

Introduction

Operations on argument structure*

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1. Background

This special issue of *Linguistics* represents the result of a German/Japanese research project jointly funded by the Deutsche Forschungsgemeinschaft (DFG) and the Japan Society for the Promotion of Sciences (JSPS). The principal investigators on the German side were Ekkehard König (Free University of Berlin) and Peter Siemund (University of Hamburg, formerly Free University of Berlin). On the Japanese side, the research project was conducted by Masayoshi Shibatani (then Kobe University, now Rice University). Affiliated to the research project were Daniel Hole (now University of Munich, then Free University of Berlin), Akio Ogawa (Kansai University, formerly Kobe University) and Mitsunobu Yoshida (Hiroshima University). The funding period started early 2000 and came to an end late in 2002. The codes assigned to the project by the funding agencies were KO 497/8-1 and 446 JAP-113/233/0. We would like to express our gratitude to these agencies for making this cooperation possible.

In the course of the funding period, the researchers participating in the project organized two colloquia at the Free University of Berlin and discussed research questions emerging from the project with various Japanese colleagues at the annual conference of the Japanese Society of German Linguistics in 2002. The first Berlin colloquium, held in August 2000, had the title *Operations on Argument Structure: A Typological Perspective* and saw talks by all researchers involved in the project. For the second Berlin colloquium, held 7–8 March 2002 under the title *Operations on Argument Structure: Focus on Japanese and German*, several researchers external to the project were invited to broaden the perspective. We would like to thank Walter Bisang, Bernard Comrie, Volker Gast, Joachim Jacobs, Shigehiro Kokutani, Hans-Heinrich Lieb, Johanna Mattissen, Yoko Miyake, Yoshiki Mori, Tomoaki Seino, and Shin Tanaka for their participation and their contributions.

The articles contained in this special issue of *Linguistics* emerged from presentations given at the second colloquium in Berlin. For several reasons, only a selection of the contributions to the colloquium could be included in the current volume. It is our conviction, nevertheless, that they provide a representative survey of the work done in the project and give a portrayal of current issues in the field of argument structure.

We would finally like to express our gratitude to the editorial team of *Linguistics* for accepting and co-editing this special issue, as well as to the ten or even more anonymous reviewers who tremendously helped to make the articles more consistent and convincing.

2. Argument structure and voice

2.1. Basic concepts

The subsequent paragraphs will provide a basic characterization of argument structure and voice, and introduce the reader to some current and important issues and controversies, as well as some salient proposals for treating them adequately. Consider the standard active/passive contrast in (1).

- (1) a. Harry decorated the balcony with flowers.
 b. The balcony was decorated with flowers by Harry.

The direct object of (1a) corresponds to the subject of (1b), the subject of (1a) may be adjoined as a *by*-agent in (1b), and the verb form *decorated* of the active sentence corresponds to the analytic expression *was decorated* in its passive counterpart, rendering the passive predication intransitive. The described eventuality is nonstative and brought about intentionally in both cases. Those are the prototypical features of an active/passive contrast in English.

We know of no theoretical approach to the active/passive contrast in English which does not converge on one point: the predicate-argument relation holding between the verb and the object in (1a) must somehow be identified with the predicate-argument relation holding between the verb form and the subject in (1b). Any theory about the active-passive contrast in English must deliver that much. In other words, the differing syntactic encoding of identical semantic relationships between predicates and arguments lies at the heart of theories of voice phenomena. There is a lot of disagreement about the rest. To stick with our example (1a) for exemplification, we can arrive at another set of principled contrasts, viz. the one in (2).

- (2) a. Harry decorated the balcony with flowers.
 b. Flowers decorated the balcony.
 c. The balcony was decorated with flowers.

(2a) is identical to (1a), but in (2b) and (2c) other kinds of predicate-argument remappings are pertinent. A superficial look at (2b) may make us think that in this case the agentive subject *Harry* has simply been replaced with a nonagentive one, but that the construction has basically remained the same. This conclusion would be premature, though, because other important changes can be observed. Most importantly, while (2a) describes a dynamic eventuality, (2b) is entirely stative. Also, the semantic relationship between the verb *decorated* and the subject *flowers* in (2b) seems to equal that of *decorated* and *with flowers* in (2a). Looked at in this way, we are dealing with a contrast similar to the active/passive contrast between (2a) and (2b), except that the semantic correspondence does not hold between an object and a subject, but between an adjunct and a subject.

Contrasts like the one between (2a) and (2b) are often called “alternations,” and the particular alternation dealt with here comes under the name of the “locatum subject alternation” (Levin 1993: 81–82). On the understanding of voice underlying this introduction, the subject locatum alternation is a voice contrast just like the active/passive contrast. No evidence against this view derives from the fact that (2b) has a passive counterpart itself, this time a stative one as in the noneventive reading of (2c). This fact simply illustrates that voice contrasts as perceived here need not be limited to a single binary opposition. In a language like English they form complex networks (cf. again Levin 1993), and the same holds true of other languages.

The sentences in (3) and (4) provide us with some more pertinent data.

- (3) She rang me *(up).
 (4) a. She baked a cake.
 b. She baked me a cake.

(3) is a case in which the presence of a nonverbal element, in fact, a particle, is a precondition for the grammatical use of a direct object. The particle, or the structure that comes with it, if combined with the verb *ring*, delivers a different argument structure than *ring* alone. The contrast in (4) is different in that no visible change is involved between sentences with or without the beneficiary *me*, except, of course, for the presence of *me* itself. The interesting and definitely controversial issue from the viewpoint of argument structure and voice is the following: may *me* in (4b) be used because (4a) already had everything that was needed to license it? Or are we dealing with a contrast of voice between (4a) and (4b) such that, what

used to be a transitive verb in (4a) now behaves as a ditransitive verb after some licensing component has been added to it? If the contrast between (4a) and (4b) is a voice contrast, is it in the verb form or does it come along with invisible structure or functional heads that may be present in (4b)? Or are all of these ideas on the wrong track, and *me* is simply an adjunct which does not require any licensing structure outside itself? We're not going to take sides here; we just want to point out that issues of voice and argument structure crop up in many places once we broaden the perspective a bit. It is precisely this wider perspective which characterizes the contributions to this issue.

Argument structure will be used here as a term which covers all kinds of principled co-occurrences between (i) verbs and other argument-taking elements, with (ii) nominals and PPs or adverb(ial)s. Adjunct PPs thus fall outside the scope of this conception of argument structure (provided the dividing line between arguments and adjuncts can be drawn with sufficient reliability; cf. Jacobs 1994). On the other hand, the characterization of argument structure just given leaves open the possibility that it is not just (derived) verbs which determine the argument structure of a clause, but — depending on one's theoretical choices — also particles like *up* as in (3), or whatever licensing structure linguists may assume in (4b). Theories diverge heavily here, and we will turn to an especially interesting question in this domain in Sections 2.2 and 4 below, viz. to the question if agent arguments of causative transitive verbs are really *verbal* arguments, or if they, too, are licensed by structure just co-occurring with, but not identical to, the verbs used. *Voice*, on the other hand, is taken here to cover phenomena pertaining to argument structure if and only if a principled correspondence between different argument structures associated with a single basic lexical item is at stake. On this view, *voice* is a term which always implies a comparison between two different argument structures co-occurring with a single verb stem (nonverbal stems will not concern us any further here). It subsumes the alternation concept.

Note that we have strictly avoided any “item-and-process” (Hockett 1954) wordings in our working definition of voice just given; passive sentences or verb forms are not “derived” from active ones in our terminology, they just stand in predictable relationships with them, and the same holds for the other voice contrasts discussed. In fact, we have not made any claims at all as to what the basis of voice contrasts really is. The reason for this lack of theoretical commitment is that we wanted to give working definitions of argument structure and voice that will be valid for all the articles assembled in this issue, and the theoretical viewpoints of the articles do differ: a functional-typological approach underlies the contributions by Bernard Comrie, Tomoaki Seino and Shin Tanaka, and

Masayoshi Shibatani; a semantically informed diachronic-typological model characterizes Gast and Siemund's as well as König and Kokutani's article, and Daniel Hole combines functionalist elements with a generative and formal semantic perspective.

2.2. *Mapping and linking*

“Mapping” and “linking” both refer to the association of linguistically encoded participants of eventualities with syntactic functions within a clause. The most common tools applied in this domain are linking mechanisms, that is, thematic/semantic roles are mapped to syntactic functions in an explicit and principled fashion. The usual ingredients of such mapping mechanisms are thematic role hierarchies, or hierarchies of syntactic functions, or both, and a mapping algorithm between the two (e.g. Bresnan and Kanerva 1989; Grimshaw 1990; or Van Valin 1990).

For illustration (and not because we think their proposal is unrivaled), (5) presents Bresnan and Kanerva's (1989: 23) hierarchy of thematic roles. (6) states the most general mapping principles assumed by Bresnan and Kanerva (1989: 25–26).

- (5) agent > beneficiary > recipient/experiencer > instrument > theme/
patient > locative
- (6) a. Agent encoding principle [– o]:
The agent role cannot be encoded as an object function, but will alternate between subject and oblique.
- b. Theme encoding principle [– r]:
A patient or theme role will be an unrestricted function, alternating between subject and object.

A typical result of applying such tools for a language like English will be that the most agentively involved participant becomes the subject of the relevant clause in the active voice, and the least agentively involved, or causally most affected participant, the direct object of a transitive verb. In other approaches, thematic roles are seen as epiphenomenal, and the argument-taking properties of underlying atomic predicates of event composition in the tradition of Vendler (1970) and Dowty (1979) (CAUSE, BECOME, BE, ...) are primarily relevant (Wunderlich 1994; Primus 1999).

Dowty (1991) reconciles thematic hierarchies and atomic predicates of event composition under the much-cited concept of proto-roles, viz. proto-agents and proto-patients (predecessors with thoughts in the same vein, but with a less explicit theoretical background, are Foley and Van Valin 1984). Since Dowty's (1991) paper has proved so influential ever

since it was published, (7) adduces his decomposition into properties that are prototypically present in agent and patient arguments, respectively.

- (7) a. Contributing properties for the agent proto-role:
- (i) volitional involvement in the event or state
 - (ii) sentience (and/or perception)
 - (iii) causing an event or change of state in another participant
 - (iv) movement (relative to the position of another participant)
 - [(v) exists independently of the event named by the verb]
- b. Contributing properties for the patient proto-role:
- (i) undergoes change of state
 - (ii) incremental theme
 - (iii) causally affected by another participant
 - (iv) stationary relative to movement of another participant
 - [(v) does not exist independently of the event, or not at all]

There are other accounts which aim at making the mapping of semantic roles to syntactic functions follow in quite direct ways. If, for instance, some semantic property of theme or patient arguments can be identified which reliably distinguishes all internal arguments from noninternal arguments, then the linking generalizations of explicit linking accounts might be dispensed with. One idea to make syntactic hierarchies follow from semantic ones would be to say that internal arguments must be causally “downstream” (Croft 1994), that is, their referents must be causally affected in the described eventuality, rather than causally effective.

Another semantic property that has recently been claimed to single out the thematic involvement of internal arguments is noncumulativity (Kratzer [2003], who builds on Kratzer [1996] and, for the notion of cumulativity, on Krifka [1992, 1998]). Cumulativity may be defined as follows: if an individual stands in a natural (thematic) relation to an eventuality, and a different individual stands in the same relation to a second eventuality, then the sum of the two individuals also stands in that relation to the sum of the two eventualities. For instance, if Karl is an agent in an event of planting flowers and Monica is an agent in another event of planting flowers, then Karl and Monica together also stand in the agent relation to the sum of the two events of planting flowers. If Karl and Monica work together, and Karl just digs the hole, while Monica puts the manure and the flowers themselves in the hole, and then adds the top soil that Karl had dug out, we may still say that Karl and Monica together were the agents in the event of planting the flowers. We are, however, not allowed to say that the soil, the manure, and the flowers add up to the theme referent of the planting event, namely, to the flowers. Kratzer concludes that the general idea of a stable theme relation is the result

of a generalization for which we do not have sufficient evidence. She assumes instead that each verb inherently codes the relationship to its internal argument (if it has one), and that this relationship is different from verb to verb. This would then fit in with the syntactic and semantic closeness between verb and internal argument. We think that Kratzer's theorizing is a very promising way to escape the inconsistencies of most theories of thematic roles that are on the market (see Hole's contribution for an application of Kratzer's ideas on argument structure and voice). Moreover, if criteria like (non)cumulativity deliver empirically justified natural classes of arguments and if, as in Kratzer's account, internal arguments have an idiosyncratic property which is absent among the semantic properties of noninternal arguments, a further, more radical step may be taken: argument structure in a narrow sense, namely, as a lexical property of verb stems, may be limited to internal arguments, whereas the semantically regular (i.e. cumulative) contributions of noninternal arguments, say, agentive subjects, would all come into the clause through verb-external licensing mechanisms which would then, being functional heads, only deliver meanings that are highly general across different verbs.

We will not evaluate different approaches to argument structure in more detail here, but one should keep in mind that the last case that we mentioned, the semantic (and syntactic) licensing of an agent argument in the structure of a clause, is not an undisputed instance of primitive argument structure; there is at least one analysis on the market, viz. Kratzer's, which makes the occurrence of all agent subjects in a clause dependent on a voice mechanism, that is, a mechanism that allows one to add an argument to a fully saturated argument structure.

3. Problems addressed

Above and beyond their shared interest in argument structure and voice, the articles put together in the current collection investigate and advance three more specific areas in this vast field of research. To begin with, there is a shared interest in crosslinguistic generalizations and in the patterns and limits of variation found in the domain at hand. Secondly, many of the articles assembled here go beyond the canonical operations on argument structure like passivization, middle formation, etc., and focus on clearly relevant, but less widely discussed phenomena like extra arguments, reciprocity, reflexivity, as well as some others. A particular research interest lies on the semantic effects these phenomena can have on the interpretation of arguments or the predication as a whole. A third objective common to all articles in the collection is to make a contribution

to a general theory of voice, which is most pronounced in the article by Masayoshi Shibatani.

A pertinent example of crosslinguistic tendencies and generalizations in the domain of argument structure is the derivation of inchoative verbs from causative ones by means of anticausative morphology, and, conversely, the use of causative morphology for the derivation of causative verbs from inchoative verbs. Extending and refining a preceding study by Haspelmath (1993), Bernard Comrie's contribution shows that there is a cognitive basis for the use of causative and anticausative morphology, and that the transitivity profile of a language, that is, its overall preference for the marking of inchoative or causative verbs, turns out to be highly stable diachronically. Even languages under extreme pressure from other, genetically different languages (such as, e.g., Maltese) do not easily give up their transitivity profile. Moreover, the European languages of the Indo-European phylum in their preference for the marking of inchoative verbs in pairs of transitive and intransitive verbs run counter to an otherwise crosslinguistic trend for the morphological marking of the causative verb in such pairs.

While the addition of a weak reflexive marker (Germ. *sich*, Fr. *se*, Swed. *sig*, etc.) is a widespread strategy for the derivation of inchoative verbs across European languages, we can also observe — at least for a subset of such inchoative verbs — a strategy working into the opposite direction, namely, the addition of *self*-intensifiers as in (8) below. The addition of such a *self*-intensifier has the double effect of transitivity as well as reinforcing the weak reflexive marker and thus creating a new, complex reflexive marker.

- (8) a. Paul verletzte sich.
 Paul hurt.PAST REFL
 'Paul got hurt.'
- b. Paul verletzte sich selbst.
 Paul hurt.PAST REFL self
 'Paul hurt himself (intentionally).'

In the contribution by Volker Gast and Peter Siemund, it is shown that the transitivity of detransitivized predicates such as *verletzen* 'hurt' in (8) is due to a specific function of the *self*-intensifier that emphasizes the actor/agent role of subject. The difference between (8a) and (8b) lies in the agentive or intentional interpretation of the subject nominal. This actor-oriented function of *self*-intensifiers contrasts with and complements a better known function of these expressions, where the *self*-intensifier is adjoined to the preceding nominal and forms one constituent with it. It is also shown — contrary to previous assumptions — that

actor-oriented *self*-intensifiers are a possible source for the renewal of reflexive markers.

The interest in crosslinguistic generalizations is also one of the central aspects of the article by Ekkehard König and Shigehiro Kokutani, who work towards a typology of reciprocal markers found in the languages of the world. They basically distinguish four strategies of reciprocal marking: two verbal strategies (affixal, deverbal) and two nominal strategies (pronominal, quantificational). The distribution of these strategies depends on their availability in a given language as well as on the meaning of the predicate involved. König and Kokutani propose a hierarchy of reciprocal marking (derivational < pronominal < deverbal < quantificational) which roughly reflects an increase in the substance of the reciprocal marker. Moving through this hierarchy from left to right, the restrictions that the reciprocal markers impose on the respective verbs and syntactic environments are reduced. Moving through the hierarchy from right to left increases the likelihood and the extent of polysemy. In their comparison of reciprocal marking in German and Japanese, the authors *inter alia* are able to show that the strategies involving the pronoun *sich* or the serial verb *au* do not amount to a reduction of the number of arguments.

The second thread connecting the articles collected here is their shared interest in phenomena that clearly go beyond the canonical operations on argument structure, frequently focussing on specific and often surprising semantic effects caused by the addition or deletion of an argument. It is quite obvious that — perhaps with the exception of Masayoshi Shibatani's article, which addresses more fundamental problems of a general theory of voice — each of the articles in the collection explores one particular voice-related phenomenon: The formation of causative and anticausative verbs by the addition or deletion of affixes (Bernard Comrie), the insertion of additional core arguments or extra arguments (Daniel Hole), the increase in the number of arguments taken by a verb through the reinforcement of middle markers by *self*-intensifiers (Volker Gast and Peter Siemund), the derivation of intransitive verbs from transitive verbs by the addition of reciprocal affixes (Ekkehard König and Shigehiro Kokutani) and the decrease — but also increase — of the number of arguments in the formation of passives (Tomoaki Seino and Shin Tanaka).

None of the aforementioned processes, just taken by itself, is particularly surprising were it not for the fact that they may also bring about unexpected changes in the argument structure of a verb and influence or even determine the interpretation of arguments in often rather subtle and surprising ways. Tomoaki Seino and Shin Tanaka offer a careful comparison of the passive in German and Japanese (*[r]are*-construction),

hammering out a number of striking similarities and differences. As for similarities, they show that, apart from expected properties like the demotion of the agent, in both languages the passive carries nonprototypical meanings in contexts of low transitivity. In such contexts the passive may express modal meanings (an illocutionary marking as order, wish, or question in German; honorification in Japanese) or add aspects of iterativity and habituality to the interpretation of a sentence. Significant differences can be found in the realization of arguments. Apart from allowing the passivization of intransitive verbs, German seems well behaved in that passivization leads to the reduction of an argument. Surprisingly, passivization in Japanese can also increase the number of arguments, notably adding an experiencer argument in the so-called “adversative passive”:

- (9) a. Ame-ga fu-tta.
rain-NOM fall-PAST
‘It rained.’
- b. Watashi-wa ame-ni fur-are-ta.
I-TOPIC rain-by fall-PASSIVE-PAST
‘I got caught in rain.’/‘I was adversely affected by the rain falling.’

As it turns out, the argument structure of passivized verbs can also be extended by accusative objects. Seino and Tanaka argue that this extension of arguments reflects a more fundamental property of Japanese which also manifests itself in other domains (as, e.g., the double subject construction).

Modifications in the interpretation of arguments are also brought about by reciprocal and reflexive markers. Adding a reciprocal marker to a verb typically requires the subject argument to be plural. Reinforcing middle markers by *self*-intensifiers, as illustrated in (8) above, heightens the level of control the subject referent has over the event described by the verb and the relevant action is interpreted as intentionally caused by this referent.

A special problem for argument structure as well as the interpretation of arguments is posed by so-called “extra arguments,” meaning arguments not subcategorized for by a basic verb stem. Such extra arguments occur in various languages and are discussed in the contribution by Daniel Hole for German, English, and Chinese. Illustration from these languages is provided in (10); the relevant extra arguments are set in italics.

- (10) a. Hans trat *Paul* gegen das Schienbein.
Hans kicked Paul.DAT against the shin
‘Hans kicked Paul in the shin.’

- b. *Tā* *sī*-le *mūqīn*.
 (s)he die-PRF mother
 ‘His/her mother died on him.’
- c. *The ship* tore one of its sails.

The property shared by the extra arguments in (10) is that they stand in a relationship to some other argument in the predication, namely inalienable possession in (10a), kinship in (10b), and part/whole in (10c), summarized as “interparticipant relations” by Hole. These interparticipant relations can be analyzed as an identity requirement, such that extra arguments are identified with another argument, in combination with specific semantic roles born by these arguments, usually those of affectee or landmark (in the sense of cognitive grammar). The far-reaching claim made by Hole is that the identity relation, as well as the specific semantic roles, are crosslinguistically stable properties of extra arguments.

4. Advancing the theory of argument structure

Among the contributions to this volume, the article by Masayoshi Shibatani has the widest scope. Shibatani aims at deriving the architecture of voice systems from “the way people perceive human actions and [...] events around them.” When Shibatani presents the guiding questions of his voice framework, its cause(r)-orientation is highlighted. We take the liberty to summarize Shibatani’s guiding questions by way of two general questions:

- (i) What/who causes the eventuality?
- (ii) Does the linguistic conceptualization of the eventuality include “collateral” referents and, if so, to what extent are they involved?

While these questions, and especially (i), seem to point in the direction of more relevance for the agent role as opposed to the theme or patient role, Shibatani presents a discussion of various voice-related phenomena from many different languages that is evenly balanced between agent-orientation and patient-orientation.

To pick out just three examples, Shibatani proposes that his perspective of voice allows for the treatment of (periphrastic) causative constructions, of “external possessor” constructions and of classical medium voice constructions from a unitary viewpoint. Eventualities that are construed as (periphrastic) causative constructions (*Paula makes Paul feed the cat*) are classified as eventualities whose causation extends beyond the agent of the eventuality described by the (noncausativized) verb. “External possessor constructions”, a.k.a. “possessor raising constructions,” are coupled with eventualities whose affective/causal potential extends beyond the patient

to a “collateral” participant, say, a possessor or otherwise interested party (cf. Daniel Hole’s contribution for another perspective on “external possession”/“possessor raising”). The medium voice of classical languages, Dravidian languages or Balinese, finally, expresses a delimitation of the affective potential of the eventuality at hand to the agent’s sphere (cf., among many others, Barber 1975 or Klaiman’s [1991] basic voice).

With its tight embedding within the notions of agentivity and causation, Shibatani’s proposal belongs to a larger class of voice accounts which take the idea of a “causal flow” to underlie argument structure and voice categories. Eventualities that are to be encoded in language are taken out of the real-world continuum because they are identified by virtue of their causes and effects, and voice mechanisms operate on the linguistic conceptualization or representation of causes and effects. In this respect, Shibatani’s proposal stands in the tradition of Croft (1994). The most important difference between Shibatani’s and Croft’s ideas about voice is that Croft’s account is endpoint-oriented (Croft 1994: 92), or patient-oriented, while Shibatani’s is more balanced between endpoint-orientation and agent-orientation, or even slightly privileges agentive involvements over patientive ones. This means that, for Croft, the link between events and their effects is linguistically prior as opposed to the link between events and their causes. It seems to us that Shibatani’s tendential reduction-to-agenthood fares better than Croft’s reduction-to-patienthood in the realm of agentive medium voice constructions corresponding to English *He washes something for himself*; cf. the examples from Classical Greek in (11).

- (11) a. Active voice:
 ho stratiótēs louéi
 the soldier wash.3SG.INDICATIVE.PRESENT.ACTIVE
 khitōna.
 shirt
 ‘The soldier is washing a shirt.’
- b. Intransitive medium voice:
 ho stratiótēs louétai.
 the soldier wash.3SG.INDICATIVE.PRESENT.MEDIUM
 ‘The soldier is washing himself.’
- c. Transitive medium voice:
 ho stratiótēs louétai
 the soldier wash.3SG.INDICATIVE.PRESENT.MEDIUM
 khitōna.
 shirt
 ‘The soldier is washing a shirt for himself.’

(11a) is the active structure, (11b) is an intransitivized medium voice sentence with a reflexive or middle semantics (cf. Kemmer 1993), and (11c) is a transitive medium voice sentence with an agent-plus-beneficiary involvement of the subject referent.

For Croft, argument reduction in the medium voice will target causers whereas, for Shibatani, there is no such preference. Croft analyzes the subjects of agentive medium voice constructions as in (11b) and (11c) as primarily encoding the causally affected entity (cf., similarly, Grimshaw 1990 for reflexives). Only secondarily, that is, because of the marked medium voice construction, is it also construed as causing the eventuality at hand (Croft 1994: 105–107). This generalization flies in the face of intuitions concerning the primary role of subject arguments in sentences like (11b) and (11c). According to those intuitions, subject referents in such sentences are basically agents, and only secondarily patients or affected entities, that is, as a result of the marked voice construction. Evidence for this view comes from the combinability of sentences such as (11b) and (11c) with agent-oriented adverbs. As said already, a causer-oriented theory of voice will have no problem to reduce a basically two-participant situation to one with a single participant which is causally upstream.

If this is conceded, Croft's and Shibatani's ideas will still compete in another area. Within the functionalist camp, Croft's ideas are, by virtue of their orientation towards endpoints in causal chains, among those that are compatible with more syntax-oriented generative accounts of argument structure and voice. The general syntactic consensus is that argument structure clusters around the basic tie-up between verb stems and internal arguments, that is, patient or theme arguments. The link between agents and the eventualities in which they act is looser — at least syntactically, but possibly also semantically; cf. Section 2.1 above — than that between a theme or patient and the eventuality at hand. It seems, then, that an endpoint-oriented theory of voice has its advantages over an agent-oriented theory of voice at least in some areas.

We will end our reasonings here. The field is vast and we do not wish to stand in the reader's way if she wants to take a closer look at one or several of the contributions assembled in this volume. What should have become clear, and what becomes even clearer upon reading the articles to follow, is that argument structure and voice remain vexing and fascinating phenomena, no matter what theoretical stance one assumes.

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