HOW AN IDEA GERMINATES INTO A PROJECT OR THE INTRANSITIVE RESULTATIVE CONSTRUCTION WITH *ENTITY-SPECIFIC CHANGE-OF-STATE* VERBS[1]

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Abstract: *This study discusses how seven of Levin's (1993) entity-specific change-of-state verbs (i.e. bloom, blossom, flower, germinate, sprout, swell, and blister) are subsumed into the intransitive resultative construction by highlighting and making use of the external and internal constraints proposed by the Lexical Constructional Model (LCM; Ruiz de Mendoza and Mairal 2007). External constraints refer to cognitive mechanisms, such as high-level metaphor and/or metonymy whereas internal constraints are concerned with the encyclopedic and event structure makeup of verbs. The Internal Variable Conditioning constraint is at work when the information encapsulated by a predicate determines the choice of the Z element in an intransitive resultative construction. The semantic makeup of the verb swell and the entity undergoing swelling constrain the nature of the resultant entity Z which must be bigger in size or have a bigger value than the Y element (e.g. The work, which was originally meant to consist only of a few sheets, swelled into ten volumes).*

Keywords: *entity-specific change-of-state verbs, intransitive resultative construction, Lexical Constructional Model, external and internal constraints, the Internal Variable Conditioning constraint.*

1. INTRODUCTION

The perspective adopted in this article inscribes itself in the field of *Construction Grammar(s)* (CxG), which has been denominated by Östman and Fried (2004: 1) 'family of Construction Grammars' owing to its expanding inventory of connected models. Within the broad framework of CxG, we have decided to base our present research on the tenets formulated by the *Lexical Constructional Model* or LCM (Mairal and Ruiz de Mendoza 2008, 2009; Ruiz de Mendoza and Mairal 2008, 2011; Ruiz de Mendoza 2013), for several reasons: (i) the LCM is a solid theoretical model which strikes a balance between the roles of verbal semantics and constructions; (ii) the LCM, in contrast to other lexical-constructional approaches (e.g. Iwata 2005; Nemoto 2005; Boas 2008), gives more prominence to empirically validated cognitive notions, such as conflation, high-level metonymy and metaphor; (iii) unlike other CxG approaches, the LCM distinguishes different levels of meaning representation; (iv) a major advantage of this model is its intention to connect the linguistic realm with the computational one by joining forces with the Artificial Intelligence project FunGramKB; and (v) the LCM studies the principles that regulate the interaction between lexical items and constructions, which is precisely our main interest in this research.

In this article we examine the factors that license or block out the fusion between entity-specific change-of-state verbs and the intransitive resultative construction, by focusing only on seven members of this verbal class (i.e. *bloom, blossom, flower, germinate, sprout, swell,* and *blister*) due to space limitations. The intransitive resultative construction is a pattern that has been understudied by construction grammarians. We have also selected this constructional pattern in order to show that this verb class exhibits a richer distributional range than has been attested in the literature (Levin 1993, 2006; Wright 2002). Thus, the constructional pattern of these verbs is not restricted to the inchoative/causative alternation.

Before embarking upon the analysis of entity-specific change-of-state verbs, a clear distinction should be made within the resultative construction between two change schemas. Ruiz de Mendoza and Luzondo (2011) put forward the general principle of *Resultatives under one common denominator* which explains the chaotic realization of end-results by means of two simple change schemas, i.e. A>A' and A>B schemas. The first illustrates that an entity A acquires a new property but retains its essence whereas the second indicates that an entity A experiences a conspicuous change which leads to a loss of homogeneity or integrity. For example, a sentence like *Mary wiped the table clean* falls into the first change schema (A>A') because the patient (table) undergoes a transformation of only one of its properties (e.g. from being dirty to being clean). The A>B change schema is employed in the sentence *The witch turned the boy into a frog,* where the result-state *into a frog* indicates that the patient (the boy) has suffered a total transformation, reaching a completely different state (i.e. from a human being to an animate entity). In this article it will be made evident with corpora examples that these seven entity-specific change-of-state verbs are subsumed into the A>A' schema since they only describe the increase in size of a given entity.

This article is organized as follows. Section 2 offers a brief overview of the theoretical framework of the LCM and its main strengths. Section 3 introduces the reader to the intransitive resultative construction and stresses the conceptual similarity between the verbs under scrutiny. Section 4 and 4.1 illustrate how different forms taken by the intransitive resultative construction are motivated by the external and internal constraints postulated by the LCM. The final section summarizes the main findings of this research study.

2. WHY THE LEXICAL CONSTRUCTIONAL MODEL?

The LCM stems from the Functional Lexematic Model (FLM; Martín Mingorance 1998), according to which "lexical representations are the key as well as the source for predicting and explaining syntactic properties" (Faber and Mairal 1999: 275). The FLM, which has been further developed by Faber and Mairal (1999), sets out to investigate the paradigmatic structure of the lexicon by looking into semantic fields and classes and establishing hierarchical structures on the basis of similarity and difference of meaning. In this connection, Faber and Mairal (1999: 186) state that "verbs within the same subdomain have similar syntactic behavior". This idea was also put forward by Levin (1993: 5): "various aspects of the syntactic behavior of verbs are tied to their meaning. Moreover, verbs that fall into classes according to shared behavior would be expected to show shared meaning components". Our findings related to entity-specific change-of-state verbs are in consonance with these authors' claims, as will be seen in the following sections.

In addition, the LCM stands halfway between Role and Reference Grammar (Van Valin 2005) and constructionist models of language (e.g. Goldberg 2006; Boas 2008) since, in contrast with cognitive theories, which ignore the importance of verbs and place constructions above them, it claims that verbal semantics plays an active role in determining meaning construction. It agrees with constructionism when stating that in a caused-motion construction like *They scorned him into depression* the final meaning is provided by the construction itself and cannot be derived from the predicate-argument structure of *scorn*. Nevertheless, the LCM cannot fully embrace constructionist approaches since it is impossible for them to account for the broad array of constraints that are at work in lexical-constructional fusion.

This model claims that the fusion processes between verbs and constructions are regulated by a set of *internal* and *external constraints*. Internal constraints, which take into account the conceptual composition of lexical and constructional configurations (i.e. their encyclopedic and event structure makeup), specify the conditions under which a lexical predicate may modify its internal configuration so that it can become a candidate for subsumption into a given construction. By contrast, external constraints, which usually take the form of high-level metaphor and/or metonymy (see Ruiz de Mendoza and Mairal 2007), determine in what way or to what extent a lexical predicate can be construed from a different perspective that may allow its meaningful integration into a given construction without altering its internal structure.

Among the main reasons for the selection of the LCM as a theoretical framework for this study, we can mention (see also Butler 2009: 26 for further discussion on the strengths of this model):

(i) Unlike Goldberg or Boas, who devote themselves exclusively to the examination of lower-level or high-level schemas, the LCM embraces two other criteria for the taxonomy of constructions: idiomaticity/eventivity (e.g. the resultative is an eventive construction whereas *What's X Doing Y?* is an idiomatic construction with fixed and variable elements) and meaning construction stratification (e.g. four levels of meaning description: argument structure, implicational, illocutionary, discursive). This organization into different levels of meaning description allows the LCM to study the way in which constructions from lower levels are subsumed or integrated into higher-level constructions.

(ii)   The LCM agrees with Boas on the importance of verbal semantics in meaning construction but acknowledges the roles of metaphor and metonymy as constraining factors licensing or blocking subsumption.

(iii) Lastly, the LCM is currently being exploited in terms of computer-based implementations. The tenets of this model are compatible with FunGramKB, which is an artificial intelligence knowledge base.

3. THE INTRANSITIVE RESULTATIVE CONSTRUCTION

The intransitive resultative construction is a fairly frequent type of configuration in our corpus with entity-specific change-of-state verbs. The difference between the resultative (X CAUSES Y TO BECOME Z) and the intransitive resultative (Y BECOMES Z) is marked by the presence of the X causal element in the first type of construction. In the intransitive resultative construction the result seems to be obtained by the undergoer itself. The entity-specific change-of-state verbs utilize either of two syntactic forms to convey an intransitive result: adjectival phrases (e.g. […] *love-in-a-mist and forget-me-nots bloomed* blue […]; Sketch engine doc#671530) or prepositional phrases (e.g. *Competition can deteriorate* into rivalry; Sketch engine doc#79524).

A very peculiar way of codifying an intransitive result is exemplified by the sentence *Her cheeks bloomed* with scarlet (Sketch engine doc#123606). The preposition *with,* which more readily expresses a cause (e.g. *He died with pneumonia*), is used here to encode a result (cf. *Her cheeks grew in beauty and as a result, they became scarlet*), which is licensed by the conceptual conflation of effects and causes, which underlies the activity of the EFFECT FOR CAUSE metonymy. Folk knowledge based on misinterpreted perception may result in mixing up effects and causes. For example, we can observe a dead body covered with skin lesions and erroneously believe that the skin lesions have killed the person, which in fact are just a symptom of an underlying disease (a bacterial infection). In a similar vein, we consider that the intransitive resultative construction is but a constructional calque of the intransitive construction. The intransitive resultative construction is made possible by the high-level metonymy A CHANGE OF STATE FOR A CAUSED EVENT. Consider the sentence *The crops withered brown.* This linguistic expression designates a change of state, i.e. the crops becoming brown, but through world knowledge we understand that this change of state happens by the action of what withers plants, namely certain weather conditions. That is why we have a latent caused event.

The seven verbs that we are dealing with in this paper (i.e. *bloom, blossom, flower, germinate, sprout, swell,* and *blister*) describe the coming into existence of an entity out of a pre-existent one. In this way, the blossoming process of a flower refers to the development of a protuberance (bud/blossom) outside the stem of a plant (the plant shifts from the vegetative to the reproductive stage). Although this process is generally viewed as a positive change there might be some exceptions as can be seen in the sentences *[…] corruption bloomed in the worst possible way* (Sketch engine doc#1796738), *Cysts germinate in the gastrointestinal tract […]* (Sketch engine doc#254041), or *[…] the tumor blossomed in a small cavity above the sinus […]* (Sketch engine doc#758951). Also, the verb *blister,* which refers to the causation of a swelling of the skin containing a watery fluid, can be regarded as a negative change of state but this change does not threaten the "essence" of the experiencer. The verbs *bloom, blossom, flower* can be exploited in a figurative way to refer to someone's healthy, happy or successful appearance probably because we associate a person's glowing physical aspect with the positive emotions that the sight and color of a blossoming flower transmit to us. It is also common knowledge that the flowering process constitutes the maximum development of a plant and this stage can be reached only if the plant stays healthy. The sentence *The child blossomed into a good looking young man […]* (Sketch engine doc#638230) is grounded in the low-level metaphor REACHING ONE'S PRIME IS FLOWERING, whereby physical development of human beings is conceptualized in terms of a plant reaching the blooming stage. This metaphor is subsidiary to a more generic one, i.e. HUMANS ARE PLANTS, which in its turn is but a natural extension of the Great Chain of Being metaphor (cf. Lakoff and Turner 1989), which attempts to comprehend human attributes and behavior through characteristics of animals, plants, natural objects and artifacts. The life cycle or (physical/professional) development is regarded as motion forth, e.g. people go from youth to old age, from a state of poverty to one of welfare just like a bud spreads out of the plant to the surface in the sunlight (cf. the old Lakoffian metaphor PROGRESS IS MOTION). With respect to *germinate* and *sprout*, these two verbs are similar since they make reference to the initial state of growth of a seed, thus suggesting the beginning of progress. In the figurative domain, the appearance of shoots/buds/leaves on a plant is correlated with the development of an idea/project/belief or the construction of buildings in a place (e.g. *Skyscrapers are sprouting up all over Europe*). There is also an interesting implication about these verbs: since early shoots or buds are usually a sign that there are prospects for a full-blown plant to emerge at some point in time, they are a sign of hope (i.e. the prospects of a future fully fruit-bearing mature plant map onto the future prospects for maturity of ideas, plans, etc., which are now at their initial stages). Both *blister* and *swell* describe an increase in size or volume either of a body part (e.g. *My feet and legs swell […]*; Sketch engine doc#8227) or of other kinds of surface (a blister also refers to a raised bubble on a painted or laminated surface).

4. SUBSUMPTION PROCESSES WITH THE ADJECTIVAL INTRANSITIVE RESULTATIVE CONSTRUCTION

As has been previously indicated, the intransitive resultative construction is a fairly productive configuration with entity-specific change-of-state and especially the verbs under consideration. This construction can be lexicalized by an adjectival phrase (AP), a prepositional phrase (PP) headed by *to* or *into,* a combination either of an adverb and an adjectival phrase (Adv +AP) or of an adverb and a prepositional phrase (Adv+PP). The combinatorial possibilities of these verbs are illustrated in the table below:

Table 1. The intransitive resultative construction with the verbs under scrutiny.

AP INTR. RES. CONSTRUCTION WITH THE VERBS UNDER SCRUTINY	
But worst of all, the yellow flowers in the kitchen vase bloomed blue	Sketch engine doc#88417
Luffa and sola plants still flowered a saffron yellow	Sketch engine doc#1011853
[…] a series of concentric burns blistered black *on a surface that stays white even in summer*	Sketch engine doc#2368880

PP INTR. RES. CONSTRUCTION WITH THE VERBS UNDER SCRUTINY	
In his youth, the qualities of foresight and planning bloomed to perfection *[…]*	Sketch engine doc#101179
Instantly attracted to each other, this encounter blossomed into the most intense relationship *of Goldman's life*	Sketch engine doc#255172
This idea of Canadian nationality later germinated into the *1947* Citizenship Act	Sketch engine doc#969117
And as the spring came closer and closer, the tip nearest the ground swelled into a grotesque head *[…]*	BNC ACV 1184
Joseph of Arimathea is reputed to have planted one at Wearyall Hill, which subsequently sprouted into the Glastonbury Thorn	BNC BMT 59
[…] the Grace Apartments on the city's eastern edge blistered into a crime "hot spot" *[…]*	COCA 2007

ADV+AP INTR. RES. CONSTRUCTION WITH THE VERBS UNDER SCRUTINY	
Their throats [of roosters] would swell out big *and then would come forth their booming challenge [...]*	Sketch engine doc#668491

ADV+PP INTR. RES. CONSTRUCTION WITH THE VERBS UNDER SCRUTINY	
When, however, under her husband's wing she had blossomed out into *a lovely womanhood […]*	Sketch engine doc#645600

The adjectival phrase denotes an A>A' type of change since it typically involves a change of a single property of an entity, i.e. its color or size. Sometimes the adjectival phrase can be syntactically separated from the verb by means of a preposition, either *in* or *into.* For the sake of clarity, consider the following examples listed below:

(1) a. *[…] after winter rains the arid land bloomed* in large patches of yellow, white and blue *with the many small flowers of wild adenostema, sage brush, 'Spanish' violets, shooting stars, mimulas and white popcorn* (Sketch engine doc#499614)

     b. *In the window sill the flowers of bygone days bloomed* in motley green (Sketch engine doc#665157)

     c. *[…] the Judas tree which grows in astonishing profusion, blossoming each spring* into a vivid pink *[…]* (Sketch engine doc#385859)

     d. *When the sun broke through the clouds, the brown rock blossomed* into earthy colors--ochre, siena, umber, olive (Sketch engine doc#638039)

     e. *[…] brilliant trees flowered* in a blaze of pure scarlet, *and some* in pure lavender *[…]* (Sketch engine doc#2273575)

     f. *In the freer spaces forget-me-nots flowered* in nebulae*, and dog-violets gave an undertone of dark purple, with primroses for planets in the night* (Sketch engine doc#2327813)

Andreea Rosca

How an idea germinates into a project or the intransitive resultative construction with entity-specific change-of-state verbs

From a close inspection of examples (1)(a)-(f) we conclude that linguistic distance between the verb and its adjectival specification of result, which is within the scope of the prepositional phrase, complies with the part/whole affectedness principle and other dependency phenomena. At first, we tried to explain the difference between a simple adjectival phrase resultative and the examples in (1) by looking at the *indirect/direct* causation dichotomy. Thus, Fodor (1970) distinguishes between *lexical causatives* (e.g. *Peter killed John*) and *analytical causatives* (e.g. *Peter caused John to die*). In his view, the former represent 'atomic' causal events whilst the latter depict 'compound' causal events. He accounts for the analytical *cause to* construction in terms of a temporal separation between the cause event and the effect event: "one can cause an event by doing something at a time which is distinct from the time of the event" (ibid: 433). Lakoff (1987: 55) also argues that "the more direct the causation, the closer the morphemes expressing the cause and the result" (cf. also Lakoff and Johnson 1980: Ch. 20; Haiman 1980). However, the indirect/direct causation distinction seems a rather implausible hypothesis for our case. First of all, one cannot say that in (1a), for example, there is a greater time lapse between the blossoming process and the coloring process just because the flowers are multi-colored: yellow, white, blue. Second of all, the visual perception of the color occurs simultaneously with the blooming of the flower.

The difference between a sentence like *The flower bloomed red* and *The flower bloomed in motley red* lies in the fact that the first one receives a whole-affectedness interpretation whereas the second one can be given a part-affectedness reading. In the first example it is suggested that the surface of the flower becomes completely red. The second sentence does not imply that only a small surface of the flower became red but that the color that covers completely the surface of the flower is not homogenously distributed. The petals of the flower have elements of great variety, thus, each hue occupies only a part of the surface of the flower. Also, the adjectival intransitive resultative *The flower bloomed red,* which calls for a whole affectedness reading, is in clear contradiction with the partial affectedness interpretation postulated by Broccias (2004: 109): "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)". This generalization would provide a convenient explanation for the ungrammaticality of a sentence like *He hammered the metal long/ tubular/square,* where the adjectives *long, tubular,* and *square* cannot match with the resultative construction simply because they describe properties of the whole entity. Luzondo (2011: 171) correctly points out that the oddity of paraphrases like *We have drunk the barrels dry, but parts of it are wet, *John pushed the door open, but part of it did not open* throws doubt on the validity of Broccias's part-whole affectedness generalization for the resultative construction. Equally, the unacceptability of our own paraphrase *The flower bloomed red, but some parts of it were yellow* indicates that the color in the intransitive resultative construction is spread all over the surface of the flower. Example (1a) clearly illustrates that the colors *yellow, white, blue* refer only to a small portion of the surface of the arid land. In a similar vein, the colors in (1d), i.e. *ochre, siena, umber, olive* cover parts of the surface of the rock. In (1f) the plural NP *nebulae* makes reference to a diffuse mass of interstellar dust or gas which visually blends luminous patches with areas of darkness and hints again at the heterogeneity of the color perception. In (1c) the color term *pink* becomes an NP by being incorporated into a relative clause, which probably motivates the absence of a canonical intransitive resultative construction.

4.1. Subsumption processes with the prepositional intransitive resultative construction

The intransitive resultative construction with a prepositional phrase calls for an explanation based on what Ruiz de Mendoza (2008) has labeled *metaphoric amalgams*. A metaphoric amalgam is a type of metaphoric interaction which requires the integration of selected aspects from two or more metaphors that combine. There are two possible ways in which metaphorical structure can combine, namely single-source metaphoric amalgams and double-source metaphoric amalgams (cf. Ruiz de Mendoza 2008; Ruiz de Mendoza and Mairal 2011). Let us take into consideration the following sentence: *The concept bloomed* into a debut cassette release *[…]* (Sketch engine doc#446648). This sentence is based on a double-source metaphoric amalgam, as can be observed in Table 2 below:

Table 2. The double-source metaphoric amalgam.

Source ⇨ (natural process of blooming)	Target ⇨ (change of state)	Source ⇨ (change of location)
Flower	Concept	Source
Bloom	Process (development)	Motion
Blossom	Result (cassette)	Destination

A double source metaphoric amalgam involves two metaphoric sources that are mapped simultaneously onto the same target domain. In our example two metaphors interact: A CHANGE OF STATE (OF AN ABSTRACT ENTITY) IS BLOOMING and A CHANGE OF STATE IS A CHANGE OF LOCATION. Both metaphoric systems blend into a more complex one in which 'a concept' undergoes a process of development understood in terms of self-instigated motion from a source to a destination. The destination of motion is seen to coincide with the resultant state of the abstract entity ('cassette').

At this point we would like to draw attention to the major role fulfilled by the lexical predicate in determining the nature of its constructional arguments. For instance, the verb *swell* in the intransitive resultative construction (Y BECOMES Z) designates the means by which transformation is achieved, i.e. physical expansion of a surface or rise of position on a scale. The verb *swell* in the intransitive resultative construction obeys the Internal Variable Conditioning constraint since the choice of the Z element is greatly constrained by the information encapsulated by the verb *swell* (i.e. an entity becomes bigger in size or the value of the entity goes up on scale) and also by the Y element. Thus, Z must be bigger in size or have a bigger value than Y. For validation purposes, consider the following sentences:

(2) a. *[…] small settlements such as San Francisco swelled* into cities (Sketch engine doc#194954)

   b. *This was the signal for a general clamour, which beginning in a low murmur gradually swelled* into a great noise *in which everybody spoke at once* (Sketch engine doc#458499)

   c. *The work, which was originally meant to consist only of a few sheets, swelled* into ten volumes (Sketch engine doc#643101)

   d. *Let a gale arise and swell* into a storm*, let a sea run that might appal the stoutest heart that ever beat* (Sketch engine doc#708334)

Examples (2a) and (2c) evoke the expansion schema whereby the Y element (small settlements and the work consisting of a few sheets) increases in physical size until it becomes Z (a city or a work made up of ten volumes). By contrast, (2b) and (2d) activate the intensity scale whereby the Y element (the low murmur and the gale respectively) increases in intensity until it turns into Z (a great noise or a storm). All four examples observe the A>A' change schema. In (2a) and (2c) the city and the ten volumes work incorporate in their physical composition the small settlements and correspondingly, the few sheets. The prepositional *into* phrase is used to realize the A' element of the schema since English does not code a resultative adjective that captures the conceptual structure called upon by *into cities/a great noise/ten volumes/a storm*. In cases like these, English makes figurative use of the caused-motion construction (compare *The blacksmith hammered the metal flat/into the shape of a fish/*into a flat shape*).

The intransitive resultative construction with *bloom* and *blossom* is regulated by the same Internal Variable Conditioning constraint. The meaning of these verbs is more generic as it involves either that an entity becomes bigger in size or goes from a lower-level stage of development to a higher-level stage of evolution, which does not necessarily imply that this is positive. Let us take a look at some examples:

(3) a. *Instantly attracted to each other, this encounter blossomed* into the most intense relationship *of Goldman's life* (Sketch engine doc#255172)

   b. *What started as an entry-level job blossomed* into a lifetime career *and association with the University* (Sketch engine doc#268420)

   c. *Their partnership blossomed* into marriage *and their artistic union created one of the greatest vocal phenomenon of this century* (Sketch engine doc#554595)

   d. *Powell's class project blossomed* into a full-blown grant proposal *[…]* (Sketch engine doc#569026)

   e. *[…] Cedar Hill has blossomed* from a rural town of about 6,800 in 1980 to a cosmopolitan area *with a population of almost 40,000* (Sketch engine doc#97371)

   f. *As China's open door initiatives blossomed* from slogan to reality *at an astonishing rate, the gap between Chinese statistical categories [..] imposed growing costs* (Sketch engine doc#346706)

Sentences (3)(a)-(d) can be skeletally represented by the schema Y BECOMES Z. In these cases the Y element, together with the verb *blossom* constrain the choice of the Z element which must be conceptually related to Y and must involve a higher-level of development than Y. In turn, (3e) and (3f) display the semantics Y TURNS FROM S TO Z, where Y = Cedar Hill/China's open door initiatives, S = rural town/slogan, Z = cosmopolitan area/reality (i.e. S = initial state; Z = final state).

Although (3)(a)-(f) constitute positive changes of state, the intransitive resultative construction with the verb *bloom* can also encode negative end results as can be seen in the examples reproduced in (4)(a)-(d):

Andreea Rosca

How an idea germinates into a project or the intransitive resultative construction with entity-specific change-of-state verbs

(4)   a. *As these growing gaps inevitably sow seeds of resentment among those less fortunate which perhaps bloom* into terrible acts (Sketch engine doc#472205)

b. *WHAT TODAY MIGHT be seen as an isolated problem for a limited number of companies promises to bloom* into big trouble *for us all* (Sketch engine doc#566316)

c. *The seeds have since bloomed* into thousands of resistance fighters *and foreign terrorists* (Sketch engine doc#593788)

d. *Epiphanies don't come much grander than that, and Shulgin's interest in psychoactive drugs bloomed* into an obsession (Sketch engine doc#1734479)

The examples above exploit another meaning extension of the verb *bloom* that focuses not on the youthful and vigorous aspects of blooming, but on the sudden appearance of the flower. It is a matter of attribute selection, which is typical of metaphorical extension (in a metaphoric mapping not everything is mapped but, on the basis of the *Correlation Principle*, only the source structure that best matches the implicational structure of the target; Ruiz de Mendoza and Santibáñez 2003; Ruiz de Mendoza 2011).

As mentioned earlier, the intransitive resultative construction can display a compound result expressed either by a combination between an adverb and an adjectival phrase or between an adverb and a prepositional phrase. Let us take each case in turn. The sentence *The balloon swells* out tight and full (Sketch enginedoc#1041811) combines the adverb *out* with two adjectival phrases, i.e. *tight* and *full*. Our example might seem to contradict Goldberg's (1991b: 368) *Unique Path constraint,* which stipulates that "if an argument X refers to a physical object, then more than one distinct path cannot be predicated of X within a single clause". This constraint has two main entailments: (1) X cannot move to two different locations at a given time t; and (2) the motion must describe a path within a single landscape. Thus, resultatives are believed to be incompatible with directional phrases (cf. **Sam kicked Bill black and blue out of the room*). Nevertheless, Goldberg's formulation of this constraint does not really explain why the constraint happens. The constraint is grounded in the physical impossibility of an integrated object following two different paths at the same time. Alternatively, she postulates the *Unique Change of State constraint,* according to which two distinct changes of state cannot be simultaneously predicated of an entity in a single clause.

The adverb *out* normally describes a path (e.g. *He went out*). However, *out* in our example indicates a result (swelling along the horizontal axis), which strictly speaking involves a path that is internal to the object. But there is no motion along an external path, which is what Goldberg's Unique Path constraint captures. *Out* indicates external orientation whereas the composite adjectival phrase parametrizes the property acquired by the inflated balloon. The adverb *out* evokes the surface expansion schema whilst the adjectival phrase refers to the size of an entity. Also, the adjectival phrase tinges the intransitive resultative construction with telicity: the balloon inflates until it becomes tight and full. The adjectival phrase complies with the Unique Change of State constraint in the sense that it further specifies the result designated by the adverb *out.* Therefore, we can have conceptually feasible combinations of results provided that they are compatible. The same holds true for the intransitive resultative construction which employs a combination between an adverb and a prepositional phrase *This thinking blossomed* out in *Buddhism's greatest contribution to mankind, namely the concept of mettà [Skt. maitrā] or universal loving kindness* (Sketch engine doc#940191). This is a metaphorical expression that makes use of the basic emergence meaning of the verb *blossom.* The emergence of a flower out of the stem of a plant (in the source domain of the metaphor) is mapped onto the emergence of an ideological precept out of an ideological movement. The preposition *in* does not code any motion but it figuratively expresses a state (*kindness*). Its use is licensed by the low-level metaphor STATES ARE LOCATIONS.

5. CONCLUSIONS

In this article it has been shown that seven of Levin's (1993) entity-specific change-of-state verbs, namely *bloom, blossom, flower, germinate, sprout, swell,* and *blister,* are conceptually similar in the sense that they refer to an increase in size, volume, or intensity of a particular entity. They also select the A>A' resultative schema that indicates the acquisition of a new property (e.g. *Gorse blossomed* gold *on magnesium limestone embankments;* COCA 1994). Furthermore, the intransitive resultative construction can express either a simple or a compound result. The former can be lexicalized by an AP (e.g. *[…] a series of concentric burns blistered* black *[…]*) or a PP (e.g. *[…] this encounter blossomed* into the most intense relationship *of Goldman's life*). The latter can be encoded by means of a combination between an adverb and an AP (e.g. *Their throats would swell* out big *[…],* where the AP *big* further specifies the result denoted by the adverb *out*) or a combination between an adverb and a PP (e.g. *[…] she had blossomed* out into *a lovely womanhood […]*). It has also been noted that on some occasions the AP expressing a change of color can be syntactically separated from the verb by means of prepositions, such

as *in* or *into.* A sentence like *The flower bloomed in motley red* is liable to a part-affectedness interpretation in the sense that the color that covers the surface of the flower displays different hues. Finally, the subsumption processes between these verbs and the prepositional intransitive resultative construction observe the Internal Variable Conditioning constraint formulated by the LCM, according to which the world-knowledge associated to an internal predicate variable restricts the nature of both the predicate and its constructional arguments.

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