Idioms
in Non-restrictive Relative Clauses

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Introduction

There are at least two types of idioms:

(1)  
  a. kick the bucket ‘die’ (non-decomposable)  
  b. pull strings ‘use connections’ (decomposable)

Decomposable idioms can be split across a main clause and a restrictive relative clause (RRC):

(2)  
  a. *The bucket \([RRC \text{ that Chris kicked}]\) shocked us all.  
  b. The strings \([RRC \text{ that Chris pulled}]\) got Kim the job.

Even decomposable idioms cannot be split across a main clause and a non-restrictive relative clause (NRC) (Vergnaud 1974, Fabb 1990):

(3)  
  *The headway, \([NRC \text{ which the students made last week}]\), was phenomenal.
Introduction

Arnold & Bargmann (2016):
A single part of a decomposable idiom can occur within an NRC.

(4) The strings that I pulled for you before, [\text{\textit{NRC}} which I hereby promise I will pull for you again], will get you the job.

In this talk, we will . . .

- discuss the conditions under which idiom parts can occur in NRCs.
- show other interactions of NRCs and idioms.
- connect this to an update-based approaches to NRCs.
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Decomposable flexible idioms (DFIs)

Nunberg et al. (1994): An idiom is . . .

- *semantically decomposable* iff parts of the idiom can undergo some semantic operation (modification, . . . ), i.e. have an idiomatic reading.
- *syntactically flexible* iff parts of the idiom can undergo some syntactic operation (passivization, . . . ).

Examples:

(5) Clyde’s government contract payments were bothering me, so I pulled some ancient strings. (www)
   a. pull ≈ use strings ≈ connections
   b. . . . so I used some ancient connections.

(6) Many strings have been pulled to get John this job.
DFIs in RRCs

As we saw in the introduction, DFIs can be split across a main clause and an RRC (McCawley, 1981; Fabb, 1990; Nunberg et al., 1994):

(7) The strings \([RRC \text{ that Chris pulled}]\) got Kim the job.
DFIs in discourse

Under certain circumstances, parts of a DFI can be pronominalized:

(8) Kim’s family pulled some strings on her behalf, but they weren’t enough to get her the job. (Nunberg et al., 1994, 502)

...or occur in isolation:

(9) Pat and Chris graduated from law school together with roughly equal records. Pat’s uncle is a state senator, and he pulled strings to get Pat a clerkship with a state supreme court justice. Chris, in contrast, didn’t have access to any strings, and ended up hanging out a shingle. (Wasow et al., 1983, 93)
DFIs in NRCs

If the full DFI is present in the matrix clause, parts of it can occur in an NRC:

(10) The strings that I pulled for you before, [\_NRC which I hereby promise I will pull for you again], will get you the job.
(Arnold & Bargmann, 2016)

If the full DFI is present in an NRC, parts of it can occur in the matrix clause:

(11) John, [\_NRC who had hoped that Mary would pull some strings for him], suddenly realized that she didn’t have access to any strings.
Constraints on DFIs in NRCs

But there are other constraints:

(12) *Those strings, 
\[
[\text{NRC which I hereby promise I will pull for you}], 
\]
will get you the job. (Split)

(13) *Those strings, 
\[
[\text{NRC which I hereby promise will get you the job}], 
\]
will be pulled by Alex. (Intervention)

(14) Those strings will be pulled by Alex.
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Orphan approaches

NRCs have often been analyzed as:

- syntactically independent of the matrix clause: problematic, see e.g. Arnold (2004, 2007)
- semantically independent of the matrix clause: problematic, see e.g. Schlenker (2010, 2013) and AnderBois et al. (2015)

Problems for orphan approaches here:

- Licensing of idiom parts in a main clause by a preceding NRC.
- Intervention effects of NRCs with DFIs are unaccountable.
AnderBois et al. (2015); Henderson (2014): Dynamic semantics

- Backgrounded content imposes restrictions on the Context Set and, therefore, is immediately integrated.
- In contrast, at-issue content is proposed and, therefore, is not immediately integrated into the Context Set.
- Example (AnderBois et al., 2015, 110):

\[(15) \text{John}^x, \text{who nearly killed a}^y \text{woman with his}^x \text{car, visited her}^y \text{in the hospital.}\]

a. New proposal: \([p] \land p \subseteq p^{cs} \land\]
b. Issue: \([x] \land x = \text{john} \land\]
c. Appositive: \([y] \land \text{woman}_{p^{cs}}(y) \land \text{nearly-kill}_{p^{cs}}(x, y) \land\]
d. Issue: \(\text{visit}_{p}(x, y) \land\]
e. Proposal accepted: \([p^{cs}] \land p^{cs} = p\)
The referent of idiomatic *strings* need not be the same:

(16) John, 
\[NRC\] who had hoped that Mary\(x\) would pull [some\(y\) strings] for him],

suddenly realized that she\(x\) didn’t have access to [any\(z\) strings].
Idiom theory
Representational + collocational approach
(Webelhuth et al., to appear; Bargmann & Sailer, 2016):

Decomposable idioms:
- syntactically combine just like free combinations
- require that the semantic representations of the idiom parts co-occur within the semantic representation of the sentence ("collocations")

(17) spill (the) beans 'reveal a secret'
Alex spilled the beans.
\[ \exists x (x = \nu y : \text{beans-id}(y) \land \text{spill-id}(\text{alex}, x)) \]

a. *spill*: \text{spill-id}
collocaational restriction: \text{beans-id} occurs in the same semantic representation

b. *beans*: \text{beans-id}
collocaational restriction: \text{spill-id} occurs in the same semantic representation
An analysis without a theory of discourse updates either predicts (18) to be grammatical or (19) to be ungrammatical.

(18) *Those strings
\[NRC\] which I hereby promise I will pull for you
will get you the job. (Split)

(19) Alex pulled the decisive strings,
\[NRC\] which I had promised you I would have pulled for you, too.

Intervention effect, (20), would wrongly be considered grammatical:

(20) *Those strings,
\[NRC\] which I hereby promise will get you the job
will be pulled by Alex. (Intervention)
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Our Approach

- Constraint-based grammar framework:
  Head-driven Phrase Structure Grammar (HPSG, Pollard & Sag 1994)
  + Lexical Resource Semantics (LRS, Richter & Sailer 2004)
  Here: Leaving out all framework-specific details.

- Syntactically-integrated analysis of NRCs
  (e.g. Arnold 2004, 2007; Potts 2005)

- Variant of the semantic representations in AnderBois et al. (2015)
  but with explicit update operators in the semantic representations
Update operators

- An expression with illocutionary force contributes appropriate operators for updating the context with the semantics of the expression.

- At-issue content: $\text{AI}(\phi)$
  - Not immediately integrated into the common ground
  - Important for discourse continuation

- Backgrounded content: $\text{BG}(\phi)$
  - Presuppositions, conventional implicatures, ...
  - Leads to immediate integration into the common ground.

- $\text{BG}(\text{presupposition}) \land \text{BG}(\text{apposition}) \land \text{AI}(\text{at-issue})$

- Dynamic interpretation (Groenendijk & Stokhof, 1991; AnderBois et al., 2015), but DRT-style representations (Kamp & Reyle, 1993; Kamp et al., 2011) would be equally possible.
Example

Adaptation of an example from (AnderBois et al., 2015, 110)

(21) John\(^x\),
[who nearly killed a\(^y\) woman with his\(^x\) car],
visited her\(^y\) in the hospital.

\(BG(\exists x (x = \text{john})\)
\(\land BG(\exists y (y = \text{woman}(y)) \land \text{nearly-kill}(x, y))\)
\(\land AI(\text{visit}(x, y))\)
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NRCs: Antecedent must be available in the previous discourse.

Idioms: Collocational restrictions formulated with respect to update operators.

Discussion of individual examples
NRCs

- General constraint on NRCs: The antecedent of an NRC must be available in the discourse.
- Notation: Marking of the antecedent on the relative pronoun

(22) Alex$_x$, [$_{NRC}$: who$_x$ [S: Kim likes $t_x$]], left.

$BG(\exists x (x = \text{alex}))$
$\land BG(\exists y (y = \text{kim})) \land BG(\text{like}(y, x))$
$\land AI(\text{leave}(x))$
Domain of idiom licensing

- Idiom parts require the co-occurrence of particular bits of semantic representation within a particular domain.

- A collocationally restricted element Coll1 is licensed iff it finds its collocator, Coll2, within the scope of the same update operator or within the previous discourse:

(23) a. Same operator:

\[ \ldots \text{OP}(\ldots \text{Coll1} \ldots \text{Coll2} \ldots) \]
\[ \ldots \text{OP}(\ldots \text{Coll2} \ldots \text{Coll1} \ldots) \]

b. Previous discourse:

\[ \ldots \text{OP}(\ldots \text{Coll2} \ldots) \ldots \text{OP}(\ldots \text{Coll1} \ldots) \ldots \]

c. Split:

\[ *\ldots \text{OP}(\ldots \text{Coll1} \ldots) \ldots \text{OP}(\ldots \text{Coll2} \ldots) \ldots \]

d. Intervention:

\[ *\ldots \text{OP}(\ldots \text{Coll1} \ldots) \ldots \text{OP}(\ldots) \ldots \text{OP}(\ldots \text{Coll2} \ldots) \ldots \]
Collocational analysis of DFIs

- **strings**: *strings-id* is collocationally restricted to *pull-id*.
- **pull**: *pull-id* is collocationally restricted to *strings-id*

Both collocates in the scope of the same operator:

\[(24)\quad \text{Alex pulled those strings (to get the job).}\]
\[
\begin{align*}
&\mathcal{BG}(\exists z(z = \text{alex})) \\
&\land \mathcal{AI}(\exists x(x = \nu y : \text{strings-id}(y)) \land \text{pull-id}(z, x))
\end{align*}
\]

Collocator is missing:

\[(25)\quad \text{a. *The strings were decisive (to get the job).}\]
\[
\begin{align*}
&\mathcal{AI}(\exists x(x = \nu y : \text{strings-id}(y)) \land \text{decisive}(x))
\end{align*}
\]
Interaction with NRCs

Collocate in the previous discourse:

(26) [The strings \(_x [RRC \text{ that Chris pulled}]\), \([NRC \text{ which}_x \text{ Alex didn’t pull}]\), were decisive to get the job.

\[\begin{align*}
\mathcal{BG}(\exists z (z = \text{chris})) \\
\land \mathcal{BG}(\exists x (x = \nu y (\text{strings-id}(y) \land \text{pull-id}(z, y)))) \\
\land \mathcal{BG}(\exists w (w = \text{alex})) \land \mathcal{BG}(\neg \text{pull-id}(w, x)) \\
\land \mathcal{AI}(\text{decisive}(x))
\end{align*}\]
Interaction with NRCs

Split:

(27) *Those \(_x\) strings, \([NRC \text{ which}_x \text{ Alex pulled}]\), were decisive.

\[
\begin{align*}
BG(\exists z(z = \text{alex})) \\
\land BG(\exists x(x = \iota y : \text{strings-id}(y))) \\
\land BG(\text{pull-id}(z, x)) \\
\land AI(\text{decisive}(x))
\end{align*}
\]

Intervention:

(28) *Those \(_x\) strings, \([NRC \text{ which}_x \text{ (I hereby promise) will get you the job}]\), will be pulled by Alex.

\[
\begin{align*}
BG(\exists z(z = \text{alex})) \\
\land BG(\exists x(x = \iota y : \text{strings-id}(y))) \\
\land BG(\text{get-you-job}(x)) \\
\land AI(\text{pull-id}(z, x))
\end{align*}
\]
Summary of the analysis

- The NRC enforces the discourse update of its antecedent.
- Split and Intervention: The nominal component, *strings*, is not licensed by a collocator.
- In acceptable cases with isolated idiom parts: Both idiom parts have been licensed in the previous discourse.
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Summary

- There is more to idioms and NRCs than suggested in the classical literature (e.g. Vergnaud 1974 and Fabb 1990).

- Here: flexible, decomposable idioms

- NRCs: Require an antecedent that is part of the common ground.

- DFIs:
  - Collocational relation between idiom parts,
  - which need to be met within the same update operator or in the preceding context.

- Full HPSG-formalization in progress (Webelhuth et al., to appear; Bargmann & Sailer, 2016; Sailer & Am-David, 2016; Sailer, 2017)
Further applications

- Isolated idiom parts across sentences:

  (29) ... and he pulled strings to get Pat a clerkship with a state supreme court justice.
  Chris, in contrast, didn’t have access to any strings, and ended up hanging out a shingle.
  ... pull-id(..., ...) ... strings-id(...) ... strings-id(...) ...

- Idioms with body parts (“kinegrams”, Burger 1976; Sailer 2017) allow for Split:

  (30) die Ohren spitzen (lit: ‘prick up one’s ears’) ‘listen carefully’
  (31) Alex hat sich die\textsubscript{x} Ohren untersuchen lassen,
      \[NRC\] die\textsubscript{x} sie früher ja immer gleich gespitzt hat, wenn sie ihren Namen gehört hat.
      ‘Alex had her ears examined, which\textsubscript{x}, as you know, used to prick up as soon as she heard her name.’
Open questions

- **NRCs:**
  - Exact definitions of the update operators?
  - Predictions for other constructions (clefts, . . .)?
  - Restrictions on which antecedents are possible from the background?

- **Idioms:**
  - Other types of phraseologisms?
  - Different idioms occurring in the matrix clause and the NRC?

(32) Einzelne Staaten tanzen der EU ganz schön auf der Nase herum, die sie aber offen gesagt immer noch ziemlich hoch trägt.

Literally: Individual states dance on EU’s nose, which it is still carrying very high, frankly speaking’
‘Some states walk all over EU, who is, however, still quite toffee-nosed.’
Connection to other work in CON2

- Bluemel et al. (2017) compare NRCs to clefts, for which we find the same update structure as assumed here.

\[(33) \quad \text{Maria hat Hans begrüßt,} \]
\[\text{[(der ist es,) den sie lange nicht mehr gesehen hat].} \]
\[\text{‘Maria greeted Hans, whom she had not seen in a long time.’} \]
\[\mathcal{BG}(\exists x(x = \text{maria})) \land \mathcal{BG}(\exists y(y = \text{hans})) \]
\[\land \mathcal{AI}(\text{greet}(x, y)) \land \mathcal{BG}(\text{not-seen}(x, y)) \]

- CON-NRR poster: Implicit antecedent for NRCs with symmetric predicates:

\[(34) \quad \text{Alex}_x \text{ hat sich mit Chris}_y \text{ gestritten,} \]
\[\text{[NRC } \text{die}_{x+y} \text{ einander normalerweise gut verstehen].} \]
\[\text{‘Alex quarreled with Chris, who usually get along very well.’} \]
Thank you for your attention!


References II


References III


References IV


References V


