

**THE INS AND OUTS OF THE
PARTICIPLE-ADJECTIVE CONVERSION RULE**

Anna Kibort
Surrey Morphology Group, University of Surrey, UK

Proceedings of the LFG05 Conference
University of Bergen
Miriam Butt and Tracy Holloway King (Editors)
2005
CSLI Publications
<http://csli-publications.stanford.edu/>

Abstract

Bresnan (1978:8-9, 1982:29, 2001:31) proposes that English has a general morphological process of participle-adjective conversion which enables any verbal participle to be used as an adjective. The phenomenon captured by the Participle-Adjective Conversion Rule has been used as key evidence from English that passivisation is a lexical relation change, not a syntactic transformation, and as such, it can feed lexical processes of derivational morphology. The discussion offered in this paper supports fully the lexical character of both passivisation and participial formation. However, it argues for a small but important revision to the formulation of the Conversion Rule. Specifically, the morphological derivation of participles does not engage the syntactic level of argument structure. The input to the Conversion Rule is a verb, and the output is a deverbal form (a participle) which is category-neutral between a verb and an adjective (i.e. it is both a verb and an adjective at the same time). Passivisation is also a derivation, but it is morphosyntactic: it occurs at the level of argument structure of the predicate and it is an operation on grammatical functions. A patient-oriented (derived) participle is passive only if it is used as the main verb of the passive construction.

I Introduction

This paper proposes a reformulation of the standard Participle-Adjective Conversion Rule (Bresnan 1978; 2001). It argues that the morphological derivation of participles does not engage the syntactic level of argument structure, so the Conversion Rule should simply be formulated as deriving a participle (a deverbal form) from a verb. The participle (e.g. *broken*) is a lexical form that is category-neutral between an adjective and a verb – that is, the same lexical form can function as either an adjective (*The vase appeared broken*), or a verb (*The vase got broken by the burglars*), depending on the construction in which it is used.

When used as an adjective in predicative function with a copula *be* (*The vase was broken*), the participle is frequently indistinguishable from the main verb of the passive construction accompanied by an auxiliary. This is because the subject-complement construction and the passive construction in English overlap in their surface syntactic (phrasal) expression. Furthermore, an apparently ‘passive’ participle used as an adjective in attributive function does not have to be passive (*the broken vase* ~ *the vase that has broken*; cf. *the fallen leaf* ~ *the leaf that has fallen*). This is because the morphological derivation of the participial form is independent of passivisation which is a different, morphosyntactic derivation. However, the participle in *the broken vase* is indeed ambiguous between being active and passive because the periphrastic passive construction happens to use the same derived participial form as its main verb as the form that is used in the (non-passive) resultative construction.

The fact that the same participial form can be ambiguous between being an adjective and a verb, as well as between being active and passive, means that the frequently posited distinction between ‘verbal passives’ and ‘adjectival passives’ is not very helpful, as it collapses the two distinctions into just one. The distributional and morphological diagnostic tests that have been devised to distinguish between ‘verbal passives’ and ‘adjectival passives’ do indeed help to confirm the categorial status of the participial form in some clauses, but

they are nevertheless incapable of disambiguating all clauses, and incapable of identifying the passive. Therefore, instead of supporting the distinction within the category of the passive between verbal and adjectival passives, I suggest that two different processes conspire to produce the variety and ambiguity of the forms in question: (i) the derivation of the participle, captured by the revised rule which says that participles ($V_{A/V}$) are morphologically derived from the base verb (V); and (ii) the usage of the participle in two different types of construction.

A **resultative participle**, which is semantically oriented towards the affected participant, is both an adjective and a verb and can function as either: (a) the head of the predicative complement to the main predicator, with *be* as the main verb, head of the verbal phrase, alternating with other copular verbs such as *appear*, *look*, or *seem*; or (b) the main verb of the passive construction, with *be* as an auxiliary alternating with *become* or *get*. Thus, instead of the distinction within the category of the passive between verbal and adjectival passives, the distinction that should be drawn is that between **the resultative** (a semantically restricted construction), which results in clauses in which the morphologically derived resultative participle fulfills the function of the main verb's complement, and **the passive** (a syntactically restricted construction), which results in clauses in which the resultative participle fulfills the function of the main verb.

Starting from the Participle-Adjective Conversion Rule of standard LFG, in the sections below I discuss the distribution of the resultative participle in English, analyse the behaviour of resultative participles and hypothesise the lexical rule deriving them, contrast it with the formation of the passive, and finally formalise the revised rule of participial formation from the base verb.¹

2 The Participle-Adjective Conversion Rule in LFG

The Participle-Adjective Conversion Rule was first suggested by Bresnan (1978) and defined by Bresnan (1982), with the following formulation (Bresnan 1982:23):

- | | | |
|-----|----------------------------|--|
| (i) | Morphological change: | $V_{Part} \mapsto [V_{Part}]_A$ |
| | Operation on lexical form: | $P(\dots(\text{SUBJ})\dots) \mapsto \text{STATE-OF } P(\dots(\text{SUBJ})\dots)$ |
| | Condition: | $\text{SUBJ} = \text{theme of } P$ |

The rule has played the key role in the argument for the lexical character of passivisation. It has led to the general acceptance by lexicalist syntactic frameworks of the hypothesis that passivisation is a lexical relation change which can feed further lexical processes of derivational morphology, such as adjective formation, nominalisation, or compounding. It has served as the foundation for analyses of passive/past participles in English (Bresnan 1995, Ackerman & Goldberg 1996) and has been applied in analyses of deverbal adjective formation in other languages (Hungarian: Ackerman 1992, Komlósy 1994; Modern Greek: Markantonatou 1995, Kordoni 2002).

Apart from passive participles, the rule also applies to perfect and present participles. Thus, the following derivations are postulated for English:

- (2) a. *the food that is/was eaten* \Rightarrow *the eaten food*

¹The description and analysis presented in this paper is taken from my PhD thesis on passive and passive-like constructions in English and Polish (Kibort 2004), in particular Chapter 6.

- b. *a leaf that has fallen* ⇒ *a fallen leaf*
- c. *an argument that is/was not convincing* ⇒ *an unconvincing argument*

and the categorial status of all converted adjectives can be confirmed with the help of three distributional diagnostic contexts and one morphological diagnostic test, proposed by Bresnan (1982).

The hypothesised participle-adjective conversion rule naturally accounts for the fact that the participles in both uses – the verbal and the adjectival – have the same form. Levin & Rappaport additionally remark that '[Bresnan's] rule also captures the generalization, noted by Lieber (1980), that although the passive morpheme has a number of allomorphs, the verbal and adjectival passive participles of any given verb always involve the same allomorph: *the food was eaten, the eaten food; the ballad was sung, a badly sung ballad*' (1986:629). In other words, '(...) adjectival passives show the full range of passive participle morphology that we find with passive verbs' (Bresnan 2001:31).

Beside displaying the same allomorphs, the identity of form between English verbal and adjectival participles has also been observed in passives containing a verb and a preposition (examples from Bresnan 2001:31-32):

- (3) a. *After the tornado, the fields had a marched through look.*
- b. *Each unpaid for item will be returned.*
- c. *You can ignore any recently gone over accounts.*
- d. *His was not a well-looked on profession.*
- e. *They shared an unspoken, unheard of passion for chocolates.*

and in the fact that exceptions to the adjectival passive are also exceptions to the passivisation of a prepositional verb (examples adapted from Bresnan 2001:32):

- (4) a. **a looked-like twin*
- b. **The twin is looked like by his brother.*
- (5) a. **the left-for reason*
- b. **No reason was left for.*

All this has been taken as evidence supporting the hypothesised rule converting verbal participles (passive or other) into adjectives. Arguing against postulating a separate rule of adjectival passivisation in addition to verbal passivisation, Bresnan proposes that the input to passive adjectival formation rule is the passive lexical form of the verb, as in (1) above. If there were a separate morphological rule of 'adjectival passivisation' alongside of verbal passivisation – she argues – all the morphological parallels between verbal and adjectival passives would be an unexplained accident (Bresnan 2001:31).

I suggest, however, that in order to explain the coincidence of verbal and adjectival participial forms we do not have to posit the derivation of adjectives from verbal participles. A different proposal, decentering the passive – that the analytic passive verb is one of the uses of the morphologically derived resultative participle – preserves all the above observations regarding the morphological and syntactic behaviour of the participial form in its different environments, and similarly does not require a separate rule of adjectival passivisation in addition to the rule which passivises the verb.

3 The distribution of the resultative participle in English

3.1 Actional and statal passives

We have seen that the same participle can be found in verbal and adjectival passives in English. The distinction between verbal and adjectival passives seems to correspond to another which is sometimes drawn between the so-called ‘actional’ or ‘dynamic’ passives and ‘statal’ or ‘stative’ passives (e.g. Huddleston 1984:322, Quirk et al. 1985:168). Huddleston illustrates the two kinds of passive construction in English with the following examples (respectively):

- (6) a. *The vase was broken by Tim.*
b. *The vase was already broken.*

and argues that actional passives say that a certain event took place, while statal passives attribute to their subject the property of being in the state resulting from a certain event. Specifically, in sentence (a) above the actional passive says that the breaking of the vase took place, while in sentence (b) the statal passive attributes to the vase the property of ‘being in the state resulting from the event wherein it was broken in the actional sense’ (1984:323).

However, if we remove the agent phrase (to which Huddleston refers as ‘the complement’) from sentence (a) and the modifier from sentence (b), we are left with *The vase was broken*, which can belong to either category. The same ambiguity is found in *They were married*, which can mean ‘The marriage ceremony took place’ (actional) or ‘They were husband and wife’ (statal); in *The gate was closed*, which can mean ‘The closing of the gate took place’ (actional) or ‘The gate was in a closed state, i.e. the opposite of open’ (statal); and so on (all examples from Huddleston 1984:323).

The corollary of positing any such distinction within passive participles is that the verb *be* in adjectival or statal passives is considered a main verb, head of the verbal phrase, with the participle functioning as (head of) the predicative complement. Being a complement to the main predicator, the participle can occur with other copular verbs than *be*, as in *The vase appeared/looked/seemed broken* (analogous to *The vase was/appeared/looked/seemed very valuable*) (examples from Huddleston 1984:323). On the other hand, in verbal or actional passives the verb *be* is an auxiliary, and it may alternate with other acceptable passive auxiliaries such as *become* or *get*.

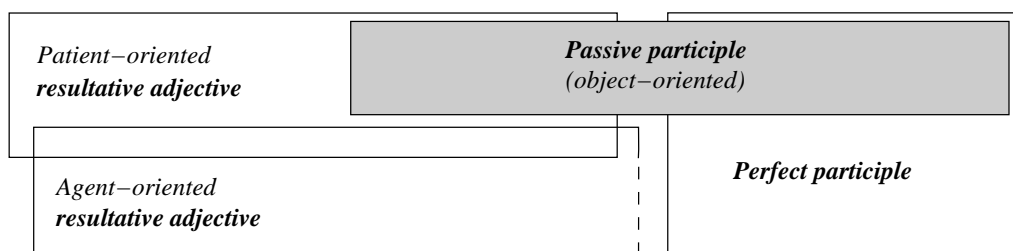
This paper argues that the proposed distinction within the passive construction between verbal/actional passives and adjectival/statal passives is, in fact, an unnecessary extension to the observation that the same participial form can be used by two constructions: the morphosyntactic passive construction and the subject-complement construction. The verb phrase in the passive should indeed be analysed as a ‘analytic verb’ comprising an auxiliary and a main verb (the participle). Subject-complement constructions, on the other hand, are made up of a copular verb and a predicative (adjectival, nominal or adverbial) complement of the subject.

However, it is not the morphological form of the verbs or the surface structure of the clause that determine whether the clause is a passive construction or a non-passive subject-complement construction. Because of the use of the participial form by both constructions, and because of the overlap of the phrasal expression between the passive and the subject-complement construction it is often impossible, as well as unnecessary, to attempt to identify the passive on the basis of the form of the verb or surface syntax. The same

participial form used by both constructions is best regarded not as a ‘passive participle’, but as a verb-derived ‘resultative participle’ which has categorial status neutral between an adjective and a verb. The notion of the ‘resultative’, which is central to this proposal, will be discussed in detail in Section 4. In the meantime, the following diagram illustrates the overlap in the use of the resultative participle as an adjective and as a verb in English:

(7) Resultative participle and the passive construction (Kibort 2004:169,412)

used attributively ----- *used predicatively* ----- *part of a verb compound*
 (with copula ‘be’) (with aux such as ‘be’/
 ‘become’, or ‘have’)



Thus, the distinction between actional/dynamic and statal/stative passives turns out to be primarily an issue of the distribution of a form (the participle). While the passive and the subject-complement construction may and do overlap in the semantic function of expressing stativity, there is no direct relation between passives and states.²

3.2 Subject-complement constructions

As argued in this paper, the similarity between the periphrastic passive and the predicative adjectival construction is not only apparent – some passive clauses indeed have the very same *phrase structure* as the predicative adjectival construction.³ Frajzyngier (1978:149) proposes that the logical structure of subject-complement constructions, which he calls ‘nominal sentences’, can be either $X=Y$ (as in: *Elizabeth II is the present Queen of England*) or $X \in Y$ (as in: *Salt is white*) (both examples originally from Suppes 1957:101). He argues that ‘be’-passives differ from other nominal sentences only in the fact that the predicate in ‘be’-passives (i.e. the participle following the copula/auxiliary) is morphologically derived from the lexical class of verbs, while in other nominal sentences it does not have to be so derived. On the other hand, ‘we might have languages, such as Semitic, in which not only verbal adjectives are derived from verbs but such nominal categories as agent, instrument,

²Frajzyngier (1978:153) argues that while subject-complement sentences are inherently stative, the passive construction can have (at least) two types of meaning: stative and non-stative. In some languages this distinction is marked morphologically, i.e. there are (at least) two different passive forms. In this case the stative passive and the subject-complement construction share the ‘stative’ interpretation, while the other passive form is designated to express the ‘non-stative’. If a language has only one passive form, this form will be ambiguous with respect to the stative/non-stative distinction and it is likely that another form may be brought in to disambiguate the construction. The present-day English ‘be’-passives are ambiguous in just this respect and Frajzyngier argues after Visser (1973:2089) that, in modern English, *get* is becoming the most important auxiliary to indicate the non-stative passive.

³For this reason, many analyses have treated the participles in all periphrastic passive clauses as adjectives. See Siewierska (1984:127,139-149) for useful summaries of these accounts.

name of action and place of action' (1978:150). Therefore, syntactically – he argues – there is no distinction between 'be'-passives and other nominal sentences.

Based on the analysis of a sample of over thirty languages chosen at random from several language families, Frajzyngier further points out that there are no languages that have 'be'-passives but do not have nominal sentences formed with a copula. Moreover, the passive form in a language will contain the equivalent of 'be' only if the nominal sentence contains 'be' (cf. the common phenomenon, as in Russian, of the absence of the copula both in the present tense of nominal sentences and in *-n/-t* resultatives, versus the presence of the copula in the past tense of nominal sentences, *-n/-t* resultatives, and participial passives).⁴

Finally, diachronic analysis shows that 'be'-passives are, generally, more recent forms than other passives or statives. 'In languages for which the *be*-passives are attested in the oldest available texts, one can claim that actually there is no distinction between *be*-passives and nominal sentences' (Frajzyngier 1978:154). The most natural explanation of the similarity between 'be'-passives and stative nominal sentences is, therefore, that the former developed from the latter, and this happened because nominal sentences with a copula presented a suitable structure for the realisation of the passive.

Haspelmath (1990:38) argues that the elements like 'be' and 'become' in Indo-European periphrastic passives were indeed initially main verbs and formed subject-complement constructions. As they entered into the passive construction which gradually grammaticalised, they became grammatical verbs (auxiliaries).⁵ When the passive as a morphosyntactic category grammaticalises, it may expand to include other auxiliaries than the copula 'be', thus becoming more distinct and independent from the predicative adjectival construction.

A morphosyntactic analysis of the passive operation allows one to specify that the difference between the passive and the predicative adjectival construction is lexical. The passive is produced as a result of a morphosyntactic operation on the argument structure of the predicate, while the resultative adjective results from the morphological derivation of an adjective from a verb. Thus, both processes are lexical derivations, but the formation of a resultative adjective does not require the application of the passive rule or constraint, nor does it require appealing to argument structure at all.

4 The resultative

4.1 Resultative participles: overview

All English participles referred to as 'past', 'perfect' and 'passive' result from the same morphological derivation. 'Past passive' (or, 'passive') participles formed from transitive verbs – as in *the solved problem* – and 'past active' (or, 'perfect'/'active unaccusative') participles formed from intransitive verbs – as in *the escaped prisoner* – are instances of the same

⁴This phenomenon also shows that the resultative participle itself does not seem to be sufficient to support the passive structure. The participial passive makes use of the semantics of the resultative participle, but it also needs a finite auxiliary, such as the copula of subject-complement clauses, to support its ability to refer to various time frames in the analogous way to the corresponding active. Therefore, it would be inaccurate to attribute the interpretation of the participial passive construction to the participle itself, rather than to the argument structure of the predicate expressed with the analytic verb form which includes an auxiliary.

⁵Furthermore auxiliaries may subsequently become affixed to the verb stem and lose their verbal status, thus turning into purely grammatical affixes, as can be demonstrated to have happened in the passive constructions of numerous (non-Indo-European) languages (Haspelmath 1990:38).

participial formation which is best understood with reference to the notion *resultative*. Nedjalkov & Jaxontov (1988:6), who undertook a crosslinguistic study of resultative constructions, define the term resultative as indicating ‘those verb forms that express a state implying a previous event’. Both the past passive deverbal participle and the perfect active deverbal participle are, thus, the same *resultative participle* which characterises its head ‘by expressing a state that results from a previous event’ Haspelmath (1994:159).

Haspelmath (1994:159-161) discusses some of the semantic restrictions on the formation of the resultative participle, which all boil down to the fact that ‘a thing cannot always be characterized by means of a state resulting from an event in which it participated’. One obvious restriction that can be posited makes use of the notion of *affectedness*: it is possible, and indeed useful, to characterise a participant by means of a resulting state only if the previous event affected or changed it somehow (cf. *the abused child, the wilted dandelion*). For this reason, resultative participles formed from transitive verbs are most commonly patient-oriented. Another restriction, also semantic in nature and deriving from the notion of affectedness, is that the verb may need to be telic to be able to form a resultative participle. This requirement is particularly relevant in the formation of those resultative participles which are agent-oriented.

In the sections below, I will first discuss the notions of ‘participle’ and ‘resultative’, and then discuss all the known restrictions on the formation of resultative participles. I will then show how the passive construction makes use of the available forms of the resultative participle and the subject-complement construction in which the resultative participle appears as an adjective in predicative function. By offering a systematic account of both the resultative and the passive, I aim to show that the participial form itself is a morphologically derived lexeme which is not passive unless it is used in a passive construction identified on the basis of morphosyntax. When referring to the isolated participial form, it is therefore more accurate to use the term ‘resultative participle’. Using the term ‘passive’ with reference to this form outside the passive construction may be supported by the fact that a large proportion of resultative participles are ‘semantically passive’. However, this functional classification is misleading and creates unnecessary problems for analysis. On the basis of the presence of the semantically passive participial form, many more constructions are classified as passive than are genuinely morphologically passive.

4.2 Adjectives and participles

It is a widely accepted fact that adjectives do not constitute a universal syntactic category. Languages which lack (or have few) distinct adjectives use verbs or nouns to express properties or qualities. Similarly, in languages regarded as having a distinct adjective class, the adjectives tend to share morphological and/or syntactic properties with nouns or with verbs.

In languages like English which have a distinct open class of adjectives, property concepts are traditionally considered to be encoded either as adjectives, adjectival nouns, or as adjectival verbs – even though none of these subcategories is, in fact, clearly identifiable or homogeneous. Adjectives tend to split up into ‘noun-like’ and ‘verb-like’, and the boundaries between adjectives on the one hand and adjectival nouns and adjectival verbs on the other appear to be extremely fuzzy. As for the adjectivals, whatever their word class status is considered to be, they are typically attached to the nominal or verbal system of the

language in question (Wetzer 1996:5-6). In languages like English the adjectivals which are derived from verbs and considered part of the verbal inflectional paradigm are traditionally referred to as participles.

The last characteristic, whose consequence is the retention of verbal valency at some level of representation other than just conceptual, is often considered necessary for a verb-derived adjective to be called a participle (Haspelmath 1994:152). It is this characteristic which distinguishes English verb-derived adjectives such as *understandable*, *reliable*, etc., which are not normally considered participles, from verb-derived adjectives such as *singing*, *smiling*, *sung*, *gathered*, etc., which are generally considered to be participles.

4.3 Verb-derived adjectives: orientation and tense

When participles are used in attributive function, they modify the head noun with which they are combined in the same way as adjectives do. I assume, after Haspelmath (1994:153, and footnote 5), that in a modifying relation, the *modifier* is relational and has a slot for its head which coincides with its referent. (In a governing relation, on the other hand, the *head* is relational, has slots for its arguments, and has a separate referent.) Furthermore, whenever the meaning of an attributive word is a concept involving more than one semantic participant, it is possible for the word to express a specific orientation towards one of the participants.

Taking Haspelmath's example of the English adjectives *dreadful* and *apprehensive*, we understand that they both involve fear which, in turn, involves the experiencer of the fear and the cause of the fear (the stimulus). Using the notion of orientation (which Haspelmath attributes to Lehmann 1984:152) we can say that *dreadful* is oriented towards its stimulus participant (i.e. the noun modified by *dreadful* is understood to be a stimulus), while *apprehensive* is oriented towards its experiencer (i.e. the noun modified by *apprehensive* is understood to be an experiencer).

Participles have a similar ability to display orientation and, moreover, any one verb can in principle produce a number of participles oriented towards any of the verb's participants. According to Nedjalkov & Jaxontov (1988:8-11) who do not use the notion of orientation but, in a similar spirit to Haspelmath's argumentation, propose a taxonomy of resultative constructions according to 'diathesis type', there are languages in which resultative participles may even be oriented towards non-core participants such as locations and beneficiaries (Nedjalkov & Jaxontov refer to them by their oblique-argument names of 'locatives' and 'datives'). However, the most frequently attested participles crosslinguistically are agent-oriented (also referred to as 'active' or 'subjective') and patient-oriented (also referred to as 'passive' or 'objective').⁶

Another widely acknowledged feature of participles, apart from their orientation, is that they can display some tense characteristics, in a similar way to finite verbs. This means that in addition to coding the particular property of the referent in terms of (or, with reference to) the event denoted by the verb, the participle can also specify the time at which the property of the referent applies relative to the time of the event. This has often been taken to mean that participles indicate tense (the location of the event in time) and has led to the

⁶Haspelmath (1994:154) further points out that, in cases such as the ones discussed in this paper – i.e. when the participial marker specifies the orientation – the participle is oriented *inherently*. However, it is also possible for participles to be inherently *unoriented* and oriented only *contextually*, as in, for example, Lezgian.

widely used labels ‘past’ and ‘present’ with reference to participles.

However, despite being traditionally called ‘past’ or ‘present’, some participles may not indicate tense at all, and instead they may, in fact, be able to refer to various time frames. An example of the participle whose time-reference is relative is the so-called ‘present’ participle in modern English (e.g. *singing*). It should be referred to as ‘contemporaneous’, since this term captures better the fact that the participle is non-finite, can be used within any time frame and interpreted accordingly.

4.4 The orientation of resultative participles

In this and the next two sections I will present an overview of what is known about the restrictions on the formation of resultative participles, based mostly on studies of English. The first restriction discussed is that of the affected participant.

In general, in transitive verbs the action usually affects the patient or theme, not the agent, and, for this reason, most transitive verbs tend not to make agent-oriented resultative participles. That is, **the sung performer* is implausible, and therefore unacceptable, even if the verb happens to be used intransitively (compare: *the sung ballad*), and the only available interpretation of *the abused teacher* is that the participle characterises the patient of the activity denoted by the verb.

However, it is inaccurate to say that resultative participles can only characterise patients. The particular semantic role fulfilled by the participant does not seem to be relevant to the formation of the resultative participle characterising that participant. Instead, what is relevant is whether the action has affected the participant – whether patient, theme, or agent – in a way that can be used to characterise it.

For example, sometimes a transitive action may be such that it affects the agent. If this is the case, it is possible to characterise the agent by means of the state resulting from the action, and resultative participles with ‘active’ orientation can be formed. Haspelmath (1994:160) cites examples of transitive agent-oriented participles from Hindi-Urdu. Polish is another language in which resultative participles of many semantically transitive verbs can be agent-oriented. These participles can be formed from telicised (as well as morphologically perfective) forms of verbs such as: *jeść* ‘eat’, *pić* ‘drink’ (and semantic derivatives of these two, e.g. *zreć* ‘devour/pig out’, *chlać* ‘tope/guzzle’), *ubrać* ‘put on’ and *zziębić* ‘cause to be cold’.

Verbs of this type encode actions which, despite involving two participants one of whom is a theme or patient, affect the agent saliently – that is, the action affects *both* the agent and the theme/patient. Therefore, as Haspelmath argues, it is not surprising that in some of these verbs the resultative participle can be *either* agent- or patient-oriented. The following examples are an illustration of this phenomenon in Polish⁷ (N.B. also the English translation of (8d)):

- (8) a. *wypita herbata* ‘(the) tea that has been drunk up’
b. *spity nektar* ‘(the) drunk nectar’
c. *ale jestem napity* ‘how full of drink I am (coll.)’

⁷Also, many derived reflexive verbs in Polish which ‘internalise’ the agent/experiencer in a transitive action can make agent-oriented resultative participles. This phenomenon is discussed in more detail in Kibort (2004), Chapter 3, Section 3.2.5.2.

Thus, all this evidence suggests that the orientation of resultative participles is ultimately determined by the semantics of the whole predicate rather than by any syntactic differences between the arguments of the verb, or even by the thematic classification of participant roles.

4.5 Semantic restrictions on resultative participles

It is clear that the formation of resultative participles is not restricted to involuntary events. Whether the change of state is involuntary or volitional, it is generally possible to form resultative participles characterising the participants which have undergone the change of state. However, a further restriction on the event has been noted: the verb expressing it has to be telic (in the sense of Vendler 1957, Dowty 1979).

Since the function of the resultative participle is to characterise an entity by means of a resulting *state*, atelic events which are not construed as resulting in any state cannot provide the semantic basis required for the formation of the resultative participle.

Haspelmath (1994:159) gives the following example. The English verbs *bloom* and *sleep*, which have single non-agentive participants, do not make resultative participles (**the bloomed dandelion*, **the slept dog*) because they are atelic. However, in languages in which atelic verbs can be telicised by a locative particle, resultative participles can, nevertheless, be formed from the derived telic variants of the verbs.

This is the case, for example, with German and Polish, in which both *bloom* and *sleep* can be telicised as in the following examples (the German ones are cited directly from Haspelmath; also compare with Polish (8)-(10)):

- (13) a. **der geblühte Löwenzahn* ‘the bloomed dandelion’
 b. *der aufgeblühte Löwenzahn* ‘the bloomed (‘blown’) dandelion’
- (14) a. **der geschlafene Hund* ‘the slept dog’
 b. *der eingeschlafene Hund* ‘the dog that has fallen asleep’
- (15) a. **kwitnięty mlec*z or **kwitły mlec*z ‘a/the bloomed dandelion’
 b. *rozkwitnięty mlec*z or *rozkwitły mlec*z ‘a/the bloomed (‘opened up’) dandelion’
- (16) a. **spany pies* or **spały pies* ‘a/the slept dog’
 b. *rozspany pies* or *ospały pies* ‘a/the dog that has been affected by too much sleep; a/the sleepy dog’

Furthermore, in a similar way to the German and Polish examples above, where verbs have been telicised by prefixation, English too can form agent- and patient-oriented resultative participles from some atelic verbs if they are accompanied by an appropriate telicising preposition or adverbial. Just as in the German and Polish examples, the English telicising elements too change slightly the meaning of the base verb:

- (17) (examples (a) and (b) adapted from Bresnan (2001:31))
 a. *After the tornado, the fields had a marched-through look.*
 b. *You can ignore any recently gone-over accounts.*
 c. *What’s the difference between a run-over snake and a run-over attorney?*⁸

⁸There are skid marks in front of the snake.

The area of overlap between the two types of adjectives, i.e. between the patient-oriented ones and the agent-oriented ones, indicates those cases in which both types of participles can be formed from the same base verb (as discussed in the sections above). ‘Patient’ is understood here as either patient or theme, and ‘agent’ as either agent or experiencer of the situation denoted by the verb. All resultative adjectives are produced by the same morphological derivation. It is a lexical derivational process which is sensitive to the semantics of the predicate. All resultative adjectives are oriented towards the affected participant which is typically a patient, a theme, an experiencer, and occasionally an agent.

5 The passive

5.1 The passive construction: overview

Passivisation is a morphosyntactic derivation: it occurs at the level of argument structure of the predicate and it is an operation on grammatical functions. It downgrades the first argument of an unergative predicate to the status of an oblique, thus enabling the ‘promotion’ of the second argument, if there is one, to subject. It creates a new lexeme whose argument structure is different from the basic one: it is syntactically detransitivised. The alternative mapping of grammatical functions onto the arguments of the predicate provides a means to take a different perspective on truth-functionally equivalent situations (Ackerman & Moore 2001:3) and serves a useful discourse function by enabling a choice of different syntactic pivot.

Passive morphology is ‘an accidental fact’ about individual languages (Dryer 1982), because a passive predicate is recognisable by the syntactic status of its arguments (as compared with the active), not by its communicative function or by its form. In fact, the passive construction in many languages overlaps both in its communicative function and in its form with other, non-passive, constructions in the same language.¹⁰

It is to be expected that the passive can use different types of morphology both crosslinguistically and intralinguistically (see e.g. Haspelmath 1990). By far the most common strategy of forming the passive seems to be adding a passive affix to the stem of the verb, inside aspect, tense, and person markers (Dryer 1982:55, Haspelmath 1990:29). This suggests that the change in the interpretation of the predicate due to passivisation is more relevant to the meaning of the verb itself, or more internal to the predicates’ structure, than the modification brought about by a change of aspect or tense. This is consistent with our treatment of the passive as valency-changing, hence derivational, as opposed to tense which is inflectional.

Despite verb affixation being the most common way of forming passives, English does not use this method to derive its passives. Instead, it is typical of the Indo-European family of languages in using an auxiliary verb (a form of *be*, *become*, or *get*) combined with a form of the verb referred to as ‘passive participle’, as in *The window was broken by the boys from next door*. Although the participial verb form used in passive sentences is indeed passive in meaning (or, orientation), I argued in Section 4 that it did not derive this meaning

¹⁰It is widely known that the grammatical morphemes that mark the passive can have other – different but somehow related – uses, such as reflexive, reciprocal, resultative, anticausative, potential passive, fientive, reflexive-causative, deobjective, and desubjective (‘impersonal’) (see e.g. Shibatani 1985, Haspelmath 1990). In English, passive (participial) morphology is shared with the resultative.

from being part of the passive construction. Instead, it is a patient-oriented *resultative participle*. It can function as an adjective (and be used either attributively or predicatively with the copula 'be') and it can also be used in the passive construction as a main verb (with an accompanying auxiliary verb). In other words, resultative participles derived from unergative verbs can have an additional predicative function: they can be used as main verbs in the analytic verb form of the passive construction.

Due to this dual predicative function, the deverbal resultative elements occurring in the passive have been analysed as either adjectives (for example, by most movement-dependent syntactic accounts of the periphrastic passive) or as main verbs of analytic predicates (in traditional descriptions of English, e.g. Curme 1935:217ff; also, more recently, in Ackerman & Webelhuth 1998).¹¹

The present analysis follows the latter tradition in treating the analytic passive verb as a 'verb complex' comprising an auxiliary and a syntactically detransitivised main verb (the participle). In LFG, this can be understood as periphrastic exponence of the associated f-structure, with the auxiliary required because the participle is non-finite (Bresnan 2001:78).

5.2 The question of the 'passive' participle

The fact that the Indo-European periphrastic passive uses the resultative participle has made it problematic to identify the passive construction (see, for example, Quirk et al.'s 1985:167ff widely accepted, standard description of the 'passive gradient'). This, in turn, has caused innumerable problems in attempts to define the passive and to account for it formally. Unless we accept that one form may be shared by two morphologically different constructions, distinguishing the passive participle from the resultative participle becomes a very difficult or even an impossible task, as the two participles are indistinguishable in some contexts (or, as I argue, because there is only one participial form, used by both constructions).

We can devise tests to establish the categorial status of the participial forms occurring in the constructions in question (this was mentioned above in Section 2). It has, however, often been assumed that all the clauses or phrases tested in this way are already passive, and so the tests have been assumed to distinguish 'verbal *passives*' from 'adjectival *passives*'. Levin (1993:86-87), who provides a comprehensive list of publications which have discussed this distinction, points out, however, that '[t]here is some debate about whether a notion of "adjectival passive" that is distinct from "verbal passive" should be recognized'.

The widely held assumption about the 'passiveness' of all (or most) patient-oriented resultative participles stems from a particular understanding of the process of the morphological derivation of the deverbal adjective. In the previous sections I argued that from a large class of resultative adjectives, some (the ones which can be formed from unergative verbs and used as object-oriented) are also used by the passive construction. In some accounts (e.g. Bresnan 1978 and later publications; Grimshaw 1990, Huddleston 1984) a different hypothesis is offered. It is argued that the participial verb form which appears

¹¹According to Blevins (2001:356), '[t]he distributional criteria applied by post-Bloomfieldians such as Wells 1947 likewise define an extended notion of "verb" that encompasses auxiliary-verb and verb-particle combinations. This analysis survives in fact into the earliest transformational studies. Chomsky 1957 expands the category *Verb* as *Aux* + *V*, and then describes an analysis of *V* into *V_I* + *Prt* as "the most natural way of analyzing these [verb-particle] constructions" (page 39). It is only with the subsequent decision to exclude discontinuous constituents *tout court* that the status of such complex predicates became in any way problematic for generative accounts'.

in periphrastic passives may also function as a deverbal adjective. Huddleston, for example, states that in English 'in addition to the morphological process converting *-en* forms into central adjectives like *worried*, *surprised*, we have one converting *-en* forms into more marginal adjectives like *broken*' (1984:323). It may be argued that the latter hypothesis is organised passive-centrally, and that the two hypotheses are inverse of each other with respect to the passive.

As a result, in passive-centric accounts, sentences such as *The broken window was dangerous* are regarded as structurally passive by analogy with their assumed counterparts such as *The window was broken by the boys from next door*. The latter type of sentence is commonly referred to as a 'verbal passive' and taken to contain a 'verbal passive participle', while the former type of sentence is referred to as an 'adjectival passive' and taken to contain an 'adjectival passive participle'. As I showed in the previous sections, the participial forms used in both sentences are indeed morphologically identical.

Since passivisation is considered to be a lexical relation change altering the argument structure of the predicate, it should follow that adjectives derived from a passivised predicate should inherit the same altered argument structure. However, I suggest that it is, in fact, both impossible and unnecessary to determine whether the deverbal adjective is passive or not. Patients, themes or experiencers (i.e. affected participants) which provide the orientation for resultative participles do not have to be syntactically pre-specified as [-r] arguments ('underlying *objects*'), which would be the case if they were arguments of a passivised predicate. I also demonstrated above that some verbs (e.g. verbs of ingestion or wearing, in some languages) can form *both* theme-oriented and agent-oriented resultative participles using the same morphological means. The result, in both cases, is the same participle and it is unnecessary to posit that one has a passive argument structure while the other does not.

Looking now at all participles from the point of view of argument structure, the hypothesised rule which converts verbal participles into participial adjectives is assumed to operate in parallel either on passive (lexical) forms of verbs to produce 'passive' adjectival participles, or on non-passive forms of verbs to produce 'perfect' or 'present' adjectival participles. Since passivisation is assumed to be an argument-structure changing operation on the predicate, 'passive' adjectival participles derived from passive verbal stems are expected to have a passive argument structure, while the argument structures of 'perfect/past' participles are assumed to be non-passive.

Since the English 'passive' participle is identical in form with the 'perfect' participle, to distinguish between them we need to stipulate which one is (underlying) object- and which subject-oriented – that is, whether any particular morpholexical operation has been applied to the predicate prior to converting it into an adjective. This is done on the basis of the orientation that the participle displays towards a *semantic* participant.

The *eaten food* is assumed to be passive and understood as 'the food that is/was eaten' because eating food implies an agent performing the eating. Similarly, a *fallen leaf* is assumed to be non-passive ('perfect') because, on this understanding of *fall*, the phrase could not have been derived from a two-argument lexical structure corresponding to **someonesomething fell the leaf*, but instead it derives from the single-argument structure corresponding to *a leaf fell/has fallen*. However, verbs denoting actions which can be perceived as either agent-caused or spontaneous form participles which may be analysed as, simultaneously, either passive or non-passive. This can be illustrated with the following participles,

functioning as verbs or adjectives, and their potential source constructions ('counterparts'):

- | | | | |
|------|--|------|--|
| (22) | a. <i>the window was broken</i> | (23) | a. <i>the door was closed</i> |
| | b. <i>the broken window</i> | | b. <i>the closed door</i> |
| | c. <i>~ the window that was broken by
the boys</i> | | c. <i>~ the door that was closed by me</i> |
| | d. or <i>~ the window that has broken</i> | | d. or <i>~ the door that has closed</i> |

In neither of the (b) phrases is it possible to determine whether the 'verbal' or 'adjectival' participle (or a construction of which it is part) is passive or non-passive. It is, therefore, not possible to determine which one of the hypothesised argument structures should be assigned to it.

I suggest that the formation of the so-called 'adjectival passive' is analogous to the formation of any other construction with a resultative participle in attributive or predicative function, and it does not require the application of the passive rule. There is no need to assume that adjectival passives have to be derived from a passivised verb phrase and there is no need to resort to the syntactic tier of argument structure in order to determine the orientation of the resultative participle. The resultative participle is neutral between being an adjective and a verb and can be used in both functions, including the function of the main verb of the passive construction.

Bresnan (2001:34) observes that deverbal adjectives in general denote a state derived from the semantics of the base verb. This seems to be true for all participles, whether resultative with patient or agent orientation, or contemporaneous (such as *a smiling woman*). As I argued in Section 4, all restrictions on the formation of resultative participles are semantic and pragmatic in nature, not syntactic.

To sum up, the classification of participles into passive and non-passive is misleading. If, as argued here, passivisation is a morpholexical operation on argument structure, a verb form can be called 'passive' only if its argument structure has been altered by this operation. Resultative participles (of all orientations) result from the process of morphological derivation in the lexicon and, like the verbs they are related to, they may have both argument structure and/or event structure, but their argument structure does not need to be altered when they are used as adjectives. All restrictions on the formation of resultative participles can be accounted for with recourse to semantics and pragmatics, while the primary constraint on the formation of the passive is syntactic (the predicates that passivise are syntactically unergative; Perlmutter 1978). The passive construction uses the resultative participle as the main verb of its analytic predicate and provides the only context in which a 'passive participle' can be identified as such.

5.3 The overlap of the passive and the resultative construction

Although passivisation is derivational, it is a morphosyntactic rule (or constraint) rather than a morphological derivational rule. It is both driven and determined solely by syntax. The passive operation targets the underlying subject of the predicate which is identified on the basis of its syntactic properties. If the argument structure of the predicate contains an underlying object argument, it becomes the syntactic subject of the passive clause and the situation denoted by the verb is predicated of it.

This last point captures the syntactic overlap between the passive and the resultative. In the active, the most typical affected participant, a patient or theme, is coded as an object. However, the predicative use of the resultative participle allows any type of affected participant (including the one which is an object in the active) to be coded as subject. In this way, the syntactic structure of the resultative in the form of an adjectival complement to the affected patient as subject (i.e. the predicative use of the resultative adjective) turns out to be a convenient vehicle to express the passive.

Apart from this area of the overlap, the two constructions diverge into areas exclusive to each of them. Resultative participles as adjectives can modify all sorts of subjects, including affected experiencers and affected agents, most of whom would be excluded from appearing as subjects in the passive construction either because of the unaccusativity of the predicate or because the argument bearing the agent role would be suppressed in the passive. In general, the passive can be formed of a subset of the verbs which allow the resultative. However, while the resultative participle as adjective has to modify a nominal head, the passive can be formed of intransitive predicates and, thus, the passive construction does not have to have a subject (i.e. there exist impersonal passives of intransitives, as in German or Polish). Additionally, *be* is the only verb which can accompany the participle in both constructions.

The diagram in (7) illustrated the overlap in the use of the resultative adjective and the passive participle in English and additionally showed the area of overlap between the passive and the analytic perfect tense construction, which are both driven by syntax and make use of the same derived verbal form as the semantically-driven resultative.

6 The revised rule of participial formation

Thus, we could formulate the following rule of participial formation from the base verb:

- (24) Morphological change: $V \mapsto [V_{Part}]_{A/V}$
 Operation on lexical form: (non-oriented) $P \mapsto$ semantically oriented P

Formulated as above, the rule holds for all categories of participles ('passive', 'perfect', 'present', etc.), with different *semantic* conditions on their derivation leading to their different semantic interpretations. For the resultative participle (with its particular morphology), the condition is that the derived lexical form P has to be semantically oriented towards the affected participant. For the 'present' (contemporaneous) participle (with its different morphology), the derived lexical form has to be semantically oriented towards the first participant, etc. Most importantly, the semantic orientation does not involve the syntactic notions of subject or object. Furthermore, all participles can in principle perform the function of either an adjective or a verb (A/V).

Thus, the morphological derivation of the resultative participle does not engage the syntactic level of argument structure at which the passive rule operates. The resultative derivation rule produces resultative participles which can be used attributively or predicatively, some of which are also suitable to be used by the passive construction. A patient-oriented resultative participle does not have to have been 'passivised' in order to be used as an adjective, just as the morphologically identical resultative participles with an orientation towards the first participant (agent or experiencer) are, naturally, not regarded as 'passivised'. Morphosyntactic passivisation is not required to have occurred either in the

predicative adjectival construction (with 'be') such as the one labelled 'verbal passive', or in the attributive adjectival construction such as the one labelled 'adjectival passive'.

Because of its direction, LFG's lexical rule of (verbal) participle-adjective conversion, cited at the beginning of this paper in (1), assumes that passivisation (if needed) occurs *before* the derived verb form can be used as an adjective in attributive constructions with 'passive' and 'perfect' deverbal adjectives. However, as I have shown, the construction with a resultative adjective, either in its attributive or predicative use, cannot always be unambiguously assigned a passive or non-passive argument structure, nor does it need to be always unambiguously classified as passive or non-passive. The participial formation rule in (24) does not come in the way of analysing passivisation in lexical terms as a constraint on argument structure, and predicts correctly the observations regarding the morphology and distribution of the resultative participle in its various functions.

References

- Ackerman, F. (1992). Complex predicates and morpholexical relatedness: locative alternation in Hungarian. In Sag, I. & Szabolsci, A. (eds.), *Lexical Matters*. Stanford, CA: CSLI Publications. 55–83.
- Ackerman, F. & Goldberg, A. E. (1996). Constraints on adjectival past participles. In Goldberg, A. E. (ed.), *Conceptual Structure, Discourse, and Language*. Stanford, CA: CSLI Publications. 17–30.
- Ackerman, F. & Moore, J. (2001). *A Theory of Argument Structure*. Stanford, CA: CSLI Publications.
- Ackerman, F. & Webelhuth, G. (1998). *A Theory of Predicates*. Stanford, CA: CSLI Publications.
- Blevins, J. P. (2001). Realisation-based lexicalism. *Journal of Linguistics* 37. 356–365.
- Bresnan, J. (1978). A realistic transformational grammar. In Halle, M., Bresnan, J. & Miller, G. A. (eds.), *Linguistic Theory and Psychological Reality*. Cambridge, MA: The MIT Press. 1–59.
- Bresnan, J. (1982). The passive in lexical theory. In Bresnan, J. (ed.), *The Mental Representation of Grammatical Relations*. Cambridge, MA: The MIT Press. 3–86.
- Bresnan, J. (1995). Lexicality and argument structure. Paper presented at Paris Syntax and Semantics Conference, 12 October 1995. Available online. 1–28.
- Bresnan, J. (2001). *Lexical-Functional Syntax*. Oxford: Blackwell.
- Brugmann, K. (1895). Die mit dem Suffix *-to-* gebildeten Partizipia im Verbalsystem des Lateinischen und des Umbrisch-Oskischen. *Indogermanische Forschungen* 5. 89–152.
- Chomsky, N. (1957). *Syntactic Structures*. The Hague: Mouton.
- Curme, G. O. (1935). *A Grammar of the English Language, Volume 1: Parts of Speech*. Boston, MA: Heath.
- Dowty, D. R. (1979). *Word Meaning and Montague Grammar*. Dordrecht: Riedel.
- Dryer, M. (1982). In defense of a universal passive. *Linguistic Analysis* 10(1). 53–60.
- Frajzyngier, Z. (1978). An analysis of be-passives. *Lingua* 46(2). 133–156.
- Grimshaw, J. (1990). *Argument Structure*. Cambridge, MA: The MIT Press.
- Haspelmath, M. (1990). The grammaticization of passive morphology. *Studies in Language* 14(1). 25–72.

- Haspelmath, M. (1994). Passive participles across languages. In Fox, B. & Hopper, P. (eds.), *Voice: Form and Function*. Amsterdam: John Benjamins. 151–177.
- Huddleston, R. (1984). *Introduction to the Grammar of English*. Cambridge: CUP.
- Kibort, A. (2004). *Passive and Passive-like Constructions in English and Polish*. Ph.D. thesis, University of Cambridge, Cambridge. Available online.
- Komlósy, A. (1994). Complements and adjuncts. In Kiefer, F. & Kiss, K. (eds.), *Syntax and Semantics 27: The Syntactic Structure of Hungarian*. San Diego, CA: Academic Press. 91–178.
- Kordoni, V. (2002). Participle-adjective formation in Modern Greek. In Butt, M. & King, T. (eds.), *Proceedings of the LFG02 Conference, National Technical University of Athens, Athens*. Stanford, CA: CSLI Publications. 220–238. Available online.
- Lehmann, C. (1984). *Der Relativsatz*. Tübingen: Gunter Narr.
- Levin, B. (1993). *English Verb Classes and Alternations*. Chicago, IL: University of Chicago Press. Part 1 also published as *English Verbal Diathesis*, *Lexicon Project Working Papers* 32, 1989.
- Levin, B. & Rappaport, M. (1986). The formation of adjectival passives. *Linguistic Inquiry* 17(4). 623–661.
- Lieber, R. (1980). *On the Organisation of the Lexicon*. Ph.D. thesis, MIT, Cambridge, MA. Distributed by Indiana University Linguistics Club, Bloomington.
- Markantonatou, S. (1995). Modern Greek deverbal nominals: an LMT approach. *Journal of Linguistics* 31. 267–299.
- Nedjalkov, V. P. & Jaxontov, S. J. (1988). The typology of resultative constructions. In Nedjalkov, V. P. (ed.), *Typology of Resultative Constructions*. Amsterdam: John Benjamins. 4–62.
- Perlmutter, D. M. (1978). Impersonal passives and the Unaccusative Hypothesis. *Berkeley Linguistics Society* 4. 157–189.
- Quirk, R., Greenbaum, S., Leech, G. & Svartvik, J. (1985). *A Comprehensive Grammar of the English Language*. London: Longman.
- Shibatani, M. (1985). Passives and related constructions: a prototype analysis. *Language* 61(4). 821–848.
- Siewierska, A. (1984). *The Passive. A Comparative Linguistic Analysis*. London: Croom Helm.
- Suppes, P. (1957). *Introduction to Logic*. New York: Van Nostrand.
- Vendler, Z. (1957). Verbs and times. *Philosophical Review* 56. 143–160.
- Visser, F. T. (1973). *An Historical Syntax of the English Language, Part Three, Second Half*. Leiden: Brill.
- Wackernagel, J. (1920). *Vorlesungen über Syntax. Band 1*. Basel: Emil Birkhäuser & Cie.
- Wells, R. (1947). Immediate constituents. *Language* 23. 81–117.
- Wetzer, H. (1996). *The Typology of Adjectival Predication*. Berlin: Mouton de Gruyter.