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**RESULTATIVE SECONDARY PREDICATION
IN EUROPEAN LANGUAGES**

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BENITA RIAUBIENĖ

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1. Introduction

The object of the dissertation

The object of the dissertation is constructions denoting resultative secondary predication (RSP), or resultatives¹. Resultative secondary predicate expresses the state achieved by a participant as a result of the action denoted by a verb, e.g. (1) denotes that the table became clean as a result of wiping.

(1) *John wiped the table **clean**.*

The notion of RSP is often applied to constructions denoting a change of location (cf. Aarts 1995, 80; Broccias 2007, 104; Tortora 1998, 343; Rappaport Hovav and Levin 2001, 766, etc.), e.g. (2) indicates that the singer changed his location from ‘on the stage’ to ‘off the stage’ as a result of being laughed at.

(2) *The audience laughed the singer **off the stage**.*

Constructions including verbal particles which denote or emphasise the result of an action, e.g. (3), are sometimes also treated in line with (1) and (2) (Simpson 1983; Wunderlich 1997). Object (or subject) complements can also bear a resultative meaning, e.g. (4).

(3) *The boxer knocked John **out**.* (Simpson 1983, 143)

(4) *John made her **happy**.*

Resultatives are also related to depictives and adverbials in the sense that they all express secondary predication and are optional elements in a clause. Depictives denote the state of a participant at the time of the action denoted by a verb and are therefore participant-oriented in the same way as resultatives, e.g. (5). Adverbials typically denote properties of actions and are therefore usually treated as event-oriented, e.g. (6).

(5) *He ate the fish **raw**.*

(6) *He ate the fish **quickly**.*

¹ The terms *resultative* and *resultative construction* are sometimes used to refer to primary predicate constructions such as *The floor is washed* (Nedjalkov 1988) which constitute a different topic than the one discussed in the dissertation. Here these terms are understood exclusively in the sense of secondary predication.

While the sentences (1)–(6) definitely share some semantic and/or syntactic features, their differences are also obvious. The depictives and adverbials in (5) and (6) do not contain a result component, while the examples in (3) and (4) presumably do not constitute secondary predication: (3) seems to represent a complex predication (since the verbal particle does not have a descriptive content) and in (4) the adjective functions as a complement (it cannot be omitted). The examples presented in (1) and (2) differ in respect of the predicated property: (1) expresses a change of state, while (2) denotes a change of location.

This dissertation focuses on the resultative secondary predication expressing state in the strict sense, i.e. examples of the type represented in (1).

The aim and tasks of the dissertation

The aim of the dissertation is to establish formal encoding means for RSP in European languages and to reveal the semantic features which determine the different encoding of resultatives in a language and across languages.

The tasks of the dissertation are as follows:

1. to describe the basic semantic features and the semantic structure of the resultative construction,
2. to characterise the semantic domain of secondary resultative predication, both its core area and its periphery,
3. to analyse the formal means for the encoding of resultative secondary predication in the languages in the sample,
4. to establish the types of resultatives according to their semantic and morphosyntactic features,
5. to show the semantic relationship between the types of resultatives in terms of a semantic map.

The method underlying the dissertation

The dissertation follows the typological method. This method requires the defining of the semantic domain of inquiry and the establishing of the formal

encoding means which correspond to the domain cross-linguistically. The formal structures which belong to the relevant semantic domain are analysed further in order to establish the finer-grained semantic features which determine the different formal encoding of the phenomenon in a language and across languages.

The semantic relationship between the types of resultatives, on the one hand, and the correlation between semantic fine-grained features and formal encoding means, on the other hand, are represented in terms of the semantic map method.

The language sample and the collection of data

The scope of the investigation has, mainly for practical reasons, been restricted to the languages of geographically delineated Europe, cf. the map below (blue indicates states which straddle the border between Europe and Asia, while green indicates states which are not geographically in Europe but which are closely associated politically; <http://en.wikipedia.org/wiki/Europe>).

Geographical borders of Europe.



Naturally, the language sample includes mainly Indo-European languages. Although I have tried to cover as many non-Indo-European languages as possible, my sample is still a convenience sample rather than a representative sample even with respect to the European continent. It includes the following 31 languages:

INDO-EUROPEAN: **Germanic**: **North**: Danish, Norwegian, Icelandic, **West**: English, German, Dutch, **Celtic**: Irish, Scottish Gaelic, **Baltic**: Latvian, Lithuanian, **Slavic**: **East**: Belarusian, Russian, Ukrainian, **West**: Czech, Polish, **South**: Bulgarian, Macedonian, Croatian, Bosnian, **Romance**: Italian, French, Spanish, Portuguese, **other**: Albanian, Greek;

URALIC: (traditional grouping) **Ugric**: Hungarian, **Finnic**: Finnish, Estonian;

AFRO-ASIATIC: **Semitic**: Maltese;

ALTAIC: **Turkic**: Turkish;

LANGUAGE ISOLATE: Basque.

The data was compiled from three kinds of sources. The first step in collecting the data was to look for relevant examples in the grammars of particular languages. Unfortunately, with the exception of Germanic languages, this kind of construction is rarely reflected in grammars. The second source was the linguistic literature on the phenomenon. Although English resultatives have been covered most widely, resultatives in Icelandic, Croatian, Italian, Greek, Hungarian, etc. have also received attention in the linguistic literature.

Finally, the most important data source was informants who were asked to translate English sentences which included RSPs and gloss them². The informants were required to be native speakers and to have at least a basic knowledge of linguistics in order to be able to gloss the translated sentences. There were two rounds of data collection from every language: the first version

²The examples fished from the literature always have a reference, while examples taken from questionnaires are left unmarked in the dissertation.

of the questionnaire (see Appendix 1) was designed to extract general information, i.e. whether a language has RSP and of what kind, while the second (see Appendix 2) was intended to obtain more specific data. Additional questions were usually sent to the informants after the examination of the received translations in order to clarify any uncertain cases. The questionnaires make up some fifty examples from every language.

The novelty of the dissertation

Even though linguistic typology is one of the mainstream approaches in contemporary linguistics, Lithuanian linguists have so far virtually ignored it. Due to their long period of isolation from the global linguistic community, the descriptive method still prevails in Lithuanian linguistic research. I hope this dissertation will help to contribute to the opening up of Lithuanian linguistics to contemporary linguistic approaches, especially the typological approach.

In terms of its broader perspective, the novelty of the dissertation is its aim to analyse resultative constructions from a typological point of view. Linguists dealing with resultatives usually confine themselves to one, or at best a few, languages. Related typological studies usually treat resultatives as a uniform phenomenon and deal with them from a RSP-external perspective: Talmy (1991, 2000) considers resultatives in line with other complex event constructions, while Verkerk (2009) analyses them in comparison with other types of secondary predication. To my knowledge, the only typological paper which takes a RSP-internal viewpoint is Croft et al. (2010). Thus, unlike those of depictives, which have been thoroughly examined from a typological viewpoint in Himmelmann and Schultze-Berndt (2005), the cross-linguistically significant properties of resultatives have not yet been consistently described.

The structure of the dissertation

The dissertation consists of six chapters. Chapter 1 discusses the object, aim and tasks of the dissertation and briefly describes the methods used for the research. It also presents the language sample as well as the sources of the data

and discusses the novelty of the topic. At the end of the chapter the theses are formulated. In Chapter 2 the theoretical approaches to RSP are presented. 2.1 introduces syntactic analyses, 2.2 discusses the main works on RSP written in the framework of formal semantics, 2.3 deals with accounts formulated in terms of cognitive semantics, 2.4 describes typological studies concerned with resultatives, and 2.5 points out the contribution of the theories discussed to the conception of the dissertation. Chapter 3 deals with the semantic features and the semantic domain of RSP. 3.1 defines causation and telicity as the basic features of RSP, the presence of which determine the prototypical status of a construction. 3.1.1–3.1.3 discuss language group-specific means for encoding telicity. 3.2 briefly considers the periphery of the resultative domain. Chapter 4 is concerned with formal encoding means of RSP: adjective (4.1), adverb (4.2), prepositional phrase (4.3 and 4.4), compounding (4.5) and noun phrase (4.6). Formal encoding means which cannot be recognized as instances of RSP are subsumed under one non-RSP strategy (4.7). In 4.8 a brief generalisation of the different strategies is given, as well as a comparison of the encoding of resultatives in European languages and in languages across the world. In Chapter 5 the semantic map of RSP is presented: 5.1 outlines the constructing of the map and the hierarchy of functions, while 5.2–5.22 introduce the data and the maps of particular languages. Finally, the conclusions are drawn in Chapter 6.

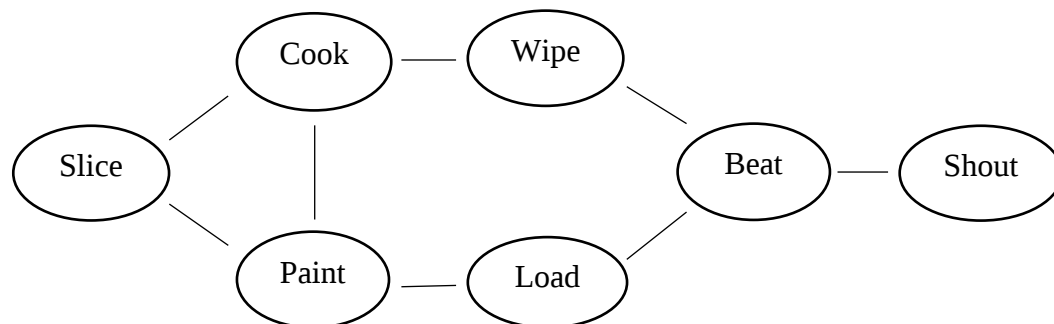
The theses

1. The formal means used to express resultative secondary predication and to differentiate between its different types are: adjectives, adverbs, prepositional phrases, compound verbs and noun phrases.

2. The encoding of resultative secondary predicates in European languages is determined by the following factors: (a) whether a verb is an accomplishment or an activity, (b) whether the property denoted by the resultative predicate is preset or accumulated, (c) whether the result applies to

the entity denoted by an object or to the unexpressed entity, and (d) whether the object of a verb is licensed by its argument structure or not.

3. The arrangement of the functions in the semantic map of resultatives is as follows:



4. A verb's ability to take a resultative secondary predicate depends on the position of its type in the implicational hierarchy. The further to the left the type is, the more it is likely to be expressed as a resultative:

PAINT < SLICE < COOK / LOAD < WIPE, BEAT < SHOUT

2. Theoretical approaches to RSP

Resultative secondary predication has been discussed from a variety of viewpoints, all of which have made a contribution to a better understanding of the phenomenon. The main approaches presented here are: syntactic, formal semantics, cognitive semantics and typological approach. However, this list of interpretations is by no means complete.

Although the theories discussed focus on the different aspects of the structure of a language, this does not mean they do not have points of contact. Even though syntactic approaches are usually concerned with establishing the position in which RSP is projected, they do not deny the interaction of syntactic and conceptual structures. On the other hand, cognitive semanticists, though mainly concerned with the conceptual structure of a phenomenon, do not deny that resultative predicates occupy specific syntactic positions. The tools used to explain linguistic phenomena can also overlap. For example, both formal semantics and construction grammar make use of a predicate decomposition. Typological approaches often rely on the principles of cognitive semantics and, in general, constitute a method rather than a theory.

2.1 Syntactic approaches

Syntactic approaches aim to account for the distribution of the resultative predicate in terms of purely syntactic concepts. However, as often as not syntactic analyses appeal to semantic notions in order to explain the restrictions on resultatives, cf. Simpson 1983; Hoekstra 1988, 1992; Levin, Rappaport 1995, etc. The main focus of these analyses is usually the so-called Direct Object Restriction (DOR): the necessity of a RSP to be predicated of an object. “The controller of a resultative attribute must be an object, whether that object is a surface object, as in transitive verbs, or an underlying object, as in passives and intransitive verbs of the unaccusative class, or whether the object

is a fake reflexive, as in intransitive verbs of the unergative class” (Simpson, 1983, 146).

Here I will discuss two types of syntactic analyses: one of them relies on the configurational position of RSP in the syntactic structure (Hoekstra 1988, 1992; Carrier, Randall 1992), while the other accounts for the distribution of RSP in terms of a particular syntactic feature of verbs, viz. unaccusativity (Levin, Rappaport 1989, 1992, 1995).

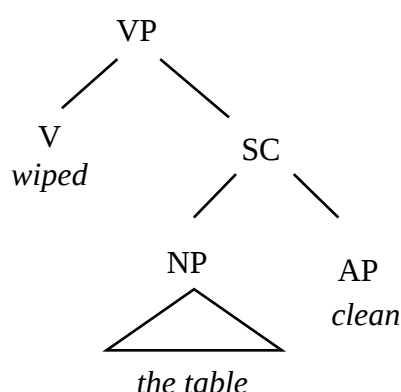
2.1.1 Configurational analyses

The semantic relationship between the postverbal NP and the resultative predicate corresponds to the relationship between the subject and the predicate (Hoekstra 1988, 106), cf. in (7) the postverbal NP *the table* can be conceived as the subject and the result phrase *clean* as its predicate.

(7) *John wiped [the table (is) clean].*

Some linguists working within the phrase structure grammar framework argue that this semantic relation has to be reflected in the syntactic structure. It is assumed that the postverbal NP and the resultative predicate form a syntactic constituent referred to as a small clause (SC) (Stowell 1981; Hoekstra 1988, 106), cf. Schema 1.

Schema 1. Small Clause Analysis (from Carrier, Randall 1992, 175).



As is evident from Schema 1, the verb cannot assign a thematic role to the postverbal NP; rather the NP receives a thematic role from the resultative predicate (Hoekstra 1992, 147). In other words, the NP is treated as an argument of the resultative predicate, while the argument of the verb is the entire small clause (Hoekstra 1988, 106).

As proof that the verb assigns a thematic role to the whole SC rather than to the NP, Hoekstra cites resultatives based on intransitive unergative (see 2.1.2) verbs, cf. (8).

(8) *He laughed himself sick.* (Hoekstra 1988, 115)

His arguments are that, first of all, there is no semantic relationship between the verb and the object (as there was in (7)), and secondly, leaving out either the NP or the predicative expression would result in an ungrammatical sentence (Hoekstra 1988, 116). The use of reflexive pronouns in resultatives with unergative verbs is accounted for by the assumption that small clauses must have a subject, cf. Levin, Rappaport 1995, 63–64.

Hoekstra (1988, 1992) does not overtly discuss resultatives with unaccusative verbs (see 2.1.2) such as *freeze*, *melt*, etc. However, it is likely that the sentence *The pond froze solid* would be treated along the same lines as passive constructions, cf. (9).

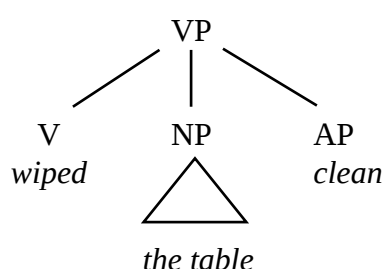
(9) John_i was found [_{SC} t_i [tired]] (Hoekstra 1988, 122)

In the passive “the NP moves to matrix subject position” (Hoekstra 1988, 122) leaving a trace (*t*) in the small clause. In other words, the surface subject is an underlying object in the passive in the same way as in sentences with unaccusative verbs.

Hoekstra (1988, 1992) appeals to the aspectual classification (see 2.2.1) of verbs in order to explain the reasons for adding a small clause constituent. He writes that “activities and processes may lead to something, i.e. the general state of affairs may be affected by the activity such that we may say that there is a different state of affairs after the activity or process has taken place” (Hoekstra 1988, 129). Therefore, it is natural to add a constituent which would refer to the new state.

Simpson (1983), Randall (1982) and Carrier, Randall (1992) argue that semantic structure and syntactic structure do not have to correspond neatly: “two syntactic phrases that together express an event or a proposition do not necessarily exhaustively form a syntactic constituent” (Carrier, Randall 1992, 183). They assume that the postverbal NP and the result phrase constitute a semantic but not a syntactic unit (also cf. Williams 1980, 1983) and propose the so-called Ternary Analysis, cf. Schema 2.

Schema 2. Ternary Analysis (from Carrier, Randall 1992, 176).



Carrier and Randall (1992, 184–185) bring forward semantic and syntactic arguments to show that the verb directly assigns a thematic role to the result phrase (or ‘s-selects’ the result phrase). They argue that the verb also assigns a thematic role to the NP in the resultatives based on transitive verbs, thus both the NP and the result phrase are the arguments of the verb. However, as regards the “intransitive” resultatives, such as *John ran his shoes thread bare*, their analysis is controversial. As Aarts points out (1995, 93), Carrier and Randall assume that the NP is not an argument of the verb but in spite of that they still represent it as a sister of the verb in the configurational schema.

A number of other accounts have been proposed based on syntactic configurations which differ in some way from the analyses discussed above: Rothstein (1985, 1992), Culicover, Wilkins (1986), Hornstein, Lightfoot (1987), Demonte (1987), Yamada (1987), Roberts (1988), Nakajima (1990), Mallén (1991, 1992), Aarts (1995), Legendre (1997), Irimia (2005), etc.

2.1.2 The Unaccusative Hypothesis

The unaccusative hypothesis relies on distinguishing two types of intransitive verbs, viz. unaccusatives and unergatives, each of which shows a characteristic syntactic behaviour. It assumes that the two classes “are syntactically defined and appeals to the difference in syntactic configuration to explain many of the diagnostics which reveal differences in behaviour between the classes” (Levin, Rappaport 1989, 314; 1992, 247). Both types have their typical (though not consistent) semantic features, and therefore it is often stated that the types are “syntactically represented” but “semantically determined” (ibid). The linking rule between syntax and semantics is formulated as follows: “agent arguments are d-structure subjects and patient/theme arguments are d-structure objects” (ibid). Unaccusative verbs are those which have patient subjects, e.g. *The butter melted*, while unergative verbs have agent subjects, e.g. *The boy danced*.

The unaccusative hypothesis seems very appealing as an explanation for the distribution of fake reflexives in resultatives. Levin and Rappaport (1995, 34–41) distinguish between types of resultatives according to the verbs used in them (I have left out passivised resultatives here as they do not add any relevant insights):

1. resultatives based on transitive verbs, e.g. *He licked the plate **clean**,*
2. resultatives based on unergative verbs, e.g. *He shouted himself **hoarse**,
He ran the pavement **thin**,*
3. resultatives based on optionally transitive verbs (originally ‘unspecified object verbs’), e.g. *He drank the teapot **dry**,*
4. resultatives based on unaccusative verbs, e.g. *The river froze **solid**.*

On the basis of these types the generalisation was formulated that “unaccusative verbs can appear with resultative phrases without the mediation of a fake reflexive, whereas unergative verbs cannot” (Levin, Rappaport 1995, 41). The explanation for this generalisation comes from the unaccusative hypothesis which states that the subject of an unaccusative verb is an underlying object and it therefore fulfils the DOR requirement. The subject of

a unergative verb is an underlying subject which cannot have a resultative phrase predicated of it. For this reason a fake reflexive is inserted. The fake reflexive “functions as a “subject” for the predicate heading the resultative phrase” (ibid, 53)

This analysis is based on the assumption that the DOR is in itself valid. However, the authors later changed their mind and claimed that the DOR is incorrect (Rappaport, Levin 2001, 769). They argued that there are indeed resultatives derived from transitive verbs (taking subcategorised objects) and predicated of an underlying subject. Some of their examples (taken from other sources) are cited in (10)–(12).

(10) *The wise man followed the star **out of Bethlehem**.* (Wechsler 1997, 313)

(11) *John danced mazurkas **across the room**.* (Verspoor 1997, 151)

(12) *Fly American Airlines **to Hawaii** for your vacation!* (David Dowty p.c.)

Nevertheless, the DOR can still be saved: the authors (Rappaport, Levin 2001, 770–771) cite the opinion of referees that the RSPs in (10)–(12) can actually be treated as being predicated of the object. Here the subject and the object are in very close semantic relation: the position of the subject is constrained by the position of the object (ibid, 771). Therefore, it is possible to assume that “these examples only appear to have subject-predicated result XPs and are more appropriately analysed as having the result XP predicated of the object, consistent with the DOR” (ibid, 770). More counterarguments to Levin and Rappaport’s account are given in Broccias (2007) and Rothstein (2003, 585).

In general, the problem with syntactic accounts is their incapability to account for particular restrictions on resultative secondary predicates. Neither the syntactic configuration nor the distinction of unaccusative/unergative verbs alone is able to explain why some verbs of a particular class (transitive, unaccusative, etc.) can take a RSP while other cannot. For example, even though both *shoot* and *hate* are transitive verbs, only the former can take a

RSP, cf. **x hated y dead*. This shortcoming has led researchers to admit the importance of semantic factors, the most prominent of which is the aspectual class of a verb. For example, it was noted that states (e.g. *hate*), unlike accomplishments and activities, cannot take a RSP. The theory of aspectual classes has been developed and extensively applied to resultatives by formal semanticists.

2.2 Formal semantics

While formal semantics has preserved, and even elaborated on, the rigid formal descriptions of linguistic symbols and their position in the structure (in terms of configurational representations and formal logic), it has also paid attention to the content of these symbols. In the following two chapters I will discuss the main works which have been written within the frameworks of formal semantics. However, I will focus on the semantic side of these analyses and will leave aside formal representation.

To account for the various phenomena of argument realisation the idea was put forward that the argument structure is determined by some recurrent semantic features of a predicate. Thus, the meaning of a predicate is decomposed into smaller meaning components referred to as primitive predicates. Predicate decomposition is “a representation of meaning formulated in terms of one or more primitive predicates chosen to represent components of meaning that recur across significant set of verbs” (Levin, Rappaport 2005, 69). The decomposition of the predicates *jog* and *dry* is illustrated in (13) and (14)³.

(13) *jog*: [x ACT_{<JOG>}] (from Levin, Rappaport 2005, 72)

(14) *dry*: [[x ACT] CAUSE [y BECOME<DRY>]] (ibid)

Primitive predicates are assumed to constitute a finite set. However, linguists disagree both on the kind of predicates and on their number.

³ Primitive predicates are typed in small caps, while roots are marked by italicised capital letters. The root, or “the idiosyncratic element of a verb’s meaning” (Levin, Rappaport 2005, 71), can have a twofold relation with the primitive predicate. In (13) the root modifies the primitive predicate ACT (and therefore is typed in subscript), while in (14) it is an argument of the predicate BECOME (ibid, 72).

According to Levin and Rappaport (2005, 74), the most common primitive predicates are ACT/DO, CAUSE, BECOME, GO, BE, STAY, and LET.

Returning to resultatives, two basic lines of interpretation based on predicate decomposition can be roughly distinguished. These two types of analyses are closely related; however, they differ as to what aspects of the predicate decomposition are highlighted. One focuses on the aspectual properties of the primitive predicates, while the other focuses on the very composition of the primitive predicates, or the so-called event structure.

2.2.1 Predicate decomposition and the lexical aspect

The first aspectual classification of verbs was proposed by Vendler (1957) and later elaborated on by many linguists (Mourelatos 1978; Dowty 1979; Bach 1986; Krifka 1989, 1998; Tenny 1994; Verkuyl 1993; Croft 2012, etc.). According to the semantic features $\pm$ stative, $\pm$ durative, $\pm$ telic four aspectual classes have been distinguished traditionally: states, activities, accomplishments and achievements. While Vendler assumed that aspectual classes can be attributed to verbs as such, it was later admitted that aspectual properties are determined contextually by a whole verb phrase or even a sentence in many cases: “<...> not just verbs but in fact whole verb phrases must be taken into account to distinguish activities from accomplishments” (Dowty 1979, 60–62; see also Verkuyl 1972; Levin, Rappaport 2005, 90; Croft 2012, 37).

Dowty developed the idea that the aspectual types, with the exception of states, are derived from finer semantic components, or primitive predicates: “the different aspectual properties of the various kinds of verbs can be explained by postulating a single homogeneous class of predicates – *stative predicates* – plus three or four sentential operators and connectives” (Dowty 1979, 71). He proposed that the logical structure of accomplishment verbs such as *kill* or accomplishment verb phrases such as *paint a picture* consists of an ACTIVITY component and a BECOME component which are related via causal

relation (Dowty 1979, 91), cf. the representations of the logical structure of *John killed Bill* and *John painted a picture* in (15) and (16).

(15) [[*John does something*] CAUSE [BECOME¬[*Bill is alive*]]] (Dowty 1979, 91)

(16) [[*John paints*] CAUSE [BECOME [*a picture exists*]]] (ibid)

The idea of the decomposition of aspectual types was later elaborated on further. For example, Rappaport and Levin (1998, 108) define aspectual types as in (17).

(17)

state: [x <STATE>]

activity: [x ACT<MANNER>]

achievement: [BECOME [x <STATE>]]

accomplishment: [[x ACT<MANNER>] CAUSE [BECOME [y <STATE>]]] or
[x CAUSE [BECOME [y <STATE>]]]

The semantic structure of an accomplishment expressed by a verb or a verb phrase corresponds to the semantic structure of an accomplishment expressed by the resultative construction: “Here, an activity (or accomplishment) verb combines with an adjective and an object noun phrase to give an accomplishment in which the verb describes the causal activity and the adjective gives the result state that the direct object comes to be in as a consequence” (Dowty 1979, 93). If a resultative includes an accomplishment verb the aspectual properties of a sentence are predetermined by the verb, e.g. the sentence *John painted the car* already has a form of accomplishment, cf. (18), and therefore the adjective *red* only specifies the result state, cf. (19).

(18) [[*John paints the car*] CAUSE [BECOME [*the car is of some colour*]]]

(19) [[*John paints the car*] CAUSE [BECOME [*the car is red*]]]

However, if the resultative is based on an activity verb (e.g. *John sweeps the floor clean*) the adjective becomes crucial since it introduces the BECOME event (or a bounding (telic) point) and thereby shifts an activity into an accomplishment. The logical structure of the resultative derived from an activity predicate is illustrated in (20).

(20) [[*He sweeps the floor*] CAUSE [BECOME [*the floor is clean*]]] (Dowty 1979, 93)

Dowty (also Van Valin 1990) assumes that the most significant feature of accomplishments (and respectively of resultatives) is the result state: “these change of state entailments are also treated as an essential part of the meaning of accomplishments” (Dowty 1979, 77). However, his interpretation has a few shortcomings, one of which is its incapability to account for the contribution of the object to the aspectual type (Levin, Rappaport 2005, 93). It is widely known that an aspectual type depends on the (un)boundedness of the object, cf. (21) is an accomplishment, (22) is an activity due to the unbounded object (indefinite plural), and (23) is also an activity regardless of the presence of a secondary predicate.

(21) *John painted the car.*

(22) *John painted cars.*

(23) *John painted cars **red** all weekend.*

Contrary to Dowty’s assumption that it is the resultant state that makes the event telic, Krifka 1989, 1998; Tenny 1992, 1994; Ramchand 1997; Verkuyl 1993; Wechsler 2005; Tanaka 2007, etc. argue that telicity of an event is determined by the character of an object or, more specifically, by a “homomorphism between events and individuals” (Tanaka 2007, 199).

Krifka (1989, 1998) distinguishes between two types of objects: quantised and cumulative objects. The former, e.g. *three apples*, are not divisible: “if x falls under *three apples*, then it cannot have a proper part y that also falls under *three apples*” (Krifka 1998, 200). On the contrary, cumulative objects, such as *apples* or *water*, are divisible: “if x and y fall under *apples*, then the sum of x and y falls under *apples* as well” (ibid). The correlation of quantised objects and telicity, on the one hand, and of cumulative objects and atelicity, on the other hand, is determined by the fact that quantised objects have clear boundaries and the event cannot proceed any longer as the whole object is affected. Such objects are referred to as gradual patients (Krifka 1989, 96) or incremental themes (Dowty 1991, 567–571), i.e. themes which are

affected gradually in parallel with the temporal progress of an event (“the object is subjected to the event in a gradual or incremental manner”; Krifka 1989, 96).

Tenny (1992, 1994) formulates the aspectual role of an object in terms of the ‘measuring out’ notion. She writes that an object measures out an event in a sense that the object “provides a kind of scale or series of increments that match up with the event at various times or in various stages of completion” (Tenny 1994, 18).

While Krifka and Tenny do not deal with resultatives explicitly, Wechsler (2005) aims to define the factor which determines the telicity in the resultative construction. He follows the interpretation proposed by the former and gives the definition of a telic event as follows: “Some property of the affected theme argument changes by degrees along a scale due to the action described by the verb, until it reaches a bound” (Wechsler 2005, 260). He formulates two predictions: if the subject of the RSP is an argument of the verb, the property scale and event are homomorphic and coextensive (i.e. they unfold at the same rate and yield a telic structure), and if the subject of the RSP is not an argument of the verb, the property scale and the event must not be homomorphic and coextensive (and, consequently, not necessary telic) (Wechsler 2005, 261). Since the property scale is introduced by the resultative predicate, “the telicity of the event directly depends on the scalar structure of the adjective” (ibid, 264): whether it is a gradable or a non-gradable, a closed scale or an open scale.

As regards the first prediction, Wechsler distinguishes three types of resultatives. The first type includes durative verbs which are assumed to combine with gradable closed scale adjectives, e.g. *wiped it clean/dry*, as the latter introduce a bound (closed scale adjectives “supply an inherent lexical standard that serves as default”; ibid, 262). On the contrary, open scale adjectives are assumed to be disallowed in this type, e.g. **wiped it damp / dirty / wet*, as neither the verb nor the adjective implies a bound. The second type involves punctual verbs which are claimed to take non-gradable

adjectives, e.g. *shot / killed him dead* (ibid, 266). The third type includes the prepositional phrase *to death* which usually combines with durative verbs, e.g. *stabbed him to death*.

The explanation proposed by Wechsler also has a few shortcomings. The most significant of them, perhaps, was noted by Broccias (2004a) who cites resultatives which include subcategorised objects but nevertheless the property scale and the event do not unfold together, e.g. (24).

(24) (from Broccias 2004a, 14)

[headline] *Student stabbed **to death**.*

[text] *He was treated by a paramedic and taken by helicopter to hospital, but he died soon afterwards.* (The Guardian 14.9.1999)

Examples such as (24) contradict the main assumption that resultatives with subcategorised objects necessarily show homomorphism between the property and the event. In addition, in my opinion, the distinction between open scale and close scale adjectives is arbitrary in at least some cases. Wechsler presumes that *dry* implies “a point at which it [the towel] can get no dryer: the towel contains no water whatsoever” (Wechsler 2005, 262), but the same might hold for *wet*: the towel might reach the point when it is so wet that it can absorb no more water. That the distinctions drawn by Wechsler cannot account for all restrictions on adjective selection in resultatives is also illustrated by the examples such as (25).

(25) **She shot Bill **lame**.*

Both *dead* and *lame* are non-gradable adjectives; however, only the former can take part in the resultative construction.

2.2.2 Predicate decomposition and event structure

Although event structure analyses are also based on predicate decomposition, they do not usually refer to the notions of telicity or incremental theme (Levin, Rappaport 2005, 112). Rather, they focus on subevental analysis: “whether an event is simple, consisting of a single

subevent, or complex, consisting of more than one subevent, each of which can independently be a well-formed event” (ibid, 113).

Pustejovsky (1991), following Vendler (1957) and Dowty (1979), distinguishes three types of events: states, processes and transitions (which correspond to accomplishments and achievements) and argues that “the event type for a sentence need not be the event type of the main verb” (Pustejovsky 1991, 61). The shift of an event type might arise due to the composition of an event, i.e. due to the interaction of subevents in order to form a derived, complex event (ibid).

Pustejovsky distinguishes two types of resultatives. The first includes resultatives which are derived from process verbs. Due to the addition of an adjective which expresses a distinct subevent, resultatives of this kind undergo event-shifting from process to transition and are therefore treated as complex events (Pustejovsky 1991, 64), cf. (26).

(26) Complex event

*Mary hammered the metal **flat**.* (Pustejovsky 1991, 64)

Resultatives which include transition verbs are interpreted as “not true resultatives” by Pustejovsky (1991, 76). He argues that these resultatives represent simple events since the verb itself denotes a change of state and “the predication of the adjunct phrase is merely an attribute to the state introduced by the transition/unaccusative verb” (ibid), cf. (27). In other words, the adjective here does not introduce a distinct subevent but rather specifies the result already expressed by the verb.

(27) Simple event

*The river froze **solid**.* (Pustejovsky 1991, 76)

While Pustejovsky distinguishes between the types of resultatives on the grounds of semantic notions such as process and transition, Kaufmann and Wunderlich (1998) combine syntactic (transitivity and the (un)subcategorisation of an object) and semantic (verb’s inherent implication of a change) criteria for the same purpose. Following Washio (1997), they distinguish between weak and strong resultatives (however, they provide these

terms with a somewhat different content than Washio, see 2.4.2). According to Kaufmann and Wunderlich, weak resultatives include transitive verbs with subcategorised objects and unaccusative verbs, e.g. (28a) resp. (28b). Cases such as (28) are treated as simple events because the verbs inherently imply a change of state and adjectives or PPs only specify it (Kaufmann, Wunderlich 1998, 9).

(28) Simple events (weak resultatives):

a) *Jim cut the meat **into small pieces**.* (Kaufmann, Wunderlich 1998, 9)

b) *Anna melted the butter **to liquid**.* (ibid)

On the other hand, strong resultatives “not only add a result predicate but also an argument that is not subcategorised by the verb” (Kaufmann, Wunderlich 1998, 10), e.g. (29). These resultatives are regarded as denoting complex events because “an activity verb is extended by the information that a transition takes place to a state in which another (but related) object is affected” (ibid, 9–10).

(29) Complex event (strong resultative)

*John drank the guests **under the table**.* (Kaufmann, Wunderlich 1998, 9)

However, examples such as (30) raise a problem for Kaufmann and Wunderlich’s otherwise neat analysis.

(30) *The coats steamed **dry**.* (Rappaport, Levin 2001, 781)

Following Kaufmann and Wunderlich’s interpretation, (30) should be referred to as simple event because it includes an unaccusative verb. On the other hand, the verb *steam* does not imply a change of state and therefore makes the construction similar to strong resultatives which represent complex events.

The event structure analysis proposed by Rappaport and Levin (2001) is based on yet another criterion and shares features with the account presented in Wechsler (2005). They argue that judging whether an event is simple or complex depends on the temporal relation between the subevents: in a complex event the subevent expressed by a verb and the subevent expressed by a secondary predicate need not be temporally dependent, while in a simple event

both subevents must be temporally dependent and “unfold at the same rate” (Rappaport, Levin 2001, 775). Rappaport and Levin regard resultatives which include a reflexive pronoun as the most evident instances of complex event structures: example (31) shows that becoming hoarse does not necessarily unfold at the same time as singing.

(31) *Sam sang enthusiastically during the class play. He woke up hoarse the next day and said, ‘Well, I guess I’ve sung myself **hoarse**.’* (Rappaport, Levin 2001, 775).

Assigning a complex event structure to reflexive resultatives accounts for the use of a reflexive pronoun. According to Rappaport and Levin (2001), “there must be at least one argument XP in the syntax per subevent in the event structure” (Rappaport, Levin 2001, 779). Since reflexives are used with intransitive verbs which subcategorise only for a subject argument, the introducing of a reflexive object can be attributed to the requirement of the second argument.

On the contrary, resultatives with bare NP, such as in (32) are interpreted as having a simple, non-derived event structure: “there is only one event, coming to be in a frozen state, and the result XP *solid* further specifies this state: the frozen state holds of all the water in the pond and not just the pond’s surface” (Rappaport, Levin 2001, 780).

(32) *The pond froze **solid**.* (Rappaport, Levin 2001, 775)

Rappaport and Levin (2001, 781) have tried to overcome the contradiction raised by the example given in (30). They argue that (30) consists of two subevents as the verb does not imply a change of state as it does in (32). Nevertheless, since the subevents necessarily unfold at the same rate, the result of the composition of the subevents is still a simple event – which is the reason why (30) does not include a fake reflexive and formally corresponds to (32) (ibid).

To summarise, linguists working in the frameworks of formal semantics have elaborated on many of the essential features of resultatives such as constituting an accomplishment event (bearing a causative and telic character),

including an incremental theme, etc. The tendency of RSP to combine with accomplishment and activity verbs, the difference between resultatives denoting simple and complex events have also accounted for many restrictions on resultative secondary predication that cannot be explained by purely syntactic approaches. However, even those accounts formulated in terms of formal semantics have not been able to explain the entire range of resultatives, cf. examples such as (30) or cases in which the same verb can take one resultative predicate but not another, e.g. *x shot y dead/*lame*. This suggests that explanations based on broad generalisations are not sufficient and that resultative predication should be viewed from a more “narrow” perspective.

2.3 Cognitive semantics

Cognitive semantics claims that the language reflects the way people perceive the surrounding world and interactions in it (Ungerer, Schmid 2006, 1). Thus, the meaning of words and relationship between words in a sentence cannot be accounted for by formal semantic or syntactic rules, but have to be treated as reflections of our social and cultural knowledge and experience.

In the next three chapters I will discuss the main works on resultatives (or which deal with resultatives) written in the spirit of cognitive semantics, cf. Broccias 2004a, 2004b, 2007; Goldberg 1991, 1995, 2005; Goldberg, Jackendoff 2004; Boas 2003, etc.

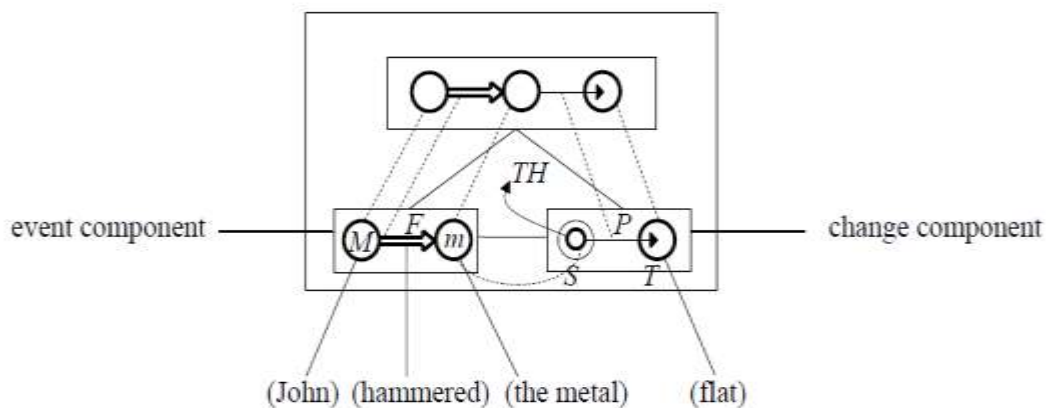
2.3.1 Cognitive Grammar

As cognitivists assume that linguistic phenomena reflect conceptualised scenes of the daily human experience they account for linguistic structures in terms of conceptual models. In turn resultatives can also be treated as a manifestation of a particular conceptual model, viz. the action chain. The action chain represents the physical interaction of objects in the real world and is also referred to as the billiard-ball model: one entity transmits its internal

energy to another entity which may either transmit it to the next entity or consume it (Ungerer, Schmid 2006, 179; Langacker 1991, 13).

Resultatives denote an activity which causes a change of state and this kind of contact is exactly what the action chain represents: energetic interaction affects an entity and results in some change in its properties (Broccias 2004a, 6). The action chain founding the resultative construction is illustrated by the Force Change Schema proposed by Broccias, cf. Schema 3.

Schema 3. The Force Change Schema (from Broccias 2004a, 6).



The schema consists of an event and change components, the former of which describes a forcible interaction (*F*) between two entities: a manipulator (*M*) and a manipulee (*m*) (Broccias 2004a, 6). This interaction causes a change in the state of the affected entity (change component). The change component “depicts a theme (*TH*) undergoing a change of state by (metaphorically) moving along a path (*P*) from its initial state *S* (for source) into its final state *T* (for target)” (ibid) or, in other words, from being non-flat to being flat. The two components are fused together by the merging (ibid) operation: the ultimate structure is represented in the upper box. Entities and interactions which are expressed phonologically (profiled) are marked in bold type (Broccias 2004a, 7).

The billiard-ball model implies the crucial role of the notion of affectedness in construing resultatives. An action has to affect an entity in order

to entail some kind of result. Broccias cites examples (33) and (34) which are taken from Halliday (1994, 148).

(33) **They crossed the field flat.* (Broccias 2004a, 9)

(34) *They trampled the field flat.* (ibid)

According to Broccias, (33) is impossible because “*cross* does not imply the exertion of a force upon the traversed path, whereas *trample* explicitly codes an energetic interaction” (Broccias 2004a, 10). In addition, an entity has to be affected completely: “If an adjective in a resultative construction describes a property P of an affected object Y, then P describes any part of Y (if possible)” (ibid, 10). This generalisation explains the ungrammaticality of sentences such as (35): here *long* or *tubular* does not mean that every part of the metal is long or tubular but rather refers to the property of the entity as a whole (ibid, 11).

(35) **John hammered the metal long/tubular.* (Broccias 2004a, 10)

This generalisation also accounts for the grammaticality of *to shoot x dead* and the ungrammaticality of **to shoot x lame* which were mentioned in 2.2.2. However, there are cases which do not fit into the model proposed by Broccias, e.g. *to shout oneself hoarse*, where only the part of an entity, viz. the voice, is affected, but the resultative is nevertheless fully acceptable.

2.3.2 Construction Grammar

The substantial idea of Construction Grammar is that the language generalises our main experiences in terms of constructions: “Simple clause constructions are associated directly with semantic structures which reflect scenes basic to human experience” (Goldberg 2005, 5).

Constructions on their own are determined as “form-meaning correspondences that exist independently of particular verbs” and which “themselves carry meaning independently of the words in the sentence” (Goldberg 1995, 1; also 1991, 2003; Miyata 1997). The basic types of constructions reflect dynamic scenes: someone transferring something to someone else (ditransitive construction), someone causing something to move

(caused motion construction), something moving (intransitive motion construction), etc. (ibid, 3, 5).

In Construction Grammar resultatives are treated as a separate type of construction which bears the abstract meaning of someone causing something to change state. Unlike the syntactic approaches discussed in Chapter 2.1, Construction Grammar seeks to account for the licensing of RSP in purely semantic terms: the resultative phrase can be applied only to a patient argument (Goldberg 1991, 76; 1995, 188). A challenge to this approach might seem to be sentences such as (36) and (37) which include objects that cannot be regarded as normal arguments of the verbs and, respectively, patients, cf. (38) and (39).

(36) *He shouted himself **hoarse**.*

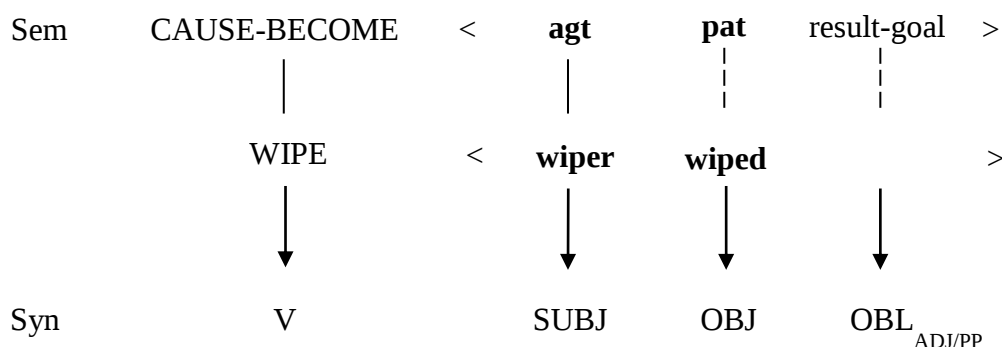
(37) *He walked the pavement **thin**.*

(38) **He shouted himself.*

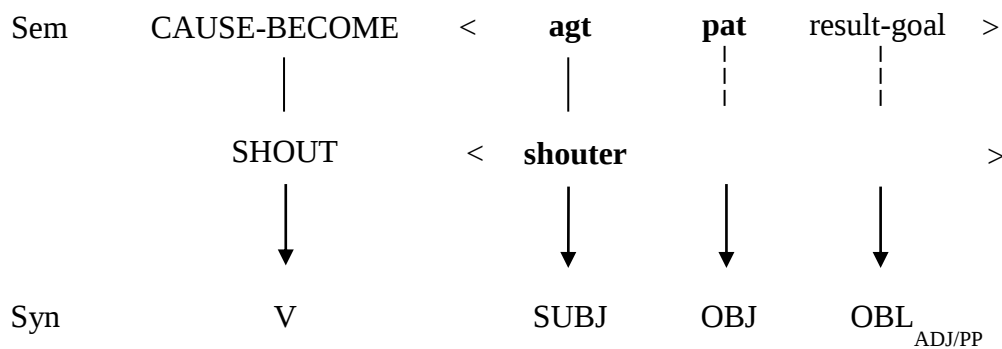
(39) **He walked the pavement.*

However, since constructions bear semantics independent of the verbs' meaning, they also have their own arguments: "the construction itself can add a patient argument, besides adding the result argument to nonstative verbs which only have an "instigator" as profiled argument" (Goldberg 2005, 189). The correspondence of the arguments of the construction and the arguments of the verb is illustrated in Schema 4 for a transitive verb (*to wipe x clean*) and in Schema 5 for an intransitive verb (*to shout oneself hoarse*).

Schema 4. Resultative construction with a transitive verb (from Goldberg 1995, 190).



Schema 5. Resultative construction with an intransitive verb (adopted from Goldberg 1995, 190).



The first line in the schemas represents the semantic structure of the construction: the meaning components of the predicate (X causes Y to become Z) and the argument roles – agent, patient and result-goal. The second line gives information about the verb’s semantic structure: meaning and arguments which are referred to as participant roles. Thus, the verb *wipe* has two participant roles: wiper and wiped, while the verb *shout* has only one – a shouter. The third line reflects the syntactic representation of the arguments. The arguments of the construction fuse with the participant roles of a verb: in Schema 4 the agent fuses with wiper and the patient with wiped, while in Schema 5 only the agent fuses with the shouter. The construction in Schema 4 adds the result argument, while in Schema 5 it contributes both the patient argument and the result argument⁴.

Construction grammar offers a very appealing model to account for the mapping between semantics and syntax. However, while it again gives a general explanation as to the structure of resultatives, it is not able to explain particular restrictions.

2.3.3 Frame Semantics

The incapability of the prevailing models to account for the entire range of resultatives was discussed in Boas (2003). He noted that all approaches which formulate syntactic and/or semantic generalisations on the licensing

⁴The dashed line indicates arguments which can be contributed by the construction.

factors of resultatives have exceptions what indicates that the distribution of resultatives is at least to some extent idiomatic: “The comparison with verbs that are closely related in meaning but do not allow the same type of resultative modification has shown that the ability to occur with a resultative is a matter of conventionalisation and cannot be predicted on the general grounds” (Boas 2003, 232).

Following the usage-based approach, Boas states that resultatives are licensed by the semantic information which is contained in the event frames of individual verbs: “each verb is conventionally associated with a resultative usage pattern that specifies the semantic and/or syntactic type of its resultative phrase” (Boas 2003, 158). The information contained in an event frame is twofold. On-stage information corresponds to the traditional lexical meaning. This information is usually realised explicitly since it is “immediately linguistically relevant for the interpretation of the meaning denoted by an event frame” (ibid, 172). Off-stage information is “part of world knowledge” (ibid). It is not expressed explicitly in speech since the community knows it by default, unless a speaker deliberately wants to emphasise a particular aspect of this information (ibid).

Boas distinguishes four types of resultatives according to their communicative function. The first group of resultatives emphasises the endpoint (i.e. the result) of an event (Boas 2003, 150–151). They include change of state verbs which inherently imply a specific result, e.g. (40). Therefore, there is usually “no need to mention any additional information with respect to the change of state” (ibid, 151). However, if a speaker wants to highlight the result he can add a resultative phrase.

(40) *The fridge froze the water **solid**.* (Boas 2003, 151)

The second class of resultatives specifies the endpoint (the result) of an event (Boas 2003, 152–154). Verbs of this class imply that the object “underwent some change of state” (Boas 2003, 152) but the exact result cannot be inferred, e.g. (41). Thus, the resultative phrase “serves to reduce vagueness in interpretation associated with the verb” (ibid, 153).

(41) *Jack painted the house **red**.* (Boas 2003, 152)

A note should be added here. While most of the examples of the second class presented in Boas undoubtedly inherently imply a (vague) change of state, the example (42) which is also included in this type is questionable.

(42) *Dave hammered the metal **flat**.* (Boas 2003, 152)

I would not agree that the verb *hammer* has an inherent meaning of a change of state: while the sentence *Jack painted the house* invokes the notion that what happened to the house was a change in its colour, the sentence *Dave hammered the metal* does not imply even a hint of what could have happened to the metal. If one would conceive a change of state in a broader sense – that, for example, the result of hammering was some change in the form of the metal – then perhaps almost all verbs, except for states, could be treated as change verbs, for instance, *run* could be interpreted as implying a change of location. It seems that Boas uses the term ‘change’ in a very broad sense and actually has in mind the affectedness of an object (which can of course lead to a change of state).

The third group of resultatives denotes the result of an event from the viewpoint of a nonprototypical participant (Boas 2003, 154–156), e.g. (43) and (44).

(43) *Erin painted the brush **to pieces**.* (Boas 2003, 154)

(44) *Flora talked herself **hoarse**.* (ibid)

As was mentioned above, each verb has its event-frame consisting of on-stage and off-stage information. The first and the second types of resultatives are formed in terms of on-stage information, i.e. they refer to prototypical participants. The third group of resultatives denotes “the result state of an event participant which is outside of the conventionalised scenario typically associated with the respective verbs” (Boas 2003, 155). In other words, they are based on off-stage information. For example, the event-frame of the verb *paint* includes the off-stage information that this action might be carried out with a brush. It is not usually necessary to highlight this information since it belongs to shared world knowledge. Nevertheless, a speaker can “‘recruit’ her

world knowledge <...> to give the hearer a special perspective of the event” (Boas 2003, 155).

Boas notices that not all verbs allow a shift of participants, e.g. (45). He assumes that resultatives of the third group are also “highly conventionalised” and their licensing also depends on “the lexical-semantic information associated with the individual verbs” (Boas 2003, 156).

(45) **Tom unlocked the key **to pieces***. (Boas 2003, 156)

Since the three types are more or less (the first and second types resp. the third type) based on conventionalisation they are referred to as conventionalised resultatives in opposition to the fourth type, which includes nonconventionalised resultatives.

The fourth group of resultatives denotes the result from the viewpoint of a participant which does not belong to the event-frame of a verb (Boas 2003, 157), e.g. (46).

(46) *Stefan sneezed the napkin **off the table***. (Boas 2003, 157)

Here, the meaning of the verb is “creatively expanded” and shifts the perspective of the very event rather than of its participant (Boas 2003, 157). The event-frame of the verb *sneeze* does not contain information (either on-stage or off-stage) that the verb denotes a caused-motion event and thus cannot motivate the forming of (46). Rather, the formation of examples such as (46) is based on an analogy with conventionalised resultatives (ibid, 265). In order for the analogy to take place the event-frames of the target verb and the source verb must share particular semantic properties, cf. (47) which includes a caused motion verb which also denotes the emitting of air (ibid, 265–266).

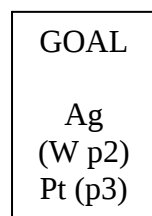
(47) *Tom blew the napkin **off the table***. (Boas 2003, 266)

As far as the contribution of the off-stage information to the forming of resultatives is concerned, Boas draws a continuum. At one end of it are “totally fixed” resultatives such as *kill dead* or *freeze solid* which do not require off-stage information (since the speakers have highly conventionalised expectations on the result) (Boas 2003, 282). At the other end are “extremely free combinations” based on analogies which require “a great deal of off-stage

information because speakers typically do not have knowledge about the conventionally expected results of sneezing in terms of objects being moved by the emitted air flow” (Boas 2003, 282). The other two types of resultatives are located in between: the second type (*paint the car red*) is closer to fixed resultatives because it includes a prototypical patient (on-stage information), while the third type (*paint the brush to pieces*) is closer to the non-conventionalised resultatives due to its putting a nonprototypical patient (off-stage information) into the focus (ibid).

Thus, Boas’s main idea is that the licensing of resultatives cannot be defined by general rules. On the contrary, the determining factor is the semantics of particular verbs. While one verb can combine with a RSP another verb of the same syntactic or semantic type might not be able to take a RSP (or to take the same RSP). Therefore, Boas provides verbs with event frames which bear very specific information, cf. Schema 6 for *paint*.

Schema 6. The event frame of the verb *paint* (from Boas 2003, 224).



Ag: Entity applying paint to a surface

W: World knowledge⁵

Pt: Surface or object that is construed as exhibiting a surface

p3: SYNT: AP or NP

SEM: denoting a colour or a property associated with the prototypically intended end result of applying paint to a surface

⁵ World knowledge can be recruited in the case of the verb *paint*, ex. (43), but might not be in the case of other verbs.

An analysis based on the specific semantic features of verbs is able to account for most, if not all, cases of resultatives and thus has an advantage over the accounts presented above.

2.4 The typological approach

The typological approach is not a theory as such but rather a method which allows the structural and semantic features of languages to be established. Since the common denominator on which linguistic phenomena can be compared cross-linguistically is semantic concepts, the typological approach naturally follows the principles of semantically oriented theories such as cognitive grammar, construction grammar, etc.

In the following chapters I will discuss the most significant typological or typology-oriented contributions which deal with resultatives. Some of them, e.g. Washio (1997), are not typological works in the strict sense as they discuss the data of only a few languages. However, their inferences are claimed to hold cross-linguistically and therefore these works are presented in this chapter.

2.4.1 Typology of complex events

One of the best-known typological works concerned with resultatives is Talmy's typology of complex events (Talmy 1991, 2000). His typology has been refined by many linguists, among whom the most important for the topic of this dissertation is Croft et al.'s contribution (Croft et al. 2010).

Talmy developed his theory on the basis of motion constructions (cf. Talmy 1975) and later included other types of complex events, for example, resultatives. His account is formulated in terms of cognitive grammar which "examines the formal properties of language from its conceptual perspective. Thus, it seeks to account for grammatical structure in terms of the functions this serves in the representation of conceptual structure" (Talmy 2000, 3).

Talmy argues that macro-events (i.e. complex events) which are composed of simple events by means of conceptual integration can be represented as single events by single clauses cross-linguistically (Talmy 2000,

226). Macro-events include three components: a framing event, a co-event and the relationship between them (ibid, 220).

The framing, or the main, event “provides for the whole macro-event the overarching conceptual framework or reference frame within which the other included activities are conceived of as taking place” (Talmy 1991, 483). Talmy distinguishes five types of framing events: motion event, aspect event, state change event, action correlation event, and realisation event (Talmy 1991, 482; 2000, 217–218). Only two of the framing events are directly relevant to this discussion: state change event which denotes a change in some property, and realisation event which confirms that an implied change of state has actually occurred (Talmy, 1991, 494, 511).

The co-event, or the supporting event, in turn constitutes “an event of additional circumstance in relation to the macro-event as a whole” and “can be seen to fill in, elaborate, add to, or motivate the framing event” (Talmy 1991, 482). Again, many types of supporting events are distinguished: Precursion, Enablement, Cause, Manner, Concomitance, Purpose, and Constitutiveness (ibid, 484; Talmy 2000, 220), of which in this case the most important is Manner.

Talmy’s main idea is that languages differ in the site where they encode the main event and the supporting event: “the world’s languages generally seem to divide into a two-category typology on the basis of the characteristic pattern in which the conceptual structure of the macro-event is mapped onto syntactic structure. To characterise it initially in broad strokes, the typology consists of whether the core schema is expressed by the main verb or by the satellite” (Talmy 2000, 221). Thus, languages which encode the core schema (i.e. the framing event) by a verb are referred to as verb-framed languages. The co-event is then expressed in a satellite. Languages which map the core schema onto the satellite⁶ are regarded as satellite-framed languages (ibid, 222). In this case the co-event is encoded by a verb.

⁶ Satellite “is the grammatical category of any constituent other than a nominal or prepositional-phrase complement that is in a sister relation to the verb root. The satellite, which can be either a bound affix or a free

Verb-framed languages involve among others Romance, Semitic languages, and Japanese, while satellite-framed languages include most Indo-European languages (except Romance), Finno-Ugric, Chinese, etc. (ibid). (48) and (49) illustrate the encoding of the relevant framing events in Spanish and English.

(48) Change event

a) Spanish (from Talmy 1991, 497)

Lo mate con fuego / quemándolo.

him killed with fire / burning

‘I killed him with fire/by burning him.’

b) English

*I burned him **to death**.* (ibid)

(49) Realisation event

a) Spanish

John limpió la mesa con un trapo.

John clean.PRT.3DG DEF.F table with IND.M cloth

‘John cleaned the table with a cloth.’

b) English

*John wiped the table **clean**.*

Talmy’s classification of languages into verb-framed and satellite-framed implies that the languages of one type do not have constructions typical of another type. However, this distinction does not actually hold: there are many languages, including English (cf. Croft et al. 2010, 11), which make use of both strategies, cf. the English translation of (49a). For this reason Croft et al. (2010) arrived at the conclusion that “Talmy’s typological classification applies to individual complex event types within a language, not to languages as a whole” (Croft et al. 2010, 1).

Croft et al. analysed motion and change of state (resultative) constructions in English, Dutch, Icelandic, Bulgarian and Japanese and

word, is thus intended to encompass all of the following grammatical forms: English verb particles, German separable and inseparable verb prefixes, Latin or Russian verb prefixes, <...>” (Talmy 2000, 222).

distinguished additional encoding strategies, or (in Croft et al.'s terms) constructions: double-framed and symmetrical, the latter of which includes compounding, serial verb constructions and coordination. In the double-framed strategy the framing event is expressed twice – as the part of a verb and as a separate satellite (ibid, 7), e.g. (50).

(50) Russian (from Croft et al. 2010, 8)

<i>Ja</i>	<i>vy-bežal</i>	<i>iz</i>	<i>doma.</i>
I	out-ran	from	house.GEN

‘I ran out of the house.’

The other three strategies, viz. compounding, serial and coordination, share the property of expressing the framing event and the co-event symmetrically: none of the events can be regarded as main.

According to Croft et al. two parallel implicational scales can be drawn from the data: “a formal scale of syntactic constructions and a conceptual scale of event types” (ibid, 19). The events which are higher on the conceptual scale are presumed to be encoded by the strategies which take a higher position in the formal scale and vice versus (ibid).

The formal scale represents the formal integration of the construction (ibid, 21), cf. (51).

(51) double framing, satellite framing < verb framing, compounding < coordination

In coordination the MANNER and the RESULT components are expressed by independent clauses and are therefore not integrated syntactically (Croft et al. 2010, 21). In verb-framing and compounding the MANNER is expressed either by an adverbial form which can be derived from a verb (verb-framing) or by a verb form which is bound to another verb form (compounding) (ibid). Thus, the MANNER is expressed by verbal forms which cannot, however, constitute an independent clause. Finally, in double-framing and satellite-framing the MANNER is denoted by a verb, while the RESULT is “expressed by a satellite which is typically a minimally inflected and paradigmatically restricted form, and often syntactically closely associated

with the object argument of the main verb, or also as an affix on the main verb (double-framing)” (ibid). The last two strategies are assumed to show the highest degree of syntactic integration because they least resemble a clause.

The conceptual scale in (52) represents universal situation types (Croft et al. 2010, 22).

(52) ‘paint X red’ < ‘freeze solid’ < ‘wipe table clean’, ‘shoot X dead’ < ‘pound dough flat’ < ‘hammer metal flat’, ‘push door open’ ? < ‘rock X to sleep’

The authors admit that the conceptual scale of change of state events is more difficult to account for than the scale of motion events (I do not present it here since it is not directly relevant to this discussion): “it is not clear to what extent the typicality or naturalness of the manner-result combinations plays a role in the implicational scale” (Croft et al. 2010, 23). However, they still assume that typicality of result contributes to the arranging of the scale: “the situations that are higher in the implicational scale are more typical than those lower on the scale, in that the higher events in the scale are those in which overt expression of the result is considered redundant (if possible at all) in languages such as Bulgarian, and a perfective aspect marker is sufficient to indicate the resulting state from the process” (ibid).

According to this explanation, the meaning of the event *paint X red* which takes the highest position in (52) should be usually expressed by a prefixed verb in Slavic languages. I believe this interpretation to be misleading. The events *freeze solid* and *shoot X dead* definitely show a tendency to be encoded solely by prefixed verbs in Slavic languages: the verbs themselves imply a specific result state and the prefix “confirms” that state. However, the verb *paint* does not imply a specific result state (becoming red/green/yellow) (see 4.1). Therefore, a colour usually (if not always) can be expressed by a satellite not only in Slavic languages (see 5.4) but also in those languages which strictly forbid the satellite-framed model in all other cases, e.g. Basque (see 5.3).

Croft et al. put forward another factor which is assumed to underlie the conceptual scale in (52). It is “the degree of resistance put up by the theme or patient argument to the action described by the predicate” (Croft et al. 2010, 23). Those objects which are painted, frozen, wiped or shot usually do not (or cannot, as in the case of shooting) exert resistance against the agent which carries out the action. Hammering dough is much easier than hammering metal and pushing the door implies that the door is heavy or that there are some other obstacles (ibid). As regards the last event ‘rock X to sleep’, such a method of putting a baby asleep, according to Croft et al., is usually used when the baby desperately wants to stay awake (ibid, 23–24). Thus, the authors conclude that “The lower degree of syntactic integration towards the bottom of the scale may thus reflect a lower degree of semantic integration of the causing event and the result, in that it is increasingly difficult for the agent to establish control over the theme/patient” (ibid, 24).

To generalise, Talmy has established significant structural differences in the encoding of complex events. While he assumed that languages follow one or another model, Croft et al. have argued that these encoding strategies (constructions) are typical not of particular languages but of particular types of complex events. Croft et al. (2010) have shown that the encoding of resultative secondary predication might differ as regards different situation types. In this respect Croft et al.’s approach resembles the approach proposed by Boas (2003) that the licensing and the form of resultatives is determined by semantic properties of individual verbs rather than by some general principles.

2.4.2 Other typological works

There are a number of other works dealing with resultatives which have put forward cross-linguistic generalisations. Washio (1997) proposed a cross-linguistic classification of resultatives based on the semantic implications of verbs that enter the construction. He distinguishes two basic types of resultatives: strong and weak resultatives. The former include verbs which do

not imply a result, e.g. (53) and (54), while the latter are those based on verbs which inherently predict a result state, e.g. (55).

(53) *The horses dragged the logs **smooth**.* (Washio 1997, 7)

(54) *The joggers ran the pavement **thin**.* (Washio 1997, 8)

(55) *I froze the ice-cream **hard**.* (Washio 1997, 5)

Washio argues that “languages are divided into two broad types, viz., those (such as English) which permit strong resultatives and those (such as Japanese) which do not, even though weak resultatives are potentially possible in both types of languages” (Washio 1997, 8). It is important to point out that the distinction between weak and strong resultatives does not correspond to the distinction of resultatives by aspectual properties (ibid, 21). It might appear that weak resultatives involve accomplishment verbs (since they imply a change of state), while strong resultatives include activities (transitive and unergative). However, as Washio notes, weak resultatives can be also based on activity verbs if the latter imply a result, e.g. *to wipe* (ibid, 16).

In addition, Washio distinguishes spurious resultatives (Washio 1997, 17), e.g. (56), which show certain features which distinguish them from proper resultatives. First of all, they allow semantically opposite phrases as secondary predicates, e.g. (57), which is impossible in proper resultatives (ibid, 17), e.g. (58). Secondly, they can be replaced by appropriate adverbs, e.g. (59). Finally, the usual paraphrase of resultatives cannot be applied to spurious resultatives, e.g. (60) where it is the knot and not the shoelaces that become loose.

(56) *He tied his shoelaces **tight**.* (Washio 1997, 17)

(57) *He tied his shoelaces **loose**.* (ibid)

(58) **John wiped the table **dirty**.*

(59) *He tied his shoelaces **tightly/loosely**.* (ibid)

(60) *He caused his shoelaces to become loose by tying them. (≠ 56)* (ibid)

Washio extends his typology to French and concludes that it allows spurious resultatives but, unlike English and Japanese, does not have strong and weak resultatives (at least weak resultatives are not used as freely as in English and Japanese) (Washio 1997, 30). The classification proposed by

Washio seems to be convincing; however, it needs a greater cross-linguistic background to be acknowledged as cross-linguistically valid. I will return to this issue in Chapter 5.1.2.

Another line of typological works on resultatives concentrate on establishing a correlation between the presence of resultatives and the presence of some other linguistic phenomena (prefixation, compounding, etc.) in a language.

Acedo-Matellán (2012) assumes a correlation between the presence of inflected adjectival RSPs and the absence of prefixation and vice versa. He states that languages such as Latin and Slavic which express path and result by prefixes cannot have inflected adjectival resultatives due to configurational (syntactic) restrictions, while languages which do have inflected adjectival resultatives, e.g. Icelandic, do not express path and result by prefixes. However, this hypothesis has an obvious counter-example: Latvian possesses both prefixes (like Slavic languages) and inflected adjectival RSPs (see 5.17).

Horrocks and Stavrou (2003) formulate a correlation between the existence of resultatives and the absence of a morphologically encoded aspectual system: “languages which permit secondary syntactic resultative predication do not have a systematic, morphologically encoded, opposition between imperfective and perfective aspect in their verb systems, while those which reject it do – whether across the whole verb system, as in Greek and Russian, or in past time only, as in Romance” (Horrocks, Stavrou 2003, 299). This generalisation implies that the authors treat secondary resultative predication in a very strict sense: only adjectival predicates are regarded as resultatives (since Russian has fossilised prepositional phrases which can express the resultant state, see 4.4). Since the existence of the aspectual system in Baltic languages, unlike in Slavic, is arguable (see footnote 9 on p. 54), the case of Latvian (which has adjectival resultatives) would not necessarily undermine this hypothesis.

On the basis of a representative language sample Snyder (2001) claims that “formation of complex predicates depends on syntactic compounding”

(Snyder 2001, 329). He draws a correlation between the availability of resultatives and the availability of productive root compounding (ibid). The author himself points out an exception: Basque has a productive nominal compounding but totally lacks resultatives. From this he concludes that “despite the strong tendency <...> for nominal compounding and resultatives to pattern together, the relationship must be unidirectional: root compounding is a necessary, but not sufficient condition for the availability of resultatives” (ibid, 330).

The structural similarity of motion and resultative constructions has prompted some authors to propose a correlation on their occurrence. For example, Beck and Snyder (2001) argue that compounding parameter correlates with both directed motion constructions and resultatives: “a language will permit a goal-PP to convert an activity to an accomplishment only if that language permits fully productive root compounding, and moreover permits the resultative construction” (Beck, Snyder 2001, 1; also Snyder 2012). Again, this hypothesis also has exceptions: Son (2007, 133–134) points out languages such as Hebrew, Indonesian, and Czech which have goal PP’s but do not allow adjectival resultatives and concludes that the presence of goal PP constructions is independent of the presence of adjectival resultatives (Son 2007, 158).

Thus, most of the hypotheses on the correlation between resultatives and other phenomena seem to have exceptions and should therefore be treated as tendencies rather than universals.

A different perspective is taken by Verkerk (2009a, 2009b) who investigates resultatives in relation with depictives and adverbials. She analysed the formal encoding of the three types of secondary predication in 46 geographically and genetically distant languages and established five encoding patterns:

1. the all-purpose pattern (all types of secondary predication are encoded by the same strategy – the most common pattern according to the author; Verkerk 2009a, 120);

2. the three-way split pattern (all types of secondary predication have their specific encoding strategy);

3. the resultative-excluding pattern (depictives and adverbials are encoded in the same way, while resultatives have a different marking);

4. the depictive-excluding pattern (resultatives and adverbials share the same strategy, while depictives have a distinct one);

5. the manner-excluding pattern (depictives and resultatives are marked by the same strategy, while adverbials are encoded differently) (Verkerk 2009a, 120).

Verkerk also listed the formal strategies used to encode resultatives (Verkerk 2009b, 111). Although she noted that some languages make use of a few strategies, she did not aim to give a unified account on their distribution and satisfies with the statement if they correspond to the strategies used for depictives and adverbials or not (the formal encoding means for RSP established by Verkerk are discussed in 4.8).

While the five encoding patterns distinguished by Verkerk generally seem to hold true, some of her conclusions on the encoding of resultatives in particular languages are debatable. For example, although the author admits that adjectival resultatives are very restricted in Greek (citing Giannakidou and Merchant 1999), she still states that both depictives and resultatives are encoded by agreeing adjectives and ascribes Greek to manner-excluding languages (Verkerk 2009b, 86). However, in Greek adjectival resultatives can be used only with a very limited number of verbs (mainly *paint* and *slice*; see 5.13), while in other cases the verb-framed model or a subordinate clause is employed usually. Thus, stating that depictives and resultatives share the same formal encoding means in Greek is misleading as the former are usually marked by agreeing adjectives and the latter are usually expressed by non-RSP strategies (see 4.7). Certainly, the reason for this kind of shortcoming might have been the very small number of examples that the author uses, which may have been determined by the format of her MA thesis.

Verkerk's language sample includes more of the European languages discussed in the dissertation: French, Dutch, Czech, Norwegian, Finnish, etc. Some of her conclusions on the encoding of resultatives in these languages will be presented in the chapters on the respective languages.

2.5 The influence of the theoretical approaches on the dissertation

The overview of the theoretical approaches was, on the one hand, intended to show the complexity of the phenomenon, while on the other hand, it also presents many insights into the different theories that have been applied in this dissertation.

The conception and the form of the dissertation itself was developed in the process of reading theoretical literature and collecting material. The first questionnaire (see Appendix 1) was composed in the spirit of the unaccusative hypothesis and represented the availability of RSPs with the syntactic types of verbs. The second questionnaire (see Appendix 2) aimed to extract more specific information on the use of RSPs with verbs of different aspectual types. The results confirmed that the lexical aspect of a verb does play a role in the licensing of resultatives. On the other hand, it also proves that the lexical aspect is not a sufficient criterion in explaining the entire range of resultatives.

As far as a further contribution of works written in the frameworks of formal semantics is concerned, the most prominent is the idea that an accomplishment event, causation and telicity are the key semantic features of the resultative construction. These features allow prototypical resultatives to be distinguished from resultative-like constructions which range on the periphery of the phenomenon.

Cognitive semantics, in general, has yielded the idea that the encoding of a linguistic phenomenon depends on the conceptualisation of an event. One of the most influential cognitive semantic works has been the study by Boas (2003) which demonstrated that one dealing with resultatives should not look for generalisations referring to broad types of verbs but should rather focus on

particular predicates. Croft et al.'s paper (2010) also implied that individual situations might receive different encoding due to their individual semantics.

My data confirms, to a large extent, the ideas proposed by Boas and Croft et al.: more than a half of the types of resultatives distinguished in the dissertation represent specific situations and include one or two (semantically very close) verbs. On the other hand, there are types (SLICE, BEAT, and SHOUT) which subsume more distinct situations: these predicates usually have some properties that make them behave in the same manner. The types of resultatives discussed in the dissertation are as follows⁷:

PAINT: *to paint x red / blue / green*;

COOK: *to cook the egg hard*;

LOAD: *to load the wagon full, to pour the glass full*;

WIPE: *to wipe the table clean, to wipe the table dry*;

SLICE: *to slice the meat thin, to grind the coffee fine*;

BEAT: *to beat the man unconscious, to kick the man to death, to hammer the metal flat*;

SHOUT: *to shout oneself hoarse, to dance oneself tired, to eat oneself sick*.

The works of Talmy have, of course, also contributed significantly: the distinction between satellite-framed and verb-framed models allows a line to be drawn between those constructions which express resultative secondary predication and constructions which do not.

Verkerk's thesis presented a challenging opportunity to compare the formal encoding means of resultatives used all over the world with the encoding means which are typical of a particular area, viz. Europe.

The aim of the dissertation to establish cross-linguistic types of resultatives according to their semantic and morphosyntactic features makes it topical both in the field of typology and in the discussion of resultatives. The only works in this direction (at least to my knowledge) are Washio (1997) and

⁷ These types, of course, have not been distinguished in advance but follow an examination of the morphosyntactic and semantic properties of the data. They are presented here in order to give the reader an understanding of the issue.

Croft et al. (2010). However, the classification of resultatives proposed by Washio lacks a data-supported background, while the Croft et al.'s paper is dedicated to refining Talmy's hypothesis rather than to giving a thorough examination of resultatives. Therefore the authors only distinguish very broad encoding models, viz. double-framed, satellite-framed, etc., and do not examine more specific formal encoding means such as adjective, prepositional phrase, adverb, etc. The authors distinguish 8 situations types which represent resultatives based on accomplishments and transitive activities but resultatives including intransitive activities, such as *to shout oneself hoarse*, are left out of the consideration. In addition, their language sample is also small and includes only five languages.

Thus, the dissertation aims to give a more detailed description of the cross-linguistic properties of the resultative secondary predication.

3. The core and the periphery of the resultative construction

The phenomena of a language usually cannot be neatly set apart by strict definitions as there are always borderline cases. As far as the resultative construction is concerned, a distinction can be made between core resultatives and peripheral resultatives. The latter share some features with prototypical cases but, on the other hand, bear some features which make them distinct from resultatives and similar to other phenomena.

3.1 Prototypical resultatives

As was discussed in 2.2.1, the resultative construction instantiates an accomplishment event which is usually composed of an activity event⁸ and a change of state event. The two events of an accomplishment are related via a causal relation: the activity causes a change in the state of a participant. Therefore, resultatives “always describe causative change of state” (Levin, Rappaport 1995, 54; cf. Dowty 1979, 93). In addition, the event of a change of state (together with a bounded object) delimits the activity in terms of introducing the telic point, cf. “One of the most prototypical ways to associate an eventuality with a natural endpoint is for the event to involve a change from one state to another, explicitly defined, state” (Demonte, McNally 2012, 2). Thus, causation and telicity are treated here as basic semantic features of the resultative secondary predication and consequently constructions which bear both features are regarded as prototypical resultative constructions.

A causative situation is an event in which a causer acts and a causee “carries out an action or undergoes a change of condition or state as a result of the causer’s action” (Song 2006, 265). The verb used in the resultative construction might be, but by no means has to be, causative. What necessarily has to be causative in prototypical resultatives is the relationship between the

⁸ Resultatives based on achievement verbs are also sometimes possible, e.g. *to shoot x dead*. However, they are considerably less common than resultatives based on activities and accomplishments (Rothstein 2004, 83).

two events: the activity event and the change of state event. As a test to prove causative relation the paraphrases presented in (61) and (62) are used.

(61) ‘y became z because y was “acted”’, e.g. *John beat the man to death – the man became dead because he was beaten*.

(62) ‘x became z because x “acted”’, e.g. *John shouted himself hoarse – John became hoarse because he shouted*.

A telic point is a natural endpoint which bounds an event: “A telic situation is one that involves a process that leads up to a well-defined terminal point, beyond which the process cannot continue” (Comrie 1995, 45). The telic point can be encoded lexically by a verb, e.g. *arrive*, it can be introduced by a bounded object, e.g. *to eat an apple*, *to paint a car*, or by an adjunct, e.g. *to beat the man to death*, *to run to the store*.

Telicity is independent of another bounding feature, viz. perfectivity, which denotes the completion of an action (Comrie 1995, 18). Thus, telic situations might, on the one hand, be either perfective or imperfective, e.g. *he has eaten an apple* and *he was eating an apple*, and, on the other hand, perfective situations might be either telic or atelic: perfective “refers to an action that is finished, whether it has a natural endpoint that has been reached, or simply terminates” (Croft 2012, 77), e.g. Lith. *su-valgė obuolį* ‘PRF-ate an apple’ and Lith. *pa-dirbėjo* ‘PRF-worked for a while’.

However, in some languages telicity and perfectivity are closely related. This is precisely the case in Slavic and Baltic languages. The verbal particles of Hungarian (as well as of German or Dutch) are also sometimes treated as expressing telicity or perfectivity. In Finnic languages telicity and resultativity often correlate with the accusative case. These issues have been broadly covered in the linguistic literature. I will not go into these questions in detail here and will highlight only the facts which are relevant to the discussion of resultatives.

3.1.1 Resultatives and prefixation in Slavic and Baltic languages

Slavic and Baltic languages have verbal prefixes which are usually assumed to express both telicity and perfectivity⁹. With regard to Slavic languages, Dahl has shown that the perfective aspect cannot be used with unbounded activities (Dahl 1984, 10), cf. (63) and (64), and concludes that “the Slavonic-type aspect categories are not proper inflectional but rather what could be called grammaticalised lexical categories” (Dahl 1984, 18–19).

(63) Russian (from Dahl 1984, 10)

On *pisal* *pis 'ma.* (ibid)

he write.IMPRF.PRT.SG.M letter.ACC.PL

‘He wrote letters.’ (unbounded, imperfective)

(64) Russian (from Dahl 1984, 10)

On *na-pisal* *pis 'ma.* (ibid)

he PRF-write.PRT.SG.M letter.ACC.PL

‘He wrote the letters.’ (bounded, perfective)

One can say that in (64) the prefix introduces both perfectivity and telicity (cf. the definite article in the corresponding English sentence). Similarly, in Lithuanian prefixes can also introduce perfectivity and telicity, e.g. in (65) the prefix not only introduces perfectivity (the event of eating is complete), but also indicates an inherent bound (John ate until he was full).

(65) Lithuanian

Jonas *pri-valgė.*

John PRF-eat.PST.3

‘John ate himself full.’

Consequently, in Slavic and Baltic languages the result component which is determined by the telic nature of an event is expressed by a prefixed verb rather than by a secondary predicate (as, for example, in Germanic languages) which usually only specifies the result already implied by a verb. In order to

⁹ Since the grammaticalisation of the aspectual system is evidently weaker in Baltic than in Slavic languages (cf. Comrie 1995, 91; Holvoet 2014, 89), it is sometimes claimed that the Baltic languages do not have an opposition perfective – imperfective at all. For example, Arkadiev states that “the properties of verbs and verb forms which are usually accounted for in terms of this opposition [perfective – imperfective] are derived directly from the lexical semantics of the predicates, i.e. from their actionality” (Arkadiev 2011, 70).

convey resultative meaning a construction has to include a prefix, cf. “In Latvian <...> the complex predication must always be marked by a verbal prefix” (Holvoet 2008, 131).

Nonprefixed verbs can sometimes also enter similar constructions, e.g. (66) and (67).

(66) Latvian (from Logina 2014, 54)

<i>Degvīns</i>	<i>ir</i>	<i>bezkrāsains,</i>	<i>taču</i>
vodka.NOM.SG	be.PRS.3	colourless.NOM.SG	but
<i>degunu</i>	<i>krāso</i>	<i>sarkanu,</i>	<i>bet</i>
nose.ACC.SG	paint.PRS.3	red.ACC.SG	and
<i>reputāciju</i>	–	<i>melnu.</i>	
reputation.ACC.SG		black.ACC.SG	

‘Vodka is colourless but paints the nose red and the reputation black.’

(67) Polish (from Gulowski 2013, 5)

<i>Malarz</i>	<i>malował</i>	<i>dom</i>	<i>na</i>	<i>czerwono</i>
painter	paint.IMPRF.PRT.M.SG	house.ACC.SG	on	red.ACC
<i>przez godzinę / *w godzinę.</i>				
for hour / in hour				

‘The painter was painting the house red for an hour.’

However, as the Polish example in (67) shows these sentences are atelic: the adjunct *na czerwono* on its own cannot “aspectually delimit the eventuality when combined with an atelic (imperfective) construction” (Gulowski 2013, 5).

The crucial role of verbal prefixes is also manifested in resultatives with unsubcategorised objects (reflexives or NPs). Contrary to Germanic languages, where the unsubcategorised argument is licensed by the secondary predicate (the former cannot be used without the latter)¹⁰, e.g. (68), in Baltic languages

¹⁰For example, *Grammatik der deutschen Sprache* states that “a verb’s transitivity [deriving a resultative from an intransitive verb] can be carried out only provided that the other constituent – PP or ADJP – is related to the accusative complement” (*Die Transitivity des Verbs kann also nur unter der Bedingung erfolgen, daß mit dem Akkusativkomplement eine weitere Konstituente – PP oder ADJP – angebunden wird*; Zifonun 1997, 1114) (also cf. Wunderlich 1997, 95).

the unsubcategoryed object is licensed by the prefix, while the secondary predicate does not play any role in this, e.g. (69).

(68) **John walked his foot* vs. *John walked his foot sore*.

(69) Latvian

a) **Jānis staigāja kājas (beigtas)*.

John walk.PST.3 foot.ACC.PL exhausted.ACC.PL

a) *Jānis no-staigāja kājas (beigtas)*.

John PRF-walk.PST.3 foot.ACC.PL exhausted.ACC.PL

‘John walked his feet sore.’

To summarise, in Baltic and Slavic languages prototypical resultative constructions include a verbal prefix which expresses the result, while the secondary predicate only specifies this result.

3.1.2 Resultatives and verbal particles in Hungarian

Hungarian possesses verbal particles (they can either function as separate words or be adjoined to verbs as prefixes) which in some respect resemble Slavic and Baltic prefixes. These particles sometimes are assumed to express perfectivity, cf. É. Kiss 2006, 17; Kangasmaa-Minn 1984, 93. However, a clear correlation between the use of particles and perfectivity cannot be drawn: “it appears that we are not dealing with a systematic manifestations of PFV: the correlation with the hypothesised ideal distribution of PFV is almost nil” (Dahl 1984, 15).

Therefore, there have been attempts to argue that Hungarian verbal particles convey telicity: “The verbal particle, whether resultative, terminative, or locative, plays a role in determining the situation aspect, i.e., basically, the [+/-telic] nature, of sentences. Resultative and terminative particles have a telicising effect, whereas locative particles occur in a type of atelic sentence. They are not direct aspectual operators; they assume an aspectual function by means of their lexical meaning (e.g., in the case of terminatives and resultatives, by means of their delimiting role)” (É. Kiss 2006, 41; also Bene 2010, 142).

However, none of these explanations (treating particles as markers of perfectivity or as markers of telicity) is able to account for all cases of the usage of verbal particles. Dahl states that the distribution of particles primarily seems to be determined lexically since some of verbs do not have aspectually marked counterparts at all (Dahl 1984, 15). In addition, he assumes that factors such as definiteness also play a significant role (ibid).

Hungarian verbal particles, like Slavic and Baltic prefixes, “mean that the individual affected by the given change has been totally affected, and it has attained the new state following from the given change” (É. Kiss 2006, 19). Nevertheless, there is a crucial difference between Hungarian and Baltic-Slavic resultatives. While in Baltic and Slavic languages resultative secondary predication is expressed by the combination of the prefix and the resultative adjunct, in Hungarian verbal particles and resultative adjuncts are usually in complementary distribution (Komlósy 1992). In other words, it is either a particle or an adjunct that is present in a sentence, e.g. (70).

(70) Hungarian (from Komlósy 1992, 52)

<i>*Péter</i>	<i>pirosra</i>	<i>be-festette</i>	<i>a</i>	<i>kerítést.</i>
Peter	red.SUB	into-painted	the	fence.ACC

‘Peter painted the fence red.’

É. Kiss (2004) and Jurth (2013) refer to cases in which the particle and the resultative adjunct co-occur, e.g. (71). Jurth cites the explanation proposed by É. Kiss (2004): “In this case, the verbal particle is related to the nominal resultative in a way that the particle contains grammatical features only, such as an aspectual feature denoting the endpoint or the new result state, but it lacks descriptive content in the lexical sense” (Jurth 2013, 335).

(71) Hungarian (from Jurth 2013, 335)

<i>Éva</i>	<i>ki-mosta</i>	<i>a</i>	<i>ruhát</i>	<i>tisztára.</i>
Eve	out-washed	the	clothes.ACC	clean.SUB

‘Eve washed the clothes clean.’

Example (71) seems identical to Baltic and Slavic resultatives as the prefix expresses an abstract notion of the result while the adjunct specifies it.

However, examples of this kind are very rare in Hungarian and constitute an exception rather than the rule (as in Slavic and Baltic languages).

In Hungarian, unlike Baltic and Slavic languages, the resultative adjunct alone can delimit an event and express the result. The different status of Hungarian resultative adjuncts is also manifested by the fact that the adjunct can license an additional argument: either a reflexive, e.g. (72), or a NP, e.g. (73).

(72) Hungarian

John betegre ette magát.

John sick.SUB eat.PST.3SG himself.ACC

‘John ate himself sick.’

(73) Hungarian (from Surányi 2009, 55)

János rongyosra járta a cipőjét.

John ragged.SUB walk.PST.3SG the shoe.POSS.3SG.ACC

‘John walked his shoes threadbare.’

Thus, it seems that Hungarian verbal particles have more common features with German and Dutch verbal particles (also referred to as separable prefixes) than with Baltic and Slavic prefixes. In German and Dutch particles and resultative secondary predicates also seem to be in complementary distribution. Pütz argues that German verbs containing particles (in origin – prefixes) “cannot be used causatively” (Pütz 1988, 184), i.e. they cannot constitute a resultative, while Neelman and Weerman state that Dutch particles and resultatives are mutually exclusive: “the combination of two particles, two resultatives, or a particle and a resultative is ungrammatical, even if the particles/resultatives can be combined individually with the verb” (Neelman, Weerman 1993, 436).

To conclude, in Hungarian prototypical resultatives the result component is expressed by the secondary predicate in the same manner as in Germanic languages.

3.1.3 Resultatives and the accusative case in Finnic languages

In Finnic languages, viz. in Finnish and Estonian, telicity is to a large extent expressed by the case of the object: if an event is unbounded or irresultative, the partitive is used, e.g. (74), and if an event is bounded or resultative, the object is in the accusative case (Kiparsky 1998, 2), e.g. (75). Thus, (74) does not specify what happened to the bear (though the usual interpretation would be that the shot missed), while (75) implies that the bear was shot dead (*ibid.*).

(74) Finnish

Ammuin *karhua*. (Kiparsky 1988, 2)

shoot.PST.1SG bear.PART

‘I shot at the (a) bear.’

(75) Finnish

Ammuin *karhun*. (Kiparsky 1998, 3)

shoot.PST.1SG bear.ACC

‘I shot the (a) bear.’

In addition, in Finnish the opposition of the accusative and partitive cases is also assumed to reflect the nature of an object: the partitive indicates that the object is “quantitatively indeterminate” (Kiparsky 1998, 1), while the accusative refers to quantitatively determinate object.

The same factors hold in Estonian: “In Estonian, the partitive-total [i.e. partitive-accusative] object case alternation has been observed to reflect either the aspectual opposition of boundedness, resultativity, and perfectivity or the NP-related oppositions of definiteness, knownness, and specificity” (Tamm 2007, 230).

Nevertheless, the distribution of the partitive and accusative in both languages is far from being clear as neither of the factors covers the entire range of the usage of the two cases and these factors sometimes even contradict each other (cf. Kiparsky 1998, 4; also Tamm 2007, 230–231). I will leave this problem at this point and emphasise the structural parallels between Finnic resultatives and Slavic-Baltic resultatives.

In general, the distribution of the Finnic partitive and accusative cases corresponds to the distribution of Russian imperfective and perfective aspects. Kiparsky, citing Dahl (1985), states that “if either the verb is atelic (does not denote a completed event), or the object is an indefinite bare plural, then Russian in general requires imperfective aspect, and Finnish requires partitive case” (Kiparsky 1998, 7). However, as regards the semantic structure of the resultative construction there is another parallel between the two groups of languages.

The accusative case indicates the existence of a bound which can in turn be either specified or left unspecified (Heinämäki 1984, 173). In “telic situations the bound can be left for the reader/hearer to infer” (ibid, 173): this is exactly the case of (75) which conventionally implies the death of the bear. However, the bound implied by the accusative case can be specified as in (76) or (77).

(76) Finnish (from Heinämäki 1984, 157)

<i>Metsästäjä</i>	<i>ampui</i>	<i>lehmän</i>	<i>kuoliaaksi.</i>
hunter	shoot.PST.3SG	cow.ACC.SG	dead.TRA

‘The hunter shot the cow dead.’

(77) Finnish (from Heinämäki 1984, 157)

<i>Metsästäjä</i>	<i>ampui</i>	<i>lehmän</i>	<i>silmäpuoleksi.</i>
hunter	shoot.PST.3SG	cow.ACC.SG	eye.half.TRA

‘The hunter shot and blinded the cow in one eye.’

Heinämäki states that *kuoliaaksi/silmäpuoleksi* “are not independent bounds added on top of the accusative object, but rather specifications of the bound, the existence of which is implied by the accusative object” (Heinämäki 1984, 157). This observation shows a clear parallel between Finnic and Baltic-Slavic languages as in both groups of languages the secondary predicate only specifies a result which is already implied by other means: prefixes in Baltic and Slavic languages and the accusative case in Finnic languages.

Just as Baltic and Slavic languages sometimes allow the prefix to be omitted, e.g. (66) and (67), Finnish sometimes allows the “omitting” of the accusative case, cf. (78) in comparison with (79).

(78) Finnish (from Heinämäki 1984, 158)

Sari luki juristiksi.

Sari read.PST.3SG lawyer.TRA

(79) Finnish (from Heinämäki 1984, 158)

Sari luki itsensä juristiksi.

Sari read.PST.3SG herself.ACC lawyer.TRA

‘Sari read herself to lawyer.’

As expected, the Finnish sentence in (78) is atelic: “The object, however, can be left out from (79)¹¹, but the resulting sentence, (78), does not necessarily denote a bounded situation. This can be illustrated by the fact that a phrase of temporal duration can be added to (78), but not to (79)” (Heinämäki 1984, 159), cf. (80).

(80) Finnish (from Heinämäki 1984, 158)

Sari luki juristiksi 5 vuotta.

Sari read.PST.3SG lawyer.TRA 5 years

‘Sari read 5 years towards a degree in law.’

Therefore, the accusative case is a feature of prototypical Finnic resultatives.

3.2 The periphery of the resultative construction

Apart from prototypical resultatives which demonstrate both causation and telicity there is a great variety of constructions which lack one of the features. I will mention four types of peripheral resultatives here. However, the number of these types by no means is finite and could be extended further (for example, particular posture constructions could be also treated as belonging to the periphery of the resultative construction, cf. Riaubienė 2014).

¹¹ The numeration is adapted to the sequence of the examples in the dissertation.

Rothstein (2001, 2004) cites examples such as (81) as evidence that resultatives do not necessarily have to show a causative relation, cf. (82).

(81) *Reluctant to let him go, the audience clapped the singer **off the stage**.* (Rothstein 2001, 149; 2004, 104)¹²

(82) **The singer went off the stage because the audience clapped.* (with the meaning of (81))

Resultatives as in (81) can be characterised as marking attendant circumstances. From situations where the co-occurrence of events is ascribed to a causal link between them, the construction shifts to situations characterised only by this co-occurrence.

Another type of peripheral resultatives is illustrated in (83), cf. (84).

(83) *He built the house **splendid**.* (Miyata 1997, 249)

(84) **The house became splendid because it was built.*

In (83) the quality of the house is not the final point of an incremental process; it is, however, contrary to expectations, and the resultative construction is borrowed to encode this. Miyata (1997) argues that (83) does not “receive a resultative interpretation” due to the pre-existence constraint: “An entity which can appear in the object position of the resultative construction must be the entity which is already in existence prior to the action described by a verb” (Miyata 1997, 294). Thus, if the verb *build* in (83) is replaced by *rebuild* which implies the existence of the object the resultative interpretation becomes possible, cf. (85).

(85) *He rebuilt the house **splendid**.* (Miyata 1997, 249)

The last type of resultatives which show an extended interpretation of causation is exemplified in (86), cf. (87)

(86) *John sliced the tomato **thin**.*

(87) **The tomato became thin because it was sliced.*

¹² Actually, Rothstein treats the sentence *Mary drank John under the table / sick / dizzy* in line with the sentence in (81). However, the latter example is different from the rest since it is possible to discern a loose kind of causation here: Mary’s drinking causes John’s drinking which causes him to land unconscious under the table. Shibatani (2001) distinguishes two types of causation according to the type of a causee. In the case of direct causation, the causer affects the causee physically (Shibatani 2001, 89) and, consequently, the latter is conceived as a theme. And in the case of indirect causation, the causer acts on a causee who is an agent and performs an action volitionally (ibid). Thus, the relevant example is basically a case of indirect causation.

Constructions including creation verbs such as in (86) have been referred to as spurious resultatives (Washio 1997, 17; see 2.4.2) or pseudoresultatives (Levinson 2010). As Levinson (2010) points out, the adjunct here denotes the state of the created entity (slices), but this state is not the result of the action itself: it goes in accordance with the manner in which the action was performed. In other words, it is the manner of the action (i.e. ‘slicing thinly’ and not just ‘slicing’) that determines the property of the participant. The causative interpretation arises because the adjunct modifies the entity which comes into being as a result of an action: “The result-oriented interpretation of the modifier arises because the constituent it modifies is interpreted as an individual created by the event” (Levinson 2010, 155). Thus, the type represents the extension of the meaning of resultatives in the following way: ‘an object x gains a property z due to “acting” (proper resultatives) > ““acting” creates an object x which has a property z’.

Finally, there are resultative-like constructions which are causative but atelic: with regard to (88) Goldberg and Jackendoff argue that “expressions like *hotter* and *hotter* arguably denote an unbounded path of change in the ‘hot direction’; hence when used as RP they too will result in atelic sentences” (Goldberg, Jackendoff 2004, 544).

(88) *For hours, Bill heated the mixture hotter and hotter.* (Goldberg, Jackendoff 2004, 543)

All the constructions discussed above share one of the two basic features with prototypical resultatives and could be included in the semantic map of the resultative secondary predication. As the meaning of these constructions is extended from the prototypical meaning of resultatives, their formal encoding presumably differs from the usual encoding of resultatives at least in some languages (for example, in Lithuanian sentences such as (83) can include adjectival secondary predicates which are typical of depictives). The investigation of all peripheral types of resultatives would have been too large a task for this dissertation and I will therefore leave this issue for further research.

However, I have included one type, viz. the *slice* type, into the research for two reasons. Firstly, this type seems to be one of the closest to prototypical resultatives semantically (it can be treated as causative in a very loose sense: slicing causes the creation of a new object which has a particular property). Secondly, examples such as (86) are often cited in the literature in order to prove the existence of the resultative construction in a language (especially in the works on Romance and other “verb-framed” languages, cf. Napoli 1992; Legendre 1997). This prompted me to examine the *slice* type in order to reveal its position in the domain of resultatives.

4. Morphosyntactic encoding of RSP

As was discussed in 2.4.1, a complex event consisting of manner and result subevents can be encoded in four ways cross-linguistically: by the symmetrical model, by the verb-framed model, by the satellite-framed model and by the double-framed model. The resultative secondary predication falls under the two latter models: double-framed in Slavic and Baltic (and possibly in Finnic) and satellite-framed in Germanic languages.

The distinction between double-framed and satellite-framed models is meaningful in defining general principles of the encoding of the resultative secondary predication. However, as regards the encoding of the resultative secondary predicate as such, the distinction is less useful. First of all, it would increase the number of formal types of encoding considerably, for example, instead of one strategy ADJ three strategies should be distinguished: ADJ, Prefix+ADJ, Accusative+ADJ. Secondly, the inclusion of the components Acc and Pref would not add much information because these components occur in particular groups of languages by default. In other words, there are no languages (at least in my sample) which would encode resultatives by strategies ADJ and Prefix+ADJ alternatively.

Therefore, I will stick to simplified strategies such as ADJ which in turn will subsume English RSP in (89), Latvian RSP in (90) and Estonian RSP in (91) regardless of the difference in the place where the main resultative meaning is expressed.

(89) *John loaded the wagon **full**.*

(90) Latvian

*Jānis pie-krāva vagonu **pilnu**.*

John PRF-load.PST.3 wagon.ACC.SG full.ACC.SG

‘John loaded the wagon full.’

(91) Estonian

*John jõi klaasi **tühjaks**.*

John drink.PST glass.ACC.SG empty.TRA

‘John drank the glass empty.’

The verb-framed model, as well as other expressions which cannot be treated as satellite or double-framed, will not be examined in detail and will instead be subsumed under one ‘non-RSP’ strategy. As regards the symmetrical model, coordination falls under non-RSP strategies, while compounding is included in the list of strategies expressing RSP¹³.

4.1 Adjective (ADJ)

Adjective is the most explicit strategy to encode RSP: it clearly indicates that the state which resulted from the action denoted by a verb is oriented to the participant of the event. Adjectival resultatives are consistently used in Germanic and Finnic languages, as well as in Latvian and Hungarian. Irish oscillates between adjectival marking and non-RSP marking.

Adjectival RSP can either agree with its controller, have an invariable form, or bear a specific “result-denoting” case. RSP agrees with the controller in North Germanic languages and Latvian, e.g. (92) and (93), while in the rest of the Germanic languages and in Irish it has an uninflected form, e.g. (94) and (95).

(92) Danish (from Allan et al. 1995, 86)

<i>Han</i>	<i>malede</i>	<i>stolen</i>		<i>grøn,</i>
3SG.M	paint.PST	chair.DEF.SG.C		green.SG.C
<i>bordet</i>	<i>gult</i>	<i>og</i>	<i>væggene</i>	<i>hvide.</i>
table.DEF.SG.N	yellow.SG.N	and	wall.DEF.PL	white.PL

‘He painted the chair green, the table yellow and the walls white.’

(93) Latvian

<i>Jānis</i>	<i>no-krāsoja</i>	<i>galdu</i>	<i>dzeltenu</i>
John	PRF-paint.PST.3	table.ACC.SG	yellow.ACC.SG
<i>un</i>	<i>krēslus</i>	<i>sarkanus.</i>	
and	chair.ACC.PL	red.ACC.PL	

‘John painted the table yellow and the chairs red.’

¹³ The third symmetrical strategy, viz. serial, is irrelevant for the discussion of European languages.

(94) German

a)

John wischte den Tisch sauber.

John wipe.PST.3SG DEF.ACC.SG.M table clean

‘John wiped the table clean.’

b)

John spülte die Tassen sauber.

John rinse.PST.3SG DEF.ACC.PL.F cup.PL clean

‘John rinsed the cups clean.’

(95) Irish

Phéinteáil Seán an chathaoir /

paint.PST Seán DEF.SG chair.SG /

na cathaoireacha dearg.

DEF.PL chair.PL red.

‘John painted the chair / the chairs red.’

In Finnic languages and Hungarian adjectival resultatives bear translative or sublative cases respectively, e.g. (96) and (97). The translative case denotes the result of an event (cf. Karlsson 1999, 125) and has the meaning ‘turn into’ (see more in 5.11). The sublative is a directional case meaning ‘onto, to’, therefore Hungarian resultatives resemble prepositional phrases structurally and semantically (cf. Jurth 2013, 339). These cases can be attached to both adjectives and to nouns. However, nominal resultatives are extremely rare in my sample of examples (see 4.6).

(96) Estonian

Jaan keetis muna kõvaks.

John cook.PST.3SG egg.ACC.SG hard.TRA

‘John cooked the egg hard.’

(97) Hungarian

John szárazra törölte a tányért.

John dry.SUB rub.PST.3SG DEF plate.ACC.SG

‘John rubbed the plate dry.’

There are a number of languages which seem to allow adjectival predicates only in certain types of resultatives, see Table 1 (the languages which encode RSP consistently by adjectives are not included).

Table 1. The distribution of adjectival resultatives¹⁴.

	<i>PAINT</i>	<i>SLICE</i>	<i>COOK</i>	<i>WIPE</i>	<i>LOAD</i>	<i>BEAT</i>	<i>SHOUT</i>
Albanian	ADJ						
Basque	ADJ						
Bulgarian	ADJ						
Croatian					(ADJ)		
French	(ADJ)	(ADJ)					
Greek	ADJ	(ADJ)					
Italian	(ADJ)	(ADJ)			(ADJ)		
Portuguese		(ADJ)					
Spanish	(ADJ)						
Maltese	ADJ						
Lithuanian					ADJ		
Macedonian	ADJ						

The table shows that adjectival resultatives mostly occur with the verb *paint* and are sometimes used with verbs of other types, viz. *SLICE* and *LOAD*. The unique status of the verb *paint* can be accounted for by its semantics. While most of the verbs (of the types presented in Table 1) either imply a specific result (e.g. *load* implies fullness, *wipe* implies cleanliness) or do not imply a result at all (e.g. *beat*, *shout*), *paint* implies an abstract result, viz. that the colour of the object has changed. Specifying a particular colour is significant for communicative purposes and therefore an adjunct – usually an adjective or a PP – is allowed (see Table 3). The same account could be given for the verb *slice*: it also gives a choice of a result: the slices can be either thin or thick. Thus, resultatives with verbs such as *load* only “confirms” the result

¹⁴ The table shows the distribution of adjectival resultatives only: the same types of resultatives can be also encoded by other formal strategies in a language, e.g. in Albanian the type *PAINT* can be expressed by an adjective, adverb and *in*-PP.

that has been already implied by the verb, while resultatives with *paint* and *slice* introduce communicatively new information (the last point would also hold for *cook*).

As regards the type LOAD, especially in Lithuanian (and probably in Croatian) another factor might have worked. The verbs of filling *load* and *pour* take part in the locative alternation, e.g. (98).

(98) Lithuanian (from Holvoet 2008, 138)

Ona pri-pylė stiklinę vandens.

Ann PRF-pour.PST.3 glass.ACC.SG water.GEN.SG

‘Ann filled a glass with water.’

In (98) the structure of the sentence can be interpreted in two ways: the theme might be either *stiklinę* ‘glass.ACC’ or *vandens* ‘water.GEN’ (Holvoet 2008, 137). In the latter case the NP *stiklinę* ‘glass.ACC’ functions as a quantifier and as such can have a modifier (attribute) on its own, e.g. (99) which is similar to (100).

(99) Lithuanian

Ona pri-pylė [pilną stiklinę] vandens.

Ann PRF-pour.PST.3 full.ACC.SG glass.ACC.SG water.GEN.SG

‘Ann filled a full glass with water.’

(100) Lithuanian

Ona pri-pylė [dvi stiklines] vandens.

Ann PRF-pour.PST.3 two.ACC glass.ACC.PL water.GEN.SG

‘Ann filled two glasses of water.’

However, once a sentence such as (99) appears it can be reinterpreted in another way, viz. the quantificational NP can be reinterpreted as the theme (Holvoet 2008, 138), cf. (101).

(101) Lithuanian

Ona pri-pylė pilną stiklinę [vandens].

Ann PRF-pour.PST.3 full.ACC.SG glass.ACC.SG water.GEN.SG

‘Ann filled a glass with water.’

Due to the free word order the adjective in (101) can be placed after the noun creating a prototypical resultative, cf. (102).

(102) Lithuanian

Ona pri-pylė stiklinę pilną (vandens).
 Ann PRF-pour.PST.3 glass.ACC.SG full.ACC.SG water.GEN.SG
 ‘Ann filled the glass full (with water).’

The final note concerns adjectival resultatives which were taken from the literature (they can be found in brackets in Table 1). These examples (usually the same ones) recur in the literature again and again. However, none of my informants used an adjectival RSP in the respective sentences and at best they judged the examples from the literature as odd. Therefore, I assume that even if these examples are grammatical they definitely cannot be treated as a typical strategy of a particular type. Although I have presented them in the chapters on particular languages, I did not regard them when I was drawing the semantic map.

4.2 Adverb (ADV)

In general, adverbs are assumed to modify an event rather than the participant of an event. However, “the fact that adverbials are not necessarily and exclusively event-oriented but instead may exhibit semantic orientation towards a participant has been widely noted in the (semantic) literature” (Himmelmann, Schultze-Berndt 2005, 7). (103) presents sentences which include the so-called participant-oriented resultative adverbs (cf. Geuder 2000).

(103)

- a) *They loaded the cart **heavily**.* (Himmelmann, Schultze-Berndt 2005, 6)
- b) *She grows chrysanthemums **marvellously**.* (Broccias 2004a, 3)
- c) *The soldier was wounded **badly**.* (ibid)
- d) *She painted the room **beautifully**.* (ibid, 1)

However, a closer look at the constructions in (103) reveals that they are essentially different from resultatives: in the strict sense the adverbs in (103) either do not denote a state of an object or the state is not the result of an action

denoted by adverb. In (103a) the weight of the cart itself does not increase due to the load: here “a property is predicated of an implicit resultant object (*a heavy load*) rather than of the explicitly expressed object (in this case, *the cart*)” (Holvoet 2008, 134), cf. resultative *to load the cart full* where fullness is the property of the cart. In (103b) the chrysanthemums do not become marvellous because they are being grown, in (103c) the soldier does not become “bad” himself, and in (103d) the room as a whole does not necessary become beautiful (it is just the walls that were painted in a beautiful manner).

According to Broccias, “adverbial resultative constructions differ from adjectival resultative constructions in that they crucially rely on property ascription by the conceptualiser” (Broccias 2004a, 21). In other words, the properties referred to by the adverbs in (103) are not inherent properties of the entities (such as redness in *painted the car red*) but rather are attributed externally by a conceptualiser.

Adverbs such as in (103) are typical both of languages that have a wide distribution of resultatives and of languages which generally avoid resultatives. For example, in Romance languages they usually bear an adverbial affix (It. *-mente*, Fr. *-ment*) which overtly indicates the manner component, e.g. (104).

(104) Italian (from Broccias 2004a, 4)

Sally dipinse la stanza magnificamente.

Sally painted the room beautifully

‘Sally painted the room beautifully.’

Consequently, this kind of adverbs does not fall under the scope of this dissertation. However, there are languages which make use of adverbs to express proper resultative predication. The most prominent of these languages is Lithuanian, which consistently encodes RSPs by adverbs. “Lithuanian adverbs are clearly different from these [“resultative adverbs” discussed above] in that they predicate a property of the explicitly expressed object” (Holvoet 2008, 134), e.g. (105) and (106).

(105) Lithuanian

Jonas nu-dažė mašiną raudonai.

John PRF-paint.PST.3 car.ACC.SG red.ADV

‘John painted the car red.’

(106) Lithuanian

Jonas nu-šluostė stalą švariai.

John PRF-wipe.PST.3 table.ACC.SG clean.ADV

‘John wiped the table clean.’

The adverbs in (105) and (106) are semantically and syntactically equivalent to the respective adjectives used in other languages, for example, Latvian (cf. Holvoet, Mikulskas 2005, 121–126).

RSP conveying adverbs also occur in other languages: Šarić states that in Croatian adverbs “function semantically as adjectives proper found in resultative constructions in other languages” (Šarić 2008, 28). Thus, adverbs such as *gusto* ‘thick’ in (107) “cannot be considered adverbial modifiers of the verbal action because they designate the resultative stage the cooked object should reach: the eggs are hard-boiled at the end of the boiling process; the eggs and sugar are thick at the end of the cooking process” (ibid, 27).

(107) Croatian (from Šarić 2008, 26)

Jaja i šećer gusto skuhaite.

egg.ACC.PL and sugar.ACC thick.ADV cook.IMPER

‘Cook the eggs and sugar [until] thick.’

In general resultatives have a closer relationship with the verb than depictives and this might be the reason why RSPs are encoded in some languages by a strategy typical of event-oriented adjuncts: “The use of the adverb for the resultative predicate should evidently be taken to mean that the resultant state is viewed as being present *in potentia* in the event itself and in this sense the secondary predication <...> is represented as event-oriented” (Holvoet 2008, 133; also Holvoet, Judžentis 2003, 72).

As was mentioned earlier, Lithuanian is the only language which consistently encodes RSPs by adverbs. However, there are many languages which make use of adverbs in particular types of resultatives, see Table 2.

Table 2. The distribution of adverbial resultatives.

	<i>PAINT</i>	<i>SLICE</i>	<i>COOK</i>	<i>WIPE</i>	<i>LOAD</i>	<i>BEAT</i>	<i>SHOUT</i>
Albanian	ADV	ADV			ADV		
Turkish		ADV				(ADV)	
Irish		ADV					
Norwegian		ADV					
Danish		ADV					
Icelandic		ADV					
Latvian		ADV					
Belarusian		ADV					
Russian		ADV					
Polish		ADV					
Czech	ADV	ADV					
Bulgarian		ADV	ADV				
Croatian	ADV	ADV	ADV				
Bosnian		ADV					
Macedonian			ADV				
Estonian					ADV ¹⁵		(ADV)
Finnish					ADV		

As in the case of adjectives, adverbs usually appear in the types *PAINT*, *SLICE* as well as *COOK* all of which share the property in that the resultative predicate specifies an abstract result implied by a verb and introduces new information. However, as adjectival resultatives were most typical of the type *PAINT*, adverbial resultatives are especially common in the type *SLICE*. I would assume that the overwhelming tendency to mark the type *SLICE* by

¹⁵ The treatment of Estonian and Finnish adverbial resultatives in the type *LOAD* is not completely clear to me: it seems that the usage of adverbs here is determined by individual lexemes rather than by structural or semantic features (see 5.11).

adverbs indicates its conceptual similarity with adverbials and confirms its position in the periphery of the semantic domain of resultatives.

4.3 Prepositional phrase (PP)

Prepositional phrases can be oriented both towards the participant of an event, e.g. (108) where the PP denotes the property of the subject, and towards an event, e.g. (109) where the PP describes the manner of reading. Thus, in general the usage of prepositional phrases as secondary predicates is not a surprising feature.

(108) *Another man **with glasses** went by.*

(109) *I always read **with glasses**.*

However, there are no languages which would consistently use PPs to express resultative secondary predication¹⁶ (except for East and West Slavic languages which have adverbs based on PPs, see 4.4). In certain types of resultatives proper PPs appear in Romance, Germanic and Baltic languages. In Finnic languages and Hungarian PPs are not used to encode RSP due to their rich inflectional system (at least I have not encountered such examples).

Two conceptual types of PPs expressing resultative secondary predication can be distinguished. One group of PPs includes prepositions which, in a broad sense, denote the way (manner) in which the action is carried out. Their meaning is usually translated into English as ‘in’, e.g. (110) and (111).

(110) Albanian

<i>Beni</i>	<i>e</i>	<i>leu</i>	<i>makinen</i>
Ben	3SG	paint.PST.3SG	car.DEF.ACC.SG.F
<i>me</i>		<i>të</i>	<i>kuqe.</i>
in/with		AA.ACC.SG	red.F
‘Ben painted the car red.’			

¹⁶ Of course, I have in mind RSPs which denote a change of state in the strict sense. In constructions which express a change of location, cf. (2), PP perhaps is the typical encoding strategy in most of the languages.

(111) Maltese

<i>John</i>	<i>qatta'</i>	<i>t-tadama</i>
John	cut.PERF.3SG.M	DEF-tomato
<i>f'</i>	<i>biċċiet</i>	<i>irqaq.</i>
in	piece.PL	thin.PL

‘John cut the tomato thin.’

Another group of PPs include prepositions which denote a goal and which are usually translated as ‘to, until, till’ in English, e.g. (112)–(114).

(112) Latvian

<i>Jānis</i>	<i>pie-kāva</i>	<i>vīrieti</i>
John	PRF-beat.PST.3	man.ACC.SG
<i>līdz</i>	<i>bezsamaņai.</i>	
until	unconsciousness.DAT.SG	

‘John beat the man unconscious.’

(113) Icelandic (from Whelpton 2006, 11)

<i>Hann</i>	<i>klóraði</i>	<i>sig</i>	<i>til</i>	<i>blóðs.</i>
he	scratched	himself	to	blood

‘He scratched himself bloody.’

(114) Greek

<i>O</i>	<i>Janis</i>	<i>klotsise</i>	
DEF.NOM.SG	John.NOM	kick.PST.3SG	
<i>ton</i>	<i>andra</i>	<i>mexri</i>	<i>thanatu.</i>
DEF.ACC.SG	man.ACC.SG	to	death.GEN.SG

‘John kicked the man to death.’

The distribution of PPs seems to depend on the type of verb: *in*-PPs occur with verbs *paint* and *slice*, while *to*-PPs are used with *load* and verbs denoting activities. The distribution of PPs is illustrated in Table 3 (the green cells refer to *in*-PPs and the blue cells refer to *to*-PPs).

Table 3. The distribution of prepositional resultatives.

	<i>PAINT</i>	<i>SLICE</i>	<i>COOK</i>	<i>WIPE</i>	<i>LOAD</i>	<i>BEAT</i>	<i>SHOUT</i>
Albanian	in-PP						
French	in-PP	in-PP			(to-PP)	(to-PP)	
Greek		in-PP				(to-PP)	
Italian	in-PP	in-PP				(to-PP)	
Portuguese	in-PP					(to-PP)	(to-PP)
Spanish	in-PP	in-PP					
Maltese		in-PP					
Icelandic						(to-PP)	
Irish						(to-PP)	
English						(to-PP)	
German						(to-PP)	
Danish						(to-PP)	
Norwegian						(to-PP)	
Latvian						to-PP	to-PP
Lithuanian						to-PP	to-PP

A note has to be added on the *to*-PPs: in Table 3 most of them have been put in brackets. As in the case of adjectives in Table 1, the brackets mean that a *to*-PP is not treated as a strategy typical of the respective type in a language (and consequently it is not presented in a semantic map). Certainly, the decision as to whether the encoding is typical or not (especially bearing in mind that the types include very few verbs) is arbitrary and often based on a general knowledge of a language (in order to have a precise view of the distribution of PPs in a language and across languages a more thorough investigation should be carried out).

For example, as regards the type BEAT, all languages (except Baltic languages) make use of a PP to encode one particular notion, viz. ‘dead’ (it is then realised as *to death*)¹⁷, e.g. (115) in comparison with (116) and (117).

¹⁷ In Baltic languages *to*-PP is used in a wider range of situations of the type BEAT (and also of other types) and therefore it is treated as a typical strategy.

(115) French

<i>Jean</i>	<i>a</i>	<i>frappé</i>	<i>l'</i>	<i>homme</i>
John	AUX.3SG	beat.PTC	DEF.SG.M	man
<i>à</i>	<i>mort.</i>			
to	death			

‘John beat the man to death.’

(116) French

<i>Jean</i>	<i>a</i>	<i>frappé</i>	<i>l'</i>	<i>homme</i>
John	AUX.3SG	beat.PTC	DEF.SG.M	man
<i>jusqu'à ce qu'</i>	<i>il</i>	<i>perde</i>	<i>connaissance.</i>	
until	he	lost.SUBJ	consciousness	

‘John beat the man unconscious.’

(117) French

<i>Jean</i>	<i>a</i>	<i>applati</i>	<i>le</i>	<i>métal</i>
John	AUX.3SG	flatten.PTC	DEF.SG.M	metal
<i>avec</i>	<i>un</i>	<i>marteau.</i>		
with	IND.SG.M	hammer		

‘John hammered the metal flat.’

In the respect of the fact that Romance languages avoid expressing a bounding point by a satellite it would be an exaggeration to state that the type BEAT is encoded by a *to*-PP strategy in French and therefore it has been placed in brackets.

However, the concentration of *to*-PPs in the cells of the types BEAT and SHOUT certainly shows a more general tendency. On the one hand, it could be defined as an inclination for *to*-PPs to combine with activity verbs. For example, Wechsler states that in English the adjective *dead* occurs only with punctual verbs like *shoot*, while the PP “*to death* works with either durative verbs or punctual verbs”, etc. (Wechsler 2005, 267). However, as French in Table 3 shows, *to*-PP can combine with the accomplishment verb *load* as well. Therefore, in the next chapter I will propose a somewhat different account for the distribution of *in*-PPs and *to*-PPs.

4.4 Prepositional phrase (PP) in Slavic languages

In Slavic languages the resultative secondary predication is often marked by a specific strategy which oscillates between adverbial and prepositional encoding. Some of original Slavic prepositional phrases have fossilised and become inseparable units which are synchronically treated as adverbs. Nevertheless, it is still usually possible to perceive their prepositional meaning: “Though, synchronically, such quasi-adverbs cannot be described as prepositional phrases (which is reflected in the orthography in Russian), the lative (directional) character of such expressions is manifest” (Holvoet 2008, 132), e.g. Rus. *dosuha* ‘dry.ADV’ still can be understood as *do-suha* ‘to dryness’.

The orthography of quasi-adverbs varies from language to language and is sometimes even not consistent in a language. For example, in Russian they are usually written as one word, cf. the example above. However, the phrase Rus. *do smerti* ‘to death’, according to my informant, should also be treated as an adverb as, first of all, it is stressed on *do* and, secondly, an adjective cannot be inserted between the preposition and the noun. On the other hand, the phrase in (118) certainly is a PP because an adjective can be inserted, cf. *do užasnoj tošnoty* ‘up to awful nausea’ (Anna Daugavet p.c.).

(118) Russian

Ivan na-elsja do tošnoty.

John PRF-eat.PRT.M.SG.REFL to nausea.GEN.SG

‘John ate himself sick.’

Both adverbs based on fossilised PPs and proper PPs can be used as RSPs in Slavic languages. Therefore, in order to avoid misinterpretation and to achieve a unified description I will refer to both cases as to one PP strategy.

In Slavic resultatives three types of prepositions occur: *in*-PPs (e.g. Bel. *w*, Rus. *v*, Croat. *u*), *on*-PPs (e.g. Rus., Pol., Croat. *na*), and *to*-PPs (e.g. Bel. *da*, Rus., Pol., Croat. *do*). *To*-PPs denote a goal, cf. Bulgarian *do* ‘to, until’ refers to “limitation in time or space” (Scatton 1984, 357), e.g. (119). Although

on-prepositions usually have a spatial meaning, they can express manner too, cf. in Polish PP including *na* “determines the **manner** in which an action was performed or the result of an action” (*wprowadza określenie sposobu wykonywania danej czynności lub jej rezultatu*) (USJP), e.g. (120). *In*-PPs, as well as in the languages discussed in 4.3, also imply a manner component, e.g. (121).

(119) Bulgarian

<i>Džon</i>	<i>se</i>	<i>na-jade</i>	<i>do</i>	<i>nasita.</i>
John	REFL	PRF-eat.AOR.3SG	to	satiety

‘John ate himself full.’

(120) Polish

<i>John</i>	<i>u-gotował</i>	<i>jajko</i>
John	PRF-cook.PRT.M.SG	egg.ACC.SG

na ***twardo.***

on hard.ACC.SG

‘John cooked the egg hard.’

(121) Belarusian

<i>Džon</i>	<i>pa-farbavaw</i>	<i>mašynu</i>
John	PRF-paint.PRT.M.SG	car.ACC.SG

w ***čyrvony*** ***koler.***

in red.ACC.SG colour.ACC.SG

‘John painted the car red.’

Since both *on*-PPs and *in*-PPs emphasise manner they will be treated as one general *in*-PP type further. The distribution of PPs in Slavic languages is represented in Table 4 (again, green marks the *in*-PPs, while blue indicates the *to*-PPs).

Table 4. The distribution of prepositional resultatives in Slavic languages.

	<i>PAINT</i>	<i>SLICE</i>	<i>COOK</i>	<i>WIPE</i>	<i>LOAD</i>	<i>BEAT</i>	<i>SHOUT</i>
Belarusian	in-PP		in-PP	on-PP	to-PP	to-PP	to-PP
Russian	in-PP		in-PP	on-PP	to-PP	to-PP	to-PP
Ukrainian	in-PP		in-PP	on-PP	to-PP	to-PP	to-PP
Polish	on-PP	on-PP	on-PP	to-PP	to-PP	to-PP (on-PP)	to-PP
Czech		on-PP	on-PP	to-PP	to-PP	to-PP	
Bulgarian		on-PP	on-PP		to-PP	(to-PP)	
Croatian	in-PP	on-PP	on-PP in-PP		to-PP	(on-PP)	
Bosnian	in-PP					(on-PP)	
Macedonian		on-PP			to-PP		

Table 4 shows, first of all, that the PP strategy is consistently used in East and West Slavic languages, while it is less common in South Slavic languages. South Slavic languages show a tendency to make use of non-RSP strategies and in this respect resemble Romance and other so-called verb-framed languages such as Greek, Turkish, etc.

Secondly, in the same manner as in Table 3, *in*-PPs consistently occur with the accomplishment verbs *paint*, *slice* and *cook*, while the accomplishment verb *load* and activities take *to*-PPs. The verb *wipe* ranges between the two types. This shows that the distribution of the two types of PPs is determined by factors other than the lexical aspect of a verb.

I assume that the distribution of *in*-PPs and *to*-PPs reflects the nature of the property predicated by a verb (cf. Riaubienė 2015). The verbs *paint*, *slice* and *cook* predicate a property which is a “preset value”. In other words, a property as such, be it painting the car red or blue, slicing the tomato thin or thick, or cooking the egg hard or soft, exists as one of the available options and is chosen before the action is carried out. In the case of verbs such as *load*, *shout*, etc. a property is not set in advance but is accumulated as the action

proceeds. This distinction can be also formulated in terms of manner and goal. A “preset” property can be understood as the manner in which one decides to carry out the action. An accumulated property can be interpreted as the goal towards which the action unfolds.

The distribution of *in*-PPs parallels the distribution of adjectives and adverbs in languages which normally do not allow resultatives (see Tables 1 and 2). Both *in*-PPs and adjectives highlight the property as such, while *to*-PPs emphasise the process: “Adjectives focus on the state achieved by some entity and therefore evoke the temporal path traversed by the affected entity only secondarily. On the other hand, dynamic prepositions such as *to* or *into* profile temporal extension directly” (Broccias 2004b, 15).

The verb *wipe* seems to have a twofold interpretation: in East Slavic languages it takes an *in*-PP, e.g. (122), while in West Slavic languages it combines with a *to*-PP, e.g. (123).

(122) Ukrainian

<i>Džon</i>	<i>proter</i>	<i>stil</i>	<i>načisto.</i>
John	wipe.PRF.PRT.M.SG	table.ACC.SG	on.clean

(123) Czech

<i>Jan</i>	<i>utřel</i>	<i>stůl</i>	<i>do</i>	<i>čista.</i>
John	wipe.PRF.PRT.M.SG	table.ACC.SG	to	clean

‘John wiped the table clean.’

According to Rappaport and Levin, verbs of surface contact such as *wipe*, *scrub*, etc. imply two scales of result: “With *scrub*, two scales are possible. One is provided by the tub’s surface area, with the process being complete when the scrubbing has covered the entire tub. Alternatively, the desired result may be a clean tub, with the scale being one of cleanliness.” (Rappaport, Levin 2005, 7). Therefore, the verb *wipe* can either emphasise the process of cleaning, i.e. that entire surface of an object has been wiped, or the property of cleanliness, i.e. that the object was wiped clean. In the former case it predicates an accumulated property while in the latter it indicates a preset value.

In the Slavic languages the notion ‘dead’ also sometimes receives encoding which is not typical of the type (see table 4). In Bulgarian it is marked by a *to*-PP (typically the type BEAT is expressed by a non-RSP strategy in Bulgarian). However, in Polish, Croatian and Bosnian this notion is encoded by an *in*-PP (or, more precisely, by an *on*-PP), which is rather unexpected, e.g. (124).

(124) Bosnian

<i>Ivan</i>	<i>je</i>	<i>i-šutao</i>	<i>čovjeka</i>
Ivan	AUX.3SG	PRF-kick.PTC.M.SG	man.ACC.SG

nasmrt.
on.death
‘John kicked the man to death.’

I do not have a valid explanation as to why the three languages encode a presumably accumulated property by a strategy typical of a preset value. In general, the notion ‘dead’ shows a deviant behaviour in many languages and it might be that the features that make it exceptional have contributed to its encoding in the Slavic languages. This only confirms that the distribution of prepositional phrases and especially of *to*-PPs needs much closer investigation.

4.5 Compound verb (CompV)

The compound verb strategy morphologically integrates the two events of the resultative secondary predication into a single verb, e.g. (125).

(125) Norwegian

<i>John</i>	<i>hardkokte</i>	<i>egget.</i>
John	hard.boil.PST	egg.DEF.SG.N

‘John cooked the egg hard.’

The strategy is mainly restricted to North Germanic languages. As regards resultatives, in general it seems that compound verbs are used most widely in Icelandic, e.g. (126).

(126) Icelandic

<i>Jón</i>	<i>hreinskolaði</i>	<i>bollana.</i>
John	clean.rinse.PST	cup.ACC.DEF.PL
‘John rinsed the cups clean.’		

However, even in Icelandic compounding is highly restricted to particular lexemes: “formation of finite verbs by incorporation seems to be rather limited and idiosyncratic” (Whelpton 2006, 33). For example, the compound based on *paint* is marginal with *white* and utterly ungrammatical with other colours (ibid, 27), e.g. (127) and (128).

(127) Icelandic (from Whelpton 2006, 27)

?? <i>Hann</i>	<i>hvítmálaði</i>	<i>húsið.</i>
he	white.painted	house.the
‘They painted the house white.’		

(128) Icelandic (from Whelpton 2006, 27)

* <i>Hann</i>	<i>gulmálaði</i>	<i>bílinn.</i>
he	yellow.painted	car.the
‘He painted the car yellow.’		

An interesting fact is that in spite of the absence of a compound verb a respective compound adjective is attested in many cases, e.g. Ice. *gulmálaður* ‘yellow-painted’ (Whelpton 2006, 28–29). Again, compound adjectives are possible with some verbs but not with others. According to Whelpton, adjectival passives can be formed with the following verbs: *to paint*, *to colour*, *to cut*, *to grind*, *to chop*, etc. (ibid, 28–31). On the other hand, compound adjectives including verbs such as *to hammer*, *to pound*, *to rub*, etc. are at best marginal or even ungrammatical (ibid, 31–32). From this it is tempting to hypothesise that the possibility to form a compound verb or adjective could also depend on the distinction drawn above, viz. whether the property is treated as a preset value or as a goal towards which an action proceeds, see Table 5.

Table 5. The distribution of compound verbs and adjectives¹⁸.

	<i>PAINT</i>	<i>SLICE</i>	<i>COOK</i>	<i>WIPE</i>	<i>LOAD</i>	<i>BEAT</i>	<i>SHOUT</i>
Norwegian			CompV				
Icelandic	CompA	CompA	CompV	CompV			

In Danish compound verbs expressing RSP are also present, e.g. Dan. *renvaske* ‘to wash clean’, or were present, e.g. *haard-koge* ‘to cook hard’ is attested in the dictionary of 1700–1950 Danish lexicon (ODS). However, at least as far as my data shows, other strategies seem to have overcome them in the resultative domain, cf. (129) and (130).

(129) Danish

John vaskede kopperne rene.
 John wash.PST cup.DEF.PL.C clean.PL
 ‘John rinsed the cups clean.’

(130) Danish (from <http://ing.dk/artikel/sporg-laeserne-er-det-svaerere-pille-helt-friske-kogte-aeg-126452>)

at koge ægget hårdt
 INF cook egg.DEF.SG.N hard.SG.N
 ‘to cook the egg hard’

To conclude, the compound verb strategy is very rare and restricted in the languages in my sample. In addition, the languages mentioned above usually make use of alternative formal means to encode the relevant type.

4.6 Noun phrase (NP)

Nominal resultatives are also scarce in my examples. They occur in Estonian, Finnish and Hungarian and, in the same manner as adjectival resultatives, are marked by translativ or sublativ cases. In Finnic languages nominal resultatives are used with creation verbs, e.g. (131).

¹⁸ I have included compound adjectives in the table only for the sake of illustrating the use of compound forms but they are not, of course, reflected in the semantic map.

(131) Estonian

Jaan viilutab liha õhukesteks tükkideks.
 John slice.PRS.3SG meat.GEN.SG thin.TRA.PL piece.TRA.PL
 ‘John slices the meat thin.’

In Hungarian a noun in the sublativ can be employed to express the notion ‘dead’, e.g. (132). Due to the directional meaning of the sublativ case (see 4.1) the resultative in (132) corresponds completely to its English counterpart *to death*: “the nominal resultative with the sublativ case is a directional PP” (Jurth 2013, 339).

(132) Hungarian (from Matushansky 2010, 5)

János halálra verte Pétert.
 János death.SUB beat.PST.3SG Péter.ACC
 ‘János beat Péter to death.’

The distribution of nominal resultatives is presented in Table 6.

Table 6. The distribution of nominal resultatives.

	<i>PAINT</i>	<i>SLICE</i>	<i>COOK</i>	<i>WIPE</i>	<i>LOAD</i>	<i>BEAT</i>	<i>SHOUT</i>
Estonian		NP					
Finnish		NP					
Hungarian						(NP)	

Although my data might imply that nominal resultatives are very restricted in the relevant languages, I assume that their distribution is actually much broader than it seems. My questionnaires were constructed on the basis of adjectival notions such as ‘red’, ‘full’, ‘hard’, ‘hoarse’, etc. which are also expressed by adjectives in Finnic languages and Hungarian. If the questionnaires had included nominal notions as in (79), the distribution of nominal resultatives in Finnic and Hungarian might have turned out to be more extensive.

4.7 Non-RSP strategies

The main condition which enables a structure to be treated as expressing secondary predication is that the two subevents of a complex event are expressed by a single clause. As regards resultative secondary predication, the second condition naturally is that the secondary predicate has to denote result (as opposed to manner). Certainly, in more “exotic” languages complex events can be expressed by structures where it is impossible to say which predication is primary and which is secondary: this is the case in, for example, serial verb constructions. However, the languages analysed in this dissertation do not raise this problem: here symmetrical strategies are limited to coordination and compounding.

Thus, the first condition eliminates subordinate and coordinate sentences from the list of strategies expressing RSP as here the manner and result components are encoded by two separate clauses, e.g. (133) resp. (134).

(133) Turkish

John sesi kısılana kadar bağırdı.

John hoarse become until shout.PST

‘John shouted until he became hoarse.’

(134) Maltese

Ġanni immartella l-metall

John hammer.PERF.3SG.M DEF-metal.F

u ċċattja-ha.

and flatten.PERF.3SG.M-3SG.F

‘John hammered the metal and flattened it.’

In the verb-framed model the result and manner components are, of course, encoded by a single clause. However, the secondary predicate here denotes a manner component, while the primary predicate denotes a result, e.g. (135).

(135) Albanian (from Kurani 2011, 318)

U ngjirëm duke kënduar.

NA hoarsen.PST.1PL GER sing.PTC

‘We sang ourselves hoarse.’ (lit. ‘We hoarsened while singing.’)

In structures including adverbials the primary predicate does denote the manner component. However, the secondary predicate here is obviously event-oriented and thus does not encode the result component as well, e.g. (136).

(136) Portuguese

A Maria cozeu o ovo bem.

DEF.SG.F Mary cook.PRT.3SG DEF.SG.M egg well

‘Mary cooked the egg hard.’

In some languages resultative secondary predicates can be translated as attributes, e.g. (137). The latter also cannot be regarded as RSPs because they are predicated at the phrase level and do not show a syntactic relationship with a verb.

(137) Bosnian

Ivan je na-tovario

Ivan AUX.3SG PRF-load.PRT.M.SG

punu prikolicu.

full.ACC.SG wagon.ACC.SG

‘John loaded the wagon full.’

Finally, the last strategy I am going to discuss is referred to as ‘non-RSP’ only arbitrarily. Sometimes in Baltic, Slavic and Hungarian languages the result can be expressed solely by a prefix or a particle: the secondary predicate cannot be added to the prefixed verb in Baltic and Slavic languages, e.g. (138), while in Hungarian an adjectival predicate cannot be substituted for a particle, e.g. (139).

(138) Lithuanian

*Jonas nu-šovė žmogų (*negyvai / mirtinai).*

John PRF-shoot.PST.3 man.ACC.SG dead.ADV

‘John shot man dead.’

(139) Hungarian

John tele-rakta a kocsit.

John PREF-load.PST.3SG DEF wagon.ACC.SG

‘John loaded the wagon full.’

Since the prefix or the particle denotes a resultant state their function is very similar to the one of secondary predicates (cf. É. Kiss 2006, 21). However, even though the role of prefixes and particles in the expression of result is undoubtedly significant, they are not secondary predicates in the strict sense because they do not have descriptive content.

To conclude, non-RSP strategies subsume a bundle of formal encoding means which do not constitute resultative secondary predication. Since the topic of the dissertation is resultative secondary predication I will not examine these strategies in more detail.

4.8 Summing up

The formal strategies discussed in Chapter 4 represent three conceptual strategies employed for the encoding of resultative events. The first type can be referred to as the adjectival, or BECOME type: it denotes that an entity entered a state *y* (‘*x* becomes *y*’). The formal means which express this conceptual type are adjective and (Finnic) noun phrases bearing the translative case. The second conceptual strategy is the adverbial, or MANNER type, where the result is conceived as a manner in terms of which an action is carried out (‘acting in a manner *y* causes *x* to become *y*’). This type is instantiated by adverbs and *in*-PPs. Finally, the third way to conceptualise the result is the GO TO strategy, in which an entity is understood as moving towards a goal (‘*x* go to *y*’). This conceptual strategy is represented by *to*-PPs and (Hungarian) noun phrases in sublativ case.

Here I would also like to compare the formal encoding means of resultatives used in European languages and across the world. Verkerk (2009b, 111) distinguishes 15 strategies which are employed to express RSP in 63 languages: serial verb construction, invariable adjective, other verbal, adpositional, adjective with agreement, case, sequential ‘until’, compound, lexical, adverbial marker, dummy noun ‘colour’, nominal, converbial participle, preverb / coverb, and causative.

Here a note should be added that the comparison of the strategies is very rough. Since Verkerk aims to establish general encoding patterns of resultatives, depictives and adverbials, she includes verb-framed structures in her research. Therefore, many of her ‘verbal’ strategies such as the gerund in (140) are not treated as resultatives in this dissertation.

(140) Limbu (Tibeto-Burman, Kiranti) (from Verkerk 2009b, 69)

<i>E•-lle</i>	<i>ku-mendaʔ-thik</i>	<i>syaʔl-ille</i>
who-GEN	his-goat-one	jackal-ERG
<i>haʔr-u-waŋ</i>	<i>seʔr-uʔ</i>	
bite-3P-PERF.GER	kill-3P	

‘Whose one goat has the jackal bitten to death?’ [lit. ‘killed by biting’]

In addition, the scope of the strategies distinguished in Verkerk (2009b) and in this dissertation do not correspond neatly due to the different set of the data. For example, Verkerk establishes a separate strategy ‘case’ which is subsumed under two strategies, viz. ADJ and NP, in the dissertation; the prepositional strategy distinguished in the dissertation also includes cases which are referred to as ‘dummy noun ‘colour’ by Verkerk, etc.

Nevertheless, I have tried, be it in a sketchy way, to apply Verkerk’s classification of strategies to my data. The results showed significant differences between the encoding of resultatives worldwide and in Europe, see Table 7.

Table 7. The encoding of RSP in world languages and in Europe.

Strategy	Occurrences in Verkek's sample	Occurrences in my sample
serial verb construction	23	
invariable adjective	12	7
other verbal	8	
adpositional	7	24
agreeing adjective	6	15
case	6	3
sequential 'until'	6	
compound	4	2
lexical	4	
adverbial marker	4	20
dummy noun 'colour'	3	3
nominal	3	
converbial participle	3	
preverb / coverb	2	
causative	2	

Firstly, only 7 out of the 15 strategies are attested in European languages (however, one should bear in mind that some of Verkek's strategies might not fall under the scope of this dissertation). Another difference is concerned with the prevalence of the strategies. While in Europe resultatives are usually encoded by adpositions, they overwhelmingly tend to be expressed by serial verb constructions across the world.

The overall discussion so far has showed that resultatives is a very diverse and difficult to account for phenomenon. "I think that the key word in the study of resultatives should be 'restriction(s)'" (Verkerk 2009b, 111). While I fully agree with the idea expressed in the citation, I still assume that there is some ordering in the (at first sight) messy domain of the resultative secondary predication. Although I deal only with a small set of situation types, the possibility to arrange them in a semantic map still shows that the

distribution and the formal encoding of resultatives is not random but follows some semantic principles.

5. The semantic map of RSP

The semantic map is a tool for visualising the semantic relationships between different meanings ('functions' in Haspelmath 2000; 'uses' in van der Auwera, Malchukov 2005; van der Auwera, Temürkü 2006) of a certain linguistic form. Some of these functions are very closely related semantically, i.e. directly, while others bear more distinct semantics and therefore are related nondirectly. As a result, the functions represented in the semantic map constitute a network which is assumed to hold universally.

There are two types of semantic maps: the classical semantic map (which is presented in the following chapters) is based on the semantic and morphosyntactic analyses of the data and represents the closeness of the functions by lines (Narrog, van der Auwera 2011, 320–321). Another type of semantic map is constructed on the basis of morphosyntactic features only and usually appeals to statistical methods; the relationship of functions in this type of the map is represented by their proximity and distance (ibid).

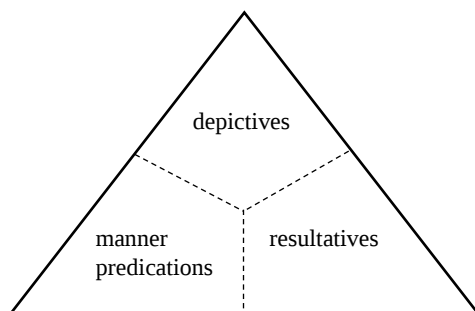
The number and arrangement of functions is established in terms of cross-linguistic comparison. A function is singled out and included in the map if there are at least two languages which encode it by different formal means (Haspelmath 2000, 6). Identically encoded functions have to occupy a contiguous area in the classical semantic map (ibid).

Nevertheless, a semantic map can occasionally have noncontiguous areas. For example, once a contiguous area can become noncontiguous if a formal marker was pushed out by a new marker and the former is no longer in existence (van der Auwera, Malchukov 2005, 397; van der Auwera, Temürkü 2006, 132). This situation can be caused either by a language internal change or by language contact (van der Auwera, Malchukov 2005, 397).

Semantic maps have been proposed for indefinite pronouns (Haspelmath 1997), modality (van der Auwera, Plungian 1998), depictives (van der Auwera, Malchukov 2005) and many other linguistic phenomena. The semantic map

which is most related to the topic of the dissertation is the one proposed in Verkerk (2009a), cf. Schema 7.

Schema 7. A conceptual space of secondary predication (from Verkerk 2009a, 119).



The semantic map in Schema 7 is very simple and includes only three functions. Each of the functions are directly related to each other (the map is represented as a triangular but it corresponds to the semantic map where the functions are presented as nodes connected by lines). As regards resultatives, this means that they are closely semantically related both to depictives and adverbials and at least in some languages share the same formal encoding means. The semantic map in Schema 7 treats the resultative secondary predication as a uniform phenomenon and does not say anything about the variation of resultatives.

The semantic map proposed in the following chapter represents the semantic space of resultatives only: here functions refer to situation types which bear the semantics of resultatives. Therefore, it could be incorporated in Verkerk's semantic map as a finer-grained representation of the resultative domain.

5.1 The semantic map of RSP in European languages

Resultative secondary predication constitutes a semantic space of conceptual situation types which are universal and “equivalent across the languages compared” (Croft et al. 2010, 22). As semantic and morphosyntactic

analyses of the data have shown, seven situation types, or functions, can be distinguished:

PAINT: *to paint x red / blue / green;*

COOK: *to cook the egg hard;*

LOAD: *to load the wagon full, to pour the glass full;*

WIPE: *to wipe the table clean, to wipe the table dry;*

SLICE: *to slice the meat thin, to grind the coffee fine;*

BEAT: *to beat the man unconscious, to kick the man to death, to hammer the metal flat;*

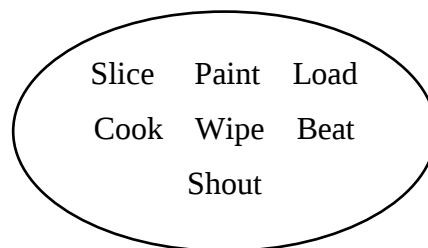
SHOUT: *to shout oneself hoarse, to dance oneself tired, to eat oneself sick.*

It should be admitted that establishing of the functions was a difficult task since resultatives often show great variation both in a language and across languages. Therefore, there is no problem in finding functions which could be encoded differently cross-linguistically; rather, the problem is finding functions which could be expressed in the same way.

5.1.1 Building the map

The overall semantic space of the resultative secondary predication is represented in Schema 8.

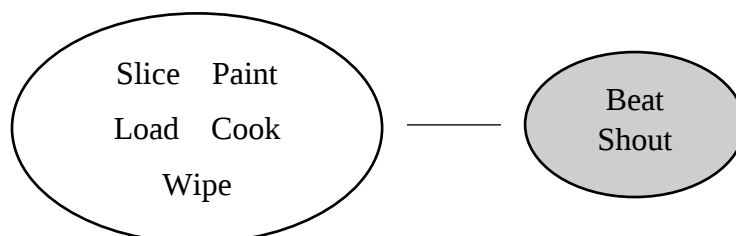
Schema 8. Semantic space of the resultative secondary predication.



The first feature that sets apart some of the functions is the lexical aspect of a verb. The types BEAT and SHOUT include activity verbs which do not

imply a change of state¹⁹ or, in other words, do not refer to a resultant state. In order to constitute an accomplishment these verbs have to combine with a bounding element: resultative secondary predicate (such as in Germanic languages), prefix (such as in Baltic and Slavic languages), etc. Languages which make the distinction between resultatives based on activities and based on other verbs are Lithuanian and Latvian: these types have an individual encoding by *to*-PPs (for examples see the chapters of the relevant languages). This leads to Schema 9.

Schema 9. Distinguishing the functions BEAT and SHOUT.

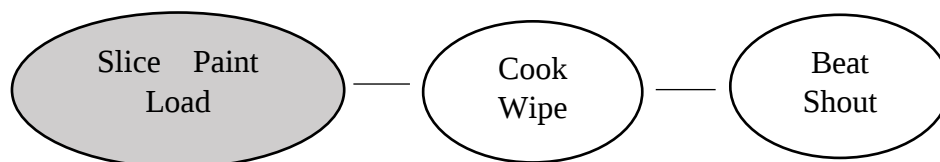


On the other hand, there seems to be a language, viz. Albanian, which excludes resultatives based on proper accomplishment verbs such as *paint*, *slice* and *load*. By ‘proper’ what I mean is that they imply a result which necessarily comes true: in the real world it is impossible to imagine a situation when someone, for example, slices a tomato or loads a wagon but the tomato still stays intact or the wagon stays empty. On the contrary, a situation when someone wipes a table but the latter still remains dirty is fully imaginable. The verbs *cook* and *wipe* range on the border of accomplishments and activities: *cook* denotes an incremental change of state but this change can be either telic or atelic (cf. Croft 2010, 43–44), while the verb *wipe* denotes that an object was affected but not necessary implies its change, cf. “it describes an activity which potentially affects an object in such a way that, if the object is caused at all to change its state, then it changes in a certain fixed direction to reach the final state – a state in which the object is free of dirt, liquid, or other foreign

¹⁹ The verb *eat* which belongs to the type SHOUT is an accomplishment when used transitively, e.g. *to eat an apple*. However, in the examples of the dissertation it is always used in the intransitive sense.

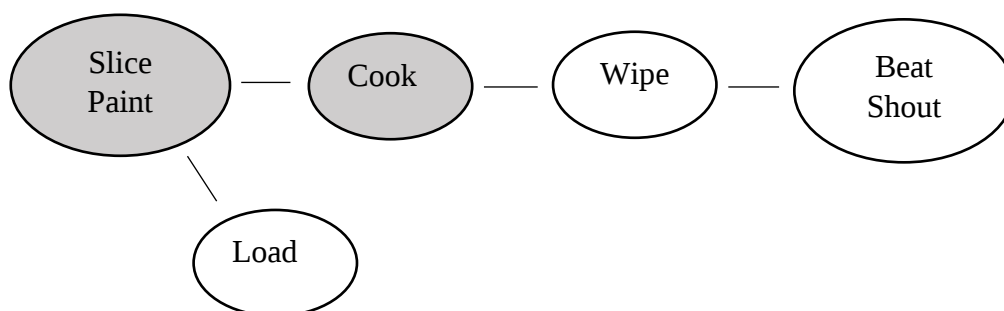
substance” (Washio 1997, 14). Returning to Albanian, it possesses individual encoding means, viz. adverbs, for the encoding of the PAINT, SLICE, and LOAD functions – which brings us to the semantic map in Schema 10.

Schema 10. Distinguishing the functions PAINT, SLICE and LOAD.



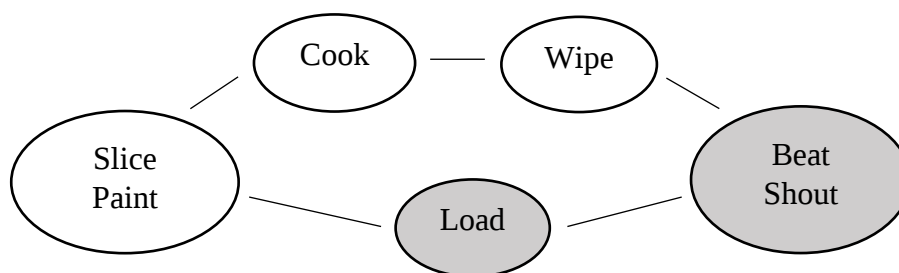
The second semantic factor which contributes to the encoding of resultatives is the nature of a result, viz. if it is a preset or an accumulated property (see 4.4). The criterion of a preset property clearly works in Polish, Irish, Czech and Croatian: the types PAINT, SLICE, and COOK here receive an exclusive marking (*in*-PPs in Polish, Czech and Croatian, and adjectives in Irish). The semantic map, then, takes the form as in Schema 11.

Schema 11. Distinguishing the functions PAINT, SLICE, and COOK.



Resultatives denoting an accumulated property have a distinct form, viz. *to*-PP, in Russian, Belarusian, and Ukrainian. Therefore, a connecting line has to be drawn between the type LOAD and the types BEAT and SHOUT, see Schema 12.

Schema 12. Connecting the function LOAD with BEAT and SHOUT.

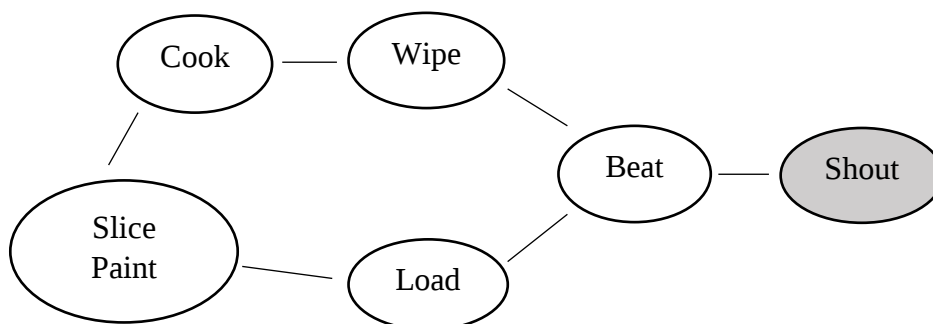


The type WIPE, as was discussed in 4.4, is attributed either to a preset or to an accumulated property depending on a language.

There are many languages which employ exclusive strategies for the following types: PAINT (e.g. Basque, Bosnian, Bulgarian, Greek, Maltese, Turkish, etc.), SLICE (e.g. Russian, Danish, Estonian, Icelandic, Latvian, Turkish, etc.) and SHOUT (Czech, Lithuanian, Polish), which shows that these types have to be set apart.

As regards the types BEAT and SHOUT, the former includes transitive verbs while the latter is based on intransitive (unergative) verbs. Therefore, in order to constitute a resultative an unsubcategorised argument (theme) has to be added in the type SHOUT (at least in the languages of my sample). Some of the languages seem to disallow this operation: while other functions have a resultative encoding, the type SHOUT is usually expressed by a non-RSP strategy in Polish, Lithuanian and Czech. Since there are no languages which would encode the types SHOUT and WIPE or LOAD identically but would single out BEAT, the semantic map takes the form presented in Schema 13.

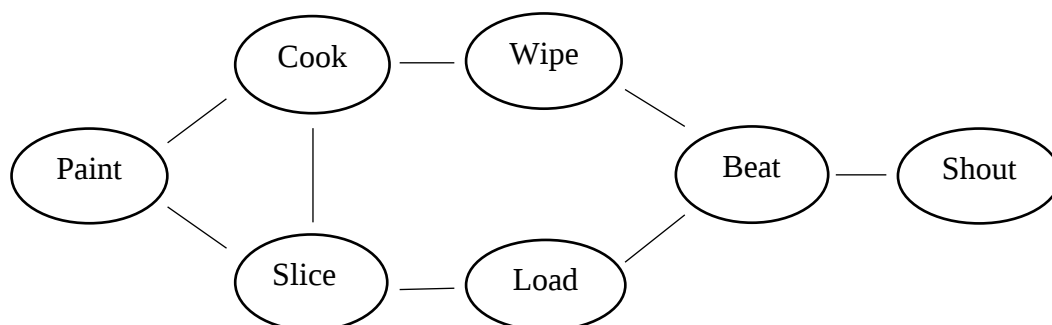
Schema 13. Distinguishing the function SHOUT.



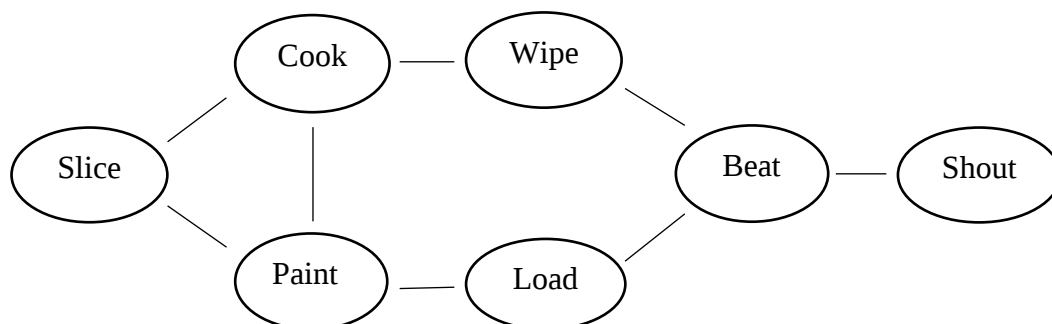
The difference of the types SLICE and PAINT is also to some extent related to the theme. However, here purely semantic features are relevant. As was discussed in 3.2, resultatives based on creation verbs predicate the result which applies to an unexpressed (created) entity rather than to the entity denoted by the object. The resulting property is, then, determined by the manner in which an action is carried out and thus is similar to an event-oriented adverbial.

The arrangement of these functions in the semantic map needs more consideration. The data shows that both SLICE and PAINT are directly related to COOK: Bosnian, Bulgarian, Croatian, Greek, etc. use the pattern SLICE = COOK $\neq$ PAINT, while Russian, Ukrainian and Belarusian make use of the pattern PAINT = COOK $\neq$ SLICE (and, of course, there languages, e.g. Czech, French, Italian, etc., which employ the pattern SLICE = PAINT $\neq$ COOK). This yields two possible arrangements, see Schemas 14 and 15.

Schema 14. Potential configuration of the functions PAINT and SLICE.



Schema 15. The semantic map of RSP in European languages.



However, the Icelandic data shows that the correct semantic map is (15): in Icelandic the types PAINT, LOAD, WIPE, BEAT and SHOUT are expressed by adjectives, while SLICE and COOK receive different encoding (adverb, compound or non-RSP strategies).

5.1.2 Implicational hierarchy of resultatives

The interface of the factors presented in Table 7 generates a large number of encoding patterns of the functions across languages. These individual patterns are presented in the semantic maps of particular languages.

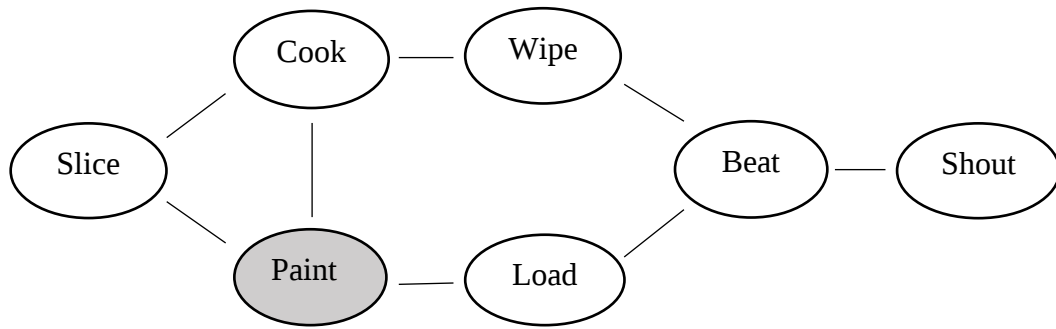
Table 8. The factors determining the encoding of RSP.

	PAINT	SLICE	COOK	LOAD	WIPE	BEAT	SHOUT
verb does not imply result						+	+
verb implies inevitable result	+	+		+			
verb implies potential result			+		+		
result state is a preconceived property	+	+	+		+		
result state is an accumulated property				+	+	+	+
result state affects an unexpressed referent		+					
a theme is not licensed by the argument structure of a verb							+

Therefore, here I will focus on general encoding patterns, i.e. I will try to define the functions which are most or least likely to be expressed by resultative strategies (as opposed to non-RSP strategies) regardless of the morphosyntactic form of the secondary predicate.

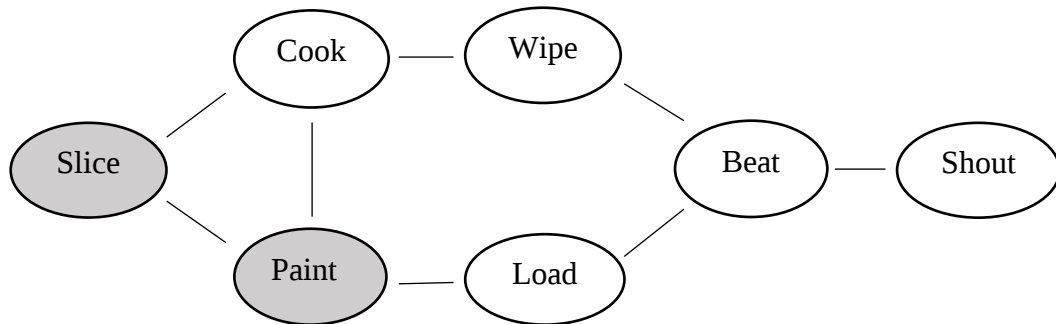
Thus, it seems that if a language has only one function expressed as a resultative it is PAINT. This is exactly the case in Basque, see Schema 16.

Schema 16. The range of RSPs: PAINT.



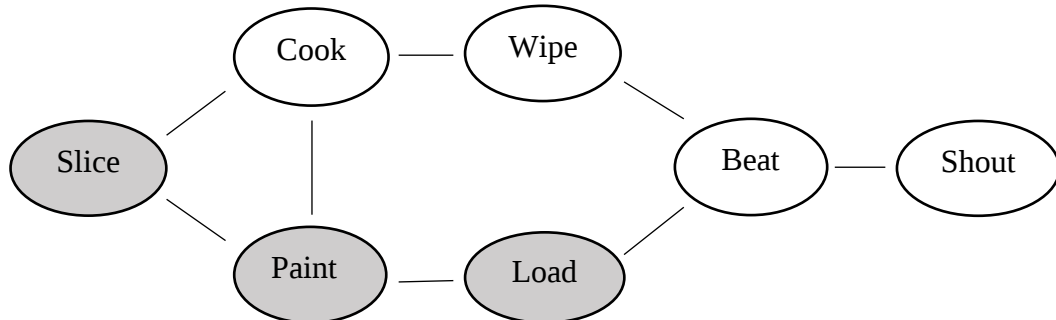
The second most likely candidate for RSP is the function SLICE: resultatives occur only in the types PAINT and SLICE in Bosnian, French, Greek, Italian, Maltese, Portuguese, Spanish, and Turkish, see Schema 17.

Schema 17. The range of RSPs: PAINT, SLICE.

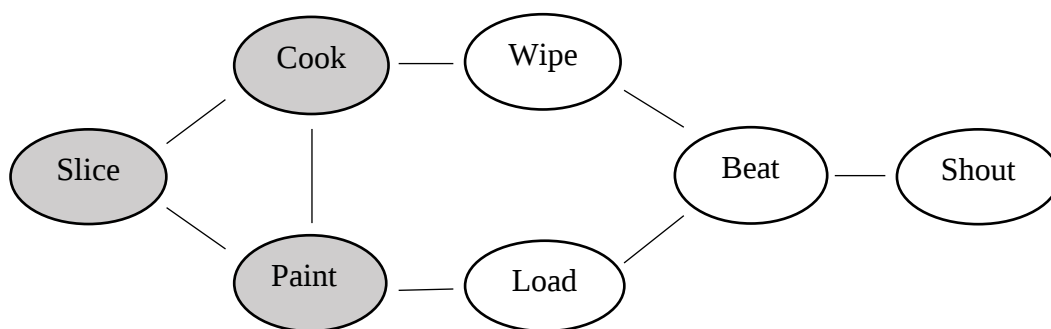


There is a variation as regards the third function: Albanian shows that it is LOAD, see Schema 18, while in Irish it is COOK, see Schema 19.

Schema 18. The range of RSPs: PAINT, SLICE, LOAD.

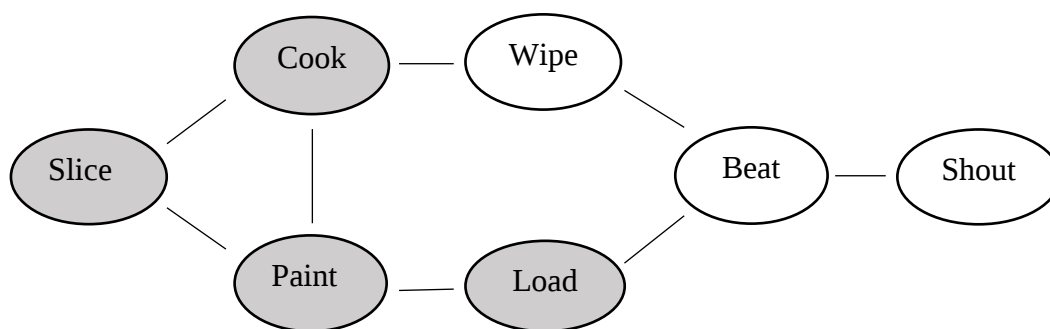


Schema 19. The range of RSPs: PAINT, SLICE, COOK.



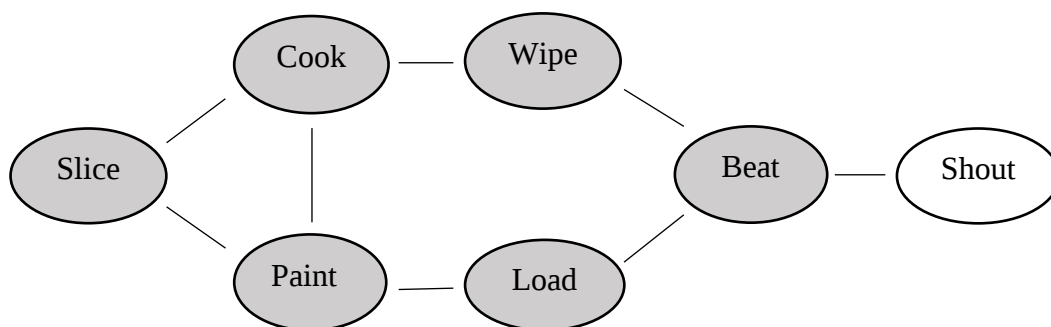
The next pattern covers PAINT, SLICE, COOK and LOAD: these functions are expressed as resultatives in Bulgarian, Croatian and Macedonian, see Schema 20.

Schema 20. The range of RSPs: PAINT, SLICE, COOK, LOAD.



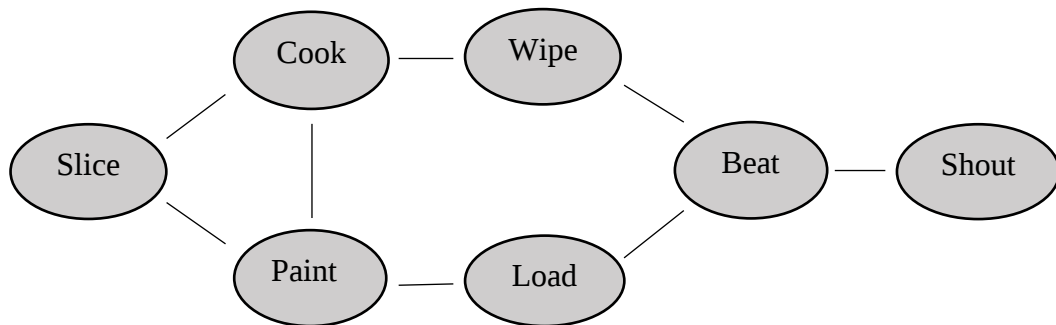
My sample does not include languages which would allow resultatives in all functions but BEAT and SHOUT. However, there are languages, viz. Czech, Lithuanian and Polish, which restrict resultatives in the function SHOUT, see Schema 21.

Schema 21. The range of RSPs: PAINT, SLICE, COOK, LOAD, WIPE, BEAT.



Finally, there are many languages which allow one or the other kind of RSP in all functions: English, German, Dutch, Danish, Norwegian, Icelandic, Latvian, Belarusian, Russian, Ukrainian, Estonian, and Finnish, see Schema 22.

Schema 22. The range of RSPs: PAINT, SLICE, COOK, LOAD, WIPE, BEAT, SHOUT.



Two languages, viz. Scottish Gaelic and Hungarian, fall out of the overall picture. The case of Scottish Gaelic is discussed in 5.21. Hungarian possesses resultatives in all functions but LOAD. However, I am not aware of whether it is just a property of particular lexemes or the structural feature of all filling verbs.

According to the encoding patterns distinguished above, the functions can be arranged in the implicational hierarchy; the further to the left the function is, the more it is likely to be expressed as a resultative, cf. (141).

(141) PAINT < SLICE < COOK / LOAD < WIPE, BEAT < SHOUT

The Albanian and Irish data show that the functions COOK and LOAD occupy equal positions in the hierarchy, i.e. any of them can be the “third” and respectively the “fourth” function. However, WIPE and BEAT occupy one slot in the hierarchy since my data does not imply that languages would differentiate between them in respect of their encoding as resultatives. Certainly, additional data from other languages could show that they take different positions in the hierarchy.

The hierarchy in general confirms the idea proposed by Washio (1997) that languages have either weak or both weak and strong resultatives: the functions BEAT and SHOUT which represent strong resultatives in the sense of Washio are posited at the right end of the hierarchy.

In the following chapters I will present the data and the semantic maps of the individual languages of the sample. Languages which share identical semantic maps will be discussed in the same chapter.

5.2 The semantic map of RSP in Albanian

Albanian employs three formal encoding strategies for RSPs. An adverb is used in the types PAINT, SLICE and LOAD, e.g. (142)–(144).

(142) PAINT: ADV (informal)

<i>Beni</i>	<i>e</i> ²⁰	<i>leu</i>	<i>makinen</i>	<i>kuq.</i>
Ben.DEF	3SG	paint.PST.3SG	car.DEF.ACC.SG	red.ADV
‘Ben painted the car red.’				

(143) SLICE: ADV

<i>Xhoni</i>	<i>e</i>	<i>preu</i>	<i>domaten</i>	<i>hollë.</i>
John.DEF	3SG	slice.PST.3SG	tomato.DEF.ACC.SG	thin.ADV
‘John sliced the tomato thin.’				

(144) LOAD: ADV

<i>Beni</i>	<i>e</i>	<i>ngarkoi</i>	<i>vagonin</i>	<i>plot.</i>
Ben.DEF	3SG	load.PST.3SG	wagon.DEF.ACC.SG	full.ADV
‘Ben loaded the wagon full.’				

An *in*-PP and an adjective can also express the type PAINT, e.g. (145) resp. (146). These strategies seem to be more typical of the type PAINT than the adverb which, according to my informant, is used only in informal speech.

(145) PAINT: *in*-PP

<i>Beni</i>	<i>e</i>	<i>leu</i>	<i>makinen</i>
Ben.DEF	3SG	paint.PST.3SG	car.DEF.ACC.SG.F

²⁰ *E* is a pronominal clitic indicating the person and number of an object (Newmark et al. 1982, 24).

me **të**²¹ **kuqe.**

in/with AA.ACC.SG red.F

‘Ben painted the car red.’

(146) PAINT: ADJ

Beni *e* *leu* *makinën*

Ben.DEF 3SG paint.PST.3SG car.DEF.ACC.SG.F

të **kuqe.**

AA.ACC.SG red.F

‘Ben painted the car red.’

The remainder of the functions are encoded by non-RSP strategies, e.g.

(147)–(150).

(147) COOK: non-RSP

Beni *e* *zjeu* *vezën* *fort.*

Ben.DEF 3SG boil.PST.3SG egg.DEF.ACC.SG well.ADV

‘Ben cooked the egg hard.’

(148) WIPE: non-RSP (from Kurani 2011, 320)

Meri *pastroi* *tryezën.*

Mary.DEF clean.PST.3SG table.DEF.ACC.SG

‘Mary wiped the table clean.’

(149) BEAT: non-RSP

Beni *e* *rrahu* *metalin*

Ben.DEF 3SG beat.PST.3SG metal.DEF.ACC.SG

deri sa *e* *sheshoi.*

until 3SG flatten.PST.3SG

‘Ben hammered the metal flat.’

(150) SHOUT: non-RSP

Meri *kërceu* *deri sa* *u* *lodh.*

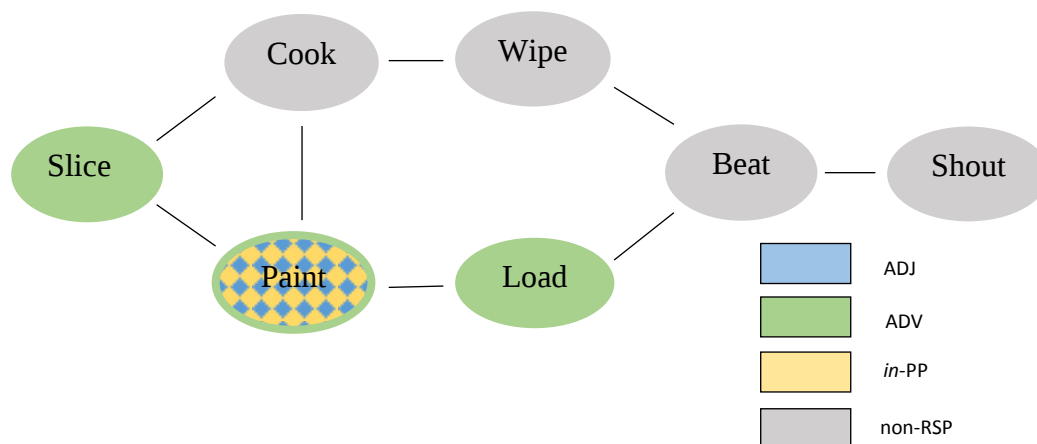
Mary.DEF dance.PST.3SG until NA get tired.PST.3SG

‘Mary danced herself tired.’

²¹ *Të* is a proclitic adjectival article which indicates that the following adjective is attributed to a noun (Newmark et al. 1982, 179).

The semantic map of resultatives in Albanian is presented in Schema 23.

Schema 23. The semantic map of RSP in Albanian.



5.3 The semantic map of RSP in Basque

Basque is one of the languages which clearly shows that languages as a whole cannot be referred to as satellite-framed or verb-framed. While it usually encodes the main event (result) by a verb in the cases of resultatives, in motion constructions the main event, i.e. the motion event, is expressed by a satellite: “As far as manner is concerned, Basque behaves as expected for verb-framed languages such as Spanish with a scarce and poor description of this component, but with respect to path, Basque shows a different behaviour. The description and elaboration of this semantic component is so pervasive and rich that Basque seems to be more similar to satellite-framed languages such as English than to those akin to its group” (Ibarretxe-Antuñano 2004, 317).

However, it seems that Basque allows nonprototypical resultatives in at least some cases, e.g. (151).

(151) (from Hualde, de Urbina 2003, 447)

Jonek koadra_i okertuta_i eskegi du.
 John.ERG picture crooked hang AUX
 ‘John hanged the picture crooked.’

Example (151) belongs to the periphery of the domain of resultatives (in *A Grammar of Basque* it is referred to as resultative predicate; cf. Hualde, de

Urbina 2003, 446) as the secondary predicate here denotes a property which is determined by the manner of the action and is therefore similar to the type SLICE (cf. the causative paraphrase cannot be applied: ‘*the picture became crooked because it was hung’).

With regard to the functions discussed in this dissertation, Basque shows very strict restrictions: only one of them, viz. PAINT, includes a RSP which in turn is expressed by an adjective, e.g. (152).

(152) PAINT: ADJ

<i>Jonek</i>	<i>autoa</i>	<i>berdez</i>	<i>margotu</i>	<i>zuen.</i>
John.ERG	car.DEF.ABS.SG	green.IND.INST	paint.PFPTC	AUX.PST.3SG

‘John painted the car green.’

The remainder of the types are encoded by non-RSP strategies, e.g. (153)–(158).

(153) SLICE: non-RSP

<i>Jonek</i>	<i>tomatea</i>	<i>ondo</i>	<i>pikatu</i>	<i>zuen.</i>
John.ERG	tomato.DEF.ABS.SG	well	chop.PFPTC	AUX.PST.3SG

‘John chopped the tomato fine.’

(154) COOK: non-RSP

<i>Jonek</i>	<i>arraultza</i>	<i>egosi</i>	<i>zuen</i>
John.ERG	egg.DEF.ABS.SG	cook.PFPTC	AUX.PST.3SG

gogortu *arte.*
harden.PFPTC until

‘John cooked the egg hard.’

(155) WIPE: non-RSP

<i>Jonek</i>	<i>mahaia</i>	<i>zapi</i>	<i>batekin</i>
John.ERG	table.DEF.ABS.SG	cloth	IND.COM

garbitu *zuen.*
clean.PFPTC AUX.PST.3SG

‘John wiped the table clean.’ (lit. ‘John cleaned the table with a cloth.’)

(156) LOAD: non-RSP

<i>Jonek</i>	<i>gurdia</i>	<i>(go-raino)</i>
John.ERG	wagon.DEF.ABS.SG	(up-as.far.as)
<i>bete</i>	<i>zuen.</i>	
fill.PFPTC	AUX.PST.3SG	

‘John loaded the wagon full.’

(157) BEAT: non-RSP

<i>Jonek</i>	<i>metala</i>	<i>mailu</i>	<i>batekin</i>
John.ERG	metal.DEF.ABS.SG	hammer	IND.COM
<i>zapaldu</i>	<i>zuen.</i>		
flatten.PFPTC	AUX.PST.3SG		

‘John hammered the metal flat.’

(158) SHOUT: non-RSP

<i>Mirenek</i>	<i>dantza</i>	<i>egin</i>	<i>zuen</i>	<i>nekatu</i>	<i>arte.</i>
Mary.ERG	dance	do.PFPTC	AUX.PST.3SG	get.tired.PFPTC	until

‘Mary danced herself tired.’

As was seen in at least some of the Romance languages (see 5.12), adjectival resultatives in the type SLICE become possible if the resultant state is emphasised, e.g. (159).

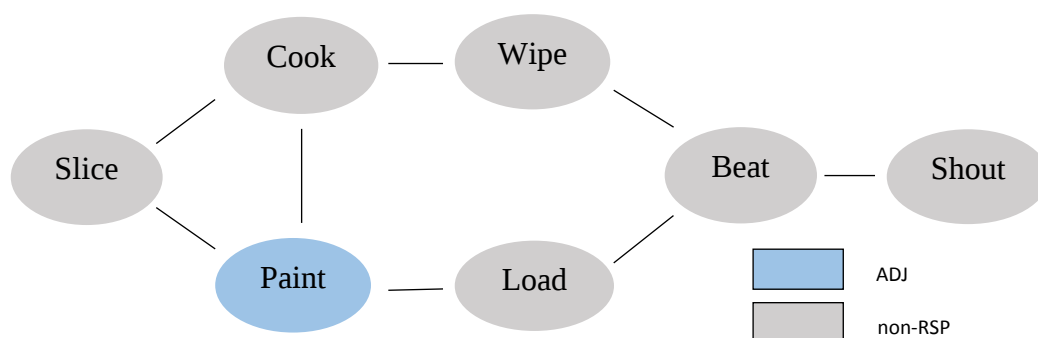
(159)

<i>Jonek</i>	<i>tomatea</i>	<i>mehemehea</i>
John.ERG	tomato.DEF.ABS.SG	thin.thin.ABS
<i>xerratu</i>	<i>zuen.</i>	
chop.PFPTC	AUX.PST.3SG	

‘John chopped the tomato very thin.’

Since RSP in the type SLICE can be used only provided with additional condition, I have not marked this type as bearing a resultative strategy. Therefore, the pattern of the encoding of resultatives in Basque is very simple, see Schema 24.

Schema 24. The semantic map of RSP in Basque.



5.4 The semantic map of RSP in Belarusian, Russian and Ukrainian

Belarusian, Russian and Ukrainian behave identically with respect to secondary resultative predication in that all the functions are expressed by the same formal encoding means in the three languages. For this reason I will cite the example of only one language per function in order to save space.

Since East Slavic languages do not allow adjectival resultatives, it is sometimes stated that, for example, Russian does not have a resultative construction at all (cf. Strigin, Demjjanow 2001, 59; Strigin 2004, 2). The dissertation does not restrict RSP to only adjectival predicates and treats other kind of adjuncts as resultatives as well. The same standpoint is taken in Verkerk (2009b). However, she states that “Russian does not have any systematic mechanism of deriving resultatives” (Verkerk 2009b, 101). I assume that this conclusion is the result of a too small sample of examples²² as East Slavic languages show a (relatively) clear encoding pattern of resultatives (cf. Riaubienė 2015).

The functions denoting an accumulated property, viz. LOAD, BEAT and SHOUT, are encoded by *to*-PPs, e.g. (160)–(162).

(160) LOAD: *to*-PP (Belarusian)

<i>Mèry</i>	<i>na-pownila</i>	<i>škljanku</i>	<i>daverhu.</i>
Mary	PRF-fill.PRT.F.SG	glass.ACC.SG	to.top.GEN.SG

‘Mary filled the glass full.’

²² Verkerk cites five Russian examples: two of these include only prefixed verbs (without secondary predicates), while the other include *v*, *na* and *do* PPs (Verkerk 2009b, 100–101).

(161) BEAT: *to*-PP (Russian) (informal)

<i>Ivan</i>	<i>za-pinal</i>	<i>mužčinu</i>	<i>do</i>	<i>smerti.</i>
John	PRF-kick.PRT.M.SG	man.ACC.SG	to	death.GEN.SG

‘John kicked the man to death.’

(162) SHOUT: *to*-PP (Ukrainian)

<i>Džon</i>	<i>do-kryčavsja</i>	<i>do</i>	<i>hrypoty.</i>
John	PRF-shout.PRT.M.SG.REFL	to	hoarseness.GEN.SG

‘John shouted himself hoarse.’

The functions which express a preset property include *in*-PPs (Rus., Ukrain. *v*, Bel. *w*), e.g. (163) and (164), except for the function SLICE which is expressed by an adverb due to its peripheral status, e.g. (165).

(163) PAINT: *in*-PP (Ukrainian)

<i>Džon</i>	<i>po-farbuвав</i>	<i>mašynu</i>
John	PRF-paint.PRT.M.SG	car.ACC.SG

<i>v</i>	<i>červonyj</i>	<i>kolir.</i>
in	red.ACC.SG	colour.ACC.SG

‘John painted the car red.’

(164) COOK: *in*-PP (Belarusian)

<i>Džon</i>	<i>z-varyw</i>	<i>jajka</i>	<i>wkrutuju.</i>
John	PRF-cook.PRT.M.SG	egg.ACC.SG	in.hard

(165) SLICE: ADV (Ukrainian)

<i>Džon</i>	<i>na-rizav</i>	<i>pomidor</i>	<i>tonko.</i>
John	PRF-cut.PRT.M.SG	tomato.ACC.SG	thin.ADV

‘John cut the tomato thin.’

Finally, the function WIPE, which ranges on the border between a preset and accumulated property (see 4.4), is marked in my examples by the spatial prepositional *na* ‘on’ which is also attributed to the type of *in*-PPs, e.g. (166).

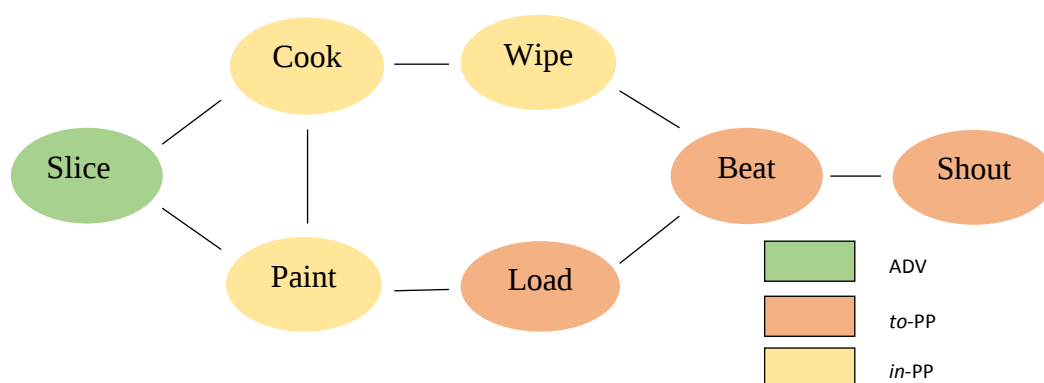
(166) WIPE: *in*-PP (Russian)

<i>Džon</i>	<i>vyter</i>	<i>stol</i>	<i>nasuho.</i>
John	wipe.PRF.PRT.M.SG	table.ACC.SG	on.dry

‘John wiped the table dry.’

According to Verkerk (2009b, 100), the Russian example (166) can also include a *to*-PP *dočista* ‘cleanly’ which would only confirm that the relevant type is transitional. I have not marked the intermediate status of WIPE in the semantic map because I am not aware if *to*-PPs are also possible in Ukrainian and Belarusian. In any case, this would not contradict the overall encoding pattern proposed in Schema 25.

Schema 25. The semantic map of RSP in Belarusian, Russian and Ukrainian.



5.5 The semantic map of RSP in Bosnian

Of all the Slavic languages included in the sample Bosnian shows the most restricted system of resultatives (at least as far as my examples are concerned). In Bosnian only two functions receive marking which is typical of resultatives: PAINT is expressed by an *in*-PP, e.g. (167), while SLICE is encoded by an adverb, e.g. (168).

(167) PAINT: *in*-PP

Ivan je o-farbao auto
 Ivan AUX.3SG PRF-paint.PTC.M.SG car.ACC.SG
u crveno.
 in red.ACC.SG

‘John painted the car red.’

(168) SLICE: ADV

Ivan je tanko i-sjekao paradajz.
 Ivan AUX.3SG thin.ADV PRF-cut.PTC.M.SG tomato.ACC.SG

‘John cut the tomato thin.’

With regard to COOK, my informant gave a non-RSP translation, e.g. (169), and noted that an adverb can only be used in recipes. I assume that the adverb with the verb *cook* could be used in a wider context at least by some speakers, although I do not have such examples.

(169) COOK: non-RSP

Ivan je s-kuhao
Ivan AUX.3SG PRF-cook.PTC.M.SG
tvrdo kuhano jaje.
hard.ADV boiled.ACC.SG egg.ACC.SG

‘John cooked the egg hard.’

The rest of the functions are encoded by non-RSP strategies, e.g. (170)–(173).

(170) LOAD: non-RSP

Ivan je na-tovario
Ivan AUX.3SG PRF-load.PTC.M.SG
punu prikolicu.
full.ACC.SG wagon.ACC.SG

‘John loaded the wagon full.’

(171) WIPE: non-RSP

Ivan je o-čistio sto
Ivan AUX.3SG PRF.clean.PTC.M.SG table.ACC.SG
krpom.
cloth.INST.SG

‘John wiped the table clean.’ (lit. ‘John cleaned the table with a cloth.’)

(172) BEAT: non-RSP

Ivan je udarcem
Ivan AUX.3SG blow.INST.SG
o-nesvijestio čovjeka.
PRF-make.unconscious.PTC.M.SG man.ACC.SG

‘John beat the man unconscious.’

(173) SHOUT: non-RSP

Ivan je pro-mukao od vikanja.
 John AUX.3SG PRF-hoarsen.PTC.M.SG from shouting
 ‘John shouted himself hoarse.’

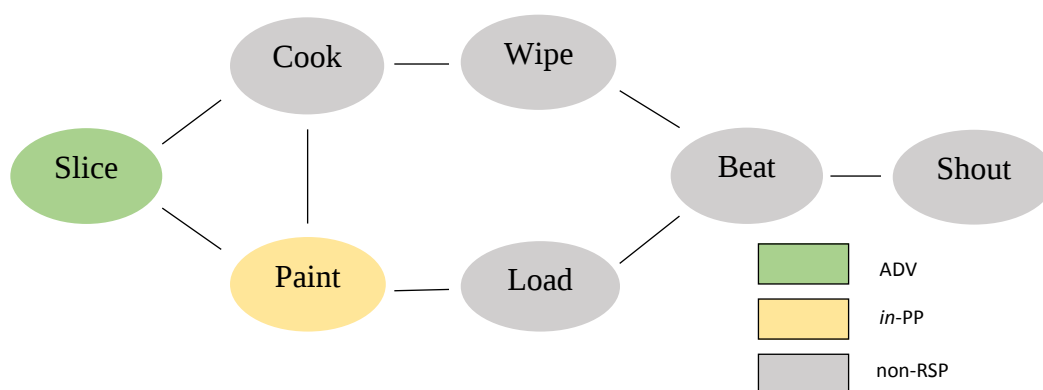
Bosnian is one of the exceptional languages which expresses the phrase *to death* by an *in*-PP (see 4.4), e.g. (174).

(174)

Ivan je i-šutao čovjeka
 Ivan AUX.3SG PRF-kick.PTC.M.SG man.ACC.SG
nasmrt.
 on.death
 ‘John kicked the man to death.’

Thus, the distribution of resultatives in Bosnian, see Schema 26, is similar to the distribution of resultatives in Romance languages, Greek, Maltese and Turkish. On the other hand, the encoding pattern is different: in Bosnian, unlike in Romance and other languages, the SLICE type is expressed by an adverb.

Schema 26. The semantic map of RSP in Bosnian.



5.6 The semantic map of RSP in Bulgarian and Macedonian

Bulgarian and Macedonian demonstrate the most diverse encoding pattern of resultatives of the languages of the sample. However, in cases where

PPs are used they follow the distinction of a preset and an accumulated property.

Thus, the function PAINT is expressed by an adjectival resultative, e.g. (175) (again, I will give an example of one language per function), the function SLICE can be encoded either by an *in*-PP or by an adverb, e.g. (176) resp. (177), the function COOK is marked by an adverb, e.g. (178), and LOAD makes use of a *to*-PP strategy, e.g. (179).

(175) PAINT: ADJ (Bulgarian)

<i>Džon</i>	<i>bojadisa</i>	<i>kolata</i>	<i>červena.</i>
John	paint.PRF.AOR.3SG	car.DEF.SG.F	red.SG.F

‘John painted the car red.’

(176) SLICE: *in*-PP (Bulgarian)

<i>Džon</i>	<i>na-rjaza</i>	<i>domata</i>	<i>na</i>	<i>t"nko.</i>
John	PRF-cut.AOR.3SG	tomato.DEF.SG	on	thin

‘John cut the tomato thin.’

(177) SLICE: ADV (Bulgarian)

<i>Džon</i>	<i>s-mila</i>	<i>kafeto</i>	<i>fino.</i>
John	PRF-grind.AOR.3SG	coffee.DEF.SG	fine.ADV

‘John ground the coffee fine.’

(178) COOK: ADV (Macedonian)

<i>Jovan</i>	<i>go</i>	<i>s-vari</i>	<i>jajceto</i>	<i>tvrdo.</i>
John	3SG.ACC.M	PRF-boil.AOR	egg.DEF.SG	hard.ADV

‘John cooked the egg hard.’

(179) LOAD: *to*-PP (Bulgarian)

<i>Džon</i>	<i>na-tovari</i>	<i>vagona</i>	<i>dogore.</i>
John	PRF-load.AOR.3SG	wagon.DEF.SG	to.brim

‘John loaded the wagon full.’

The functions WIPE, BEAT, and SHOUT are expressed by non-RSP strategies, e.g. (180)–(182).

(180) WIPE: non-RSP (Bulgarian)

Džon iz-b"rsa masata dobre.
 John PRF-wipe.AOR.3SG table.DEF.SG well.ADV
 ‘John wiped the table clean.’

(181) BEAT: non-RSP (Macedonian)

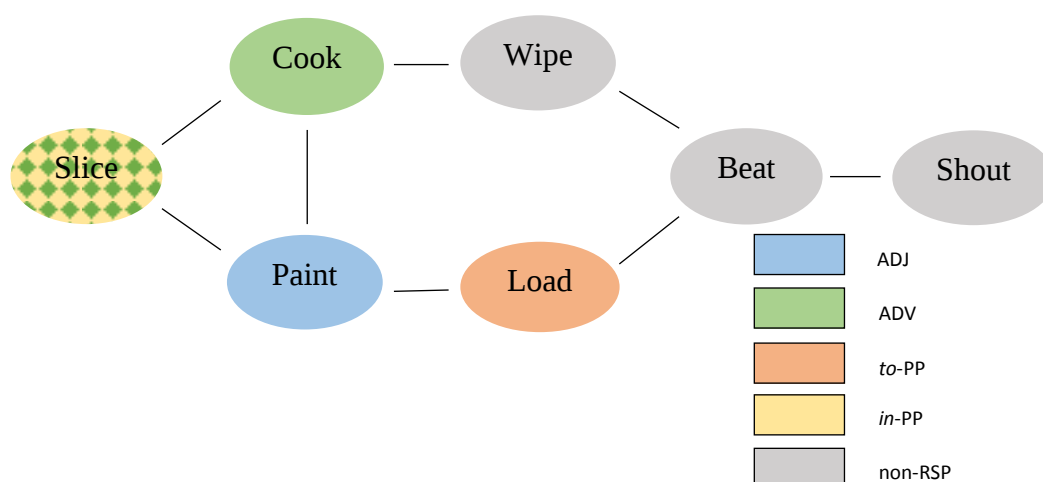
Jovan go kovaše metalot
 John 3SG.ACC.M hammer.IMP metal.DEF.SG.M
dodeka ne stana ramen.
 until not become.AOR.3SG flat.SG.M
 ‘John hammered the metal flat.’

(182) SHOUT: non-RSP (Macedonian)

Jovan za-ripna od vikanje.
 John PRF-hoarse.AOR from shouting.GER
 ‘John shouted himself hoarse.’

As a result, the encoding pattern of resultatives in Bulgarian and Macedonian makes for a very colourful semantic map, see Schema 27.

Schema 27. The semantic map of RSP in Bulgarian and Macedonian.



5.7 The semantic map of RSP in Croatian

Croatian shows a more consistent encoding of resultatives than Bulgarian and Macedonian. As well as East Slavic languages, it makes use of three

prepositions: *u* ‘in’ (which corresponds to Rus. *v* ‘in’), *na* ‘on’ and *do* ‘to’. The first two are treated as *in*-PPs.

The functions denoting a preset property, viz. PAINT, SLICE and COOK, can be encoded by two strategies: an *in*-PP, e.g. (183)–(185), or an adverb, e.g. (186)–(188).

(183) PAINT: *in*-PP

<i>John</i>	<i>je</i>	<i>o-bojao</i>	<i>auto</i>
John	AUX.3SG	PRF-paint.PTC.M.SG	car.ACC.SG
<i>u</i>	<i>crveno.</i>		
in	red.ACC.SG		

‘John painted the car in red.’

(184) SLICE: *in*-PP

<i>John</i>	<i>je</i>	<i>na-sjeckao</i>	<i>rajčicu</i>
John	AUX.3SG	PRF-slice.PTC.M.SG	tomato.ACC.SG
<i>na</i>	<i>tanko</i>	/	<i>natanko</i> ²³ .
on	thin	/	on.thin

‘John sliced the tomato thin.’

(185) COOK: *in*-PP

<i>John</i>	<i>je</i>	<i>s-kuhao</i>	<i>jaje</i>
John	AUX.3SG	PRF-cook.PTC.M.SG	egg.ACC.SG
<i>na</i>	<i>tvrdo</i>	/	<i>natvrdo.</i>
on	hard	/	on.hard

‘John cooked the egg hard.’

(186) PAINT: ADV (from Šarić 2008, 31)

Tablete će neoprane naslage na zubima obojiti crveno. ‘The tablets will colour deposits left on the teeth red.’

(187) SLICE: ADV

<i>John</i>	<i>je</i>	<i>fino</i>	<i>sa-mljeo</i>	<i>kavu.</i>
John	AUX.3SG	fine.ADV	PRF-ground.PTC.M.SG	coffee.ACC.SG

²³ In Croatian linguistics fossilised PPs are treated differently: phrases with *na* are regarded as phraseological PPs (Šarić 2008, 30), phrases with *u* are referred to as compound adverbs, while the interpretation of adjuncts with *do* seems to depend on the orthography: *dogola* ‘naked’ is regarded as an adverb and *do gola* – as a PP (ibid, 29).

‘John ground the coffee fine.’

(188) COOK: ADV (from Šarić 2008, 26)

Jaja tvrdo skuhaite / skuhati. ‘Boil the eggs [until] hard.’

The function LOAD is expressed by a *to*-PP which indicates an accumulated property, e.g. (189).

(189) LOAD: *to*-PP

<i>John</i>	<i>je</i>	<i>na-tovario</i>	<i>vagon</i>
John	AUX.3SG	PRF-load.PTC.M.SG	wagon.ACC.SG

dokraja.

to.brim

‘John loaded the wagon full.’

The remainder of the functions take non-RSP strategies, e.g. (190)–(192).

(190) WIPE: non-RSP

<i>John</i>	<i>je</i>	<i>o-čistio</i>	<i>stol</i>
John	AUX.3SG	PRF-clean.PTC.M.SG	table.ACC.SG

(*sa*) *krpom.*

with cloth.INST.SG

‘John wiped the table clean.’ (lit. John cleaned the table with a cloth.)

(191) BEAT: non-RSP

<i>John</i>	<i>je</i>	<i>iz-ravnao</i>	<i>metal.</i>
John	AUX.3SG	PRF-even.PTC.M.SG	metal.ACC.SG

‘John hammered the metal flat.’

(192) SHOUT: non-RSP

<i>John</i>	<i>je</i>	<i>pro-mukao</i>
John	AUX.3SG	PRF-hoarsen.PTC.M.SG

od vikanja.

from shouting.GEN.SG

‘John shouted himself hoarse.’

Šarić (2008) notices that adjectival resultatives might sometimes occur in Croatian, e.g. (193). However, he indicates that “resultative constructions with a form that is clearly adjectival are considered idiomatic” (Šarić 2008, 28).

Adjectival resultatives are generally absent in contemporary Croatian and are treated as “a very rare construction, found in written language, nowadays rather archaic” (Marković 2009, 245).

(193) *Natočim si čašu **punu**.* ‘I fill my glass full.’ (Šarić 2008, 29)

As was mentioned in 4.4, Croatian has an exceptional phrase *nasmrt* ‘to death’ which does not follow the tendency to mark an accumulated property by *to*-PPs, e.g. (194).

(194)

<i>John</i>	<i>je</i>	<i>is-tukao</i>	<i>čovjeka</i>
John	AUX.3sg	PRF-beat.PTC.M.SG	man.ACC.SG

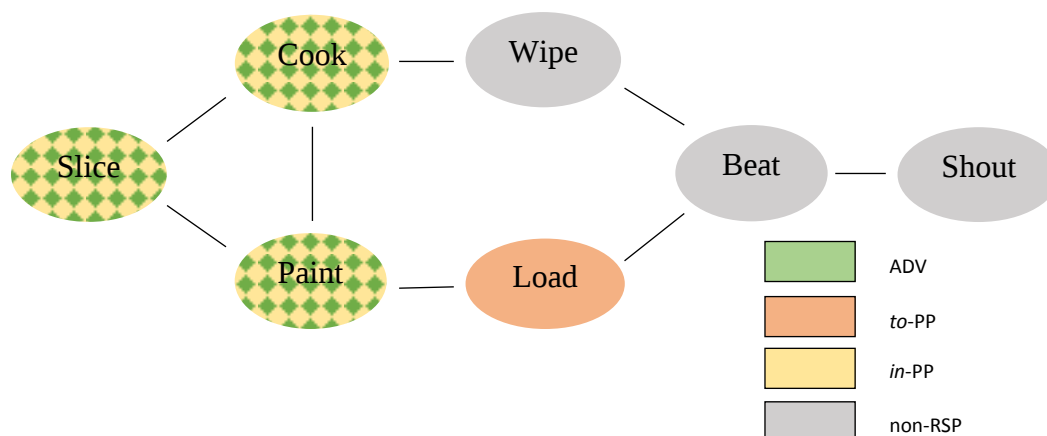
nasmrt.

on.death

‘John beat the man to death.’

The semantic map of resultatives proposed for Croatian is presented in the following Schema.

Schema 28. The semantic map of RSP in Croatian.



5.8 The semantic map of RSP in Czech

Czech (in the same manner as Polish) shows an encoding pattern of resultatives which can be referred to as being intermediate between the patterns used in East and South Slavic languages: East Slavic languages make use of resultative strategies in all functions, while South Slavic languages restrict

The encoding pattern of resultatives in Czech is also mainly determined by the distinction between a preset and accumulated properties. The functions COOK and SLICE are encoded by *in*-PPs, e.g. (195) and (196).

‘John cooked the egg hard.’

‘John cut the tomato thin.’

‘John painted the car red.’

‘John loaded the wagon full.’

John wipe.PRF.PRT.M.SG table.ACC.SG to dry

‘John wiped the table dry.’

(200) BEAT: *to*-PP

Jan zmlátil muže
 John beat.PRF.PRT.M.SG man.ACC.SG
do bezvědomí.
 to unconsciousness.GEN

‘John beat the man unconscious.’

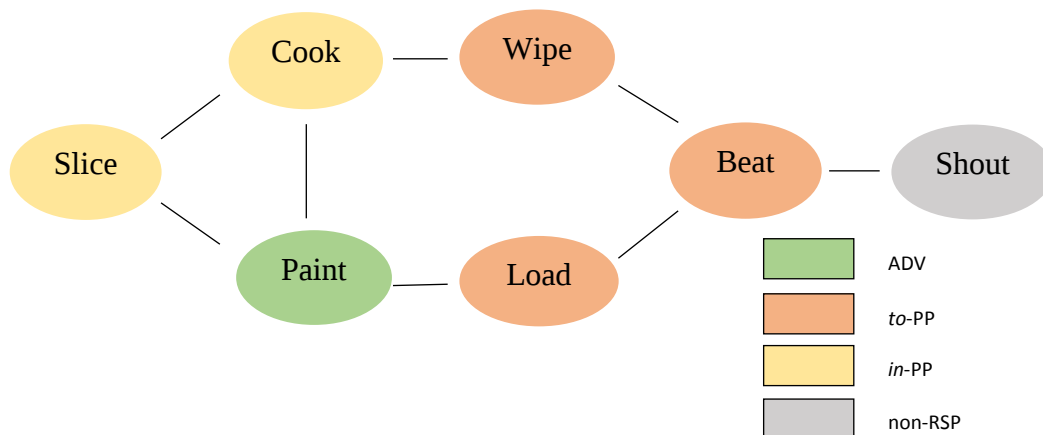
As was mentioned above, Czech seems to disallow resultatives based on intransitive verbs and employs non-RSP strategies for the function SHOUT, e.g. (201).

(201) SHOUT: non-RSP

Jan se pře-jedl, až
 John REFL eat.PRF.PRT.M.SG until
se mu udělalo špatně.
 REFL 3SG.DAT.SG.M cause.PRT.N.SG ill.ADV
 ‘John ate himself sick.’

All these facts lead to the semantic map presented in Schema 29.

Schema 29. The semantic map of RSP in Czech.



5.9 The semantic map of RSP in Danish

As well as other Germanic languages, Danish exposes a wide distribution of resultatives. All functions but SLICE are expressed by agreeing adjectives in

Danish, e.g. (202)–(207). Adjectival predicates agree with their controller in gender (common or neuter) and number (Allan et al 1995, 72, 86).

(202) PAINT: ADJ

John malede bilen rød.

John paint.PST car.DEF.SG.C red.SG.C

‘John painted the car red.’

(203) COOK: ADJ (from <http://ing.dk/artikel/sporg-laeserne-er-det-svaerere-pille-helt-friske-kogte-aeg-126452>)

at koge ægget hårdt

INF cook egg.DEF.SG.N hard.SG.N

‘to cook the egg hard’

(204) LOAD: ADJ

John lastede vognen fuld.

John load.PST wagon.DEF.SG.C full.SG.C

‘John loaded the wagon full.’

(205) WIPE: ADJ

John tørrede bordet rent.

John wipe.PST table.DEF.SG.N clean.SG.N

‘John wiped the table clean.’

(206) BEAT: ADJ

John hamrede metallet fladt.

John hammer.PST metal.DEF.SG.N flat.SG.N

‘John hammered the metal flat.’

(207) SHOUT: ADJ

John skreg sig hæst.

John shout.PST REFL hoarse.SG.C

‘John shouted himself hoarse.’

A note has to be added on the function COOK. It seems that an adjectival resultative is somewhat odd in the sentence *to cook the egg hard*, since my informant translated it by a non-RSP strategy. However, it would not be correct

to state that the function COOK cannot be expressed by the adjective in Danish, cf. (207).

(207) (from KorpusDK)

<i>Kog</i>	<i>kartoflerne</i>	<i>møre</i>	<i>i</i>	<i>vand</i>	<i>uden</i>	<i>salt.</i>
cook.IMPER	potatoe.DEF.PL	soft.PL	in	water	without	salt

‘Cook the potatoes soft in water without salt.’

The only function which is expressed by a different strategy, viz. adverb, is SLICE, e.g. (208). In Danish deadjectival adverbs take the ending *-t* and thus correspond to the neuter singular form of the adjective (Allan et al. 1995, 335). That the predicate in (208) is an adverb can be inferred from the fact that it does not agree with the controller.

(208) SLICE: ADV

<i>John</i>	<i>skar</i>	<i>tomaten</i>	<i>tyndt.</i>
John	slice.PST	tomato.DEF.SG.C	thin.ADV(=SG.N)

‘John sliced the tomato thin.’

In addition, in Danish the concept of becoming dead (see 4.3) is expressed by an adverb which originated from the *to*-PP *i hæl* ‘to hell’ (ODS), e.g. (209).

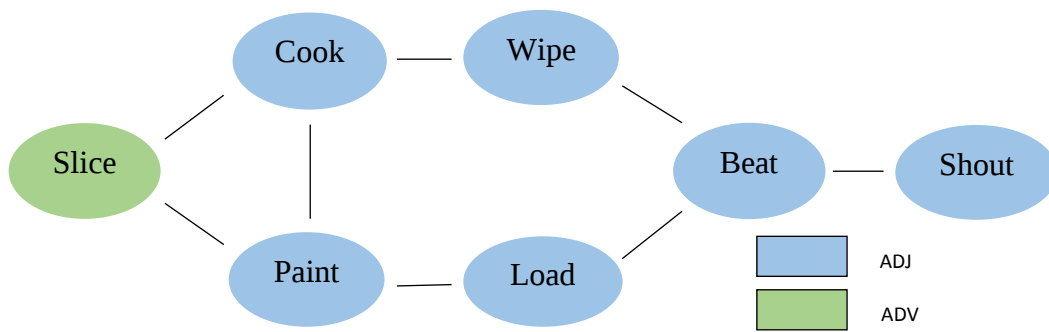
(209)

<i>John</i>	<i>sparkede</i>	<i>manden</i>	<i>ihjel.</i>
John	kick.PST	man.DEF.SG.C	dead.ADV

‘John kicked the man to death.’

To conclude, the semantic map of Danish resultatives is one of the simplest, see Schema 30.

Schema 30. The semantic map of RSP in Danish.



5.10 The semantic map of RSP in Dutch, English and German

Dutch, German and English have the widest distribution of adjectival resultatives in the languages in the sample. However, it should be noted that while it is undoubtedly correct to speak about adjectival resultative predicates in English, it is not exactly so in Dutch and German. The point is that Dutch and German, unlike English, have neutralised the distinction of adjectives and adverbs functioning as secondary predicates (cf. Himmelmann, Shultze-Berndt 2005, 2). Nevertheless, I will still refer to Dutch and German adjuncts as adjectives since this is the standpoint taken in the literature on resultatives (cf. “adjectival predicates” in Wunderlich 1997, 118; “adjektivisches Verbgruppenadverbiale” in Zifonun et al. 1997, 1114; “APs” in Kaufmann, Wunderlich, 1998; etc.).

Thus, Dutch, German and English encode all functions by an adjective, e.g. (210)–(216) (I will only cite the Dutch and German examples since their English counterparts are given in the translations).

(210) PAINT: ADJ (German)

<i>Hans</i>	<i>strich</i>	<i>das</i>	<i>Auto</i>	<i>grün.</i>
John	paint.PST.3SG	DEF.ACC.SG.N	car	green

‘John painted the car green.’

(211) SLICE: ADJ (Dutch)

<i>Jan</i>	<i>sneed</i>	<i>de</i>	<i>tomaat</i>	<i>dun.</i>
John	cut.PST.SG	DEF.SG.C	tomato	thin

‘John cut the tomato thin.’

(212) COOK: ADJ (German)

Hans kochte das Ei hart.

John cook.PST.3SG DEF.ACC.SG.N egg hard

‘John cooked the egg hard.’

(213) LOAD: ADJ (Dutch)

Jan laadde de wagen vol.

Jan load.PST.SG DEF.SG.C wagon full

‘John loaded the wagon full.’

(214) WIPE: ADJ (German)

Hans wischte den Tisch trocken.

John wipe.PST.3SG DEF.ACC.SG.M table dry

‘John wiped the table dry.’

(215) BEAT: ADJ (Dutch)

Jan schopte de man dood.

John kick.PST.SG DEF.SG man dead

‘John kicked the man to death.’

(216) SHOUT: ADJ (German)

John schrie sich heiser.

John shout.PST.3SG himself hoarse

‘John shouted himself hoarse.’

In the case of the notion ‘dead’ English and German tend to use a PP with activity verbs²⁴, e.g. (217) and (218).

(217) *John beat the man to death.*

(218) German

John trat den Mann zu Tode.

John kick.PST.3SG DEF.ACC.SG.M man to death

‘John kicked the man to death.’

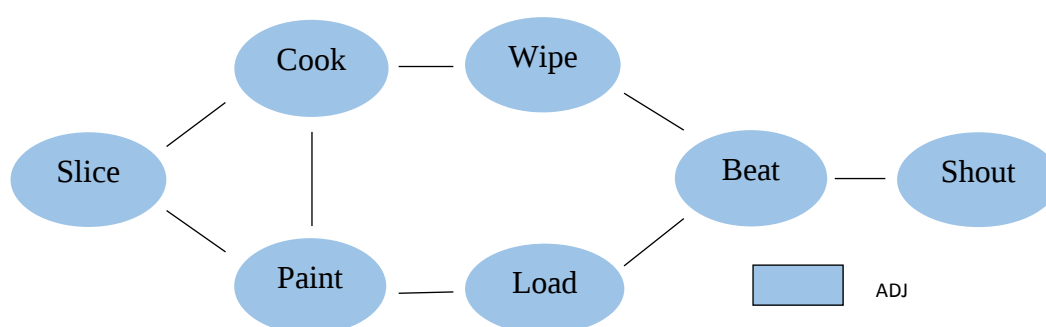
As far as English is concerned, Broccias proposes that “the use of the adjective correlates with viewing the event as punctual (by abstracting away

²⁴ Dutch seems to have an adjective here, cf. (215).

from its actual temporal extension), whereas the use of prepositional phrase leads us to view the event as unfolding in real time” (Broccias 2004b, 13–14). Broccias’s assumption that adjectives imply the interpretation of an event as a whole unit, while *to*-PPs refer to the duration of an event is in line with the distinction between a preset and an accumulated property.

The semantic map of resultatives in the relevant languages reflects a very simple encoding pattern, see the Schema below.

Schema 31. The semantic map of RSP in Dutch, English and German.



5.11 The semantic map of RSP in Estonian and Finnish

Finnic languages are famous for their extensive highly spatial-oriented system of noun declension: “the three-dimensional local system of in, from and into is perceivable in all the [Finno-Ugric] languages” (Kangasmaa-Minn 1984, 78). However, the case used to mark resultatives, viz. translative, is not a spatial case but refers to the outcome or the result of a change, i.e. it “expresses a state, property, function or position into which something or someone enters, or the end point of a movement or change” (Karlsson 1999, 125).

In both languages the scope of the translative is not restricted merely to expressing result. For example, in Estonian the translative is also used to encode time and purpose adverbials, as well as other meanings (Matsumura 1996), while in Finnish it can denote not only the state which resulted from a change but also the maintained state (Fong 2003, 4).

According to Matsumura, in Estonian translative-marked adjectival secondary predicates (with a few exceptions) do not agree in number with their

controllers, while nominal secondary predicates do (Matsumura 1996, 93–95), cf. (219) and (220). In Finnish both adjectival and nominal secondary predicates show agreement with their controllers, e.g. (221).

(219) Estonian

<i>Jaan</i>	<i>loputas</i>	<i>tassid</i>	<i>puhtaks.</i>
John	rinse.PST.3SG	cup.PL.NOM	clean.SG.TRA

‘John rinsed the cups clean.’

(220) Estonian

<i>John</i>	<i>jooksis</i>	<i>oma kingad</i>	<i>ribadeks.</i>
John	run.PST.3SG	own shoe.PL.NOM	thread.PL.TRA

‘John ran his shoes threadbare.’

(221) Finnish

<i>Hän</i>	<i>huuhteli</i>	<i>kupit</i>	<i>puhtaksi.</i>
John	rinse.PST.3SG	cup.PL.ACC	clean.PL.TRA

‘John rinsed the cups clean.’

Adjectival predicates bearing the translative case are used to express most of the functions in both Estonian and Finnish, e.g. (222)–(226).

(222) PAINT: ADJ (Estonian)

<i>Jaan</i>	<i>värvis</i>	<i>auto</i>	<i>punaseks.</i>
John	paint.PST.3SG	car.ACC.SG ²⁵	red.TRA

‘John painted the car red.’

(223) COOK: ADJ (Finnish)

<i>John</i>	<i>keitti</i>	<i>munan</i>	<i>kovaksi.</i>
John	cook.PST.3SG	egg.ACC.SG	hard.TRA

‘John cooked the egg hard.’

(224) WIPE: ADJ (Estonian)

<i>Jaan</i>	<i>pühkis</i>	<i>laua</i>	<i>kuivaks.</i>
John	wipe.PST.3SG	table.ACC.SG	dry.TRA

²⁵ In both Estonian and Finnish the accusative case is a label subsuming a few cases: “The accusative is not a uniform morphological case form as such, but a collective name given to a certain set of cases when they mark the object of the sentence. <...> The accusative, i.e. this set of case forms, appears as the case of the object in opposition to the partitive.” (Karlsson 1999, 100).

‘John wiped the table dry.’

(225) BEAT: ADJ (Finnish)

<i>John</i>	<i>löi</i>	<i>miehen</i>	<i>tajuttomaksi.</i>
John	beat.PST.3SG	man.ACC.SG	uncounscious.TRA

‘John beat the man unconscious.’

(226) SHOUT: ADJ (Estonian)

<i>Jaan</i>	<i>karjus</i>	<i>ma</i>	<i>hääle</i>	<i>ähedaks.</i>
John	shout.PST.3SG	own	voice.ACC.SG	hoarse.TRA

‘John shouted himself hoarse.’ (lit. ‘John shouted his voice hoarse.’)

Two functions need more consideration. Both languages show similar restrictions with regard to the function SLICE. While structures with adjectives are not absolutely impossible, e.g. (227) (they become more acceptable if a modifier is added), another strategy, viz. a NP, is usually preferred, e.g. (228).

(227) SLICE: ADJ (Estonian)

? <i>Jaan</i>	<i>viilutab</i>	<i>liha</i>	<i>(väga) õhukeseks.</i>
John	slice.PRS.3SG	meat.ACC.SG	(very) thin.TRA

‘John slices the meat (very) thin.’

(228) SLICE: NP (Estonian)

<i>Jaan</i>	<i>viilutab</i>	<i>liha</i>	<i>õhukesteks</i>	<i>tükkideks.</i>
John	slice.PRS.3SG	meat.ACC.SG	thin.TRA.PL	piece.TRA.PL

‘John slices the meat thin.’

Finally, the most unclear function is LOAD for which both languages employ an adverb, e.g. (229).

(229) LOAD: ADV (Finnish)

<i>John</i>	<i>lastasi</i>	<i>vaunun</i>	<i>täyteen.</i>
John	load.PST.3SG	wagon.ACC.SG	full.ADV

‘John loaded the wagon full.’

I am not certain whether the use of the adverb is determined here by some features of filling verbs (and is therefore typical of the function) or by the properties of the particular lexemes Fin. *täyteen* and Est. *täis*. The latter assumption is based on the fact that in another context the concept of ‘fullness’

is also expressed by an adverb if the lexeme Fin. *täyteen* is used and by an adjective if another lexeme of similar meaning is employed, cf. (230) and (231).

(230) Finnish

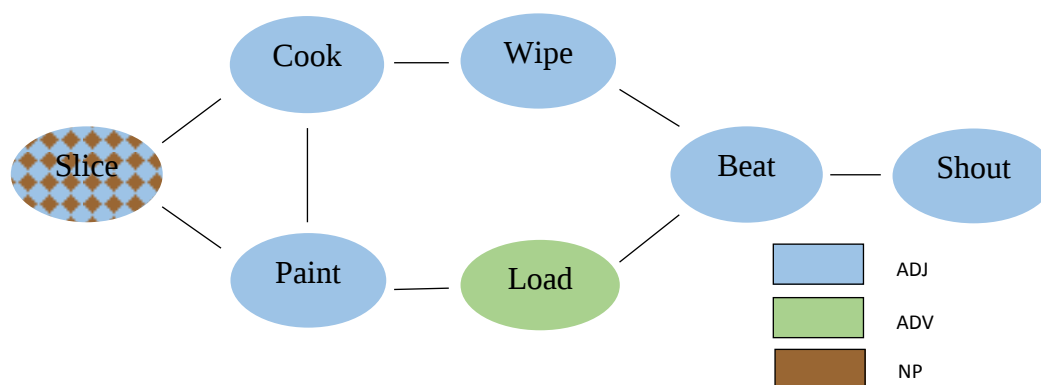
John söi itsensä täyteen.
 John eat.PST.3SG self.ACC.3POSS full.ADV
 ‘John ate himself full.’

(231) Finnish

John söi itsensä kylläiseksi.
 John eat.PST.3SG self.ACC.3POSS full.TRA
 ‘John ate himself full.’

However, since I do not have examples of the adjectival resultative being used to express the function LOAD I have marked this function as making use of an adverb strategy in the semantic map, see Schema 32.

Schema 32. The semantic map of RSP in Estonian and Finnish.



5.12 The semantic map of RSP in French, Italian, Portuguese and Spanish

It is often stated that Romance languages do not possess the resultative construction, or that it is at least restricted to particular verbs (cf. Aske 1989; Mallén 1991; Demonte 1987, 1991, 1992; Mateu Fontanals 2000; Mateu, Rigau 2002, etc.). In addition, some linguists assume that Romance languages

allow only prepositional resultatives while others argue that adjectival resultatives are also possible.

Legendre notes that in French resultatives are “overwhelmingly restricted to PPs” and can only adjoin to “a small set of transitive verbs, including *peindre* ‘paint’, *couper* ‘cut’, etc.” (Legendre 1997, 46), e.g. (232). Folli (2002) and Folli and Ramchand (2005) argue that Italian also allows PP resultatives, e.g. (233).

(232) French (Legendre 1997, 47)

Pierre a peint les murs en blanc.

Peter has painted the walls in white

‘Peter painted the walls white.’

(233) Italian (Folli 2002, 157)

Gianni ha picchiato il suo cane a morte.

John has beaten the his dog to death

‘John beat his dog to death.’

My Romance data basically confirms these statements as both *in*-PPs and *to*-PPs occur in my sample of examples. *In*-PPs are used to express the functions PAINT and SLICE in all the Romance languages in my sample, e.g. (242), while *to*-PPs are used to express only particular situations or notions such as ‘to death’, e.g. (234) and (235) (but cf. (246) and (247)).

(234) French

Jean a chargé le wagon

John AUX.3SG load.PTC DEF.SG.M wagon

à plein.

to fullness

‘John loaded the wagon full.’

(235) Portuguese

O João pontapeou o homem

DEF.SG.M John kick.PRT.3.SG DEF.SG.M man

*até à*²⁶ *morte.*

to.DEF.SG.F death.

‘John kicked the man to death.’

French seems to allow *to*-PPs most widely (see table 3) while Spanish seems to restrict them the most: my informant reported that even the sentence *beat x to death* cannot include a *to*-PP in Spanish.

As far as adjectival resultatives are concerned, the situation is more complicated and unclear. Although examples of the type (236)–(238) are often cited in the literature, none of them was noted by my informants.

(236) French (from Burnett, Troberg 2014, 41)

<i>Marie</i>	<i>a</i>	<i>peinturé</i>	<i>le</i>	<i>mur</i>	<i>bleu.</i>
Marie	has	painted	the	wall	blue

‘Marie painted the wall blue.’

(237) Spanish (from Demonte 1992, 168)

Juan pintó la casa roja. ‘Juan painted the house red.’

(238) Italian (from Napoli 1992, 65; 72; 77)

a) *Ha dipinto la macchina rossa.* ‘He painted the car red.’

b) *Quel macellaio taglia le carni sottili.* ‘That butcher cuts meats thin.’

c) *Gli operai hanno caricato il camion [pieno al massimo].* ‘The workers loaded the truck full to the brim.’

In addition, it is frequently stated that adjectival resultatives improve if the result is emphasised (cf. Demonte 1991, 183 on Spanish; Napoli 1992, 75–78 on Italian), e.g. (239) and (240).

(239) Spanish (from Demonte 1991, 183)

Pica el tomate muy finito. ‘Chop the tomato very thin.’

(240) Italian (from Napoli 1992, 75)

Ho stirato la camicia [piata piata]. ‘I ironed the shirt [very flat].’

Verkerk (2009b), who bases her research mainly on examples taken from the literature, attributes Spanish and Italian to the languages which encode resultatives, depictives and adverbials by the same strategy, viz. by agreeing

²⁶ *Até à* ‘to’ = *até a* (PP) + *a* (def. f. sg)

adjectives (Verkerk 2009b, 30). French in turn is ascribed to the languages which have a tripartite encoding pattern, i.e. which have distinct strategies for every type of secondary predication. French resultatives, according to Verkerk (2009b, 106), are encoded by prepositional phrases.

While it is definitely true that prepositional resultatives occasionally occur in French (as well as in Italian or Portuguese), I would argue that neither *to*-PPs nor the more adjectives can be treated as typical means for encoding RSP in Romance languages.

As my data shows, PAINT is expressed by *in*-PPs in Romance languages, e.g. (241), while SLICE can be encoded either by *in*-PPs, e.g. (242), or by non-RSP strategies, e.g. (243). The rest of the functions are usually encoded by non-RSP strategies, e.g. (244)–(248).

(241) PAINT: *in*-PP (Italian)

<i>John</i>	<i>ha</i>	<i>colorato</i>	<i>la</i>	<i>macchina</i>
John	AUX.3SG	paint.PTC	DEF.SG.F	car
<i>di</i>	<i>rosso</i> ²⁷ .			
in	red			

‘John painted the car red.’

(242) SLICE: *in*-PP (Spanish)

<i>John</i>	<i>cortó</i>	<i>el</i>	<i>tomato</i>	<i>en</i>	<i>lonchas</i>	<i>finas</i> .
John	cut.PRT.3SG	DEF.M	tomato	in	slice.PL.F	thin.PL.F

‘John cut the tomato thin.’

(243) SLICE: non-RSP (Italian)

<i>John</i>	<i>ha</i>	<i>macinato</i>	<i>il</i>	<i>caffè</i>
John	AUX.3SG	grind.PTC	DEF.SG.M	coffee

finemente.
fine.ADV

‘John ground the coffee fine.’

²⁷ Prepositions Ital. *di*, Span., Port. *de* have the meaning ‘of, by’. However, I refer to them as *in*-PPs because they denote a preset property rather than a goal.

(244) COOK: non-RSP (Portuguese)

<i>O</i>	<i>João</i>	<i>cozinhou</i>	<i>o</i>	<i>ovo</i>
DEF.SG.M	John	cook.PRT.3SG	DEF.SG.M	egg
<i>até</i>	<i>ficar</i>	<i>duro.</i>		
until	become.INF	hard.M		

‘John cooked the egg hard.’

(245) WIPE: non-RSP (Italian)

<i>Mary</i>	<i>ha</i>	<i>pulito</i>	<i>il</i>	<i>tavolo.</i>
Mary	AUX.3SG	clean.PTC	DEF.SG.M	table

‘Mary wiped the table clean.’

(246) LOAD: non-RSP (French)

<i>Marie</i>	<i>a</i>	<i>rempli le</i>	<i>verre</i>
Mary	AUX.3SG	fill.PTC DEF.SG.M	glass

complètement.
full.ADV
‘Mary filled the glass full.’

(247) BEAT: non-RSP (Portuguese)

<i>A</i>	<i>Maria</i>	<i>bateu</i>	<i>no</i>	<i>homem</i>
DEF.SG.F	Mary	beat.PRT.3SG	on.DEF.SG.M	man
<i>até</i>	<i>ele</i>	<i>ficar</i>	<i>inconsciente.</i>	
until	3SG.M	become.INF	unconscious	

‘Mary beat the man unconscious.’

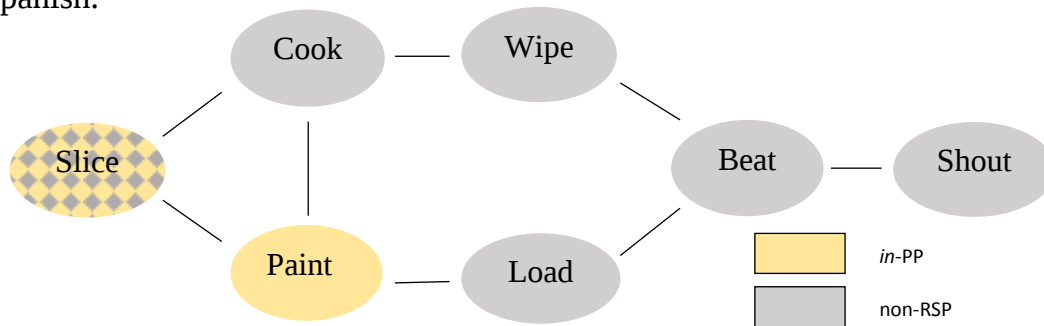
(248) SHOUT: non-RSP (French)

<i>Jean</i>	<i>a</i>	<i>crié</i>
John	AUX.3SG	shout.PTC
<i>jusqu'à</i>	<i>perdre la</i>	<i>voix.</i>
until	lose.INF DEF.SG.M	voice

‘John shouted himself hoarse.’

This data yields a semantic map which represents a very restricted distribution of resultatives in Romance languages, see Schema 33.

Schema 33. The semantic map of RSP in French, Italian, Portuguese and Spanish.



5.13 The semantic map of RSP in Greek and Maltese

As well as Romance languages, Greek and Maltese also avoid the resultative construction, cf. on Greek: “There are a very limited number of verbs <...> which support resultative secondary predication of the canonical sort” (Giannakidou, Merchant 1999, 124).

My data shows that both Greek and Maltese make use of adjectives to encode the function PAINT, e.g. (249) and (250), and can employ *in*-PPs for the function SLICE, e.g. (251) and (252) (here I cite the examples of both languages because they are not related genetically and therefore similar encoding patterns would be less expected).

(249) PAINT: ADJ (Greek)

<i>O</i>	<i>Janis</i>	<i>evapse</i>	
DEF.NOM.SG.M	John	paint.PST.PRF.3SG	
<i>to</i>	<i>aftocinito</i>	<i>kocino</i> .	
DEF.ACC.SG.N	car.ACC.SG.N	red.ACC.SG.N	

‘John painted the car red.’

(250) PAINT: ADJ (Maltese)

<i>Ġanni</i>	<i>żebagħ</i>	<i>il-ħitan</i>	<i>ħodor</i> .
John	paint.PRF.3SG.M	DEF-wall.PL	green.PL

‘John painted the walls green.’

(251) SLICE: *in*-PP (Greek)

<i>O</i>	<i>Janis</i>	<i>ekopse</i>	<i>tin</i>
DEF.NOM.SG.M	John	slice.PST.PRF.3SG	DEF.ACC.SG.F

<i>domata</i>	<i>se</i>	<i>leptes</i>	<i>fetes.</i>
tomato.ACC.SG	in	slim.ACC.PL.F	slice.ACC.PL.F

‘John sliced the tomato thin.’

(252) SLICE: *in*-PP (Maltese)

<i>John</i>	<i>qatta’</i>	<i>t-tadama</i>	<i>f’</i>	<i>bicċiet</i>	<i>irqaq.</i>
John	cut.PRF.3SG.M	the-tomato	in	piece.PL	thin.PL

‘John cut the tomato thin.’

Horrocks and Stavrou (2003, 317) cite the example of the adjectival resultative used to express the function SLICE in Greek, e.g. (253). However, again I am dubious as to whether this sentence represents a natural way of expressing the relevant meaning since my informant has not confirmed it.

(253) (from Horrocks, Stavrou 2003, 317)

<i>'ekopse</i>	<i>to</i>	<i>kre'midi</i>	<i>le'pto</i>
cut.3SG.PRF	DEF.ACC.SG.N	onion.ACC.SG.N	thin.ACC.SG.N

‘cut the onion thin’

The remainder of the functions (as well as SLICE) are expressed by non-RSP strategies both in Greek and Maltese, e.g. (254)–(259).

(254) SLICE: non-RSP (Maltese)

<i>John</i>	<i>taħan</i>	<i>il-kafè</i>	<i>sew.</i>
John	grind.PRF.3SG.M	the-coffee.M	well

‘John ground the coffee fine.’

(255) COOK: non-RSP (Maltese)

<i>Ġanni</i>	<i>sajjar</i>	<i>il-bajda</i>
John	cook.PRF.3SG.M	DEF-egg.F
<i>sakemm</i>	<i>ibbieset.</i>	
until	harden.PRF.3SG.F	

‘John cooked the egg hard.’

(256) LOAD: non-RSP (Maltese)

<i>John</i>	<i>għabba</i>	<i>l-karettun</i>
John	load.PRF.3SG.M	DEF-wagon.M

sakemm mtela kollu.
 until become.full.PRF.3SG.M all.3SG.M
 ‘John loaded the wagon full.’

(257) WIPE: non-RSP (Greek)

O Janis skupise
 DEF.NOM.SG.M John wipe.PST.PRF.3SG
to trapezi.
 DEF.ACC.SG.N table.ACC.SG.N
 ‘John wiped the table dry.’

(258) BEAT: non-RSP (Maltese)

Ġanni immartella l-metall
 John hammer.PRF.3SG.M DEF-metal.F
u ċċattja-ha.
 and flatten.PRF.3SG.M-3SG.F
 ‘John hammered the metal flat.’

(259) SHOUT: non-RSP (Maltese)

Maira żifnet sakemm ghejjiet.
 Mary dance.PRF.3SG.F until get.tired.PRF.3SG.F
 ‘Mary danced herself tired.’

A nonessential difference between the two languages is that (according to my informant) Greek employs a lexicalised *to*-PP for the notion ‘dead’ while Maltese expresses it by a non-RSP strategy, e.g. (114) and (260).

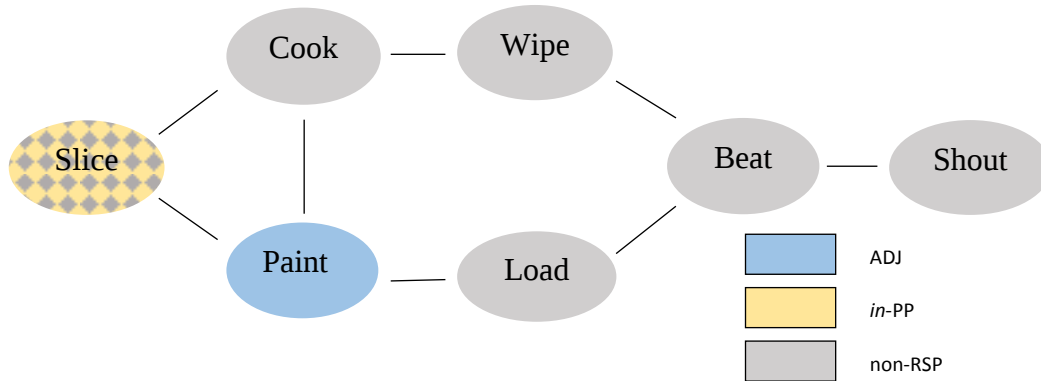
(260) Maltese

John qatlu bid-daqqiet ta’ sieq
 John kill.PRF.3SG.M.him with.the-blow.PL of foot.F
li tah.
 that give.PRF.3SG.M.him
 ‘John kicked him to death.’

As was already mentioned in 2.4.2, Verkerk (2009b, 86) treats Greek as making use of agreeing adjectives for both depictives and resultatives. As the

semantic map in Schema 34 shows, the statement that Greek encodes resultatives by adjectives is far too strong.

Schema 34. The semantic map of RSP in Greek and Maltese.



5.14 The semantic map of RSP in Hungarian

Hungarian, like Finnic languages, has a large number of cases. According to Jurth (2013, 334), resultatives can be expressed by two cases in Hungarian: the non-spatial translativ (as in Finnic languages) and the spatial (directional) sublativ ‘onto, to’. Verkerk (2009b, 95) cites Marácz (1989, 223) who states that adjectival resultatives receive the sublativ case while nominal resultatives take the translativ case. Since my data includes mainly adjectival notions it is not surprising that only the sublativ case is attested. On the other hand, a nominal resultative in (132) also bears the sublativ case.

Thus, my sample of examples shows that most of the functions are expressed by an adjectival resultative in the sublativ, e.g. (261)–(266).

(261) PAINT: ADJ

<i>John</i>	<i>pirosra</i>	<i>festette</i>	<i>az</i>	<i>autót.</i>
John	red.SUB	paint.PST.3SG	DEF	car.ACC.SG

‘John painted the car red.’

(262) SLICE: ADJ

<i>John</i>	<i>vékonyra</i>	<i>vágta</i>	<i>a</i>	<i>paradicsomot.</i>
John	thin.SUB	slice.PST.3SG	DEF	tomato.ACC.SG

‘John sliced the tomato thin.’

(263) COOK: ADJ

John keményre főzte a tojást.
John hard.SUB cook.PST.3SG DEF egg.ACC.SG
'John cooked the egg hard.'

(264) WIPE: ADJ

John tisztára törölte az asztalt.
John clean.SUB wipe.PST.3SG DEF table.ACC.SG
'John wiped the table clean.'

(265) BEAT: ADJ

John eszméletrenre verte a férfit.
John unconscious.SUB beat.PST.3SG DEF man.ACC.SG
'John beat the man unconscious.'

(266) SHOUT: ADJ

John rekedtre kiabálta magát.
John hoarse.SUB shout.PST.3SG himself.ACC
'John shouted himself hoarse.'

As with in Finnic languages, I am not absolutely certain of the encoding of the function LOAD. It seems that the property of fullness tends to be expressed merely by a verbal particle in Hungarian, e.g. (267) and cf. (268).

(267) LOAD: non-RSP

John tele-rakta a kocsit.
John PREF-load.PST.3SG DEF wagon.ACC.SG
'John loaded the wagon full.'

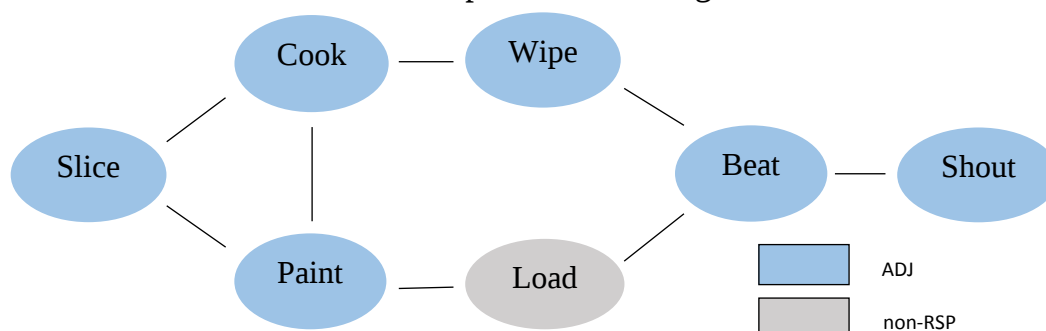
(268)

John tele-ette magát.
John PREF-eat.PST3SG himself.ACC
'John ate himself full.'

Verbal particles "denote a result state in some abstract sense" (Csirmaz 2006, 161); therefore, if the result has to be specified, the secondary predicate is used instead. However, the verbs *load* and *pour* inherently imply a specific result (fullness) and therefore the verbal particle might be sufficient to convey

the relevant meaning. On the other hand, the verb *wipe* also implies a specific result but the resultative adjunct can be added (cf. 264). Thus, the usage of RSPs with “filling” verbs needs more investigation in both Finnic languages and Hungarian. From this, I propose the semantic map of Hungarian resultatives given in Schema 35.

Schema 35. The semantic map of RSP in Hungarian.



5.15 The semantic map of RSP in Icelandic

Icelandic, in the same manner as other Germanic languages, mainly employs adjectives to express RSP. A typical feature of North Germanic adjectival resultatives is their agreement in case, gender and number with the controllers. In Icelandic the functions encoded by the adjective are as follows: PAINT, LOAD, BEAT and SHOUT, e.g. (269)–(272).

(269) PAINT: ADJ

<i>Jón</i>	<i>málaði</i>	<i>bílinn</i>	<i>rauðan.</i>
John	paint.PST	car.DEF.ACC.SG.M	red.ACC.SG.M
‘John painted the car red.’			

(270) LOAD: ADJ

<i>Jón</i>	<i>hlóð</i>	<i>vagninn</i>	<i>fullan.</i>
John	load.PST	wagon.DEF.ACC.SG.M	full.ACC.SG.M
‘John loaded the wagon full.’			

(271) BEAT: ADJ

<i>Jón</i>	<i>hamraði</i>	<i>málminn</i>	<i>flatan.</i>
John	hammer.PST	metal.DEF.ACC.SG.M	flat.ACC.SG.M

‘John hammered the metal flat.’

(272) SHOUT: ADJ

<i>Jón</i>	<i>öskraði</i>	<i>sig</i>	<i>hásan.</i>
John	shout.PST	himself.ACC	hoarse.ACC.SG.M

‘John shouted himself hoarse.’

With regard to resultatives based on intransitive verbs (such as in the function SHOUT), Whelpton states that resultatives including an unsubcategoryed reflexive “are extremely productive in Icelandic” (Whelpton 2007, 5), while resultatives including an unsubcategoryed NP seem to be absent: “the restriction to reflexive object is extremely strong in Icelandic. None of the standard examples in the literature of unergatives with disjoint reference objects translate naturally into Icelandic and I have found no convincing examples” (ibid, 6).

Icelandic, like Danish, encodes the function SLICE by an adverb, e.g. (273). Again, the form of the adverb corresponds to the neuter singular form of the respective adjective.

(273) SLICE: ADV

<i>Jón</i>	<i>skar</i>	<i>tómatinn</i>	<i>punnt.</i>
John	cut.PST	tomato.DEF.ACC.SG.M	thin.ADV(=ACC.SG.N)

‘John cut the tomato thin.’

The most interesting functions are COOK and WIPE which cannot be expressed by the adjectival strategy. This fact is confirmed both by my data and also by that of Whelpton who states that (save a few exceptions) cleaning and drying verbs as well as unaccusative verbs cannot combine with adjectival resultatives in Icelandic (Whelpton 2006, 15, 27; 2007, 7).

Thus, the function COOK is expressed by a compound verb, e.g. (274).

(274) COOK: CompV

<i>Jón</i>	<i>harðsauð</i>	<i>eggið.</i>
John	hard.cook.PST	egg.DEF.ACC.SG.N

‘John cooked the egg hard.’

In the case of *to wipe x clean/dry* a compound verb cannot be used: only a non-RSP strategy might be employed here, e.g. (275).

(275) WIPE: non-RSP

Jón þurrkaði af borðinu
 John wipe/dry.PST of table.DAT.DEF.SG.N
þar til það varð hreint/þurrt.
 until it become.PST clean/dry.NOM.SG.N
 ‘John wiped the table clean/dry.’

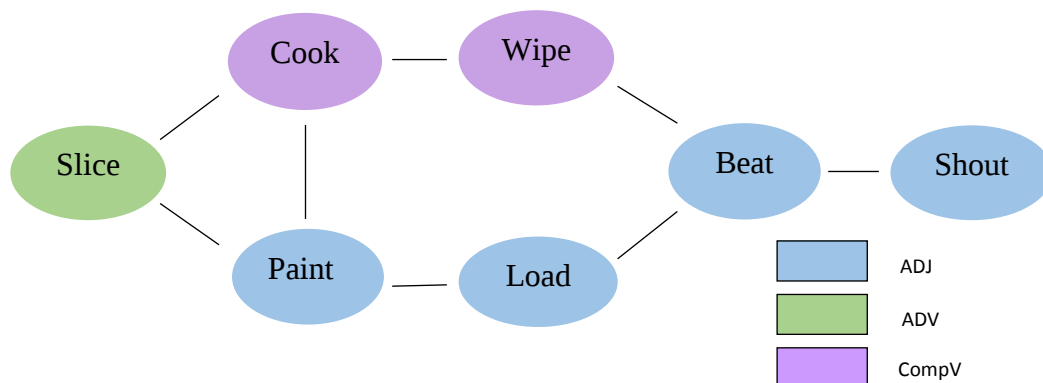
A presumable reason for this restriction might be the fact that the verb Icel. *þurrka* means both ‘to wipe’ and ‘to dry off’ and is derived from the adjective *þur* ‘dry’ (Whelpton 2006, 2). However, compound verbs are perfectly acceptable in similar situations such as (276).

(276) WIPE: CompV

Jón hreinskolaði bollana.
 John clean.rinse.PST cup.DEF.ACC.PL.M
 ‘John rinsed the cups clean.’

Therefore, I have still marked the type WIPE as bearing the compound verb strategy, which yields the semantic map presented in Schema 36.

Schema 36. The semantic map of RSP in Icelandic.



5.16 The semantic map of RSP in Irish

The discussion of resultatives in Celtic languages (particularly in Scottish Gaelic, see 5.21) is a problematic issue. While it is possible to state that some of the functions are encoded by the satellite-framed model and some are

expressed by the verb-framed model²⁸, there are functions which show varying marking in Irish.

The types which denote a preset property, viz. PAINT, SLICE and COOK, are expressed by an adjectival strategy, e.g. (277)–(279).

(277) PAINT: ADJ

Phéinteáil Seán an carr dearg.

paint.PST Seán DEF car red.

‘John painted the car red.’

(278) COOK: ADJ

Bhruith Máire an ubh crua.

cook.PST Mary DEF egg hard

‘Mary cooked the egg hard.’

(279) SLICE: ADJ

Ghearr Seán an tráta tanaí.

cut.PST John DEF tomato thin

‘John cut the tomato thin.’

The function SLICE can alternatively be encoded by the adverb (deadjectival adverbs are marked by the particle *go* in Irish), e.g. (280).

(280) SLICE: ADV

Ghearr Seán an tráta go tanaí.

cut.PST John DEF tomato ADV thin

‘John cut the tomato thin.’

The rest of the functions seem to prefer non-RSP strategies (mainly the verb-framed model), e.g. (281)–(284).

(281) LOAD: non-RSP

Líon Seán an vaigín.

fill.PST John DEF wagon

‘John loaded the wagon full.’

²⁸ As far as motion constructions are concerned, Irish seems to encode them by the satellite-framed model, e.g.
Dhamhsaigh Máire í féin amach as an tseomra.
 Dance.PST Mary her self out from DEF room
 ‘Mary danced (herself) out of the room.’

(282) WIPE: non-RSP

Ghlan Seán an bord.

clean.PST John DEF table

‘John wiped the table clean.’

(283) BEAT: non-RSP

Bhuail Seán an fear go

beat.PST John DEF man until

raibh sé gan urlabhra.

be.SUBJ 3SG.M without speech

‘John beat the man unconscious.’

(284) SHOUT: non-RSP

Thuirigh Máire í féin ag damhsa.

tire.PST Mary she.ACC self at dance.VN

‘Mary danced herself tired.’

The most unclear of the latter functions is BEAT as the verb *hammer* can take an adjectival resultative, e.g. (285).

(285)

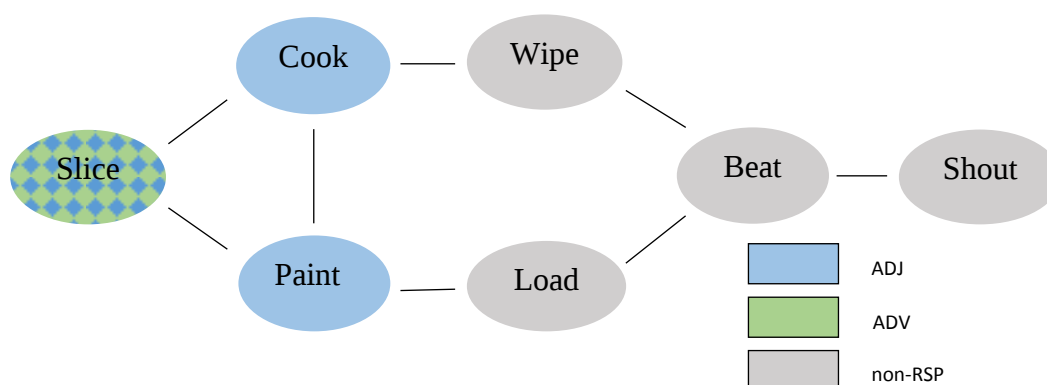
Thuargain Seán an miotal cothrom.

hammer/pound.PST John the metal flat

‘John hammered the metal flat.’

The ability of the verb *hammer* to take an adjectival resultative might imply that this particular case is interpreted as a preset value (cf. Polish in 5.20). Nevertheless, as other examples of the type BEAT do not include adjectival resultatives, I have marked this function as bearing a non-RSP strategy in the semantic map, see Schema 37. Further research would be certainly welcomed in the case of Irish resultatives.

Schema 37. The semantic map of RSP in Irish.



5.17 The semantic map of RSP in Latvian

Latvian is a unique language in the sample with respect to its encoding of resultatives. Languages which make use of bounding verbal prefixes, viz. Slavic and Baltic languages, usually specify the result by adverbs or prepositional phrases. However, Latvian combines verbal prefixes with adjectival secondary predicates to express the resultative secondary predication.

The genuine origins of this feature of Latvian could perhaps be revealed only by a thorough diachronic investigation. At present it is possible only to hypothesise that the usage of adjectival resultative predicates in Latvian might have been influenced by Finnic languages: such an assumption is indirectly implied in Holvoet (2008, 132).

In Latvian all functions but SLICE can be expressed by agreeing adjectives, e.g. (286)–(291).

(286) PAINT: ADJ

Jānis no-krāsoja mašīnu dzeltenu.
 John PRF-paint.PST.3 car.ACC.SG yellow.ACC.SG
 ‘John painted the car yellow.’

(287) LOAD: ADJ

Jānis pie-krāva vagonu pilnu.
 John PRF-load.PST.3 wagon.ACC.SG full.ACC.SG
 ‘John loaded the wagon full.’

(288) COOK: ADJ

Jānis iz-vārīja olu cietu.

John PRF-cook.PST.3 egg.ACC.SG hard.ACC.SG

‘John cooked the egg hard.’

(289) WIPE: ADJ

Jānis no-slaucīja galdu tīru.

John PRF-wipe.PST.3SG table.ACC.SG clean.ACC.SG

‘John wiped the table clean.’

(290) BEAT: ADJ

Jānis sa-sita metālu plakanu.

John PRF-hammer.PST.3 metal.ACC.SG flat.ACC.SG

‘John hammered the metal flat.’

(291) SHOUT: ADJ

Mērija no-dejojās slapja.

Mary PRF-danced.PST.3.REFL wet.NOM.SG.F

‘Mary danced herself wet.’

In addition, the resultative adjunct is often expressed by a *to*-PP in the functions BEAT and SHOUT (i.e. in the types based on activity verbs), e.g. (292) and (293).

(292) BEAT: *to*-PP

Džons pie-kāva vīrieti līdz bezsamaņai.

John PRF-beat.PST.3 man.ACC.SG until unconscious.DAT.SG

‘John beat the man unconscious.’

(293) SHOUT: *to*-PP

Bērns no-kliežas līdz nemaņai.

child PRF-shouted.PST.3.REFL until faint.DAT.SG

‘The child shouted himself faint.’

The function SLICE is expressed by an adverb, e.g. (294).

(294)

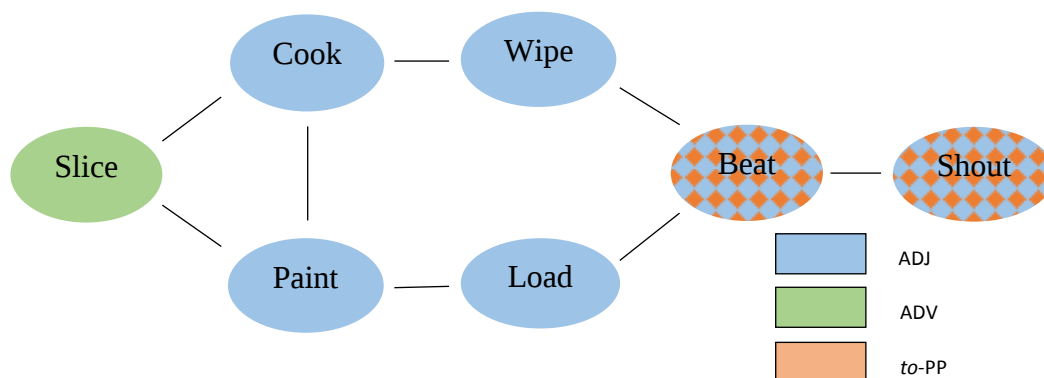
Džons sa-grieza tomātu plāni.

John PRF-cut.PST.3 tomato.ACC.SG thin.ADV

‘John cut the tomato thin.’

The semantic map for Latvian resultatives is presented below.

Schema 38. The semantic map of RSP in Latvian.



5.18 The semantic map of RSP in Lithuanian

Lithuanian contrasts with its closest relative, Latvian, in making use of the adverb as the main strategy to encode RSP. It also differs from Slavic languages in employing deadjectival adverbs rather than adverbs based on fossilised PPs²⁹ (Riaubienė 2015). In Lithuanian deadjectival adverbs formed with the suffix *-ai* are used to express both resultative secondary predication and purely adverbial predication (Holvoet 2008, 132–133).

All functions but SHOUT can be encoded by the adverbial strategy in Lithuanian, e.g. (295)–(300).

(295) PAINT: ADV

Jonas nu-dažė namą raudonai.

John PRF-paint.PST.3 house.ACC.SG red.ADV

‘John painted the house red.’

(296) SLICE: ADV

Jonas plonai su-pjaustė pomidorą.

John thin.ADV PRF-cut.PST.3 tomato.ACC.SG

‘John sliced the tomato thin.’

²⁹ Slavic-like prepositional adverbs are absent in Lithuanian.

(297) COOK: ADV

Jonas **kietai** *iš-virė* *kiaušinj.*
John hard.ADV PRF-cook.PST.3 egg.ACC.SG
‘John cooked the egg hard.’

(298) WIPE: ADV

Jonas **švariai** *nu-šluostė* *stalą.*
John clean.ADV PRF-wipe.PST.3 table.ACC.SG
‘John wiped the table clean.’

(299) LOAD: ADV

Jonas **pilnai** *pri-krovė* *vežimą.*
John full.ADV PRF-load.PST.3 cart.ACC.SG
‘John loaded the cart full.’

(300) BEAT: ADV

Jonas **negyvai** *su-spardė* *žmogų.*
John to.death.ADV PRF-kick.PST.3 man.ACC.SG
‘John kicked the man to death.’

With regard to the function SHOUT, Lithuanian generally avoids resultatives based on intransitive verbs and often prefers non-RSP strategies in these cases, e.g. (301).

(301) SHOUT: non-RSP

Jonas *už-kimo* *nuo* *rėkimo.*
John PRF-hoarsen.PST.3 because.of shouting.GEN.SG
‘John shouted himself hoarse.’

On the other hand, *to*-PPs are sometimes marginally possible in the function SHOUT and fully acceptable in the function BEAT, e.g. (302) and (303).

(302) BEAT: *to*-PP

Jonas *su-spardė* *vyrą*
John PRF-kick.PST.3 man.ACC.SG
iki **sąmonės** **netekimo.**
until consciousness.GEN.SG loosing.GEN.SG

‘John kicked the man unconscious.’

(303) SHOUT: *to-PP*

Vaikas nu-si-rėkė iki užkimimo.
 child PRF-REFL-shout.PST.3 until hoarseness.GEN

‘The child shouted himself hoarse.’

Finally, Lithuanian has one exceptional function, viz. *LOAD*, which can be expressed by the adjectival strategy (see 4.1), e.g. (304).

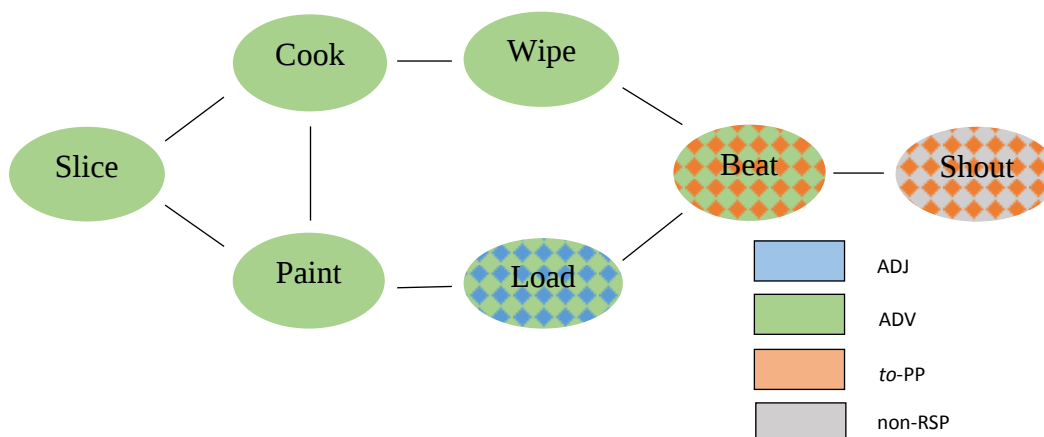
(304) *LOAD: ADJ*

Jonas pri-pylė stiklinę sklidinę.
 John PRF-pour.PST.3 glass.ACC.SG brimful.ACC.SG

‘John poured the glass full.’

The Lithuanian data leads to the semantic map presented in Schema 39.

Schema 39. The semantic map of RSP in Lithuanian.



5.19 The semantic map of RSP in Norwegian

Norwegian, as well as North Germanic languages, basically makes use of agreeing adjectives to express RSP (Faarlund et al. 1997, 764). On the other hand, *Norsk Referanse-Grammatikk* refers to a new tendency to allow uninflected adjectival secondary predicates (ibid, 765, 770). According to Åse-Berit and Strandskogen, the agreement can be absent “in the expressions involving the use of the reflexive pronoun” (Åse-Berit, Strandskogen 1986, 84).

Norwegian shows a feature which distinguishes it from Danish and Icelandic: in the former all functions (including SLICE) can be encoded by an adjective, e.g. (305)–(311)³⁰.

(305) PAINT: ADJ

<i>Han</i>	<i>malte</i>	<i>huset</i>	<i>rødt.</i>
3SG.M	paint.PST	house.DEF.SG.N	red.SG.N

‘He painted the house red.’

(306) SLICE: ADJ

<i>John</i>	<i>malte</i>	<i>kaffen</i>	<i>fin</i> ³¹ .
John	grind.PST	coffee.DEF.SG.M	fine.SG.M

‘John ground the coffee fine.’

(307) COOK: ADJ

<i>Hun</i>	<i>kokte</i>	<i>eggene</i>	<i>bløte.</i>
she	cook.PST	egg.DEF.PL	soft.PL

‘She cooked the eggs soft (runny).’

(308) WIPE: ADJ

<i>John</i>	<i>tørket</i>	<i>bordet</i>	<i>rent.</i>
John	wipe.PST	table.DEF.SG.N	clean.SG.N

‘John wiped the table clean.’

(309) LOAD: ADJ

<i>John</i>	<i>lastet</i>	<i>kjerra</i>	<i>full.</i>
John	load.PST	wagon.DEF.SG.F	full.SG.F

‘John loaded the wagon full.’

(310) BEAT: ADJ

<i>John</i>	<i>hamret</i>	<i>metallet</i>	<i>flatt.</i>
John	hammer.PST	metal.DEF.SG.N	flat.SG.N

‘John hammered the metal flat.’

³⁰ The examples represent Norwegian Bokmål.

³¹ Deadjectival adverbs in Norwegian bear the affix *-t* and correspond to the form of neuter singular adjectives. The absence of *-t* in (306) shows that it is an adjective.

(311) SHOUT: ADJ

John skrek seg hes.

John scream.PST himself hoarse.SG.M

‘John shouted himself hoarse.’

With regard to the function COOK, the compound verb strategy is also possible (and actually seems to prevail in this context), e.g. (312).

(312) COOK: CompV

John hardkokte egget.

John hard.boil.PST egg.DEF.SG.N

‘John cooked the egg hard.’

The function SLICE can be alternatively encoded by the adverb, e.g. (313).

(313) SLICE: ADV

John malte kaffen fint.

John grind.PST coffee.DEF.SG.M fine.ADV (=SG.N)

‘John ground the coffee fine.’

According to my informant, the use of the adjective in (306) emphasises the property of the participant of an event (i.e. that the coffee became fine), while the use of the adverb in (313) highlights the property of an event (i.e. that the grinding was conducted in a fine manner). In the case of (314) only one option, viz. an adverb, is possible because the tomato does not become thin.

(314)

John skar tomaten tynt.

John slice.PST tomato.DEF.SG.M thin.ADV (=SG.N)

‘John sliced the tomato thin.’

Norwegian also makes use of *to*-PPs in certain cases, e.g. (315).

(315)

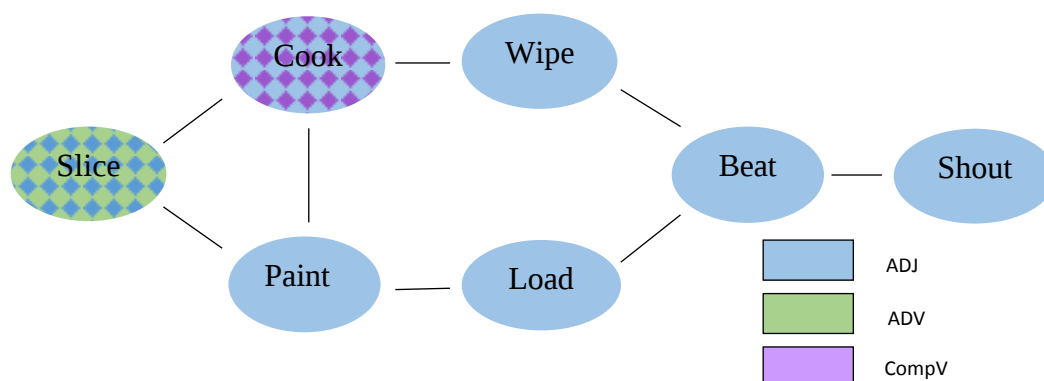
John spark mannen til døde.

John kick.PST man.DEF.SG.M to death

‘John kicked the man to death.’

The semantic map of Norwegian resultatives is presented in Schema 40.

Schema 40. The semantic map of RSP in Norwegian.



5.20 The semantic map of RSP in Polish

Polish is another Slavic language which consistently follows the distinction between a preset and an accumulated property. The functions PAINT, SLICE and COOK are expressed by *in*-PPs, e.g. (316)–(318).

(316) PAINT: *in*-PP

<i>John</i>	<i>po-malował</i>	<i>samochód</i>	<i>na</i>	<i>czerwono.</i>
John	PRF-paint.PRT.M.SG	car.ACC.SG	on	red.ACC.SG
‘John painted the car red.’				

(317) SLICE: *in*-PP

<i>John</i>	<i>po-kroił</i>	<i>pomidora</i>	<i>na</i>	<i>drobno.</i>
John	PRF-cut.PRT.M.SG	tomato.ACC.SG	on	thin.ACC.SG
‘John cut the tomato thin.’				

(318) COOK: *in*-PP

<i>John</i>	<i>u-gotował</i>	<i>jajko</i>	<i>na</i>	<i>twardo.</i>
John	PRF-cook.PRT.M.SG	egg.ACC.SG	on	hard.ACC.SG
‘John cooked the egg hard.’				

The function SLICE can be alternatively encoded by an adverb, e.g. (319).

(319) SLICE: ADV

<i>John</i>	<i>po-kroił</i>	<i>pomidora</i>	<i>drobno.</i>
John	PRF-cut.PRT.M.SG	tomato.ACC.SG	thin.ADV

‘John cut the tomato thin.’

The functions denoting an accumulated property (unlike in East Slavic languages, in Polish the function WIPE is treated as expressing an accumulated property, see 4.4) are expressed by *to*-PPs, e.g. (320)–(323).

(320) LOAD: *to*-PP

<i>John</i>	<i>za-ladował</i>	<i>wagon</i>	<i>do</i>	<i>pełna.</i>
John	PRF-load.PRT.M.SG	wagon.ACC.SG	to	full.GEN.SG

‘John loaded the wagon full.’

(321) WIPE: *to*-PP

<i>John</i>	<i>startł/wytał</i>	<i>stół</i>	<i>do</i>	<i>czysta.</i>
John	wipe.PRF.PRT.M.SG	table.ACC.SG	to	clean.GEN.SG

‘John wiped the table clean.’

(322) BEAT: *to*-PP

<i>John</i>	<i>z-bił</i>	<i>człowieka</i>		
John	PRF-beat.PRT.M.SG	man.ACC.SG		
<i>do</i>	<i>nieprzytomności.</i>			
to	unconsciousness.GEN.SG			

‘John beat the man unconscious.’

(323) SHOUT: *to*-PP

<i>Jans</i>	<i>pre-jadł</i>	<i>się</i>	<i>do</i>	<i>mdłości.</i>
John	PRF-eat.PRT.M.SG	REFL	to	sickness.GEN.SG

‘John ate himself sick.’

However, there seem to be some restrictions as far as the function SHOUT is concerned. While RSPs are fully acceptable with the verb *eat*, RSPs with proper intransitive verbs seem to be strange, e.g. (324). According to my informant, non-RSP strategies are preferred in the latter case, e.g. (325).

(324)

<i>?John</i>	<i>na-krzyczał</i>	<i>się</i>		
John	PRF-shout.PRT.M.SG	REFL		
<i>do</i>	<i>zachrypnięcia.</i>			
to	becoming.hoarse.GEN.SG			

‘John shouted himself hoarse.’

(325) SHOUT: non-RSP

Jan o-chrypl/za-chrypl od krzyku.

John PRF-hoarsen.PRT.M.SG because.of shout.GEN.SG

‘John shouted himself hoarse.’

Polish shows one exception to the proposed model: the verb *hammer*, which belongs to the BEAT type, takes an *in*-PP, e.g. (326). This might implicate that the property predicated by this verb can be also interpreted as a preset value in Polish. However, the precise reasons for this marking could only be revealed after a thorough examination of the distribution of Polish *in*-PPs and *to*-PPs.

(326)

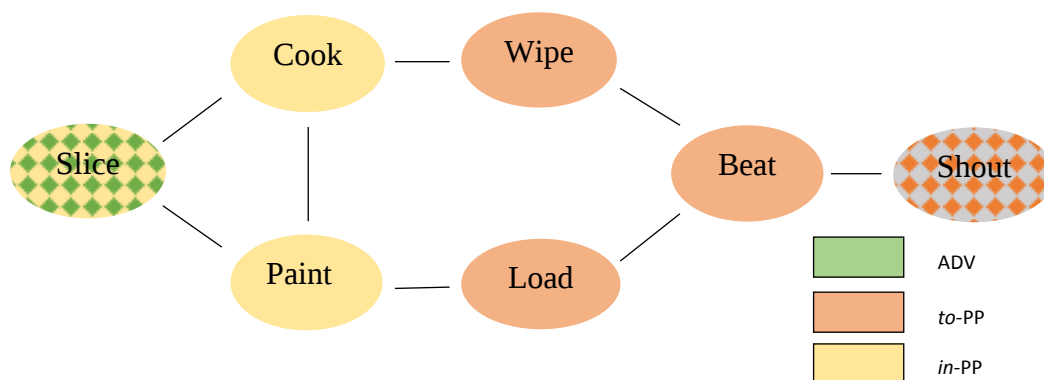
John wyklepał metal na płasko.

John hammer.PRF.PRT.M.SG metal.ACC.SG on flat.ACC.SG

‘John hammered the metal flat.’

The Polish data discussed above leads to the semantic map presented in Schema 41.

Schema 41. The semantic map of RSP in Polish.



5.21 The semantic map of RSP in Scottish Gaelic

With respect to the encoding of RSP Scottish Gaelic seems to be the most disordered language in the sample. Adjectival resultatives are used to encode

the functions PAINT and WIPE, e.g. (327) and (328). An adjective is also marginally possible with the verb *hammer*, e.g. (329).

(327) PAINT: ADJ

Pheant e an càr dearg.
 paint.PST 3SG.M DEF.SG.M car red
 ‘He painted the car red.’

(328) WIPE: ADJ

Shuath Iain am bòrd glan.
 wipe.PST John DEF.SG.M table clean
 ‘John wiped the table clean.’

(329)

?Bhuail Iain am miotal còmhnhard.
 hit.PST John DEF.SG.M metal flat
 ‘John hammered the metal flat.’

The remainder of the functions are encoded by non-RSP strategies, e.g. (330)–(334).

(330) COOK: non-RSP

Bruich Iain an t-ugh
 cook.PST John DEF.SG.M egg
gus an robh e cruaidh.
 until be.PST 3SG.M hard
 ‘John cooked the egg hard.’

(331) SLICE: non-RSP

Bhleith Iain an cofaidh
 grind.PST John DEF.SG.M coffee
gus an robh e mìn.
 until be.PST 3SG.M fine
 ‘John ground the coffee fine.’

(332) LOAD: non-RSP

Luchdaich Iain a’ chairt gus an robh i làn.
 load.PST John DEF.cart.F until be.PST 3SG.F full

‘John loaded the wagon full.’

(333) BEAT: non-RSP

<i>Bhreab</i>	<i>Iain</i>	<i>an</i>	<i>duine</i>
kick.PST	John	DEF.M.SG	man
<i>gus an</i>	<i>robh</i>	<i>e</i>	<i>marbh</i> . ³²
until	be.PST	3SG.M	dead

‘John kicked the man to death.’

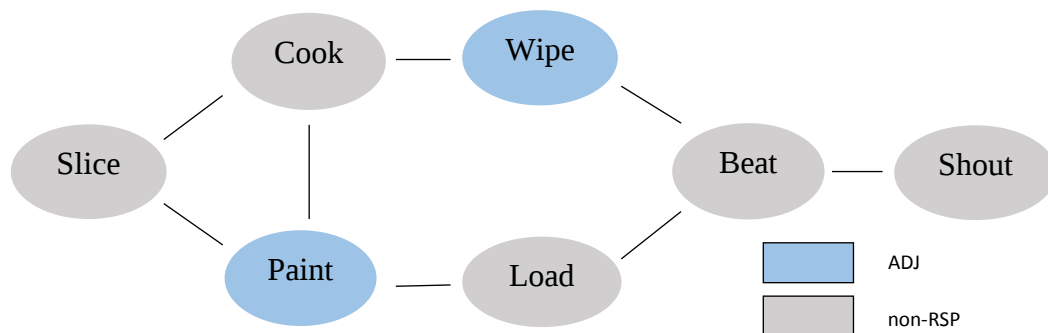
(334) SHOUT: non-RSP

<i>Dh’anns</i>	<i>Màiri</i>	<i>gus an</i>	<i>robh</i>	<i>i</i>	<i>sgìth</i> .
dance.PST	Mary	until	be.PST	3SG.F	tired

‘Mary danced herself tired.’

The data implies a discontinuous semantic map, as is presented in Schema 42.

Schema 42. The semantic map of RSP in Scottish Gaelic.



I assume that in this case the discontinuity might be determined by language contacts. According to my informant, most of the examples, including adjectival resultatives, are calques on English. I have not succeeded in finding literature on the encoding of motion constructions in Scottish Gaelic, but my only example shows that it does not make use of the satellite-framed model here as well (unlike Irish), e.g. (335).

³² This example is ambiguous in Scottish Gaelic: both John and the man can be understood as dead.

(335)

Dhanns Màiri gus an robh i
dance.PST Mary until be.PST 3SG.F
taobh a-muigh an t-seòmair.
outside of DEF.SG.M room
'Mary danced out of the room.'

I can only conclude that the encoding of resultative secondary predication in Scottish Gaelic needs further research.

5.22 The semantic map of RSP in Turkish

Turkish is another language which is highly restricted with respect to its distribution of resultatives: only the functions PAINT and SLICE include RSPs, e.g. (336) and (337).

(336) PAINT: ADJ

John arabayı kırmızıya boyadı.
John car.ACC red.DAT paint.PST
'John painted the car red.'

(337) SLICE: ADV

John domatesi ince dilimledi.
John tomato.ACC thin slice.PST
'John sliced the tomato thin.'

With regard to example (336), the adjective here receives a nominal marking³³, viz. the dative case, which, among other meanings, "often marks the direction of the action" (Ketrez 2012, 30). The adjunct *ince* as in (337) is also treated as an adjective in Verkerk (2009b, 32–33). However, it bears the suffix *-ce* which is typical of deriving adverbs: "*-CE* forms manner adverbials from adjectival and nominal bases" (Schroeder 2008, 346; also cf. Ketrez 2012, 191). Therefore, I assume that (337) includes an adverb rather than an adjective

³³ In general, adjectives are not inflected in Turkish. According to my informant, if an adjective receives a case it "becomes a noun".

(my informant also marked *ince* as an adverb), also cf. (338) where the adjunct has *-ce* as well.

(338)

John kahveyi iyice öğüttü.

John coffee.ACC fine grind.PST

‘John ground the coffee fine.’

Other functions are encoded by non-RSP strategies, e.g. (339)–(343).

(339) LOAD: non-RSP

John vagonu dolana kadar yükledi.

John wagon.ACC become.full until load.PST

‘John loaded the wagon full.’

(340) COOK: non-RSP

John yumurtayı serleşene kadar pişirdi.

John egg.ACC become.hard until cook.PST

‘John cooked the egg hard.’

(341) WIPE: non-RSP

John masayı silerek temizledi.

John table.ACC wipe.GER clean.PST

‘John wiped the table clean.’

(342) BEAT: non-RSP

John metali çekiç ile düzleştirdi.

John metal.ACC hammer with flatten.PST

‘John hammered the metal flat.’

(343) SHOUT: non-RSP

John sesi kısılana kadar bağırdı.

John hoarse become until shout.PST

‘John shouted himself hoarse.’

Turkish, as well as many other languages, has a distinct expression for the notion ‘dead’: it is encoded by an adverb, e.g. (344).

(344)

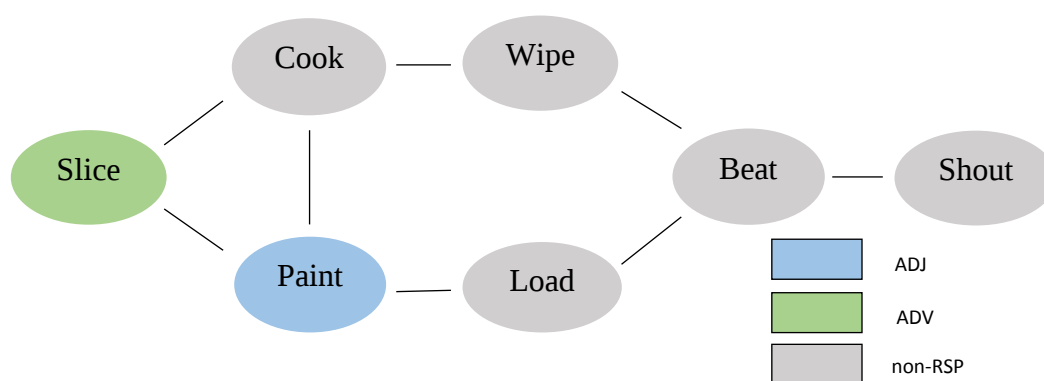
John adamı ölümüne tekmeledi.

John man.ACC to.death.ADV kick.PST

‘John kicked the man to death.’

The semantic map of resultatives in Turkish is presented in the Schema below.

Schema 43. The semantic map of RSP in Turkish.



6. Conclusions

1. The basic semantic features of the resultative construction are causation and telicity and, consequently, constructions which bear these features constitute prototypical resultatives. Constructions which lack one of these features belong to the periphery of the resultative domain.

1.1 In some groups of languages prototypical resultative constructions include specific formal means for encoding telicity: verbal prefixes in Baltic and Slavic languages and the accusative case in Finnic languages.

2. The resultative secondary predicate is encoded by five formal strategies in the languages in the sample: an adjective, an adverb, a prepositional phrase (either proper or fossilised), a compound verb and a noun phrase. The latter two strategies are mainly restricted to particular groups of languages: compound verbs are typical of North Germanic languages, while noun phrases occur in Finnic languages and in Hungarian.

2.1 The adjective is consistently used to encode the resultative secondary predication in Germanic and Finnic languages, as well as in Latvian and Hungarian. Adjectival resultatives with particular verbs, usually *paint*, also occur in many other languages.

2.2 Resultatives expressed by an adverb consistently appear only in one language, viz. Lithuanian, while in other languages they usually occur with creation verbs such as *slice*. This proves that constructions which include creation verbs belong to the periphery of the semantic domain of resultatives and are closely related to adverbials.

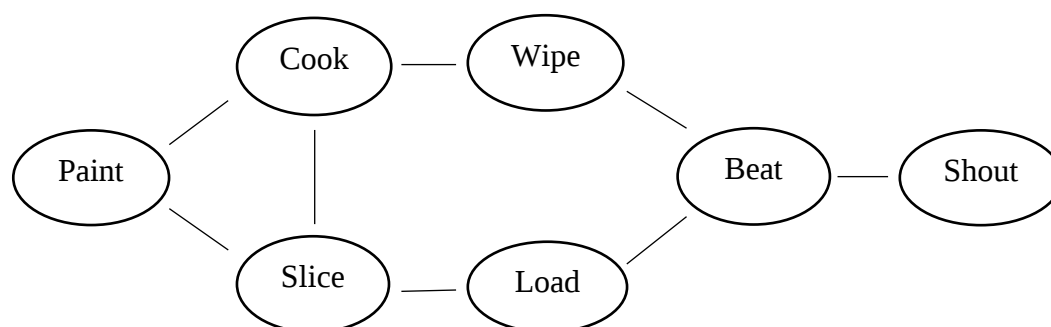
2.3 Prepositional phrases used to encode the resultative secondary predication can be roughly distinguished into two types: *in*-PPs which in a broad sense denote the manner of an action and *to*-PPs which denote a goal. The distribution of the two types of PPs is basically determined by the nature of the property predicated by a verb. *In*-PPs combine with the verbs such as *paint*, *slice* and *cook* which predicate a preset property, i.e. the property which

is set in advance. *To*-PPs are usually used with the verbs such as *load*, *beat* and *shout* which predicate an accumulated property, i.e. the property which accumulates as the action proceeds.

2.4 The sample does not include languages which would consistently make use of proper prepositional phrases to encode the resultative secondary predication. In Slavic languages resultative secondary predicates are often encoded by fossilised prepositional phrases which are treated synchronically as adverbs. Such fossilised PPs consistently occur in East and West Slavic languages.

3. The encoding of resultative secondary predication in European languages is determined by the following factors: (a) whether a verb is a proper accomplishment and implies an inevitable result, (b) whether a verb has the features of both accomplishments and activities and implies a potential result, (c) whether a verb is an activity and does not imply a result at all, (d) whether the property denoted by the resultative predicate is preset or accumulated, (e) whether the result applies to the entity denoted by an object or to an unexpressed (created) entity, and (f) whether the object of a verb is licensed by its argument structure or not.

4. According to semantic and morphosyntactic features seven types of resultatives, or functions, can be distinguished: PAINT, SLICE, LOAD, COOK, WIPE, BEAT, and SHOUT. The functions are arranged in the semantic map as follows:



5. A verb's ability to take a resultative secondary predicate depends on the position of its type in the implicational hierarchy. The further to the left the type is, the more it is likely to be expressed as a resultative:

PAINT < SLICE < COOK / LOAD < WIPE, BEAT < SHOUT

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Abbreviations

AA	adjectival article
ABS	absolutive
ACC	accusative
ADV	adverb
AOR	aorist
AUX	auxiliary
C	common (gender)
COM	comitative
DAT	dative
DEF	definite
ERG	ergative
F	feminine
GEN	genitive
GER	gerundive
IMP	imperfect
IMPER	imperative
IMPRF	imperfective
IND	indefinite
INST	instrumental
M	masculine
N	neutrum
NA	non-active
NOM	nominative
P	patient-like argument of canonical transitive verb
PART	partitive
PERF	perfect
PFPTC	perfective participle
PL	plural

POSS	possessive
PREF	prefix
PRF	perfective
PROG	progressive
PRS	present
PRT	preterit
PST	past
PTC	participle
REFL	reflexive
SG	singular
SUB	sublative
SUBJ	subjunctive
TOP	topic
TRA	translative
VN	verbal noun

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Appendix 1

QUESTIONNAIRE (1)

Transitive verb

Resultative phrase predicated of the subject:

1. **John painted the car **tired***. ('John became tired as a result of painting the car')

Resultative phrase predicated of the subcategorised object:

2. *John painted the car **red***.
3. *John wiped the table **clean***.
4. *John hammered the metal **flat***.
5. *Mary shot John **dead***.

Resultative phrase predicated of the unscategorised object (noun or reflexive):

6. **The teacher frightened the room **empty***. ('The room became empty as a result of the frightening of pupils')
7. *John hammered himself **silly***. ('John hammered the metal so much that he became silly')

Unaccusative verb

Resultative phrase predicated of the subject:

8. *The ice-cream froze **solid***.

Resultative phrase predicated of the subcategorised object:

9. *John froze the ice-cream **solid***.
10. *Mary cooked the pasta **soggy***.
11. *John cooked the egg **hard***.

Resultative phrase predicated of the unscategorised object:

12. **The snow melted the road **slushy***. (‘The road became slushy as a result of melting of snow’)

13. *Mary cooked John **into a death** (with her food)*.

Optionally transitive verb

Resultative phrase predicated of the subject:

14. **John ate too many sausages **fat***. (‘John became fat as a result of eating too many sausages’)

Resultative phrase predicated of the unsubcategorised object (noun or reflexive):

15. *John drank Mary **under the table***.

16. *John ate himself **sick/full***.

Unergative verb

Resultative phrase predicated of the unsubcategorised object (noun or reflexive):

17. *Mary slept her wrinkles **away***.

18. *John ran his shoes **threadbare***.

19. *John shouted himself **hoarse***.

20. *Mary danced herself **tired***.

21. *Mary sang the baby **asleep***.

Passive

22. *The car was painted red*.

Change of location

23. *Mary danced (herself) **out of the room***.

24. *John laughed Ralph **out of the room**.*

Resultative phrase headed by noun

25. *John painted the car a pale **shade** of yellow / a dark **colour**.*

Appendix 2

QUESTIONNAIRE (2)

Accomplishment verb:

1. *John painted the car **funny/ugly/beautiful**.
2. Mary undressed **naked**.
3. John loaded the wagon **full**.
4. Mary filled/poured the glass **full**.
5. John sliced/cut the tomato **thin**.
6. John ground the coffee **fine**.
7. John tied the shoe-laces **tight**.
8. Mary braided the hair **loose**.
9. John piled the cushions **high**.
10. John built the house **wide**.

Activity–accomplishment verb:

11. John wiped the table **dry**.
12. John rinsed the cups **clean**.
13. John drank himself **to death**.
14. John drank the glass **empty**.
15. John read himself **blind**. (metaphoric)
16. John ate the plate **empty**.
17. John hammered the meat **thin**.

Activity verb:

18. John rolled the dough **thin**.

- 19. John rubbed the plate **dry**.
- 20. John beat the man **unconscious**.
- 21. John kicked the man **to death**.
- 22. Mary pressed the handbag **flat**.
- 23. John scratched his hand **to blood/bloody**.

State verb:

- 24. John envied himself **green**. ('became green because of envy')

Inactive action verb:

- 25. John holds the bottle **upright**.