This article takes the notion of state-of-affairs as its point of departure and studies the ways in which this concept is encoded in the structure of languages. In 2 a basic definition of states-of-affairs is given which sets them off from other types of entity, such as individuals and propositional contents, and stresses the fact that states-of-affairs are temporal entities. The subcomponents of a state-of-affairs are (i) a property or relation as it manifests itself in time and (ii) the participants for which this property or relation holds. The linguistic correlates of these components are the **predicate** and its **argument(s)**, respectively. The structure of predicate expressions is dealt with in 3. For the
structure of argument expressions see Chapter XIII. The linguistic correlate of a state-of-affairs is a predication. The form a predication takes may depend on the nature of the state-of-affairs it describes. This issue is dealt with in 4.

Three preliminary remarks are in order with respect to the material presented in the following sections. First of all, many of the semantic notions dealt with in this article can be expressed by syntactic and by morphological means, but only the latter are dealt with here, while the former are only mentioned in passing. Secondly, the semantic notions dealt with in this article may either be reflected by morphological categories, in which case they do not themselves contribute to the meaning of a construction, or they may be expressed by morphological categories, in which case they do contribute to the meaning of a construction. These cases will be distinguished where relevant in what follows. Thirdly, most of the issues dealt with in this article receive a more detailed treatment in other articles. This article restricts itself
to a general overview of the basic concepts involved in the formation of states-of-affairs, and, where relevant, provides references to the more specialized articles for a more detailed treatment.

2. States-of-Affairs

2.1. Introduction

This section presents a further characterization of the state-of-affairs and its components (2.2) and surveys their linguistic correlates (2.3).

2.2. Characterization

States-of-affairs are best characterized in terms of the threefold classification of entity types presented in Lyons (1977:442-447; cf. also Art. 94). Lyons distinguishes three different orders of entities. An individual is a first order entity. It can be located in space and can be evaluated in terms of its existence. A state-of-affairs is a second order entity. It can be located in space and time and can be evaluated in terms of its reality. A propositional
content is a third order entity. Being a mental construct, it can neither be located in space nor in time. It can be evaluated in terms of its truth.

To these three types of entity we may add one more. Properties and relations may be characterized as zero order entities (cf. Hengeveld 1992; Keizer 1992; Dik 1997). These have no independent existence and can only be evaluated in terms of their applicability to other types of entity. Thus, the property 'green' can be applied to first order entities only, the property 'recent' to second order entities only, and the property 'undeniable' to third order entities only. Tab. 104.1 lists the various types of entity.

<table>
<thead>
<tr>
<th>Order</th>
<th>Description</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Property/Relation</td>
<td>Applicability</td>
</tr>
<tr>
<td>1</td>
<td>Individual</td>
<td>Existence</td>
</tr>
<tr>
<td>2</td>
<td>State-of-affairs</td>
<td>Reality</td>
</tr>
<tr>
<td>3</td>
<td>Propositional Content</td>
<td>Truth</td>
</tr>
</tbody>
</table>

Tab. 104.1: Entity types

States-of-affairs can be set off from other types of entity by the fact that
they can (i) be located in time, and (ii) be characterized in terms of their reality status. States-of-affairs can thus be said to '(not) occur', '(not) happen', or '(not) be the case' at some point or interval in time.

The subcomponents of a simple state-of-affairs are (i) a property or relation as it manifests itself in time and (ii) the individuals for which this property or relation holds. Zero order and first order entities thus enter into the constitution of second order entities. States-of-affairs, in their turn, are the subject matter of propositional contents, i.e. they are thought about, known to be (un)real, presented in a speech act, etc. Thus, second order entities enter into the constitution of third order entities.

2.3. Linguistic correlates

There is no one-to-one relation between the various entity types distinguished in 2.2 and the ways in which these entities manifest themselves linguistically. This is mainly due to the fact that all entity types concerned may be described by means of lexical
elements. Tab. 104.2 lists some nominal elements that are used to designate the different orders of entities (cf. Art. 94).

<table>
<thead>
<tr>
<th>Order</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>color, weight, manner</td>
</tr>
<tr>
<td>1</td>
<td>man, chair, house</td>
</tr>
<tr>
<td>2</td>
<td>meeting, wedding, war</td>
</tr>
<tr>
<td>3</td>
<td>idea, opinion, thought</td>
</tr>
</tbody>
</table>

Tab. 104.2: Nominal expression of entity types

In English different derivational strategies are used to form nouns designating entities of the various orders, as shown in the examples (some of which are taken from Quirk et al. 1985:1550-1551) in Tab. 104.3.

<table>
<thead>
<tr>
<th>Order</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>mean-ness, kind-ness, false-ness elastic-ity, rapid-ity, san-ity</td>
</tr>
<tr>
<td>1</td>
<td>writ-er, employ-er, sing-er inhabit-ant, contest-ant</td>
</tr>
<tr>
<td>2</td>
<td>explor-ation, starv-ation break-age, cover-age</td>
</tr>
<tr>
<td>3</td>
<td>hope-Ø, wish-Ø, belief-Ø</td>
</tr>
</tbody>
</table>

Tab. 104.3: Derived nominal expression
Apart from lexical expressions such as the ones given above, syntactic expressions may be used, and are indeed used more frequently, to represent states-of-affairs linguistically. These syntactic units may be called **predications**. A predication is the product of the application of a predicate to a sufficient number of arguments. Predications may occur in various syntactic environments and may take different forms, as illustrated in the following examples:

1. *John left*
2. *John having left, we decided to cancel the meeting*
3. *John decided to leave*

In each of the examples (1)-(3) the predicate *leave* is applied to its single argument *John*, even when this argument is not overtly present, as in (3). The resulting predication forms part of a main clause in (1), an adverbial clause in (2), and a complement clause in (3). What all these predications have in common is that they describe an entity of entity types.
that may be interpreted in terms of its
temporal setting and in terms of its
actuality status, the two criterial
features of states-of-affairs.

The temporal status of the entities
described in the predications in (1) and
(2) is evident from the fact that the
clauses in which they appear are marked
for absolute (1) and relative (2) past
tense, respectively. But even in the
absence of such marking, as in (3), the
entity described can be given a temporal
interpretation. Thus, in (3) the
leaving-event is necessarily interpreted
as posterior to the deciding-event. The
temporal status of the entities
described can furthermore be made
explicit by means of temporal adverbs,
as in (4)-(6):

(4) John left yesterday
(5) John having left the day before, we
decided to cancel the meeting
(6) John decided Øi to leave the next
day

Similar things can be said about the
interpretation of the entities described
in the predications in (1)-(3) in terms
of their actuality: in each case the
leaving-event has positive polarity. This becomes evident if (1)-(3) are compared with their negative counterparts in (7)-(9):

(7) John didn't leave
(8) John not having left, we decided to cancel the meeting
(9) John decided Øi not to leave

Within predications the predicate, often but not always a verb or a verbal expression, designates a zero order entity, i.e. a property or relation that holds for or between the participants designated by the arguments of this predicate. The predicate occupies a central position within the predication for two reasons. Firstly, it is the only indispensable element of a predication, as is evident from the existence of argumentless predications, as in the following example from Spanish (10):

(10) Lluev-e.
    rain-3.sg.pres
    '(It) rains.'

Secondly, grammatical categories semantically relevant to the state-of-
affairs as a whole are often encoded on the (verbal) predicate. Thus, in the following example from Quechua (Cole 1982:142) the entire state-of-affairs 'Maria's living in Agato' is to be interpreted as situated in the past, but the past tense marking is attached to the verb, i.e. the relational part of the description of the state-of-affairs:

(11) Marya-ka Agatu-pi-mi kawsa-rka.

Maria-TOP Agatu-in-VAL live-PAST.3

'María lived in Agato.'

Given the centrality of predicate expressions within predications I will concentrate on the structure of predicates in the next section. For the structure of argument expressions see Chapter XIII.

3. Predicates

3.1. Introduction

A predicate is the core element of a predication. Whereas a predication designates a state of affairs as a whole, the predicate designates the relation or property structuring the
internal constitution of a predication. A **predicate** is a syntactic unit, and may be realized by a variety of **lexemes**, i.e. lexical units. Predicates, being phrasal units, may be simple or complex. Lexemes may be basic, or derived by a lexical rule.

Complex predicates include serial verb constructions, auxiliary constructions and periphrastic constructions. In serial verb constructions two lexical verbs enter into the description of a single event. In auxiliary constructions a lexical verb is modified by a non-lexical verb. In periphrastic constructions a lexical verb is modified by a verb that retains some of its lexical properties. All these cases involve meaning extensions and modifications realized by syntactic means, and will thus not be treated here.

Derived lexemes are those that are created on the basis of other lexemes, which may themselves be basic or derived. Derivational processes are discussed in more detail in Art. 89. Basic and derived lexemes may belong to various categories, which is the issue of 3.2. The valency of basic and derived
lexemes is discussed in 3.3.

3.2. Categories

In many languages only verbs may be used as predicates directly, but in others non-verbal predicates have this possibility too, as the following examples from Turkish (Lewis 1967:127; Ersen-Rasch 1980:203, 188) illustrate:

(12) *Gel-di-m.*

come-PAST-1.SG

'I came.'

(13) *İşsiz-di-m.*

unemployed-PAST-1.SG

'I was unemployed.'

(14) *Eskiden öğretmen-di-m.*

formerly teacher-PAST-1.SG

'I used to be a teacher.'

Note that the past and personal endings of *gel-* 'come' in (12), *işsiz* 'unemployed' in (13) and *öğretmen-* 'teacher' in (14) are identical. The reason to call the latter two predicates non-verbal is that the lexemes occupying the predicate slot may also be used in the construction of noun phrases.

The extent to which languages allow
the direct predicative use of various categories of lexemes can be described systematically in terms of the following hierarchy (Stassen 1992; 1997; Hengeveld 1992):

(15) V > A > N

This hierarchy says that if a language allows the direct predicative use of nouns, it will also allow the direct predicative use of adjectives and verbs; if it does not allow the direct predicative use of adjectives, it will neither allow the direct predicative use of nouns; etc.

English is, of course, an example of a language which allows the direct predicative use of verbs, but not of adjectives and nouns. In the latter two cases a copula construction is used. Examples (12)-(14) illustrate that Turkish, on the other hand, allows the direct predicative use of all three categories in (15). Guarani exemplifies the third possibility, since it allows the direct predicative use of verbs and adjectives, but uses simple juxtaposition with nominal predicates, as shown in the following examples
(Gregores & Suárez 1967:138, 173, 158):

(16) Še-manuá.
   1.sg-remember
   'I remember.'
(17) Šé-yemiahíi.
   1.sg-hungry
   'I am hungry.'
(18) Né soldádo.
   you soldier
   'You are a soldier.'

The lexeme yemiahíi 'hungry' in (17) can be considered an adjective rather than a verb since, as Gregores & Suárez (1967:138) note, it belongs to a class of items that 'may also occur uninflected as attributes to a noun'.

For some languages it makes little sense to distinguish the lexical classes mentioned in the hierarchy in (15). A case in point is Samoan, a language in which lexemes are not tied to a specific syntactic slot. Consider the following examples (Mosel & Hovdhaugen 1992:80, 73, 74).

(19) (a) `Ua mālosi le lā.
       PERF strong ART sun
       'The sun is strong.'
In Samoan the translational equivalents of English nouns can not only be used as the head of a noun phrase (19a) but also as a predicate (19b), whereas the translational equivalents of English verbs can not only be used as a predicate (20a) but also as the head of a noun phrase (20b). This is a systematic feature of Samoan, and hence it makes little sense to distinguish lexeme classes in this language. As a result, every lexeme may be used as a predicate. This is quite the opposite of what happens in languages like English, in which lexeme classes are clearly distinguished and only verbs may be used as predicates directly, i.e. without the
intervention of a copula. For further information on lexeme classes see Chapter X.

Many languages apply morphological means to enable a non-verbal lexeme to occur in predicative position. In descriptive grammars this process is normally called verbalization. In some cases the only function of verbalization is to allow the predicative use of the non-verbal lexeme. This is illustrated in the following example from West Greenlandic (Fortescue p.c.), in which the verbalizing suffix -u is functionally equivalent to a copula:

(21) Uanga Tuumasi-u-vunga.

I Tuumasi-VR-1.SG.INDIC

'I am Tuumasi.'

A similar situation obtains in Krongo, witness the following example from Reh (1985:242)

(22) Àakù m-àa-nímyà.

she F-IPFV:COP-woman

'She is a woman.'

These are cases in which the verbalizing morpheme simply indicates that the
lexeme to which it attaches occupies the predicate slot. In many other cases, verbalization adds a meaning component. Consider the following examples from Kayardild (Evans 1995):

(23) ngarrku ngarrku-watha ngarrku-rutha
strong strong-INCH.VR strong-FACT.VR
'strong' 'become strong' 'strengthen'

The inchoative verbalizer -watha added to a non-verbal lexeme expresses ingression into the state described by that lexeme; the factitive verbalizer -rutha expresses the causation of the state described by the lexeme.

3.3. Valency

Predicatively used lexemes can not only be characterized in terms of their category, but also in terms of their valency, i.e. the number of arguments they require. Languages differ widely in the extent to which they encode differences in valency lexically or grammatically. Consider the following examples from English:

(24) (a) The water boiled.
In (24) the same lexeme is used to express both an intransitive and a transitive state of affairs. In (25) two different lexemes are used. In English this is a purely lexical issue. In other languages, this difference is expressed morphologically in two different ways: (i) by using markers which reflect the valency of a construction, or (ii) by applying derivational processes which change the valency of a lexeme and add a meaning component. These two processes will be illustrated separately.

Fijian (like Samoan, as shown above) does not distinguish between clearly delimited lexeme classes. It is therefore not surprising that in this language lexemes are hardly ever intrinsically intransitive or transitive either. Instead, the intransitive or transitive use of a lexeme is explicitly marked, as shown in the following examples from Boumaa Fijian (Dixon 1988:34):

(b) Peter boiled the water. (=
    Peter made the water boil)

(25) (a) The duckling died.
(b) Peter killed the duckling. (=
    Peter made the duckling die)
(26) (a) Au la’o.
I go
'I am going.'
(b) Au la'o-va
I go-TR
'I am going for it.'

(27) (a) Au rai.
I look
'I am looking.'
(b) Au rai-ca
I look-TR
'I see him/her/it.'

In Fijian the absence of the transitivity suffix indicates that a lexeme is used as a one-place predicate. The presence of the transitivity suffix indicates that it is used as a two-place predicate. This suffix does not add a specific meaning component, its function is simply to mark the transitive use of a lexeme.

A similar phenomenon may be observed in Wolof, as discussed in Comrie (1985:316). In this language a suffix (-al) added to a verb reflects the presence of an additional argument which one would not expect on the basis of the basic valency of that verb. This
additional argument may have a variety of semantic functions. The following examples illustrate:

(28) (a) Nga dem.
   AUX.2.SG go
   'You went.'

(b) Kan nga dem-al.
   who AUX.2.SG go-al
   'Who did you go with?'

(29) (a) Mungi dyàng téére bi.
   PRES.3.SG read book ART
   'He is reading the book.'

(b) Mungi dyàng-al eleew
   PRES.3.SG read-al pupil
   yi téére-ém.
   ART.PL book-his
   'He is reading his book to the pupils.'

(30) (a) Di naa toogal nenne bi.
   FUT AUX.1.SG seat child ART
   'I will seat the child.'

(b) Di naa la toogal-al
   FUT AUX.1.SG you seat-al
   nenne bi.
   child ART
   'I will seat the child for you.'

Note that again the suffix does not add
a specific meaning component to the construction.

Next to these morphological means, which simply function as signals of the quantitative valency of a lexeme, there are derivational operations which bring about both a change in quantitative valency and in meaning (see Art. 107). The following examples are from Hungarian (de Groot 1989:138, 141):

(31) (a) *Mari kimos-t-a  a ruhák-at.*
Mary wash-PAST-3.SG ART clothes-ACC
'Mary washed the clothes.'

(b) *Mari-val kimos-at-t-am a ruhák-at.*
Mary-INSTR wash-CAUS-PAST-1.SG ART clothes-ACC
'I had Mary wash the clothes.'

(32) (a) *A borbély borotválja Feri-t.*
ART barber shave Feri-ACC
'The barber shaves Feri.'

(b) *Feri borotvál-kozik.*
Feri shave-REFL.
'Feri shaves himself.'
The quantitative valency of the basic lexeme *kimos* in (31a) is extended with one argument slot in the causative construction in (31b), in which the derived lexeme *kimosat* is the predicate. The quantitative valency of the basic lexeme *borotvál* in (32a) is reduced with one argument slot in the reflexive construction in (32b), in which the derived lexeme *borotválkozik* is the predicate.

4. Aktionsart

The combination of a predicate with the appropriate number of arguments is a predication, which designates a state of affairs. The nature of the state of affairs may determine part of the form the predication takes. Four major subclasses of states-of-affairs which may be reflected in the form in which they are expressed can be distinguished on the basis of two basic parameters: (i) control, and (ii) dynamicity (cf. Dik 1978; 1997). For a more detailed treatment and classification of types of states of affairs see Art. 109.

A state-of-affairs is controlled if a participant has the power to determine
whether or not the state-of-affairs obtains. A state-of-affairs is dynamic if it involves a change. The types of states-of-affairs that may be defined in terms of these parameters are given in Tab. 104.4.

<table>
<thead>
<tr>
<th>+ control</th>
<th>- control</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ dynamic</td>
<td>Action</td>
</tr>
<tr>
<td>- dynamic</td>
<td>Position</td>
</tr>
</tbody>
</table>

Tab. 104.4: Types of states-of-affairs

Examples of these four types of states-of-affairs are given in (33)-(36):

(33) John opened the door (Action)
(34) John kept the door open (Position)
(35) John fell ill (Process)
(36) John was ill (State)

A language in which the parameter of dynamicity is clearly reflected in the morphological system is Abkhaz. In this language dynamic and static stems enter into different tense systems. Consider the following examples (Spruit 1986:95, 98):

(37) d★-z-ba-wá-yr'.
3.SG.M-1.SG-see-PROG/SIT-DECL
'I see him.'
(38) y★-s-tax★-w-p'.
3.SG.IRRAT-1.SG-want-PRES-DECL
'I want it.'

The suffix -wá 'progressive/situational' in (37) is one of the 'Tense A' suffixes, which only combine with dynamic stems. The suffix -w 'present' in (38) is one of the 'Tense B' suffixes, which only combine with non-dynamic verbs or with a dynamic verb + Tense A suffix (Spruit 1986:116-117). The suffix -p 'declarative' in (38) is furthermore only used with the present tense of non-dynamic verbs.

In Abkhaz many stative intransitive stems also occur as dynamic intransitive stems. In these cases dynamicity is signalled exclusively by the tense suffixes used (Spruit 1986:95, 96):

(39) d-t'wá-wá-yt'.
3.SG.M-sit-PROG/SIT-DECL
'He sits down.'
(40) d-t'wá-w-p'.
3.SG.M-sit-PRES-DECL
'He is sitting.'
The parameter of control seems to be reflected in the verbal system less frequently. Comrie (1989:54), referring to Munro & Gordon (1982), mentions Chickasaw as an example. In this language one finds oppositions like the following:

(41) Sa-\texttt{ttola}.
\hspace{1cm}1.sg-fall.down
\hspace{1cm}'I fell down (by accident).'</n
(42) It\texttt{tola-li}.
\hspace{1cm}fall.down-1.sg
\hspace{1cm}'I fell down (on purpose).'</n
The system is, however, not fully productive.

It is probably more common to find the parameter of control reflected in the ways arguments are realized. Foley (1986:121-127) notes that the distinction between controlled and uncontrolled states-of-affairs is pervasive in many Papuan languages. In Barai (Olson 1981), for instance, with controlled predicates only Agent arguments take a special set of modal clitics, whereas with uncontrolled predicates these are only attached to Patient arguments. Consider the
following examples (cited from Foley 1986:124):

(43) (a) Fu-ka na kan-ie.
    he-really I hit-1.SG.PAT
    'He really hit me.'
(b) *Fu na-ka kan-ie.
    he I-really hit-1.SG.PAT
    'He really hit me.'

(44) (a) Ije na-ka visi-nam-ie.
    it I-really sick-TR-1.SG.PAT
    'It really sickened me.'
(b) *Ije-ka na visi-nam-ie.
    it-really I sick-TR-1.SG.PAT
    'It really sickened me.'

With the controlled predicate kan 'hit' in (43) the modal clitic must be
attached to the Agent argument fu 'he', whereas with the uncontrolled predicate
visi 'sicken' in (44) it must be
attached to the Patient argument na 'I'.

The cases discussed so far concern morphological means which reflect Aktionsart differences. But there are also derivational processed which have the effect of changing the Aktionsart of the predication in which the derived lexeme is used. Consider the following examples from Hungarian (de Groot
1989:138-139):

(45) (a) Mari szép.
Mary pretty
'Mary is pretty.'
(b) A kozmetikus
ART beauty.specialist
szép-ít-i Mari-t.
pretty-CAUS-3.SG.DEF Mary-ACC
'The beauty specialist makes
Mary pretty.'

The adjective szép 'pretty' in (45a) forms the center of a stative, non-controlled state of affairs. After applying the causative formation rule to this lexeme, the resulting verb szépít forms the center of a dynamic, controlled state of affairs.

5. Conclusion

In this article I have reviewed the basic concepts involved in the formation of state-of-affairs expressions, concentrating on the properties of predicates, of basic and derived lexemes occupying predicate slots, and of predications. More detailed treatments of these issues can be found in other
articles in this handbook, as has been indicated at the relevant places. Inflectional categories characteristic of verbs, such as Tense, Mood, and Aspect are dealt with in later articles (Art. 109-111).

6. Uncommon abbreviations

IRRAT irrational

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