Event passives

Torgrim Solstad
Institut für Maschinelle Sprachverarbeitung, University of Stuttgart
torgrim@ims.uni-stuttgart.de

NELS 38
University of Ottawa
October 26-28, 2007

1 Overview

Event passives are verbal passives of causative predcates which involve only a causing event and no agent. Studying this kind of passive, I critically review the popular claim in research on passives and implicit arguments that verbal passives semantically always include an implicit argument (Bhatt & Pancheva 2006). I contend that this view is not very reasonable from a semantic perspective. More specifically, I argue that a proper semantic analysis leaves the semantic role Causer and the Voice projection superfluous in event passives.

2 The Semantics of Voice - Agents vs. Causers

The following discussion is based on the assumption that external arguments are introduced in a VP-external (functional) Voice projection. For this projection, a Kratzer-style semantics (see e.g. Kratzer 1996) is often assumed in combination with non-stative predicates, cf. (1):

(1) Voice $\rightsquigarrow \lambda x \lambda P \lambda e[P(e) \wedge \text{AGENT}(x)(e)]$

I will focus on two aspects of (1):

1. If the variable x is taken to range over all kinds of individuals, entities such as trees will also have to be counted as agents (see e.g. (2)), leaving the notion of agent rather vacuous.

(2) A 55-year-old woman walking in a forest was killed **by a tree.**

2. In cases involving a causing event it can be argued that the event does not match the individual variable x sortally, cf. (3).

(3) A juror's home was damaged **by Sunday night's storm**.

The two most common attempts to avoid the above objections are both problematic:

- Assuming that the variable x ranges over events and (all kinds of) individuals, there is no straightforward way to predict which predicates allow event arguments (e.g. *execute* as opposed to *kill* does not, cf. (4a)) or which predicates allow only a specific kind of external argument (e.g. *wash ashore* only allows a subset of natural forces as external arguments, cf. (4b)):

(4) a. The prisoner was executed by soldiers/*by shots.
b. The men were washed safely ashore by high seas/*by divers.

- Assuming a specific semantic role such as e.g. Causer (see e.g. Alexiadou & Schäfer 2006) to alternate with agents in the case of causing events is not very attractive from a semantic point of view. The Causer role arguably only occurs with predicates involving a causal relation in the first place. It has – as opposed to the Agent role – no semantic contribution apart from specifying the causing event in the causal relation.

From a syntactic, case-theoretic perspective one should treat agents and causing events in a parallel fashion, as they may both be introduced as subjects in active sentences. From a semantic point of view, however, agents and causing events should be kept apart. According to the Voice hypothesis, agents introduce a semantic relation. However, causing events introduced by subjects or *by* phrases merely specify the event already present in the causal relation.

I argue that the difference between argument introduction (Agents) and event specification (Causers) has not been accounted for satisfyingly in approaches which claim that this difference can be captured by underspecification of the external argument role (Alexiadou & Schäfer 2006, van Valin R. D. & Wilkins 1996). In the following I will treat them as fundamentally different. I propose a semantic analysis for the specification of causing events and discuss what the syntactic implications of a semantic take on event passives are in a case study from German.

3 A Closer View on Event Passives: German Event Passives Modified by *durch* Phrases

The German causal preposition *durch* ('through', 'by', 'by means of') specifies the causing event e_1 in a causal relation between two events e_1 and e_2: $\lambda e_2 \lambda e_1.\text{CAUSE}(e_2)(e_1)$ (Solstad to appear). Thus, in the passive in (5) the *durch* phrase specifies the causing event in the causal relation introduced by the predicate *töten* ('kill') as being a shooting event.

(5) Der Verbrecher wurde **durch einen Schuss** getötet.
the criminal was through a shot killed
'The criminal was killed by/by means of a shot'.

When a *durch* phrase occurs in a passive sentence where there is no explicit agent as in (5), the sentence is compatible with two different scenarios (Solstad 2007), as indicated in the translation in (5):

1. An implicit agent (intentionally) fired the shot. In (5), it is still possible to additionally introduce an agent in a *von* phrase corresponding to a *by* phrase in English:

(6) Der Verbrecher wurde von Unbekannten **durch einen Schuss** getötet.
the criminal was by unknown persons through a shot killed
'The criminal was killed by unknown persons with a shot'.

2. The shot went off accidentally without any influence from an agent, e.g. as the result of a gun falling to the floor.

These two interpretations of the verbal passive in (5) correspond to two different active sentences, cf. (7):

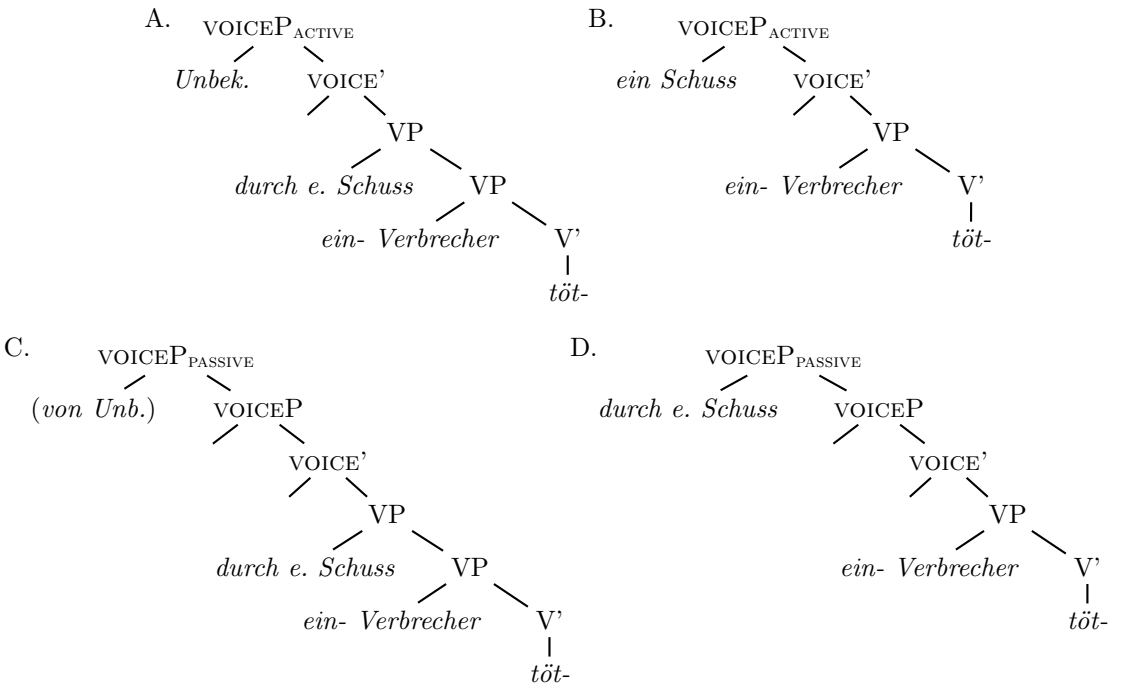
(7) a. Unbekannte töteten den Verbrecher **durch einen Schuss.** (scenario 1)
Unknown persons killed the criminal through a shot
'Unknown persons killed the criminal with a shot'.
b. **Ein Schuss** tötete den Verbrecher. (scenario 2)
a shot killed the criminal
'The criminal was killed by a shot'.

Crucially, the contribution of the boldfaced items in (5) through (7) is identical in all cases. They specify the causing event in a causal relation between events. Thus, all these phrases may be associated with the semantics in (8a), resulting in the simplified common representation in (8b):[1]

(8) a. $\lambda Q \lambda e_1 \lambda P \lambda e[P(e) \wedge Q(e_1) \wedge e_1 = e]$
b. $\exists e_2 \exists e_1 \exists e_3 \exists y[\text{BECOME}(\textit{dead})(y)(e_2) \wedge \text{CAUSE}(e_2)(e_1) \wedge \mathbf{SHOOT(e_3) \wedge e_1 = e_3}]$

However, the semantic uniformity in (8a) is not paralleled in syntax. In (7b), the semantic representation in (8a) is associated with an argument, whereas it is associated with an adverbial modifier in (7a). In the case of the passive (5) there is no way to tell which syntactic entity the *durch* phrase corresponds to in the active, i.e. an argument or a modifier.

The following simplified syntactic tree structures illustrate the possiblities given above. It may be shown on independent grounds that in active sentences, the *durch* phrase is adjoined to the level of VP, below any agents.



While it seems less problematic that the active structure in A. corresponds to the passive in C., the difficult task from the semantic perspective is how the event passive mirroring structure B. should be construed. Focusing on the parallels between the two active sentences A. and B., a structure parallel to C. seems reasonable. This structure is given in D. However, given the uniform semantic contribution of the two *durch* phrases in the active and passive in combination with their syntactic modifier status, it is not very appealing to have to assume two different positions for them, being adjoined to VP in one case and to VoiceP in the other (compare C. and D.). What is more, if the *durch* phrase occupies the position of the *von* ('by') phrase (structure D.), it is questionable if structure D. could be applied in the case of a sentence like (6), where both a *durch* phrase and an agent phrase occur.

Focusing on the semantic side of the problem, I propose to analyse **event passives as having no arguments in the Voice projection**. Consequently, a sentence like (5) on the interpretation where no agent is involved should have a structure similiar to C., with the *durch* phrase being adjoined to VP. To maintain some parallelism with the active, I assume further that the **Causer subject is a modifier and no real argument**. This requires adjusting case-theory, as it involves

[1] Pylkkänen (2002, p. 85) proposes a similar solution. However, she assumes an identity relation between a variable of individual type and one of event type.

assignment of nominative case to a non-argument position. Thus, event passives constitute a challenging case for mapping syntax and semantics.

References

Alexiadou, A. & Schäfer, F. (2006), Instrument subjects are agents or causers, *in* 'Proceedings of the 25th West Coast Conference on Formal Linguistics', Department of Linguistics, University of Washington, Cascadilla Press, pp. 40–48. http://www.lingref.com, document # 1431.

Bhatt, R. & Pancheva, R. (2006), Implicit Arguments, *in* 'The Blackwell Companion to Syntax', Vol. II, Blackwell, Malden, Mass., pp. 558–588.

Kratzer, A. (1996), Severing the External Argument from its Verb, *in* J. Rooryck & L. Zaring, eds, 'Phrase Structure and the Lexicon', Kluwer, Dordrecht, pp. 109–137.

Pylkkänen, L. (2002), Introducing arguments, PhD thesis, Department of Linguistics & Philosophy, MIT, Cambridge, Mass.

Solstad, T. (2007), Lexikalische Pragmatik: Die Spezifikation kausaler Relationen am Beispiel von *durch* [Lexical pragmatics: the specification of causal relations], PhD thesis, University of Oslo. Available from http://folk.uio.no/torgriso.

Solstad, T. (to appear), 'Lexical pragmatics and unification: the semantics of german causal *durch*', *Research on Language and Computation* . Available online at Springerlink. See also http://folk.uio.no/torgriso/.

van Valin R. D. & Wilkins, D. P. (1996), The case for 'effector': Case roles, agents, and agency revisited, *in* M. Shibatani & S. A. Thompson, eds, 'Grammatical constructions: Their Form and Meaning', Clarendon Press, London, pp. 289–322.