀] puts together the set of conditionalized alternatives.

Recall the logical form of sentence with a FC indefinite:

(18) a. Sue can take any book.

b. [∀](◊((**exh**(take(Sue, (any book))))))

Unconditionals and [∀]

Key Takeaway: Unconditionals might be the origin of the universal [∀] operator and the exhaustivity operator **exh** triggered by FC indefinites.

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But how did this change from an interrogative to a nominal happened?

We will argue the appositive stage played a key role.

Outline

Appositives?

In what follows, we use *wie dan ook* as an abstraction for this class of expressions.

The data shows that appositives are a diversified collection of different expressions.

(19) A dog, sia qual si voglia / qual si sia / wie dan ook (het mag zijn), can bark.

(20) Dogs, wie dan ook, can bark.

(21) The dog, wie dan ook, barked.

(22) The Italians, the Dutch, or *wie dan ook*, are welcome here.

(23) Dogs, of *wie dan ook* age, can bark.

Our focus here is on cases like (19-20) and (21).

Appositives and Non-At-Issue Content

Appositives/parenthetical are usually modelled with multi-dimensional semantic frameworks.

Semantic meaning lives in multiple dimensions with different status (e.g., asserted, conventionally implicated, presupposed).

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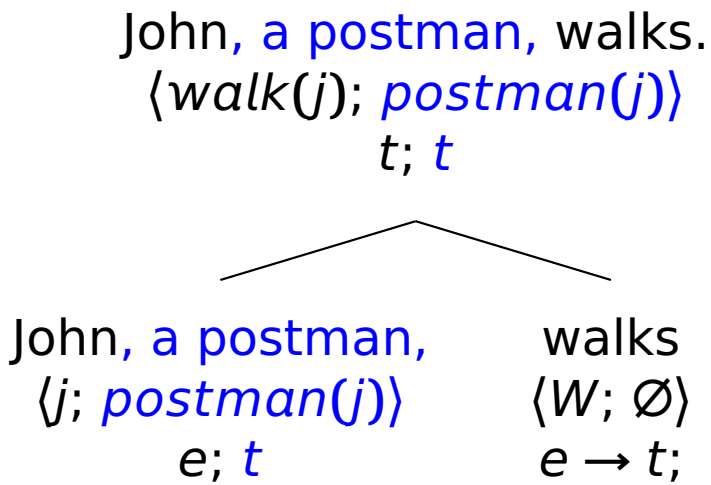
(24) John, a postman, walks.



Common assumption (e.g., Potts 2005): no interaction between non-at-issue content and at-issue content during semantic composition.

Appositives and Non-At-Issue Content

This strict separation has been challenged. In (25), the appositive relative clause **does not project** (Schlenker 2010; Wang, Reese, and McCready 2005).

(25) a. If a professor**, who is famous,** publishes a book, he will make a lot of money.

b. If [a professor$_i$ publishes a book AND he$_i$ is a famous professor], he$_i$ will make a lot of money.

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This strict separation has been challenged. In (25), the appositive relative clause **does not project** (Schlenker 2010; Wang, Reese, and McCready 2005).

(25) a. If a professor**, who is famous,** publishes a book, he will make a lot of money.

b. If [a professor$_i$ publishes a book AND he$_i$ is a famous professor], he$_i$ will make a lot of money.

Diversified empirical landscape: appositives can express **various relations** to their anchors (not limited to conjunction), especially if the anchor is an indefinite (see e.g., Nouwen 2014).

‘Unconditional’ appositives

(26) John, *wie dan ook*, entered the room.

Ignorance: John entered the room and the speaker does not know who John is.

(27) A student, *wie dan ook*, can enter the room.

Free Choice: Any student can enter the room.

'Unconditional' appositives

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(27) A student, *wie dan ook*, can enter the room.

Free Choice: Any student can enter the room.

	Free Choice	Ignorance
(26)	✗	✓
(◊26)	✗	✓
(◊27)	✓	(✓)
(27)	(✓)	✓

As a broad generalization, this class of appositives displays the same pattern of *whoever she is*, albeit being structurally different.

Analysis (Preliminaries I)

We treat appositives as open propositions, as in Del Gobbo (2007) and Nouwen (2007), of the form $\alpha = x$:

(28) a. John$_x$, wie dan ook, . . .

b. $\mapsto [\![John_x]\!]^{w,g}$
$\mapsto [\![\alpha = x]\!]^{w,g}$

$[\![John_x]\!]^{w,g} = \{j\}$

$[\![\alpha]\!]^{w,g} = \{y | y \in D\}$ is a set of individuals provided by the *wh*-phrase.

$[\![x]\!]^{w,g} = \{j\}$ is the value of the anchor.

Analysis (Preliminaries II)

How to analyse identity statements of the form $\alpha = x$?

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Identity as a **pointwise** operation:

$$[\![\alpha = \beta]\!]^{w,g} = \{p | \exists x \in [\![\alpha]\!]^{w,g} \exists y \in [\![\beta]\!]^{w,g} \text{ and } p = \lambda v(x \sim_v y)\}$$

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Identity is **intensional** (i.e., a world-dependent equivalence relation $\sim_v$):

v_1	a $\sim_{v_1}$ b $\not\sim_{v_1}$ c
v_2	a $\not\sim_{v_2}$ b $\sim_{v_2}$ c
v_3	a $\sim_{v_3}$ b $\sim_{v_3}$ c
v_4	a $\not\sim_{v_4}$ b $\not\sim_{v_4}$ b

Let C be the set of possibilities encoding the epistemic state of the speaker. If $C = \{v_1, v_2\}$, then the speaker knows that the value of b is equivalent to a or to c. If C is a singleton, the speaker is maximally informed.

Appositives with referential anchors

(29) Superman, *wie dan ook*, saved my life.

$$[\![\alpha = x]\!]^{w,g}$$

The appositive in (29) has a 'referential anchor', a singleton set. While $[\![\alpha]\!]^{w,g}$ denotes a set of individuals.

$$\{d_1, d_2, \dots\} = \{s\}$$

By pointwise functional application, we get a set of propositions:

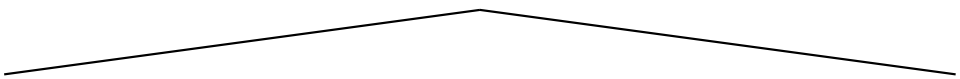
$$\{\lambda v(d_1 \sim_v s), \lambda v(d_2 \sim_v s), \dots\}$$

We argue that this interrogative appositive structure behaves like unconditionals: it undergoes exhaustification and the closure operation is merging the two dimensions via a set of conditionalized propositions.

Appositives with referential anchors (2)

Superman, *wie dan ook*, saved my life.
$\mapsto$ [∀]{**exh**($\lambda v(d_1 \sim_v s)$)$\rightarrow\lambda w S(s)(w)$,
exh($\lambda v(d_2 \sim_v s)$)$\rightarrow\lambda w S(s)(w)$,
$\ldots$}

Superman, *wie dan ook*, saved my life.
$\mapsto \{\lambda w S(s)(w)\}$
$\mapsto \{\textbf{exh}(\lambda v(d_1 \sim_v s)), \textbf{exh}(\lambda v(d_2 \sim_v s)), \ldots\}$



Superman, *wie dan ook*,
$\mapsto \{s\}$
$\mapsto \{\textbf{exh}(\lambda v(d_1 \sim_v s)), \textbf{exh}(\lambda v(d_2 \sim_v s)), \ldots\}$

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$\{\lambda x \lambda w S(x)(w)\}$

We derive that $\lambda w S(s)(w)$, and it does not matter who s is (i.e., ignorance). (Note that the contribution of the unconditional would be trivial if the speaker were maximally informed).

Appositives with non-referential anchors

(30) A man, *wie dan ook*, can walk.

As in Kratzer and Shimoyama (2002), simple indefinites come with a restriction, $G(D) \subseteq D$, which allows for singleton readings.

$$[\![\text{a man}]\!]^{w,g} = \{x | x \in G(D)\}$$

What would be the resulting appositive?

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What would be the resulting appositive?

$$\left\{ \begin{array}{lll} \textbf{exh}(\lambda v(d_1 \sim_v d_1)), & \textbf{exh}(\lambda v(d_2 \sim_v d_1)), & \ldots \\ \textbf{exh}(\lambda v(d_1 \sim_v d_2)), & \textbf{exh}(\lambda v(d_2 \sim_v d_2)), & \ldots \\ \textbf{exh}(\lambda v(d_1 \sim_v d_3)), & \textbf{exh}(\lambda v(d_2 \sim_v d_3)), & \ldots \\ \vdots & \vdots & \vdots \end{array} \right\} = \Gamma$$

A very complex set of propositions, with a lot of **redundant** information!

Appositives with non-referential anchors

A man, *wie dan ook*, can walk.

$\mapsto [\forall]\{\mathbf{exh}(\lambda v(d_1 \sim_v d_1)) \rightarrow \lambda w \Diamond W(d_1)(w),\ \mathbf{exh}(\lambda v(d_1 \sim_v d_2)) \rightarrow \lambda w \Diamond W(d_1)(w),$
$\mathbf{exh}(\lambda v(d_2 \sim_v d_1)) \rightarrow \lambda w \Diamond W(d_2)(w),\ \mathbf{exh}(\lambda v(d_2 \sim_v d_2)) \rightarrow \lambda w \Diamond W(d_2)(w),$
$\ldots\}$

|

A man, *wie dan ook* can walk,
$\mapsto \{\lambda w \Diamond W(d_1)(w), \lambda w \Diamond W(d_2)(w), \ldots\}$
$\mapsto \Gamma$

A man, *wie dan ook*,
$\mapsto \{x | x \in g(D)\}$
$\mapsto \Gamma$

can walk.
$\mapsto \{\lambda x \lambda w \Diamond W(x)(w)\}$

Since we have partitions for each $d_1, d_2, \ldots$, we derive that $\lambda w \Diamond W(d)(w)$ for each $d_1, d_2, \ldots$ (free choice).

When G returns a singleton, the derivation runs in parallel with the referential case.

Summary of Predictions

	Free Choice	Ignorance
(ref. anchor)	✗	✓
◊ + (ref. anchor)	✗	✓
◊ + (non-ref. anchor)	✓	(✓)
(non-ref. anchor)	(✓)*	✓

Summary of Predictions

	Free Choice	Ignorance
(ref. anchor)	✗	✓
◊ + (ref. anchor)	✗	✓
◊ + (non-ref. anchor)	✓	(✓)
(non-ref. anchor)	(✓)*	✓

When the speaker is maximally informed, for the referential case the [∀] operator applies vacuously. For the non-referential case, the [∀] operator still plays a role, and we derive a universal reading:
$[\forall]\{\lambda w \Diamond W(d)(w) | d \in G(D)\}$

*When the modal is absent, we predict that the appositive should generate a universal/generic-like reading. This seems to be attested in the data, since some early examples used in non-modal contexts displayed a generic reading.

Appositives with non-referential anchors

The interrogative structure generated by the appositive is arguably very complex.

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Due to this high complex, we might conjecture a different notion for identity, where identity does not behave point-wise, but it requires the denotation of the *wh*-phrase to be equal to the denotation of the anchor.

$$[\![\alpha = \beta]\!]^{w,g} \Leftrightarrow [\![\alpha]\!]^{w,g} = [\![\beta]\!]^{w,g}$$

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The contribution of the non-at-issue dimension would then be to require that such identity holds:

$$\{x|x \in D\} = \{x|x \in G(D)\} \text{ iff } G(D) = D$$

This also results in a domain widening effect. Note that this notion of identity would not work for referring expressions, since they are always singleton sets.

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This also results in a domain widening effect. Note that this notion of identity would not work for referring expressions, since they are always singleton sets.

While in the previous case [∀] and **exh** were part of the unconditional, now they are integrated in the at-issue dimension as features of the nominal expression.

Appositives with non-referential anchors

A man, *wie dan ook* , can walk.
$\mapsto [\forall]\{\lambda w \Diamond \mathbf{exh}(W(d_1)(w)), \lambda w \Diamond \mathbf{exh}(W(d_2)(w)), \ldots\}$

A man, *wie dan ook* ,
$\mapsto \{d_1, d_2, \ldots\}^{([\forall], \mathbf{exh})}$

A man, *wie dan ook*,
$\mapsto \{x | x \in G(D)\}$
$\mapsto \{x | \in D\} = \{x | x \in G(D)\}$

can walk.
$\mapsto \{\lambda x \lambda w \Diamond W(x)(w)\}$

The end result is the same as a FC indefinite.

Note that in this case, **exh** needs to operate below the modal to avoid contradictions.

Phases of development: From Unconditional to FC Indefinite

We conjecture that the semantic reinterpretation of identity precedes and facilitates the later grammaticalization of the FC indefinite.

Phase 1: Unconditional clause + unconditional interpretation

Phase 2: appositive + unconditional interpretation (point-wise identity)

Phase 3: appositive + reinterpreted identity interpretation [semantic change]

Phase 4: FC indefinite + FC interpretation [syntactic/lexical change]

The change from phase 3 to phase 4 is also evidenced by the loss of syntactic structure from 'full' appositives like *wie dan ook hij is* to 'reduced' ones like *wie dan ook ~~hij is~~* (however, the reduced form was prominent from the beginning).

Analysis: Summary

1. the class of appositives *wie dan ook* denote an open set of propositions of the form $\alpha = x$;
2. the anchor of the appositive is the nominal, which can be a proper name or an indefinite;
3. identity behaves pointwise and provides values for the nominal anchor it refers;
4. the at-issue and non-at-issue dimensions are merged via an unconditional operation. This captures both ignorance and free choice readings;
4. for indefinites, a different notion of identity is available. In this case, the appositive imposes values for the anchor at the at-issue level (the at-issue and non-at-issue dimension merge at a nominal level);
5. the [∀] and **exh** operators, once part of the unconditional structure, are then integrated as features of the nominal.

Outline

Conclusions

We have examined the development of **three class of FC indefinites**. For each of them, **unconditional/concessive** constructions were prominent.

We have analyzed indefinites in an **Alternative Semantics** framework, where FC indefinites are associated with a [∀] operator.

We argued that [∀] was part of the **original unconditional construction**, and this explained its presence in the meaning of FC indefinites.

Conclusion

The data shows also that **appositives** played a key role in the grammaticalizations of the indefinite.

Appositives contribute to a non-at-issue, **conventionalized**, dimension of meaning.

We showed how the class of appositives we called ‘unconditional appositive’ generates **free choice** readings when the anchor is an indefinite.

We showed that the non-at-issues dimension can be **integrated** with the at-issue one in different ways and how this might have facilitated the nominalization of the indefinite.

This suggests that the **at-issue vs non-at-issue** is not simply a useful tool in our formal theories, but languages themselves seem to be sensitive to this divide in the **grammaticalization** process.

Conclusion

THANK YOU!

Conclusion

THANK YOU!

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