denotes the event or the state being spoken about, while *John*, *another piece of pie*, and *the man at the desk* are arguments of this predicate, since they are role-players or participants in the event (that is, they are assigned a property by way of being participants in an event or state). Another use of the term is to talk of a predicate that consists of an entire verb phrase (or VP), which takes, then, only one argument: the subject of the clause. In that case *gave another piece of pie to the man at the desk* is the predicate in (1) and *John* is its only argument.

With either use of the term, the predicate looked at above is called a primary predicate. Perhaps the defining characteristic of a primary predicate is the presence of a verb; a primary predicate is or contains a verb or is accompanied by a copular (or linking) verb. In (1) *gave*, the event word, is a verb. However:

That new kitten is a naughty scamp. (2)

is not about an event, but about a state, and the words *a naughty scamp* denote the property assigned to *that new kitten*. It is debatable whether the copular *is* in (2) is part of the property or is merely a grammatical formative that carries the tense of the clause. In either case, the predicate here (*is a naughty scamp* or *a naughty scamp*) is a primary predicate because of the presence of *is*.

Not all predicates are primary, however. Phrases that do not contain a verb nor are accompanied by a copular verb can be predicated of other phrases in the sentence:

Jack left her house [furious]. (3)

John ate the meat [raw]. (4)

[Penniless], Mary was hopeless. (5)

We considered Paul [an asset]. (6)

In all of these sentences it could be argued that there are two predicates, the primary one and a secondary one, in brackets. For example, in (3) it could be argued that John is assigned two properties: one of having left (her house) and one of having been furious. Of course, there is a semantic relationship between the two properties—in (3) John performed the act of leaving (her house) while he was in a state of fury. Likewise, various semantic relationships could be found between the primary and secondary predicates in (4)–(6), where it is important to notice that the secondary predicate can be predicated of a subject (as in (3) and (5)) or of a direct object (DO) (as in (4) and (6)). Some have argued, then, that instead of having two predicates, sentences like (3)–(6), have complex predicates. In (3), for example, John would be assigned the complex property of leaving (her house) while being furious.

If the analysis in which sentences like (3)–(6) have two predicates is accepted, the next question becomes whether these sentences have single clauses, or whether each predicate demands its own clause. For example, is (3) to be analyzed as in:

Jack [[left] [her house] [furious]]. (7)

where the VP has three major constituents: the verb (V), a noun phrase (NP), and an adjective phrase (AP), or as in:

Jack [[left] [her house] [PRO furious]]. (8)

where the VP has three major constituents: the V, an NP, and a so-called small clause? In (8) the small clause consists

Resultatives

The term 'predicate' is used in at least two ways in modern linguistics. First, in a sentence like:

John gave another piece of pie to the man at the desk. (1)

gave could be called the predicate, since it is the word which

of an AP and its subject argument, which is a phonetically null item (an inaudible grammatical item) represented by the term PRO, which in turn is semantically controlled by (that is, interpreted as equivalent to) *Jack*.

This debate stems from a variety of theoretical and empirical concerns. Perhaps the most major concern involves the relationship between syntax and semantics. If the syntax is isomorphic to the semantics, then each predicate should be contained in a separate clause. While mapping from syntax into semantics (or vice versa) would be ideally simplified if these two components of the grammar were isomorphic, it is not logically necessary that they be isomorphic and there is a growing body of linguistic literature that argues that they are far from isomorphic. The empirical concerns, on the other hand, are language specific. In a given language there might be data that are more perspicaciously accounted for with one analysis than with the other.

In spite of all these debatable issues, there is much of interest that can be said for sure about issues of predication. Here, one particular kind of secondary predicate, known as the resultative, will be looked at:

I cut her hair [short]. (9)

In (9) I cut her hair and, as a result, it became short. Some sentences are ambiguous as to whether or not a secondary predicate is resultative:

John made the tea weak. (10)

(10) could describe the situation in which John added water to the tea and the tea became weak (the resultative reading), or another in which John made the tea and it came out weak (the nonresultative reading).

Generally, a transitive sentence with an AP resultative which has the form in (11) can be paraphrased as in (12):

X Verbs Y [Z]. (11)

X causes Y to become Z by Verbing Y. (12)

Here Z stands for the AP resultative.

The semantic interaction between resultatives and Vs shown in (11)–(12) has been accounted for in various ways, not all of which are necessarily discrete from one another, where some propose that the resultative forms a complex predicate with the V (as in Green 1973); some treat the resultative and the V as a single, discontinuous lexical item (like *take . . . to task*, as in Bolinger 1971); and some argue that the resultative is an argument of V (as in Carrier and Randall 1988). Many have argued that resultatives are syntactic sisters to V and to the NP they are predicated of (such as McNulty 1988). Some have argued that the semantic difference between secondary predicates like that in (3) (a depictive) and resultatives is paralleled by a syntactic difference (such as McNulty 1988; but see also Demonte 1989; Rapoport 1992). Likewise there has been much discussion over whether or not resultatives form small clauses (as in van Voorst 1983; Hoekstra 1988).

Another point of contention is whether or not resultatives are limited to particular syntactic categories. Of course, secondary predicates are not verbal (by definition). But beyond that, the question is open. One thorny issue is whether or not resultatives can be prepositional phrases (PPs). Simpson (1983, 1986) explicitly states that resultatives can be of the category AP, NP, or PP (that is, all the major categories other than VP):

I painted the car [$_{AP}$ yellow]. (13)

I painted the car [$_{NP}$ a pale shade of yellow]. (14)

I cooked the meat [$_{PP}$ to a cinder]. (15)

Many agree with Simpson in admitting PPs as resultatives. For example, in Hoekstra (1988), where Dutch is compared to English, every example of a resultative predicating of an internal argument of the primary predicate is a PP. Pustejovsky (1989) argues that any phrase which can denote a state can be a resultative, including PP. Van Voorst (1983) argues for Dutch that directional PPs are predicates inside small clauses, occupying the same syntactic position resultative APs occupy. All the data and arguments presented by van Voorst are consistent with the analysis of the directional PPs as resultatives.

An explicit claim that PPs cannot be resultatives is found in Rapoport (1992: fn. 11), who says the PP in examples like (5) modifies the V rather than being predicated of an NP. It would seem, moreover, that some works embody the implicit claim that PPs cannot be resultatives. For example, some say that particular languages lack resultatives, including Green (1973) for French, Merlo (1986, 1988) for Italian, and Rapoport (1986) for Hebrew. But if PPs are admitted as resultatives, these languages surely have resultatives. This point is re-examined below.

Below are listed some of the arguments for including PP among resultative types. Via these arguments the major syntactic diagnostics for recognizing resultatives will become evident.

First, PPs such as the following will be dealt with:

She scrubbed the dirt {[out of her skirt]/ [from her skirt]/ [off the step]/ [away]}. (16)

I slapped him {[into a stupor]/ [out of his hysteria]}. (17)

(For evidence that *away* is a PP, see Jackendoff 1973.) In these examples the PPs are directional or spatial with a verb that is not inherently a motion verb (as in (16)), or they are state PPs (as in (17)). The discussion below will be limited to these sorts of PPs. In particular, examples with locational PPs where the V is a motion verb (such as *go, run, dance, fly*) will not be discussed, since the matter of whether or not such PPs with such Vs can truly be predicates is much more complex.

First, consider their sense. The paraphrase test in (10)–(12) cannot be used as it now stands, since the Z of (11) would not be an AP in (16)–(17), but a PP, and most PPs are not grammatical as predicates in the position immediately following a form of the verb *become* (a fact that has nothing to do with whether or not they can be resultatives or any other kind of predicate). Instead, in each instance it is necessary to ask whether the PP describes a state or location that is predicated of the DO and that is the result of the primary predicate's action on the DO. On that basis locational PPs like those in (16) are at least borderline resultatives semantically and are worthy of further testing, and state PPs like those in (17) seem to be clear resultatives.

Second, many have claimed that there are restrictions on which element can be the subject of a resultative. Some have argued that the subject of a resultative must be the affected argument of the V (in the sense of Tenny 1987) or a patient of the V (as in Simpson 1986). Simpson (1983) claims that resultatives in English are predicated of deep

objects only. If Simpson's claim were correct, a diagnostic for resultatives could be formulated immediately: resultatives should not be predicated of objects of P. And, in fact, they cannot. (18)–(19) form minimal pairs:

I slapped her [silly]. (18)

*I slapped at her [silly]. (19)

PPs behave precisely as other resultatives here:

*She scrubbed at the dirt {[out of her skirt]/ [from her skirt]/ [off the step]/ [away]}. (cf. (16)) (20)

*I slapped at him {[into a stupor]/ [out of his hysteria]}. (cf. (17)) (21)

A caveat is in order here: Not all PPs that concern the endpoint of the V's action are predicates, however; some are degree modifiers of the action.

I beat him [to a pulp]. (22)

I beat him [to the point of exhaustion]. (23)

The PP in (22) must be a resultative, whereas that in (23) can be a modifier of the V (and, perhaps ambiguously a resultative, as well). In (22) the PP can be predicated only of the DO. But in (23) it is unclear whether the subject or the DO or even the people watching become exhausted; the PP tells us that the beating went on too long—it is a degree modifier of the V. Accordingly, if all nominals that are potential arguments of the PPs are removed, the predicative PP in (22) becomes ungrammatical, but the modifier PP in (23) is still acceptable:

*The fight went on [to a pulp]. (24)

The fight went on [to the point of exhaustion]. (25)

Third, another diagnostic based on Simpson's claim also involves assuming the validity of the work in Burzio (1986), who argues that superficially intransitive verbs fall into two classes, those that have deep subjects and those that have deep objects which move into subject position (called ergatives or unaccusatives). If Burzio is correct, Simpson's generalization above can be accepted, and this diagnostic formed: resultatives should be able to be predicated of a subject with an unaccusative V only. Of course, with intransitive sentences that contain a resultative AP the pattern of paraphrase given above in (11)–(12) will not hold. Instead, a semantic correlation of the following type is looked for:

X Verbs [Z]. (26)

X Verbs to the point of becoming Z. (27)

(Again, if Z is a PP and not an AP, this paraphrase test will not hold.) This seems true: in (28)–(31) the contrast between the unaccusatives *bleach* and *fry* and the intransitives *cry* and *drink* can be seen. Here the resultatives are APs (where an asterisk indicates that no good resultative reading is available):

The shirt bleached [white] in the sun. (28)
(cf. The sun bleached the shirt [white].)

The bacon fried [crisp]. (29)
(cf. Let's fry the bacon [crisp].)

*The boy cried [sick]. (30)

*The boy drank [sick]. (31)

The same contrast occurs with resultatives that are PPs:

The shirt bleached [to the purest white]. (cf. (28)) (32)

The bacon fried [to a crisp]. (cf. (29)) (33)

*The boy cried [into a stupor]. (cf. (30)) (34)

*The boy drank [out of his mind]. (cf. (31)) (35)

The correlation between deep transitivity and the possibility of a resultative is so strong that fake objects can be found, often reflexive objects (Simpson 1983), with otherwise intransitive Vs, where the fake object and the resultative must both appear:

The boy cried his eyes [blind]. (36)
The boy cried himself [sick]. (cf. (30))

The boy drank the pool [dry]. (37)
The boy drank himself [sick]. (cf. (31))

These objects are fake in that they are neither subcategorized for by the primary predicate nor are they assigned a theta role by (that is, nor are they arguments of) the primary predicate. Once more, the correlation holds also for PP resultatives:

The boy cried his eyes [out]. (38)
The boy cried himself [into a stupor]. (cf. (34))

The boy drank the pool [down to the bottom]. (39)
The boy drank himself [out of his mind]. (cf. (35))

By three diagnostics, then, the relevant PPs in (16) and following examples (both state and locational with nonmotion verbs) are resultatives: they have the sense of resultatives; they are predicated of DOs but not objects of prepositions (OPs); they are predicated of surface subjects only of unaccusative Vs. These three diagnostics are the most common ways of identifying resultatives. If these diagnostics and the above arguments are valid, then not only can PPs be resultatives, but a variety of languages that have been claimed not to have resultatives, such as the Romance languages, certainly do. In (40), for example, there is a PP resultative in Italian:

Ho intrecciato i fiori [a forma di ghirlanda]. (40)
'I wove the flowers [into a garland].'

In fact, the Romance languages have AP resultatives, as well as PP ones, where a particular semantic restriction holds, as is seen by looking at Italian. Many of the examples below have grammatical counterparts in French, Spanish, Portuguese, Catalan, and probably throughout the Romance languages.

It seems that in a sentence with a resultative AP, the primary predicate must be interpreted as focusing on the endpoint of the activity denoted by that predicate. Resultative APs, then, can occur in sentences in which the primary predicate is one with an instantaneous effect on the DO, such as:

Quel maccellaio taglia le carni [sottili]. (41)
'That butcher cuts meats [thin].'
Mia figlia ha cucito la gonna [troppo stretta].
'My daughter sewed the skirt [too tight].'

If the effect of the primary predicate on the DO is not instantaneous, but achieved only gradually, via duration or repetition, an AP resultative is allowed only if it is somehow emphasized so that the addressee's attention is drawn to the endpoint of the event of the primary predicate. Thus, for example, in each pair of sentences in (42) the first is

not acceptable, but the second is fine or at least much better than the first for many speakers:

(42a)
*Ho stirato la camicia [piatta].
'I ironed the shirt [flat].'
Ho stirato la camicia [piatta piatta].
'I ironed the shirt [very flat].'

(42b)
?*Hanno riscaldato l'acqua [bollente].
'They heated the water [boiling].'
Hanno riscaldato l'acqua [tanto calda che non ci si poteva entrare].
'They heated the water [so hot that no one could get in].'

(42c)
?*Ha strappato la lettera [fine].
'He ripped up the letter [fine].' (in small pieces)
Ha strappato la lettera [fine fine].
'He ripped up the letter [very fine].'

(42d)
?Abbiamo pettinato i capelli [lisci].
'We combed the hair [smooth].'
Abbiamo pettinato i capelli [lisci come seta].
'We combed the hair [smooth like silk].'

(42e)
?Li abbiamo scoloriti [bianchi].
'We bleached them [white].'
Li abbiamo scoloriti [quasi, ma non perfettamente, bianchi].
'We bleached them [almost, but not perfectly, white].'

However, while being interpretable as focusing on the endpoint of its activity is necessary for the V, it is not sufficient:

(43)
*Ho macchiato la camicia [rossa].
'I stained the shirt [red].'

The outcome, then, is a strategy for interpreting sentences that have resultative APs. But Vs will have to be marked in the lexicon as to whether or not they allow resultatives. That is, resultative arguments (as opposed to resultatives with fake object sentences, which are not arguments—as in (36)–(39) above, which have no grammatical counterpart in Italian or any of the Romance languages) will appear in the predicate–argument structure and in the subcategorization frame of a verb. For those Vs which allow resultatives, the ease with which the V can be read as focusing on the endpoint of its activity in a given sentence in a given pragmatic context (as shown below) determines the ease with which a sentence with a resultative will be interpreted.

It is now time to consider how pragmatic context enters. A given activity can have an instantaneous effect on one object but not on a different object, simply because of the physical nature of the objects and not for any grammatical reason. For example, if we hammer on metal, we do not expect an instantaneous effect, but if we hammer on tin foil, we do. A resultative AP turns out to be better in the sentence describing the second event than in that describing the first. Alternatively, a given object might be instantaneously affected by one activity but not by another. So a sentence about a machine that can flatten metal in an instant is more acceptable than a sentence in which a person is hammering on metal. The grammaticality judgments marked below are common to the speech of many, although the contrasts are not always strong.

(44)
*Gianni ha martellato il metallo [piatto].
'Gianni hammered the metal [flat].'
?Gianni ha martellato la carta stagnola [piatta].
'Gianni hammered the tin foil [flat].'
?Quella pressa idraulica ha {pestato/ pressato} il metallo piatto (subito subito).
'That hydraulic press {smashed/ pressed} the metal flat (in an instant).'

Likewise, in a situational context in which the addressee's point of attention is naturally the endpoint of an activity, a V whose effect is felt only after some duration of the activity can nevertheless cooccur with a resultative:

(45)
Quell'anitra, l'hai cucinata [saporita].
'That duck, you cooked it [tasty].'

(46)
(Context: a debate over whether the shirt in question got ironed flat or into pleats.)
—Ho stirato la camicia [piatta piatta].
'I ironed the shirt [very flat].'
—No, hai stirato la camicia [pieghettata].
'No, you ironed the shirt [pleated].'

(The response in (46) is the example of interest here. Many people find it acceptable.)

Similarly, imperatives can set up an endpoint-focused context. That is, when we order someone to beat eggs, we often do not care how they get to the desired result so long as they do. Quite generally, resultatives with imperatives about cooking are considered more acceptable than their statement counterparts:

(47)
Sbatti le uova [cremose]. 'Beat the eggs [creamy].'
(cf. ?*Maria sbatte le uova [cremose].
'Maria is beating the eggs [creamy].')
Macinatele [fini]. 'Grind them [fine].'
(cf. ?Le avete macinate [fini].
'You have ground them [fine].')

Also, if the V is of low information with respect to the type and manner of activity, where the major information of the V is the endpoint of the activity, resultative APs are acceptable, even if the activity has to be iterative or durative before the desired effect on the object is achieved. *Caricare* 'load' is such a V. Material can be loaded onto or into a location by doing many different types of actions (in contrast to ironing, for example, which involves a highly specified action). Resultatives are easily allowed with this V, where intensification of the AP makes it that much more colloquial:

(48a)
Gli operai hanno caricato il camion [pieno].
'The workers loaded the truck [full].'

(48b)
Gli operai hanno caricato il camion [pieno al massimo].
'The workers loaded the truck [full to the brim].'

In sum, it appears that AP resultatives in Italian are more readily accepted: (a) with instantaneous-effect Vs (41); (b) if modified or intensified (42); (c) with instantaneous effect situations (44); (d) in situations that focus the addressee's attention on the endpoint of an activity (45)–(46); (e) with certain imperatives (47); and (f) with Vs that naturally focus on the endpoint of the activity they denote (48). Given that resultatives concern the endpoint of the primary predicate's action by definition, the interpretation strategy that exists in Italian is natural. Other languages may have somewhat different restrictions on the types of sentences that can occur with resultatives, but, presumably, all such restrictions should follow either from the nature of resultatives themselves or from independent grammatical factors in the language.

Finally, it is worth noting that Levin and Rapoport (1988) have argued that the ability of a language to take a resultative follows from the existence or not of a process of lexical subordination in the language (a concept similar

to lexical conflation in Talmy 1975, 1985). Lexical subordination is also claimed to be responsible for at least two other grammatical phenomena. One is the use of a manner-of-movement verb to show change of location. In English, for example, the verb *float* can be used to show simple manner of movement (as in (49)), or manner plus change of location (as in (50)):

The bottle floated in the cave. (49)

The bottle floated into the cave. (50)

The second is the use of a manner-of-speaking verb with a DO that expresses the thing spoken (Zwicky 1971, Mufwene 1978), as in:

She mumbled her adoration. (51)

Significantly, Italian exhibits both phenomena:

Il fiume serpeggia al mare. (52)
'The river snakes (its way) to the sea.'

Carolina ha sussurato la sua ammirazione per il poeta. (53)
'Carolina whispered her admiration for the poet.'

Thus, it may well be that the process of lexical subordination is the cornerstone for the resultative construction.

While this article gives a brief overview of some of the major theoretical debates involving the analysis of resultatives and of some of the more characteristic limitations on the data in Romance languages, the analysis of resultatives is only beginning to receive wide attention. The debates are bound to change, perhaps drastically, over the next few years, as additional languages are examined.

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