I Introduction

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This volume consists of a number of detailed case studies of transitivity across a selection of languages – from North, Central and South America, New Guinea, Australia, the China/Myanmar (Burma) border, North-east Africa and the Caucasus. In the introduction we summarize the theoretical presuppositions and parameters, suggest generalizations that can be made on the basis of comparison of the individual studies, and draw attention to useful directions for further research.

§1 describes varieties of predicate arguments and clause types. §2 deals with classes of verbs, and transitivity-encoding devices. Then §3 presents an overview of derivations which change valency. In §4 we discuss derivations which typically reduce valency – passive, antipassive, reflexive, reciprocal and anticausative (plus the ubiquitous middle). §5 considers derivations which typically increase valency – applicative and causative (there is a full discussion of causatives in chapter 2). In §6 we emphasize the need for a holistic approach; every derivational process is likely to have syntactic, semantic and discourse/pragmatic aspects, each of which interrelates with and helps explain the others. §7 briefly discusses the propensities of different groups of verbs – according to their semantics – for taking part in the various derivations that affect valency. In §8 we look briefly at syntactic alternatives to valency-changing derivations; in some languages there may simply be alternative construction types, with no derivational link. §9 gives a short preview of each of the following chapters. Finally, in §10 we suggest a number of fruitful lines for further research.
 Predicate arguments and clause types

Most languages have one or more minor clause types which typically involve two NPs, either with or without a copula (e.g. ‘My son (is) a doctor’); these are left aside in the following discussion. We here focus on what is the major clause type in every language, consisting of a predicate and a variable number of predicate arguments. The predicate most frequently has a verb as its head (although in some languages a noun, or even a pronoun, may function as head of an intransitive predicate). It is useful to distinguish between core and peripheral arguments. The number and nature of core arguments is determined by the choice of which verb (or other word) is predicate head. The core arguments must be stated – or else be understood – for the clause to be acceptable and to have sense. Peripheral arguments (sometimes called ‘adjuncts’) are less dependent on the nature of the verb; they may optionally be included to indicate place, time, cause, purpose and the like.

In the following English sentences, peripheral arguments are enclosed in round brackets and core arguments in square ones.

(1) (On Monday morning,) (in the garden,) [John] danced (around the fountain)
(2) (On Monday morning,) (in the garden,) [the monkey] bit [John] (on the finger)
(3) (On Monday morning,) (in the garden,) [John] gave [Mary] [a book] (for her birthday)

The peripheral NPs can be omitted and we still get full sentences – John danced, The monkey bit John and John gave Mary a book. However, core arguments may not be omitted – for example, *The monkey bit or *John gave Mary are not acceptable sentences in English. It will be noted that some peripheral NPs – such as on Monday morning and in the garden – may occur in a wide variety of clauses. Others are more restricted, being determined partly by the verb and partly by the reference of the core argument(s). For instance, on the finger is an acceptable peripheral argument only with a verb like bite (or hit or sting) and an O NP with a human referent; one could not say *The monkey saw John on the finger or *The monkey bit the banana on the finger.

There are two universal clause types:

- intransitive clause, with an intransitive predicate and a single core argument which is in S (intransitive subject) function;
- transitive clause, with a transitive predicate and two core arguments which are in A (transitive subject) and O (transitive object) functions.
That argument whose referent does (or potentially could) initiate or control the activity is in A function. That argument whose referent is affected by the activity is in O function (see Dixon 1994: 113–27).

In some languages a further argument has special status. This typically refers to a recipient or a beneficiary or a thing that is seen or an object that is liked or wanted; and is commonly shown by dative case or marked on the predicate by a special set of bound pronominals. It can be represented by E (standing for ‘extension to core’). In most languages there is an extended transitive (or ditransitive) construction type, with A, O and E; this typically refers to giving, showing or telling. In a few languages (e.g. Tonga, Trumai, Tibetan, Newari, Motuna) there is also an extended intransitive clause type, with S and E; this is typically used for seeing, hearing, liking and wanting (see Dixon 1994: 122–4). That is:

(a) intransitive  S
(b) extended intransitive  S   E
(c) transitive  A   O
(d) extended transitive  A   O   E

In every language in which they occur, extended intransitive and extended transitive clause types are greatly outnumbered – in dictionary and in texts – by plain intransitive and plain transitive. For instance, in chapter 8 LaPolla reports just two extended transitive and around three extended intransitive verbs in Dulong/Rawang. The types are clearly distinguishable since the S in a plain intransitive and the S in an extended intransitive have the same morphological marking and the same syntactic behaviour; similarly for A and O in plain and extended transitive.

We can usefully distinguish ‘transitivity’ and ‘valency’. There are two main transitivity types – intransitive (with core argument S) and transitive (with A and O) – and plain and extended subtypes of each (depending on whether or not E is also in the core). Valency relates to the number of core arguments. Thus (a) is monovalent and (d) is trivalent while there can be two different kinds of bivalent clauses – (c) with A and O, and (b) with S and E.

In some languages there is distinct marking for A, O, E and peripheral arguments. In others E and peripheral are treated in the same way. In a further group no distinction is made between O and E. In a few languages all of O, E and peripheral arguments are marked in the same way. Thus, using w, x, y and z for marking schemes (where z may indicate a variety of markings for various types of peripheral arguments):
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A  O  E  peripheral

(i)  \(w \ x \ y \ z\)  very many languages, e.g. Latin
(ii)  \(w \ x \ y------y\)  e.g. Jarawara
(iii)  \(w \ x------x \ z\)  e.g. Kinyarwanda
(iv)  \(w \ x------x------x\)  e.g. Creek

In Jarawara any NP that is not in S, A or O function is marked by the all-purpose preposition \(jaa\) (Dixon, forthcoming). In Kinyarwanda O and E follow the verb, and can occur in either order (Kimenyi 1980). In Creek there are two case markers, -\(t\) on a subject and -\(n\) on a non-subject NP.

Languages vary as to how straightforward it is to distinguish between core and peripheral arguments, and thus to decide on the transitivity of a verb. Tariana (see chapter 5) is like Kinyarwanda in having the same morphological marking for O and E, but these two syntactic functions can be distinguished by the fact that only O can go into derived S function in a passive. The fact that the same marking is used for all non-subject functions in Creek leads Martin to suggest (in chapter 12) that the standard notion of transitivity is not relevant for this language; he has not been able to uncover any syntactic test that sets O apart, in the way that Aikhenvald has for Tariana (see further discussion in §9 below).

2  Verb classes

Verbs can be classified according to the clause types they may occur in. At one extreme we find languages (like Latin and Dyirbal) where each verb is either strictly intransitive (occurring just in intransitive clauses) or strictly transitive (occurring just in transitive clauses).

Most languages show a wider range of transitivity classes of verbs. A typical pattern (found in English and in many other languages) is:

(a) some verbs are strictly intransitive, occurring only in an intransitive clause (with an S core argument), e.g. arrive, chat.
(b) some verbs are strictly transitive, occurring only in a transitive clause (with A and O core argument), e.g. recognize, like.
(c) some verbs are ambitransitive (or labile) occurring in either an intransitive or a transitive clause. Note that there are two varieties of ambitransitives, according to which of the two core arguments of a transitive construction is identified with the S argument in an intransitive:
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(c-1) $S = A$ ambitransitives, e.g. *follow*, *win* (these are called agentive ambitransitives by Mithun in chapter 3);

(c-2) $S = O$ ambitransitives, e.g. *melt*, *trip* (called patientive ambitransitives by Mithun).

There can be additional divisions. In Tariana (chapter 5), intransitive verbs divide into two subtypes:

(a-1) $S_a$ verbs, where $S$ is marked in the same way as $A$ in a transitive clause; these verbs typically refer to volitional activity, e.g. *-emhani* ‘walk’;

(a-2) $S_o$ verbs, where $S$ is marked in the same way as $O$ in a transitive clause; these verbs typically refer to non-volitional activity, e.g. *leka* ‘split’.

This is called a split-$S$ system, with every intransitive verb being either of type $S_a$ or of type $S_o$. Other languages have a fluid-$S$ system, where some verbs can take either $S_a$ or $S_o$ marking, depending on whether or not the referent of the $S$ argument is in control of the activity (e.g. ‘slide’ versus ‘slip’ – see Dixon 1994: 70–83).

There are languages with much larger systems of transitivity classes. The classes Onishi lists for Motuna include: (i) $S_a$ intransitive; (ii) $S_o$ intransitive; (iii) $S = O$ ambitransitive (describing a spontaneous process or event in the intransitive); (iv) $S = A$ ambitransitive (where the patient is irrelevant or unimportant in the intransitive); (v) a further variety of ambitransitive where the intransitive is reflexive, i.e. $S = A = O$. There is a full discussion in chapter 4.

A number of languages have affixes to verbs to encode their transitivity. In Fijian for instance, most verbs are ambitransitive; they take a suffix when used in a transitive clause but lack the suffix when used intransitively, e.g. *bale-ta* ‘fall on’, *bale* ‘fall’ and *rogo-ca* ‘hear’, *rogo* ‘be audible’. What the suffix does not indicate is the kind of ambitransitivity involved – *bale(-ta)* is of type $S = A$ while *rogo(-ca)* is of type $S = O$ (see Dixon 1988: 45, 200–14).

In chapter 9, Amberber describes derivational prefixes in Amharic; these include intransitivizer $t$- and causative $as$-. Some verbs may only occur with one of these prefixes, e.g. intransitive *$t$-dassota* ‘be pleased, be happy’ and transitive *$as$-dassota* ‘please, make happy’ (note that *dassota* cannot be used alone). In these circumstances $t$- and $as$- serve as markers of transitivity, similar to Fijian. In chapter 11, Comrie describes similar valency-encoding suffixes in Tsez. In some languages, a causative affix has become lexicalized – so that it now has a semi-idiomatic meaning – and may function as a marker of transitivity (see Rice’s account of Athapaskan languages, in chapter 6).
3 Changing valency

Most languages have some verbal derivations that affect predicate arguments. Typically, they may reduce or increase the number of core arguments; alternatively, the number of core arguments may be retained but their semantic roles altered.

Passive and antipassive prototypically apply to transitive verbs and derive intransitives, with the original O becoming S in a passive and A becoming S in an antipassive. Causative and applicative prototypically apply to intransitive verbs and derive transitives, with S becoming O in a causative and A in an applicative. That is (see also Kazenin 1994):

<table>
<thead>
<tr>
<th>Applying to</th>
<th>(a)</th>
<th>(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) TRANSITIVE</td>
<td>O becomes S, passive</td>
<td>A becomes S, antipassive</td>
</tr>
<tr>
<td>(ii) INTRANSITIVE</td>
<td>S becomes O, causative</td>
<td>S becomes A, applicative</td>
</tr>
</tbody>
</table>

The two varieties of ambitransitives relate to the two columns – S = O type to (a) and S = A type to (b).

We then need to consider what happens to the other transitive argument in row (i) – A for passive and O for antipassive. And to ask where the other transitive argument comes from in row (ii) – A for causative and O for applicative.

In §4 we examine in detail the derivations from row (i) – various kinds of passive and antipassive and also anticausative, reflexive and reciprocal. Then §5 deals with row (ii) – various kinds of applicative and causative (which is also discussed, at length, in chapter 2).

Each of these derivations has several aspects: syntactic, semantic and discourse-pragmatic. In some instances it may be tempting to suggest that a certain derivation is basically syntactic, and that the syntactic change has certain semantic consequences. In other instances it may seem appropriate to say that a given derivation can best be specified semantically, with the meaning shift having certain syntactic consequences. It may, in fact, be difficult to distinguish between these (and other) alternatives. In §6 we argue in favour of an integrated approach, which will best provide an overall characterization for each derivation, in the languages in which it occurs.

One must also bear in mind that a given derivation may, in addition to its productive use (with constant semantic effect), also be involved in lexicalized forms, in which it has an idiosyncratic meaning. See, for example, Mithun’s discussion, in chapter 3, of applicatives in Yup’ik.
4 Valency reduction

There are a number of types of valency-reducing derivation, which will be discussed in turn: (1) passive and anticausative; (2) antipassive; (3) reflexive and reciprocal. Finally, we shall comment on the term ‘middle’.

(1) Passive
We work in terms of the following criteria for a prototypical passive (this accords with most, but not all, of the uses of passive in the literature – see below).

(a) Passive applies to an underlying transitive clause and forms a derived intransitive.
(b) The underlying O becomes S of the passive.
(c) The underlying A argument goes into a peripheral function, being marked by a non-core case, adposition, etc.; this argument can be omitted, although there is always the option of including it.
(d) There is some explicit formal marking of a passive construction – generally, by a verbal affix or by a periphrastic verbal construction (or by using a different kind of pronominal suffix, as described by Mithun in chapter 3 for Yup'ik).

Some languages have a derivation which satisfies criteria (a), (b) and (d) but in which the underlying A must be omitted (although it is understood that there was an underlying A argument, i.e. there was some agent who affected the patient). This is an ‘agentless passive’.

A number of languages have a valency-reducing derivation where the S of the derived verb corresponds to the underlying O, and there is no marker of (or implication of the existence of) the underlying A. This is, effectively, the inverse of a causative and is often called an ‘anticausative’.

These three possibilities can be summarized (where ‘S : O’ is to be read ‘S of the derived intransitive corresponds to O of the underlying transitive’):

<table>
<thead>
<tr>
<th></th>
<th>(i) prototypical passive</th>
<th>(ii) agentless passive</th>
<th>(iii) anticausative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S : O</td>
<td>original A becomes a peripheral argument and may either be included or omitted</td>
<td>original A not stated (but understood to be in underlying structure)</td>
</tr>
<tr>
<td></td>
<td>‘the glass was broken’</td>
<td>(by John)</td>
<td>‘the glass broke’</td>
</tr>
<tr>
<td></td>
<td>included or omitted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It will be seen that the two varieties of passive both indicate that the original O (derived S) came into a certain state because of the involvement of an agent (original A). In contrast, the anticausative implies that it came into the state spontaneously. (The anticausative is like an S = O ambitransitive pair, except that here an explicit derivation is involved.) Anticausatives are described for Athapaskan in chapter 6, and for Amharic in chapter 9. In chapter 10 Reid describes a constructional alternation in Ngan'gityemerri which has anticausative effect. And it seems that what LaPolla (in chapter 8) calls (general) intransitivizer and what Martin (in chapter 12) refers to as a ‘middle’ in Creek could equally be termed anticausatives.

A prototypical passive has three effects:

(I) to focus attention on the original O (the derived S);
(II) to downgrade the importance of the original A, e.g. when one either does not know or does not want to specify its identity;
(III) to focus on the state the original O (new S) is in, as a result of the activity.

These effects may have varying weighting in different passive derivations. In chapter 7, Campbell describes two passives in K’iche’. The ‘simple passive’ can only be used if the original A is 3rd person; a 1st or 2nd person A cannot be ‘downgraded’ in this derivation, in terms of (II) above. The ‘completive passive’ has no constraints on the types of arguments involved, but just emphasizes the result of the activity, in terms of (III) above.

There are a number of kinds of variation on the prototypical profile of a passive. In a few languages, a peripheral argument of an intransitive clause may become passive subject (e.g. This bed has been slept in, in English). And in some languages the passive derivation may be extended to apply to some intransitive verbs, with an impersonal sense – this is described for Tariana by Aikhenvald (chapter 5) and for the Athapaskan language Dogrib by Rice (chapter 6).

Languages with multiple transitivity classes may have further varieties of passive. In Tariana, a language with split-S marking on intransitive verbs, the original O becomes $S_a$ (not $S_o$) in a passive derivation. In Athapaskan languages there are two passive construction types; in the so-called ‘personal passive’ the underlying O receives subject marking, while in the ‘impersonal passive’ it receives object marking.

In some languages active clauses may not allow certain argument combinations. For instance, in K’iche' (chapter 7) an active clause may not have A as 3rd person when O is a 2nd person reverential pronoun; for this combination of A and O a simple passive construction must be employed.
The term ‘passive’ has been used in a wide variety of senses. Indeed, Siewierska (1984: 255) concluded a survey of the variety of constructions that have been called ‘passive’ with: ‘as a group the whole body of so called passives does not have a single property in common’. In Japanese studies there is a tradition of referring to a derivation marked by suffix -(ra)re as an ‘adversative passive’. But in fact this appears to increase the valency of the verb to which it is attached, e.g. from the transitive ‘Ziroo (Nom) drum (Acc) practise’ (‘Jiro practises the drums’) can be derived the adversative clause ‘Taroo (Topic) Ziroo (By) drum (Acc) practise-(ra)re’ (‘Taro was adversely affected by Jiro’s practising the drums’) (Shibatani 1990: 319). From a cross-linguistic typological perspective, ‘passive’ is not an appropriate label for this derivation.

(2) Antipassive

Antipassive is syntactically like passive, with O and A interchanged. That is, the criteria for a prototypical antipassive are:

(a) Antipassive applies to an underlying transitive clause and forms a derived intransitive.
(b) The underlying A becomes S of the antipassive.
(c) The underlying O argument goes into a peripheral function, being marked by a non-core case, adposition, etc.; this argument can be omitted, although there is always the option of including it.
(d) There is some explicit formal marking of an antipassive construction (same basic possibilities as for passive).

Corresponding to an agentless passive there can be a patientless antipassive, where the underlying O is not stated (but there is understood to be one). For instance, in the Mayan language Tzotzil, -maj- is the verb ‘hit’; when the patientless antipassive suffix -van is added we get an intransitive verb -maj-van- ‘have a disposition towards hitting [people]’, where the patient ‘people’ cannot be stated but is implied (Robinson, ms.).

The syntactic iconicity between passive and antipassive may be misleading. In fact they have quite different semantic effects. An antipassive construction downgrades the original O, and focuses on the underlying A argument – on the fact that its referent is taking part in an activity which involves a patient (underlying O argument) while paying little or no attention to the identity of the patient. Thus, while passive generally focuses on the resulting state (that is, on the effect on the patient of what the agent has done), antipassive focuses on the activity itself (that is, on the agent’s performing the activity).
We should now examine whether the possibilities (i–iii), outlined above for passives and anticausative, all have correspondents where S : A. Relating to a basic transitive clause ‘John [A] ate the mango [O]’ these would be:

| (i’) prototypical antipassive | S : A | original O becomes a peripheral argument and may either be included or omitted | ‘John [S] ate (the mango [peripheral])’ |
| (ii’) patientless antipassive | S : A | original O not stated (but understood to be in underlying structure) | ‘John [S] ate’ (implied: something) |
| (iii’) [correspondent of anticausative] | S : A | no O stated or implied | ‘John [S] ate’ |

Now it would seem unlikely that a language would be able to distinguish between (ii’) and (iii’) here. A transitive verb like ‘eat’ implies the existence of some O argument, even if this is not stated. The rather different semantics of passive and antipassive (relating to the difference between A and O) means that alternative (iii’) is scarcely plausible. That is, whereas one can clearly distinguish between (ii) and (iii), for S : O, it appears unlikely that a language would distinguish between (ii’) and (iii’), for S : A.

Antipassives are most common in languages with ergative characteristics (there is a useful typological survey in Cooreman 1994); they feature in just two of the chapters in this volume. The ‘absolutive’ antipassive in K’iche’ (described by Campbell in chapter 7) has prototypical properties; its major function is to enable the original O argument to be omitted or demoted. Mithun reports (in chapter 3) that in Yup’ik an O argument should be definite. If there is an underlying O which is indefinite then the absolutive antipassive derivation must be applied, and the erstwhile O now takes ablative marking.

We do encounter unusual construction types, which will not easily fit into any of the profiles provided by typological theory. There is a second antipassive-like derivation in K’iche’, which Campbell calls an ‘agent-focus antipassive’. This focuses on the underlying A, which appears to go into S function in the antipassive; this enables it to function in question, relative and focussing constructions (as in many Mayan languages, these appear to operate in terms of an S/O pivot). Campbell describes the agent-focus antipassive as being morphologically intransitive but, in some respects, syntactically transitive. Verb agreement is usually with the S argument in an intransitive clause.