

Acting intentionally in Frames

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Adverbs of intentionality

- Adverbs expressing intentionality are:
 - in English: *intentionally*, *deliberately*, *consciously*, *purposely*, a.o.
 - in German: *absichtlich* ('intentionally'), *bewusst* ('consciously'), *versehentlich* ('accidentally')
- These modifiers contribute to agentivity distinctions

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b. Mary coughed *intentionally*.

- They are a subclass of mental-attitude adverbs.
- They behave like VP-adverbs, and seem to function as Davidsonian event adverbs (e.g. Landman 2000).
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Outline

1. Why adverbs of intentionality?
2. A semantics for 'absichtlich'/'intentionally'
3. A Frame model for 'acting absichtlich'
 - 3.1 History of the idea: Goldman (1970) on action-plans and level-generation
 - 3.2 A Frame version: cascades, and action-plans as attributes
4. Going for the opposite: 'versehentlich A'

Why adverbs of intentionality?

Reason, Goal and Achievement Plan 1

- Reason: We see intentional adverbials as activating components of an event which otherwise remain hidden.
- Goal:
 - to explain the behavior of modifiers, like e.g. the adverb *absichtlich*;
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- Our approach: to model intentionality as attributes in an event description, but as a domain that differs from the realm called *manner*.
- Our plan:
 - First to examine the meaning contribution of *absichtlich*.
 - Then to show how this contribution can be captured using Frame Semantics.

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A semantics for 'absichtlich'/'intentionally'

The meaning of 'absichtlich'

- *A is done intentionally* is **not** true by virtue of *x having the (previous) intention to do A*

(2) I have the intention to turn on the light. Therefore I flip the switch.
– In the end...

- I have turned on the light ✓ *as I had planned* / #*intentionally*.
- I have flipped the switch *intentionally*.

(3) Ich habe die Absicht das Licht anzumachen. Daher betätige ich den Schalter. – Am Ende...

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- *intentionally* is not the opposite of *spontaneously*

- (4)
- I intend to apply for that position – #I applied intentionally
(#...as I had told you I would)
 - I didn't intend to buy chocolate – #I didn't buy it intentionally
(does not refer to your shopping list)

→ Hence, an action *A* is *absichtlich* if it is done in a connection to an intention. However, *A* is not the content of the intention, it is a means to realize the intention.

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Difference between 'intentionally' and German 'absichtlich'

- *absichtlich A* is **not** true by virtue of *x is doing A consciously* (but this seems possible for *intentionally*)

- (5)
- a. During the 45-minute session, we stretched and lengthened, relaxed and extended, focused and let go. And we breathed – *intentionally* and deeply – as our instructor encouraged us to.¹
 - b. *Und wir atmeten *absichtlich/✓ bewusst...*
and we breathed intentionally/consciously

→ *Absichtlich* cannot apply to 'idle behavior', whereas *intentionally* may.

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 - The effects in (2) and (3) are parallel.
 - However, *absichtlich* refers to a different section of the global concept 'intentionality'.

→ **Conclusion:** The most important building block in the meaning of (at least) *absichtlich* is the existence of *an intention with which A is done*, i.e. a further purpose that doing A serves.

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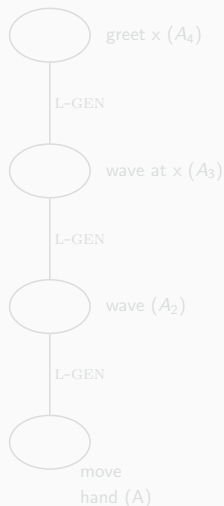
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A Frame model for ‘acting absichtlich’

**History of the idea: Goldman (1970) on
action-plans and level-generation**

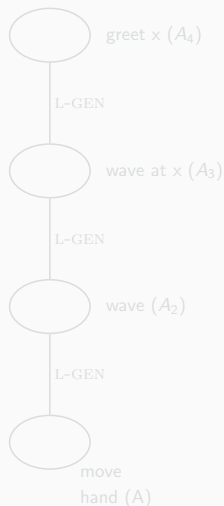
Goldman's (1970) theory of action

- Goldman (1970) organizes context dependent categorizations of a doing in *act-trees*.
- *Level-generation* is a conceptual relation which, under circumstances, relates two acts A and A', if A' is done *by* or *in* doing A (Goldman 1970, Löbner ms.).
- The tree on the right can be seen as conceptualization of a doing.



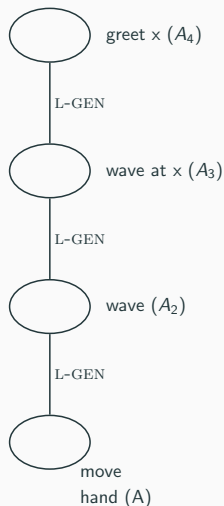
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Action-plans:

- are Goldman's (1970) mechanism to capture intentional actions;
- consist of the action-want of the agent and her beliefs concerning the realization of the target of the action-want (1970: 56)
 - The action-want (desire or aversion) of an agent is the want to do a certain act (1970: 50).
 - Beliefs are hypothetical acts of an agent (1970: 56).
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Intentional action

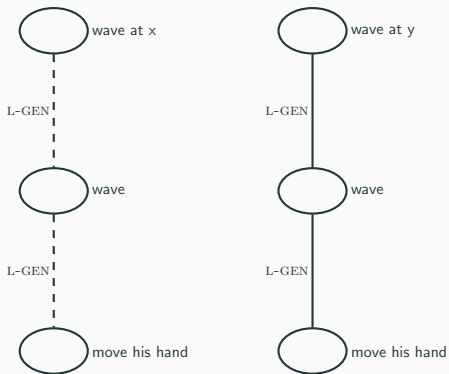


Figure 1: *Projected act-tree* (left) and an *Act-tree* (right) which do not replicate each other completely

How to use Goldman (1970) for the analysis of intentional adverbials

- Intentional adverbs fix the interpretation of verbs which otherwise can be understood as intentional or not (cf. Buscher 2016).
 - Whenever the agent has an action-plan matching the execution of the action, the latter is intentional.
 - If the plan does not match the execution of the action on all levels, then the respective events on the act-tree are not intentional.
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A Frame model for ‘acting absichtlich’

**A Frame version: cascades, and
action-plans as attributes**

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- the universal format of representation in human cognition (cf. Barsalou 1992, Löbner 2017);
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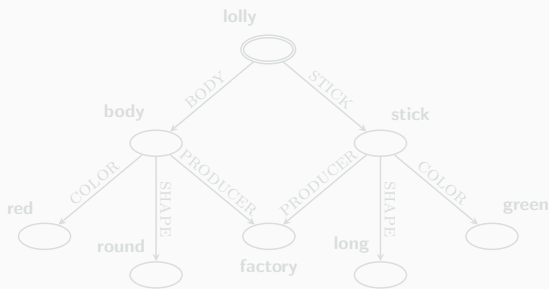


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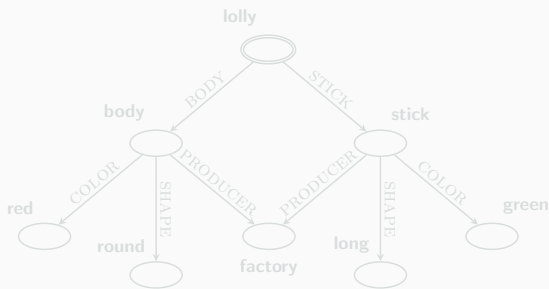


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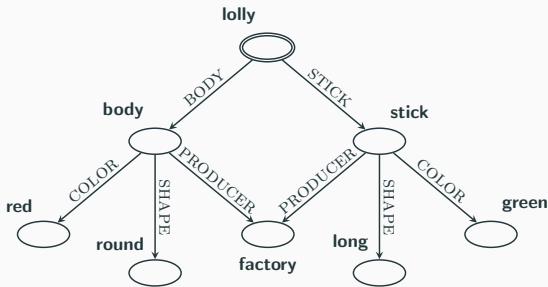


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Cascades

- is a general term capturing Goldman's act-structures;
- are seen as a **simultaneous categorization** in a hierarchical structure;
- make use of the **c-constitution** relation (a conceptual relation between types);
- are second-order structures based on first-order frames.

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'John waves at Mary.'

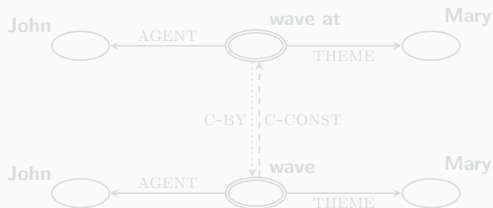


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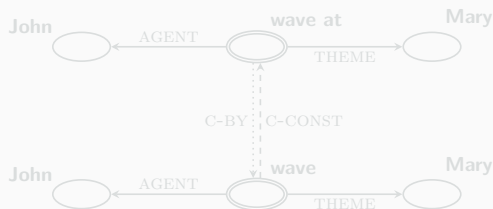


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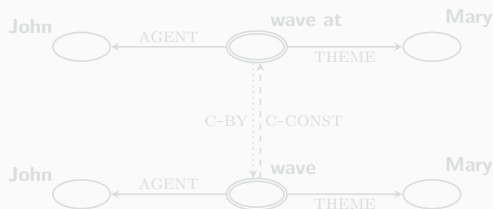


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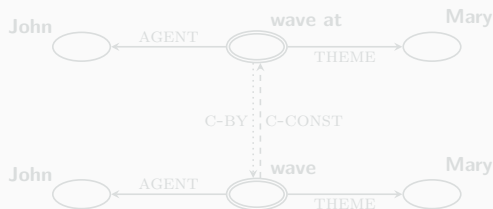


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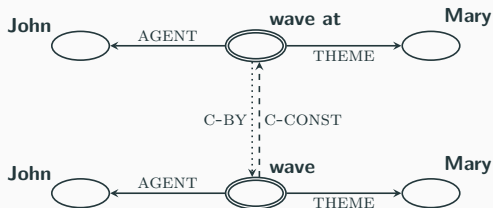


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Cascades, action-plans, and intentional adverbs

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- It involves a new type for actions inspired by the idea of Dowty's (1979) `DO`.
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Modeling 'absichtlich A'

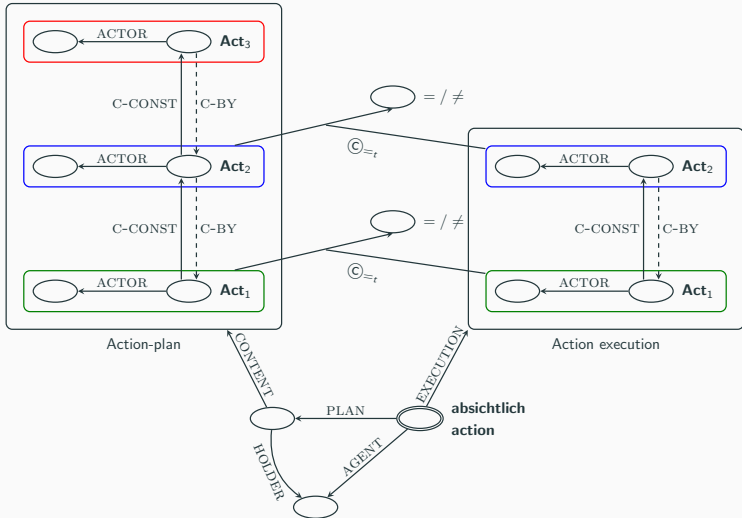
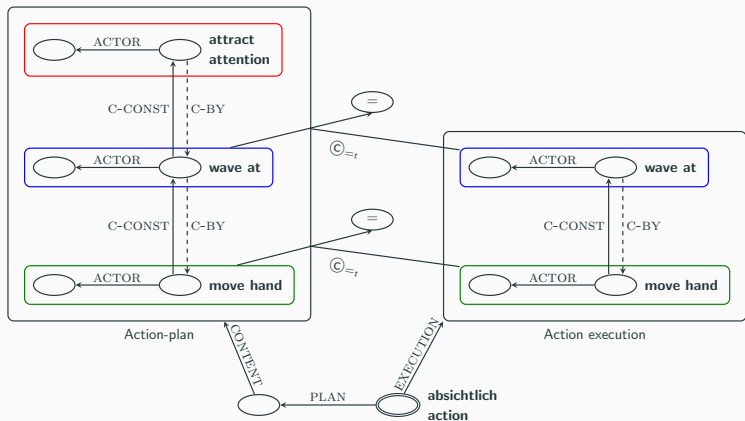


Figure 4: Generalized frame representation of intentional action

Modeling 'absichtlich A': an example

- (7) Ich habe ihm absichtlich zugewunken.
'I waved at him intentionally.'



Summary

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- In this *absichtlich* has a meaning that is narrower than English *intentionally* as argued above.
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**Going for the opposite:
'versehentlich A'**

The meaning of 'versehentlich'

- *Versehentlich* is difficult to translate in English.
 - *unintentionally*? No, there is also *unabsichtlich*.
 - *accidentally*? Yes, but a responsible agent is needed, i.e. we need an action.
 - *inadvertently*? Yes, but it does not cover the sense of *unexpectedly*.
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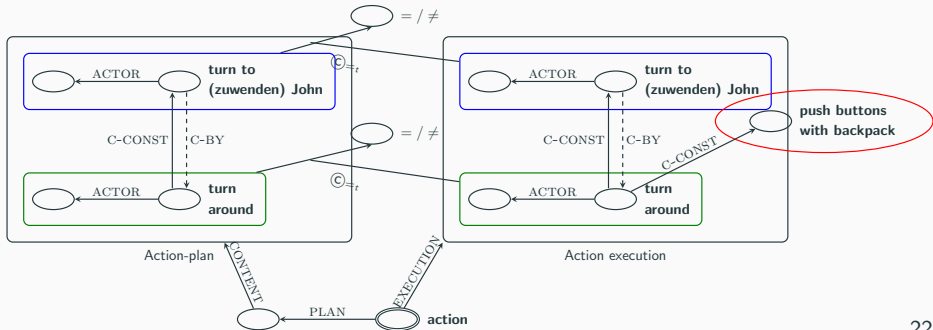
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Modeling 'versehentlich A'

- (8) In the elevator Bill and John are having a discussion. Bill pushes the button for the 3rd floor and turns around to face John. While turning around:

Bill hat versehentlich die Knöpfe mit seinem Rucksack gedrückt.
'Bill pushed the buttons with his backpack accidentally.'



Modeling 'versehentlich A'

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 - In (8) the *versehentlich* A differs from the planned one in the value of an attribute.
 - This corresponds to the placement of focus in the example.
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