

# Event kinds

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# Events as concrete particulars

## ▶ **Parallelism between the nominal and verbal domain:**

(1) John saw ...

a. the house {with a chimney / in the woods}.

b. Mary read a book {with a flashlight / in the woods}.

⇒ **Event semantics** (Davidson 1967); e.g. Maienborn (2011):

- ▶ Events can be **perceived**.
- ▶ Events can be **located in space and time**.
- ▶ Events can **vary in the way they are realised**.

⇒ **Events in the ontology**

# Nominal domain: Kinds and tokens in the ontology

## ▶ Carlson (1977):

- ▶ Bare plurals as names of kinds
- ▶ Kinds vs. objects:  
Objects can be realised by stages.  
Kinds can be realised by objects or stages.

→ Realisation relation **R** (2)

- (2) a.  $[[\text{Bill ran.}]]: \exists y^s[\mathbf{R}(y, \mathbf{b}) \wedge \text{run}'(y)]$   
b.  $[[\text{Dogs ran.}]]: \exists y^s[\mathbf{R}(y, \mathbf{d}) \wedge \text{run}'(y)]$

## ▶ Chierchia (1998):

- ▶ Down-operator  $\cap$  maps properties to individuals (3-a)
- ▶ Up-operator  $\cup$  maps kinds to properties (3-b)

- (3) a.  $\cap \text{DOG} = d$   
b.  $\cup d = \text{DOG}$

- ▶ Both: Kinds can be natural, conventionally established, ad hoc

# Theoretical motivation for event kinds

- ▶ **Common ontological assumptions:**
  - ▶ **Events** (as concrete particulars) (Davidson 1967; Parsons 1990, i.a.)
  - ▶ **Kinds**, which can be realised/instantiated by tokens (Carlson 1977; Chierchia 1998; Dayal 2004, i.a.)
- ⇒ **Event kinds** in the ontology  
can be realised/instantiated by event tokens
- ▶ **Related theoretical assumptions: Event types**
  - ▶ Situation Semantics (Barwise & Perry 1983; Ginzburg 2005)
  - ▶ More fine-grained type systems (Asher 1993, 2011; Asher & Luo 2013; Cooper 2015)

# Empirical motivation for event kinds

- ▶ **Adjectival participles** (Gehrke 2011, 2012, 2013, 2015; Gese 2011; Maienborn & Geldermann 2013; Maienborn et al. 2016)
- ▶ **Manner vs. agent-oriented adverbs** (Gehrke 2017)
- ▶ **Idioms** (Gehrke & McNally 2018)
  
- ▶ **(Pseudo-)incorporation** (e.g. Carlson 2003; Carlson et al. 2014; Schwarz 2014)
- ▶ **Manner modification & kind anaphora** (Landman & Morzycki 2003; Landman 2006; Anderson & Morzycki 2015)
  
- ▶ **Ethnic adjectives** (Arsenijević, Boleda, Gehrke and McNally 2014; Boleda, Evert, Gehrke and McNally 2012)
- ▶ **Frequency adjectives** (Schäfer 2007; Gehrke & McNally 2011, 2015)
- ▶ **Russian factual imperfectives** (Mehlig 2001, 2013, 2016; Mueller-Reichau 2013, 2015; Mueller-Reichau & Gehrke 2015)
- ▶ **Cognate objects** (Sailer 2010)

## Point of departure: Carlson (2003) on event kinds

*[T]he VP is the domain of a context-free interpretive mechanism specifying an event-type, which is then the input to the usual context-sensitive propositional semantics generally assumed for all levels of the sentence. That is, something fundamentally different goes on within the VP that does not go on “above” the VP – it is only information about types/properties that appears there and not information about (contingent) particulars.*

# The VP as the domain of event kinds (Carlson 2003)

- ▶ A given verb denotes a member of the set of eventualities, construed as **event-types**.
- ▶ Each member is related to other elements by the part-of relation (4).

- (4)
- a.  $\llbracket \text{run} \rrbracket \leq \llbracket \text{move} \rrbracket$
  - b.  $\llbracket \text{sing} \rrbracket \leq \llbracket \text{sing} \vee \text{swim} \rrbracket$
  - c. BUT:  $\llbracket \text{laugh} \rrbracket \not\leq \llbracket \text{eat} \rrbracket$

- ▶ In **incorporation**(-like) structures arguments (participant descriptions) are added at the VP level.
  - ▶ Such arguments denote properties (following McNally 1998).
  - ▶ These properties modify the verb's denotation and derive a subtype of event ("a more specific event-type") (5).

- (5)  $\llbracket \text{eat cake} \rrbracket \leq \llbracket \text{eat} \rrbracket$

# Instantiation of event kinds: IP (Carlson 2003)

- ▶ **NPs that depend on context** (times, worlds) to get evaluated can only be interpreted in the IP domain.  
(following Diesing 1992)  
e.g. proper names, definite descriptions, specific indefinites, indexicals, (strongly) quantified NPs
- ▶ **At the IP level, event types are mapped to event tokens**, which are elements of the set of possible worlds.

*ephemeral, token events 'get to' make but one 'appearance' in the structure of possible worlds, and then they're done for*

(Carlson 2003, 204f.)

# General research questions

- ① **At what point exactly do events get instantiated?**
  - ▶ VoiceP? AspP? ModP? TP?
- ② **Deverbal nouns and adjectives:**
  - ▶ How much verbal structure do they contain? (recurring question in the syntactic literature)  
(e.g. simple vs. complex event nominals vs. result nominals; adjectival vs. verbal participles; deverbal adjectives in *-able* ...)
  - ⇒ **If the verbal structure is too small, the event does not get instantiated but remains in the kind domain.**
- ③ **How do arguments combine with verbs? Two levels:**
  - ▶ Concept composition of V and N (VP)
  - ▶ Adding reference (for both individuals and events), somewhere in the 'IP' domain.

**This talk:** 3 case studies to address these issues (adjectival participles, manner vs. agent-oriented adverbs, idioms)

# Adjectival participles

Gehrke (2011, 2012, 2013, 2015)

Alexiadou, Gehrke and Schäfer (2014)

# Adjectival passive in German

- ▶ Formally distinct from the verbal passive: **copula *sein* 'be'**, (6-a), vs. **auxiliary *werden* 'become'**, (6-b)
- ▶ Participle in adjectival passive behaves **like an adjective**: adjectival *un-*, (6-a) (vs. verbal participle, (6-b))

- (6) a. Die Aufgabe **ist** (**un-**)gelöst.  
'The task is (un-)solved.'
- b. Die Aufgabe **wird** (\*un-)gelöst.  
'The task is being (\*un-)solved.'

(cf. Rapp 1996; Kratzer 2000; Anagnostopoulou 2003; Maienborn 2007, a.o.)

# Event-related modification of adjectival participles

► Is possible in many cases:

- (7)
- a. Die Zeichnung ist **von einem Kind** angefertigt.  
the drawing is by a child produced  
'The drawing is produced by a child.'
  - b. Der Brief war **mit Bleistift** geschrieben.  
the letter was with pencil written  
'The letter was written with a pencil.'
  - c. Das Haar war ziemlich **schlampig** gekämmt.  
the hair was rather slopp(il)y combed  
'The hair was combed in a rather sloppy way.'

⇒ An event is still available for modification.

(cf. Rapp 1996; Kratzer 2000; Anagnostopoulou 2003; Maienborn 2007, a.o.)

# Event-related modification of adjectival participles

- ▶ Is also restricted:

(8) Der Mülleimer ist {**\*von meiner Nichte** / **\*langsam** /  
the rubbish bin is by my niece slow(ly)  
**\*genüsslich** / **\*mit der Heugabel**} geleert.  
pleasurabl(e/y) with the pitchfork emptied  
Intended: 'The rubbish bin is emptied {by my niece / slowly  
/ with pleasure / with the pitchfork}.'

⇒ How to account for the restrictions?

(cf. Rapp 1996; Kratzer 2000; Anagnostopoulou 2003; Maienborn 2007, a.o.)

## Previous accounts of event-related modifiers

- ▶ **Only state-related modifiers are acceptable.** (Rapp 1996, 1997; Anagnostopoulou 2003)  
**Problem:** Many of the acceptable modifiers clearly relate to events, not (consequent) states.
- ▶ **No Voice-related modifiers** (Anagnostopoulou 2003)  
**Problem:** Arguments for Voice in adjectival participles (e.g. McIntyre 2013; Bruening 2014; Alexiadou et al. 2014, 2015)
- ▶ **Event coercion due to modifiers** (Meltzer-Asscher 2011)  
**Problem:** Why coercion if the verbal core should already give you an event?
- ▶ **Only modifiers that are visible/relevant during the interval at which the (consequent) state holds** (McIntyre 2015)  
**Ok, but why?**

# The account in Gehrke (2015), informally

- ▶ The **event** in adjectival participles remains in the **kind** domain.
  - ▶ Due to adjectivisation, the event does not get realised/instantiated.
  - Lack of AspP or higher verbal functional projections
- ▶ **Event-related modifiers pseudo-incorporate** into the participle before adjectivisation can take place.
- ▶ **Restrictions on** event-related modification follow from independently motivated restrictions on
  - ▶ **Event kind modification**: No spatiotemporal modifiers, but manner modifiers are acceptable
  - ▶ **Pseudo-incorporation**: Only weakly- or non-referential NPs in, e.g., *by/with*-phrases
- ▶ **Well-establishedness restriction**
  - Reminiscent of definite sg. kind descriptions in the nominal domain (Carlson 1977, 2009; Krifka et al. 1995; Dayal 2004)

# Empirical arguments for event kind modification

- ▶ **The event is not instantiated in space and time.**

⇒ No spatio-temporal modification:

(9) #Der Computer ist vor drei Tagen repariert.  
the computer is before three days repaired  
Intended: 'The computer is repaired three days ago.'

(10) #Das Kind war im Badezimmer gekämmt.  
the child was in the bathroom combed  
Intended: 'The child was combed in the bathroom.'

- ▶ Only event subkind-deriving modifiers, manner (in the broadest sense).

cf. Landman & Morzycki's (2003) treatment of manner modification in terms of event kind modification

cf. Parallels to nominal kinds: Modification derives subkinds (Carlson 1977).

# Event-related modification of adjectival participles

## Our initial examples:

- (11)
- a. Die Zeichnung ist **von einem Kind** angefertigt.  
'The drawing is produced by a child.'
  - b. Der Brief war **mit Bleistift** geschrieben.  
'The letter was written with a pencil.'
  - c. Das Haar war ziemlich **schlampig** gekämmt.  
'The hair was combed in a rather sloppy way.'

## A locative PP as manner (not event location):

- (12)
- Die Pizza ist in einem Steinofen gebacken.  
the pizza is in a stone oven baked  
'The pizza is baked in a stone oven.'

## Infelicitous examples:

- (13)
- Der Mülleimer ist {#**von meiner Nichte** / #**langsam** / #**genüsslich** / #**mit der Heugabel**} geleert.  
Intended: 'The rubbish bin is emptied {by my niece / slowly / with pleasure / with the pitchfork}.'

# Empirical arguments for pseudo-incorporation

- ▶ Nominals in *by/with*-phrases with adjectival participles display semantic properties of (pseudo-)incorporated nominals: Only weakly- or non-referential nominals (weak (in)definites, bare nominals)
  - ▶ Obligatory narrow scope (no scope) (14)
  - ▶ No introduction of a discourse referent (15)
  - ▶ No modification by (ordinary restrictive token) modifiers (16)

(14) Alle Briefe sind mit **einem Bleistift** geschrieben.  
'All letters are written with a pencil or other.'

(15) Die Zeichnung ist von [**einem Kind**]<sub>i</sub>; angefertigt. #**Es**<sub>i</sub>; hat rote Haare.  
Intended: 'The drawing is produced by [a child]<sub>i</sub>. (S)he<sub>i</sub>; has red hair.'

(16) #Die Zeichnung ist von einem **blonden** Kind angefertigt.  
Intended: 'The drawing is produced by a blond child.'

cf. Restrictions on pseudo-incorporation (e.g. Dayal 2011) and accounts employing event kinds (Carlson 2003; Carlson et al. 2014; Schwarz 2014)

# The formal account

- ▶ An adjectival passive sentence refers to the **instantiation of a consequent state kind of an event kind**:

(17) Die Tür ist geschlossen.  
'The door is closed.'

(18)  $\exists s_o, s_k, e_k, x_k [\mathbf{close}(e_k) \wedge \mathbf{BECOME}(s_k)(e_k) \wedge \mathbf{R}(s_o, s_k) \wedge \mathbf{closed}(\mathbf{the\ door}, s_o) \wedge \mathbf{Initiator}(x_k, e_k)]$

(setting aside an analysis of the semantics of *the door*)

# The formal account, step by step

(ignoring kind subscripts in the first steps)

- ▶ **Lexical semantics of *schließ-*** (type  $\langle e, \langle e, \langle s, \langle v, t \rangle \rangle \rangle \rangle$ ):  
 $\lambda y \lambda x \lambda s \lambda e [\mathbf{close}(e) \wedge \mathbf{BECOME}(e, s) \wedge \mathbf{closed}(s) \wedge \mathbf{Theme}(s, y) \wedge \mathbf{Initiator}(e, x)]$
- ▶ **Prt<sup>0</sup> *ge-en/t***:  $\lambda \wp \lambda y \lambda s \lambda e \exists x [\wp(e)(s)(x)(y)]$   
(~ target state participle of Kratzer 2000)
- ▶ **A<sup>0</sup>**:  $\lambda \wp \lambda y \lambda s \exists e_k, x_k [\wp(e_k)(s)(x_k)(y)]$
- ▶ ***geschlossen*<sub>adj</sub>**:  $\lambda y \lambda s \exists e_k, x_k [\mathbf{close}(e_k) \wedge \mathbf{BECOME}(e_k, s) \wedge \mathbf{closed}(s) \wedge \mathbf{Theme}(s, y) \wedge \mathbf{Initiator}(e_k, x_k)]$   
 $\lambda s \exists e_k, x_k [\mathbf{close}(e_k) \wedge \mathbf{BECOME}(e_k, s) \wedge \mathbf{closed}(s) \wedge \mathbf{Theme}(s, \mathbf{the\ door}) \wedge \mathbf{Initiator}(e_k, x_k)]$

(see, e.g., McIntyre 2013; Bruening 2014, on externalisation of the internal argument)

# The formal account

- (19) Die Tür ist geschlossen.  
'The door is closed.'
- (20)  $\exists s_o, s_k, e_k, x_k [\mathbf{close}(e_k) \wedge \mathbf{BECOME}(s_k)(e_k) \wedge \mathbf{R}(s_o, s_k) \wedge \mathbf{closed}(\mathbf{the\ door}, s_o) \wedge \mathbf{Initiator}(x_k, e_k)]$

► Event-related modifiers pseudo-incorporate into the participle:

- (21) Mund und Nase waren mit Klebeband verschlossen.  
mouth and nose were with tape closed  
'Mouth and nose were closed with tape.'

- (22)  $\llbracket \text{be closed}_A \text{ with tape} \rrbracket$ :  
 $\lambda s_o \lambda y \exists e_k, s_k [\mathbf{close}(e_k) \wedge \mathbf{With}(\mathbf{tape}, e_k) \wedge \mathbf{BECOME}(s_k)(e_k) \wedge \mathbf{R}(s_o, s_k) \wedge \mathbf{Holder}(y, s_o)]$

# Adjectival participles: Summary

- ① An adjectival passive sentence refers to the **instantiation of a consequent state kind of an event kind**.
  - ② **Event-related modifiers pseudo-incorporate** into the participle prior to adjectivisation.
- ⇒ **Restrictions on event-related modifiers** follow from:
- ▶ Restrictions on event kind modification (only manner in the broadest sense)
  - ▶ Restrictions on pseudo-incorporation

# Agent-oriented vs. manner adverbs

Gehrke (2017)

# Two readings of 'dispositional' adverbs

▶ **Agent-oriented** reading:

(23) **Cleverly/rudely**, John dropped his cup of coffee.

~ It was clever/rude of John to drop his cup of coffee.

▶ **Manner** reading:

(24) John dropped his cup of coffee **cleverly/rudely**.

~ The manner in which John dropped his cup of coffee was clever/rude.

▶ **Different forms in German:**

(25) a. Maria hat **klugerweise** geantwortet. AO  
'Cleverly, Mary answered.'

b. Maria hat **klug** geantwortet. M  
'Mary answered cleverly.'

(cf. Jackendoff 1972; Bellert 1977; McConnell-Ginet 1982; Wyner 1994; Eckardt 1998; Geuder 2000a; Ernst 2002; Schäfer 2005, a.o.)

# The general idea in Gehrke (2017)

- ▶ **Uniform semantics** under both readings:
  - ▶ Lexical semantics of the related adjective
  - ▶ Adverb applies to an event (kind or token)

- ▶ Event-related adverbs: **Comparison classes of events**

(building on Ernst 2002)

AO Comparison among (different) event tokens

M Comparison within a class of event kinds (of different event subkinds)

(building on insights from Sassoon & Toledo 2011, on adjectives)

- ▶ **Alternatives** for the relevant adverbs:

AO Focus alternatives

M Script alternatives

(building on insights from Geuder 2000b)

## Towards a formal proposal

(26) Maria cleverly answered.

► Agent-oriented reading:

- (27) a.  $\llbracket [\dots \text{cleverly} \dots [\text{VoiceP Maria answer}]\dots] \rrbracket$   
=  $\lambda e.\mathbf{answer}(e, \mathbf{m}) \wedge^{\cup} k(e) \wedge \mathbf{clever}(e)$
- b. Maria instantiated the ANSWER event kind; this event token was clever.

► Manner reading:

- (28) a.  $\llbracket [\dots \text{VoiceP Maria \{cleverly\} answer \{cleverly\}}]\dots] \rrbracket$   
=  $\lambda e.\mathbf{answer}(e, \mathbf{m}) \wedge^{\cup} k(e) \wedge \mathbf{clever}(k)$
- b. Maria instantiated the CLEVER ANSWER event kind.

# New light on some well-known differences

## ► Word order, prosody, (non-)integration

- (29) AO Maria hat {\*nicht} klugerweise {nicht} geantwortet.  
Mary has not clever-WEISE not answered  
M Maria hat {nicht} klug {\*nicht} geantwortet.  
Mary has not clever not answered
- (30) AO Maria hat {klugerweise} geantwortet, {klugerweise}.  
Mary has clever-WEISE answered clever-WEISE  
M Maria hat {klug} geantwortet, {\*klug}.  
Mary has clever answered clever
- (31) AO Klugerweise hat Maria geantwortet.  
clever-WEISE has Mary answered  
M {\*Klug / KLUG} hat Maria geantwortet.  
clever clever has Mary answered
- (32) AO Maria hat [KLUGerweise] [geANTwortet].  
Mary has clever-WEISE answered  
M Maria hat [klug geANTwortet].  
Mary has clever answered

# Semantics/pragmatics

- ▶ Different behaviour wrt at-issue tests (preliminary results, see appendix):

AO Event at issue, AO-evaluation not at issue

M Instantiation of event subkind at issue; event superkind presupposed?

(employing tests discussed in Tonhauser 2012)

- ▶ In one respect, AO-adverbs display similar behaviour to weak evaluatives (e.g. *unglücklicherweise* 'unfortunately'):
  - ▶ Not ok under negation (33-a)
  - ▶ Ok under other entailment-canceling operators, e.g. (33-b)

- (33) a. \*Otto hat nicht kluger-/unglücklicherweise geantwortet.  
Otto has not cleverly/unfortunately answered
- b. Otto hat vielleicht kluger-/unglücklicherweise geantwortet.  
Otto has maybe cleverly/unfortunately answered

→ Evaluation as a conventional implicature?

(building on insights from Liu 2012, 2014)

# Open issues

- ▶ Work out formally: How are the members of the comparison classes determined exactly?
  - ▶ Interaction with prosody and focus
  - ▶ Test (non-)at-issue-ness more systematically
- ▶ Possible extension to other ADVs with manner vs. higher readings?  
(e.g. *frankly*, *oddly*, *appropriately*; see appendix)

# Idioms

Gehrke & McNally (2018)



# Idioms and compositionality

- ▶ **Point of departure:** Compositional disconnect between descriptive content and reference, e.g. V-N idioms

(34) pull strings

- pull some strings
- pull political strings
- pull all the strings I can

→ Problem of intervening determiners and modifiers

(see, e.g., Nunberg et al. 1994)

# Determiner variability in idioms

e.g. Bruening et al. (2015)

## (35) Idioms with canonical definite determiners

- a. to rock the boat: “This’ll rock **some** boats”
- b. to bark up the wrong tree: “Have you ever barked up **a** wrong tree?”; “you’re barking up **another** wrong tree”

## (36) Idioms with canonical indefinite determiners

- a. to smell a rat: “Do we all smell **many** rats connected with this legislation?”
- b. to beat a dead horse: “it’s moronic for a public figure to beat **that** dead horse of a joke”

## (37) Idioms with canonical bare nominals

- a. to close up shop: “international banks have not totally closed up **the credit** shop”
- b. to eat humble pie: “Obama might eat **some** humble pie”
- c. to cut corners: “This is What Happens When Companies Cut Too **Many** Corners and Don’t Give a Damn”
- d. to make tracks: “so me and Walker made **some quick** tracks to the truck while Ben held rear guard for us”

# Modification

e.g. Ernst (1981)

- (38) **External modification:** applies to the idiom as a whole (allow adverbial paraphrase)
- He made a speech in Dublin which touched a raw **political** nerve.
  - Don't rock the **sociological** boat with your new ideas.
- (39) **Internal modification:** applies to the “idiomatic” nominal
- In spite of its conservatism, many people were eager to jump on the **horse-drawn Reagan** bandwagon.
  - The federal agency decided to take the project under its **well-muscled** wing.
- (40) **Conjunction modification:** applies to the “literal” nominal
- In spite of the treatment the other refugees received from the rescue party in the desert, he bit his **thirst-swollen** tongue and kept to himself.
  - The \$6,000,000 man came over and lent us a helping **electronic** hand.

(see also Stathi 2007; Cserép 2010; McClure 2011; Sailer 2017, a.o.)

# General questions

- ▶ **Determiner variability:**
  - ▶ How can a sub-constituent of a putatively non-compositional phrase vary?
  - ▶ Under what conditions can determiners vary?
- ▶ **Modification:**
  - ▶ How can modifiers intervene between sub-constituents of a putatively non-compositional phrase?
  - ▶ How are they (nevertheless) interpreted compositionally? (Or aren't they?)
  - ▶ What kinds of modifiers are possible?

# Goals of Gehrke & McNally (2018)

- ① Use idiom data as an argument for a particular way of articulating the syntax/semantics interface: Multi-level semantics for multi-level syntax
- ② Distinguish the semantic composition of descriptive content from composition that connects descriptive content and reference

## General strategy

- ▶ Draw on work on noun incorporation
  - ▶ Carlson (2003): Incorporation involves constructing complex **event types** (vs. event *tokens*).
  - ▶ Farkas & de Swart (2003): Distinguish composition mediated by thematic arguments (glue between predicates and role-bearing expressions) from that involving referential arguments.
  - ▶ Gehrke & McNally (2014): Basis for handling modification.
- ▶ Recast complex event-type descriptions in a non-referential semantics, building on
  - ▶ McNally (2017), McNally & Boleda (2017): Distributional semantics

## Fits well with previous syntactic accounts

(e.g. Ernst 1981; Sailer 2004; Sportiche 2005; Svenonius 2005; Bruening et al. 2015; Cecchetto & Donati 2015)

Two steps in the derivation, or two different representations:

- ▶ One deals with selection (e.g. of Ns by Vs), with particular (sortal and/or other) restrictions imposed on the selected constituent.
  - ▶ The other is for the syntax of determiners/classifiers.
- ⇒ Two levels of representation, with nouns and verbs playing a role at both levels.

# Determiner variability

**The general idea:** The determiner can vary depending on the relation between the participant described by the direct object and the event structure of the whole VP.

- ▶ **Definite objects:** Insofar as the definite reflects uniqueness of the object participant in the event, changing to an indefinite either induces iterativity/plurality or genericity on the event.
- ▶ **Indefinite objects:** Generally changes the measure/plurality properties of the event; change to a definite is usually infelicitous (unless they are required by an adjective like *same* or *usual*).

## (External) modification

- ▶ Generalisation on Ernst's data: External modifiers are either
  - ▶ Relational adjectives (RAs) (41), or
  - ▶ Noun modifiers (42)

(41) a. Carter doesn't have an **economic** leg to stand on.  
b. We need to blow off a little **theoretical** steam here.

(42) a. Our team is not as good as last year's, but we aren't going to drop out of the **soccer** picture.  
b. He broke new **inkwell** ground with his invention.

→ Semantics of RAs in McNally & Boleda (2004); Arsenijević et al. (2014): Both types of modifiers involve a contextually specified relation  $R$  between modifier and modifiee.

- ▶ Adverbially paraphrasable: Reminiscent of **frequency adjectives** (FAs) (e.g. *The occasional sailor strolled by.*)
  - Inspiration from Gehrke & McNally (2014, 2015) on FAs



## Take-home message

- ▶ Conceptual content adjustment in composition is generally needed, e.g. (44). (see also Spalek 2014; McNally & Spalek 2017)

- (44)
- a. break the glass
  - b. break relations
  - c. break the ice

- ▶ Idioms are just at one extreme end of the continuum between literal and non-literal meaning.
- ▶ A generalized approach that distinguishes concept composition, here modelled in terms of event kinds, from reference is suited to deal with all kinds of adjustments.

For the details ...

Check out the paper!

Gehrke & McNally (2018)

# Summary and Outlook

# Summary

- ▶ **Widespread ontological assumptions:**
  - ▶ Events and states, in addition to individuals
  - ▶ Kinds, in addition to tokens
- **Event and state kinds**, in addition to event and state tokens
  - ▶ VP as the level of kinds, context-free semantics, concept composition
  - ▶ 'IP': context, reference, instantiation/realisation of kinds
- ▶ **Case studies** to show the usefulness of event kinds
  - ▶ Adjectival participles: event-related modification
  - ▶ Manner readings of agent-oriented adverbs
  - ▶ Determiner variability and modifiers in idioms

## Some open issues

- ▶ At what point do event kinds get instantiated/realised?  
(AspP or VoiceP?)
- ▶ In most of the case studies: Event-kind modification, which derives a subkind → 'Manner' in the broadest sense  
BUT: What counts as manner?
  - ▶ Broader notion, to also include any event-related modifiers with adjectival participles
  - ▶ But also not a homogeneous notion: higher vs. lower manner (e.g. Schäfer 2008b, 2013)
    - Only lower manner might be restricted to event kinds.
- ▶ What counts as an (established) event kind?

(These are more general issues in the literature on manner and in the literature on kinds.)

# Event kinds

Gràcies! – Danke!

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# More on adjectival participles

State- vs. event-related modification

## State- vs. event-related *by*-phrases

The above described modification restrictions are not found with state-related modifiers.

- ▶ **Event-related modifiers**, e.g. (45-a): pseudo-incorporate into the participle before adjectivisation
- ▶ **State-related modifiers**, e.g. (45-b): Modify the adjectivised participle (which can describe a state token)

- (45)
- Die Zeichnung ist von einem Kind angefertigt.  
the drawing is by a child produced  
'The drawing is produced by a child.'
  - Das Haus ist von Studenten bewohnt.  
the house is by students inhabited  
'The house is inhabited by students.'

# State- vs. event-related *by*-phrases II

- ▶ Further empirical support from a **corpus study** into **Spanish *by*-phrases** with adjectival vs. verbal participles  
(following copula *estar* 'be', vs. auxiliary *ser* 'be')  
(Gehrke & Marco 2014)
- **Quantitative and qualitative differences between state- and event-related *by*-phrases**
  - ▶ Relatively more *by*-phrases with verbal vs. adjectival participles
  - ▶ Relatively more state-related vs. event-related *by*-phrases with adjectival participles
  - ▶ Strongly referential complements only with state-related *by*-phrases with adjectival participles

# More on agent-oriented vs. manner adverbs

At-issue tests, other adverbs

## At-issue test I: Assent with positive continuation

- (46) A: Maria hat **klugerweise** geantwortet.  
Maria has clever-WEISE answered  
B: Ja, das stimmt, sie hat geantwortet.  
yes that is true she has answered  
B':#Ja, das stimmt, das/sie/die Antwort war klug.  
yes that is true that/she/the answer was clever
- (47) A: Maria hat **klug** geantwortet.  
Maria has clever answered  
B: ?Ja, das stimmt, sie hat geantwortet.  
yes that is true she has answered  
B': Ja, das stimmt, das/sie/die Antwort war klug.  
yes that is true that/she/the answer was clever

## At-issue test II: Assent with adversative continuation

- (48) A: Maria hat **klugerweise** geantwortet.  
Maria has clever-WEISE answered
- B: #Ja, das stimmt, aber sie hat nicht geantwortet.  
yes that is true but she has not answered
- B': Ja, das stimmt, aber das/sie/die Antwort war  
yes that is true but that/she/the answer was  
nicht klug.  
not clever
- (49) A: Maria hat **klug** geantwortet.  
Maria has clever answered
- B: #Ja, das stimmt, aber sie hat nicht geantwortet.  
yes that is true but she has not answered
- B': #Ja, das stimmt, aber das/sie/die Antwort war  
yes that is true but that/she/the answer was  
nicht klug.  
not clever

## ADVs with manner vs. higher readings

- ▶ Some **speaker-oriented adverbs**, e.g. *frankly* (50)

(50) {Frankly}, John spoke {frankly}.

- ▶ '**Dual evaluatives**' (51) (from Ernst 2002), (52)

(51) E **Oddly**, Carol was dancing.  
**Appropriately**, the treasury official was named Bill.

M Carol was dancing **oddly**.  
They had named the dog **appropriately**.

(52) E Carla hat **sonderbarerweise** getanzt.  
Carla has odd-WEISE danced

M Carla hat **sonderbar** getanzt.  
Carla has odd danced

- ▶ **All subject-oriented adverbs?**

## ADVs with manner vs. higher readings

BUT: Not all subject-oriented ADVs display this duality (53)

(from Geuder 2000b)

- (53) a. in a stupid/clever/rude manner  
b. ??in an intentional/reluctant manner

- ▶ Geuder (2000b) calls both types of ADVs 'agentive'.
- ▶ Ernst (2002): The latter are mental-attitude ADVs.

- ▶ *Intentional/reluctant* etc. are not dispositional  
→ Is that why we cannot have a manner paraphrase?

- ▶ Still, one can use these in the same position as a manner adverb: (cp. Jackendoff 1972)

(54) Mary insulted John intentionally.

- **What is manner?** Are there different kinds of manner?  
(e.g. high vs. low in Schäfer 2008a)

# Ethnic adjectives

Arsenijević, Boleda, Gehrke and McNally (2014)

Boleda, Evert, Gehrke and McNally (2012)

# Two readings of ethnic adjectives

(cf. Bosque & Picallo 1996)

- ▶ **Thematic:**

(55) **French** agreement (to participate in the negotiations)

- ▶ **Classificatory:**

(56) **French** wine

- ▶ Two types of accounts:

- ▶ **Argument-saturating account of thematic EAs**

- e.g. Fábregas (2007), Alexiadou & Stavrou (2011)

- ▶ **Uniform account as modifiers of (event or individual) kind descriptions**

- Our account (Arsenijević et al. 2014)

# The modifier account, informally

## ▶ Nouns: Kinds vs. tokens

- ▶ Common nouns denote properties of kinds.
- ▶ Num(ber) converts kind descriptions into token descriptions.

(building on Zamparelli 1995)

## ▶ Ethnic adjectives (EAs)

- ▶ Modify kinds
- ▶ As a subtype of relational As, they introduce a relation  $R$  between the kind described by the nominal property and the nation associated with the EA.

(building on McNally & Boleda 2004)

- ▶ For EAs this relation is further specified as **Origin**

## ▶ Thematic and classificatory readings of EAs

- ▶ Arise when the modified noun describes an event (e.g. *discovery*) or an individual (e.g. *wine*), respectively.

## The modifier account, formally

- (57) a. **French**( $x$ ) iff **Origin**( $x$ , **France**)  
b. **Origin**( $x$ ,  $y$ ) iff  $x$  comes into existence within the spatial domain of  $y$ .
- (58) a.  $\llbracket \text{wine} \rrbracket: \lambda x_k [\mathbf{wine}(x_k)]$   
b.  $\llbracket \text{French} \rrbracket: \lambda P_k \lambda x_k [P_k(x_k) \wedge \mathbf{Origin}(x_k, \mathbf{France})]$   
c.  $\llbracket [NP \text{French wine}] \rrbracket:$   
 $\lambda x_k [\mathbf{wine}(x_k) \wedge \mathbf{Origin}(x_k, \mathbf{France})]$   
d.  $\llbracket \text{Num}^0 \rrbracket: \lambda P_k \lambda y_o \exists x_k [P_k(x_k) \wedge \mathbf{R}(y_o, x_k)]$   
e.  $\llbracket [NumP [NP \text{French wine}]] \rrbracket:$   
 $\lambda y_o \exists x_k [\mathbf{wine}(x_k) \wedge \mathbf{Origin}(x_k, \mathbf{France}) \wedge \mathbf{R}(y_o, x_k)]$
- (59)  $\llbracket \text{French discovery} \rrbracket:$   
 $\lambda y_o \exists x_k [\mathbf{discovery}(x_k) \wedge \mathbf{Origin}(x_k, \mathbf{France}) \wedge \mathbf{R}(y_o, x_k)]$

# Empirical facts about EAs

- ▶ 'Un-adjectival' behaviour in (60) motivated argument-saturating accounts (examples from Alexiadou & Stavrou 2011)

- (60)
- \*The intervention in Cyprus was American.
  - \*the very / more American invasion
  - \*the quick / possible and American intervention

- ▶ Our replies:

- ▶ (60-a): Predicative uses of relational As, more generally, are restricted, but not impossible; cf. (61-a).
- ▶ (60-b): Relational As belong to the type of adjectives that are not gradable (or only gradable along a prototypicality scale).
- ▶ (60-c): Kind-modifying As can only be conjoined with As of the same type; cf. (61-b).

- (61)
- A senior government official explained that because the military deployment was primarily American, “it should be paid for by one nation.” (from the web)
  - the Italian and French intervention

## Empirical facts about EAs II

- ▶ Problem for nominal, but not for modifier account:
  - ▶ The EA does not introduce a discourse referent (62-a), unlike the related nominal (62-b).

- (62)
- \*The American<sub>*i*</sub> proposal to the UN reveals its<sub>*i*</sub>/her<sub>*i*</sub> rigid position.
  - America<sub>*i*</sub>'s proposal to the UN reveals its<sub>*i*</sub>/her<sub>*i*</sub> rigid position.

- ▶ To test predictions of our account
- ▶ To predict occurrence of EA (63) vs. N (64)

(63) French agreement (to participate in the negotiations)

- (64)
- agreement of France
  - France's agreement
  - agreement by France

→ Support for modifier analysis

→ No support for the factors that were supposed to test our particular modifier analysis, employing kinds.  
The idea was: collocational strength should be higher with EAs; but maybe this has to be tested in a different way.

# Frequency adjectives

Gehrke & McNally (2011, 2014, 2015)

# Three readings of frequency adjectives (FAs)

- ▶ Commonly identified by paraphrase:

- (65) Mary is a frequent swimmer. INTERNAL  
~ Mary is someone who swims frequently.
- (66) A daily glass of wine is good for you. GENERIC  
~ Having a glass of wine on a daily basis is good for you.
- (67) The occasional sailor strolled by. ADVERBIAL  
~ Occasionally, a sailor strolled by.

- ▶ Two types of accounts:

- ▶ Complex determiner analysis of the adverbial reading  
→ Stump (1981), Larson (1998), Zimmermann (2003)
- ▶ Uniform account as distributional adjectival modifiers  
→ Our account

(Idea that for adverbial FAs we might still need both: Sæbø 2016)

# Revisiting empirical generalisations from previous literature

## ► Temporal(ly) vs. non-temporal(ly distributing) FAs

(Gehrke & McNally 2015)

Type of FA	Temporal	Nontemporal	Both
<b>Examples</b>	<i>(in)frequent, periodic, sporadic daily, etc.</i>	<i>odd, rare</i>	<i>occasional</i>
Nontemporal distribution	*	✓	✓
Adverbial reading with non-event nouns	*	✓	✓
Internal reading	✓	*	✓
Predicative use on relevant reading	✓	*	✓
Determiner used with the generic and/or adverbial reading	✓ <i>a</i> ?? <i>the</i> <sup>#</sup>	?? <i>a</i> ✓ <i>the</i>	✓ <i>a</i> ✓ <i>the</i>

<sup>#</sup>except with the rare well-established kind

## Some of these empirical facts

▶ **Nontemporal distribution:**

- (68) a. The occasional/odd/rare granny is 6 feet tall.  
b. #The weekly/frequent/infrequent/periodic/  
sporadic granny is 6 feet tall.

▶ **Predicative use:**

- (69) a. #The mosquito was occasional/odd.  
b. The check-up was weekly/infrequent/frequent/  
periodic/sporadic.

▶ **Determiner restrictions** on generic/adverbial use:

- (70) a. {#A(n)/The} odd/rare sailor strolled by.  
b. {A(n)/#The} weekly/infrequent/frequent/  
periodic/sporadic check-up is necessary.

# Our proposal, informally

- ▶ **Temporal FAs** (e.g. *frequent*, *occasional*<sub>1</sub>):
  - ▶ Restricted to events (event kinds or pluralities of event tokens)
  - ▶ Intersective adjectives (+ particular distribution)
  - Adverbial reading only with event nouns
  - Predicative use and internal reading possible
  - Gen/adv readings only with indefinite determiner
- ▶ **Non-temporal FAs** (e.g. *odd*, *rare*, *occasional*<sub>2</sub>):
  - ▶ Restricted to kinds (of events or individuals)
  - ▶ Predicate modifiers (+ particular distribution)
  - Adverbial reading also possible with non-event nouns
  - Predicative use and internal reading not possible
  - Gen/adv readings only with definite determiner
- ▶ **Different readings as a by-product of different contexts:**
  - ▶ Internal reading with participant nouns
  - ▶ Generic reading in generic sentences (also generic without FA)
  - ▶ (Different routes to adverbial paraphrases without actual 'wide scope' of FA)

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