126. 'When' Clauses

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1.   Defining the values

This chapter examines the form of the verb in 'when' clauses. Examples (1) – (3) provide instances of 'when' clauses in English (throughout the chapter, 'when' clauses will be enclosed in square brackets in the examples):

(1)   *[When I go there], there is hardly anybody around.*

(2)   *[When writing the next chapter], you should deal with these issues.*

(3)   *[When the Nazis came to power], several intellectuals left Germany.*

As was done for purpose clauses (chapter 125), 'when' clauses are defined in functional, rather than morphosyntactic, terms. A 'when' construction is regarded as one encoding a temporal relation between two events, such that there is a temporal overlap between the two. The exact extent of the overlap is unspecified and subject to variation. For instance, in (1) and (2) the linked events are simultaneous, while in (3) they may or may not be simultaneous – in fact, there might be an interval of some days, or even months, or years between them. The theoretical implications of this definition are discussed in Cristofaro (2003: ch. 2, 6), where a number of pragmatic criteria are provided to identify 'when' clauses under this definition.
    The proposed functional definition of 'when' clauses encompasses both traditional cases of 'when' clauses (e.g. non-finite 'when' clauses, as in (2), or finite clauses introduced by specific temporal conjunctions, as in (1) and (3)) and clauses

that might not count as such under traditional morphosyntactic criteria. One such case is provided by Tzutujil (Mayan; Guatemala):

(4)   Tzutujil (Dayley 1985: 367)
        Kongáana   q'ab'arik   nb'ajni   [k'o   q'ojoom]
        tremendous drinking   is-done   exist marimba
        'Tremendous drinking is done on there being a marimba (when there is a marimba).'

In this case, the linked clauses are simply juxtaposed, and the verbs in each of them show the same morphological form. The linkage between the two is not signaled by any grammatical marker, and has to be inferred on contextual grounds. However, the clause referring to the *marimba* expresses the same kind of conceptual situation associated with 'when' clauses in other languages (this is proved by the application of the pragmatic tests discussed in Cristofaro 2003: ch. 2). Therefore, under the proposed functional definition of 'when' clauses, it can be regarded as a 'when' clause.

        A similar case is found in Canela-Krahô (Macro-Ge; Brazil):

(5)   Canela-Krahô (Popjes and Popjes 1986: 139)
        [pê   wa   i-pỳm],   pê   inxê   ty
        PST   1   1-fall   PST mother   die
        'My mother died when I was born.'

In this case, too, there is no marker signaling the linkage between the two clauses, and the verbs show the same morphological form. However, the clause expressing the speaker's being born is regarded as a 'when' clause here, because that is the way Canela-Krahô expresses the conceptual situation associated with 'when' clauses in other languages.

        Verb forms in 'when' clauses may be either **balanced** or

deranked, and the corresponding 'when' clauses will henceforth be indicated as balanced 'when' clauses and deranked 'when' clauses. The notions of balancing and deranking were originally introduced by Stassen (1985), and are defined in greater detail in chapter 125. A balanced verb form is one that can occur in an independent declarative clause, e.g. an indicative verb form. Examples (1), (3), (4), and (5) above provide instances of balanced 'when' clauses.

A deranked verb form is one that cannot be used in independent declarative clauses. A deranked verb form may lack some or all of the categorial distinctions relevant to verbs in the language (such as tense, aspect, mood or person agreement distinctions), or display special markers not used in independent clauses, e.g. special tense, aspect, mood or person markers, nominalizers, case markers or adpositions.

In example (6) from Maricopa (Yuman; Arizona), the verb is not inflected for tense, aspect and mood, and bears the suffix *–haay* 'yet' as well as the locative case marker *ly* 'in':

(6)   Maricopa (Gordon 1986: 270)

      ['–ashvar–haay–ly]   *'–nchen–sh*   *iima–k*

      1-sing–yet–in   1-old.sib-SBJV   dance–REAL

      'When I sang, my brother started to dance.'

In the Maori (Polynesian; New Zealand) example in (7), the relevant verb form is specified for mood (subjunctive), but not for tense or aspect:

(7)   Maori (Bauer 1993: 62)

[Kia	*tae*	*mai*	*te*	*moni],*	*maa.ku*
SBJV	arrive	hither	the	money	INTGEN.1SG
e	*hoko*	*mai*	*he*	*koha*	*maa.u*
T/A	barter	hither	a	gift	INTGEN.2SG

      'When the money arrives, I will buy you a present.'

Example (8), from Abkhaz (Northwest Caucasian; Georgia), illustrates the use of so-called dependent moods. These are verb forms that cannot occur in independent declarative clauses, but that display all of the categorial distinctions relevant to verbs in the language. However, these distinctions are often realized by means of special forms, different from those used in independent declarative clauses. For instance, within the tense system of Abkhaz, each tense distinction can be realized by two different affixes (the so-called finite and non-finite affixes) depending on whether the relevant verb form is used in independent or in dependent clauses (Hewitt 1987: 10–11). Thus in (8) both the main and the 'when' clause are in the aorist, but the verb in the 'when' clause has zero marking, while the main verb has the affix *-yt'*.

(8)   Abkhaz (Hewitt 1987: 138)
        [d-anə̀-z-ba]   *a-š°q°'ə̀*
        her-when-I-see.NONFIN.AOR   the-book
        (ø)-lə̀-s-ta-yt'
        it-to.her-I-give-FIN.AOR
        'When I saw her, I gave her the book.'

Stassen (1985: 338–339) observes that forms such as the Abkhaz non-finite aorist might be regarded as balanced, because they display the same categorial distinctions as the forms used in independent declarative clauses. However, as was pointed out in chapter 125, these forms will be regarded as deranked here, because they cannot themselves occur in independent declarative clauses.

The balancing/deranking distinction overlaps with, but is not equivalent to, the distinction between finiteness and non-finiteness. For discussion of the relevant issues, see chapter 125.

As was observed in chapter 125, an apparent problem for the balancing/deranking distinction is represented by verb

forms bearing clitics or affixed conjunctions, such as the clitic *-enean* in the following Basque example:

(9)   Basque (Saltarelli et al. 1988: 43)
       *[Etxe-ra   irits-i   n-in-tz-**enean**],*
       house-ALL.SG   arrive-PERF   1.SG.ABS-PST-AUX-(PAST)-when
       kontura-tu   n-in-tz-en   gatza
       realize-PERF   1SG.ABS-PST-AUX-(PST)-COMP   salt (ABS.SG)
       eros-te-a   ahaz-tu
       buy-NMLZ-ABS.SG   forget-PERF
       z-i-tza-ida-la
       3.ABS-PST-AUX-1.DAT.SG-(PST)-COMP
       'When I arrived home, I realized that I had forgotten to buy salt.'

The complex "verb + clitic/affixed conjunction" could not occur in an independent declarative clause, and thus one might want to regard the relevant verb form as deranked. However, the verb as such often displays the same categorial distinctions as the forms used in independent declarative clauses (this is, for instance, the case in Basque); if so, the relevant verb form is regarded here as balanced.

For any given language, 'when' clauses can be coded by balanced verb forms only, by deranked verb forms only, or by either balanced or deranked verb forms. Map 126 shows the distribution of these three types in the world's languages.

@	1.	Balanced		84
@	2.	Balanced/ deranked		39
@	3.	Deranked		51
			total	174

2.   Geographical distribution

Languages with exclusively balanced 'when' clauses are overwhelmingly dominant in mainland Southeast Asia, Indonesia, and the Pacific islands. In fact, in mainland Southeast Asia no languages with deranked 'when' clauses are found (the same pattern was observed for purpose clauses, and this reflects the implicational hierarchy for the coding of subordination presented in Cristofaro (1998, 2003), see chapter 125). On the other hand, languages with exclusively balanced 'when' clauses are absent from western Europe, as well as from a large area extending from eastern Europe to Siberia in the east and India in the south. Languages with exclusively deranked 'when' clauses are absent from Europe, while languages with both deranked and balanced 'when' clauses are absent from North America.

In both North and South America, languages with exclusively deranked 'when' clauses are approximately as frequent as languages with exclusively balanced 'when' clauses. In Central America, on the other hand, languages with exclusively balanced 'when' clauses are dominant. Languages with both deranked and balanced 'when' clauses are marginal in both Central and South America.

Languages with exclusively balanced 'when' clauses are dominant in Africa, but languages with exclusively deranked 'when' clauses and languages with both deranked and balanced 'when' clauses are also frequent.

Most languages in Europe display both deranked and balanced 'when' clauses. On the other hand, languages with exclusively deranked 'when' clauses are dominant in central, southern and eastern Asia. This pattern is similar to that found in the same area for purpose clauses (see chapter 125), except for a pocket of languages with both deranked and balanced 'when' clauses in India.

In Australia, languages with exclusively balanced 'when' clauses are approximately as frequent as languages with exclusively deranked 'when' clauses, while languages with both deranked and balanced 'when' clauses are marginal.

3. Theoretical issues

Both balanced and deranked 'when' clauses are widespread across the world's languages. Balanced 'when' clauses seem to be more common than deranked 'when' clauses, but it should be pointed out that the frequency difference between the two is not very significant. Also, there is a high concentration of languages with balanced 'when' clauses in some geographical areas (mainland southeast Asia, Indonesia, and Oceania), which suggests that the frequency patterns for balanced clauses might be areally and or genetically biased.

In Cristofaro (1998, 2003) it is shown that there is a functionally motivated correlation between the semantic features of 'when' relations and some of the structural features of deranked verb forms. 'When' relations imply that the dependent event takes place at the same time as the main event (though see the observations at the beginning of §1). This means that there is no need to overtly express the time reference and the mood value of the dependent event in the 'when' clause, as these can be recovered from the context. Deranked verb forms often do not express tense and mood distinctions, so their use in 'when' clauses reflects an **economic motivation**, the tendency not to express what is entailed or recoverable from the context (Haiman 1983, 1985; the same motivation holds for the use of deranked verb forms in purpose clauses, see chapter 125). Also, 'when' relations have no implication as to whether or not the linked events have already taken place at the speech act moment. If the two events are unrealized at the speech act moment (as is the case in (1) and (2)), this may be indicated by means of special verb forms not used for realized events, as is the case in (7). These forms (conditionals, subjunctives and the like) count as deranked verb forms.

On the other hand, 'when' relations do not involve a number of semantic features that appear to be associated with

the distribution of deranked verb forms across subordination relations cross-linguistically, such as semantic integration and sharing of participants between main and dependent event. 'When' relations do not involve semantic integration between the linked events. This disfavors the occurrence of deranked verb forms, because deranked verb forms **iconically** reflect semantic integration (Givón 1980 and 1990: ch. 13; see also chapter 125). Also, 'when' relations do not involve sharing of participants between main and dependent event. As a result the identity of the participants of the dependent event cannot be recovered from the context. This disfavors the occurrence of verb forms not marked for person, as is often the case with deranked forms.

Thus, some functional principles motivate the occurrence of deranked 'when' clauses, while others motivate the occurrence of balanced 'when' clauses. This explains why both balanced and deranked 'when' clauses are widespread across the world's languages.