Revista Canaria de
ESTUDIOS INGLESES

Revista Canaria de
ESTUDIOS INGLESES

57

SUBMISSION INFORMATION

CONTENTS

GRAMMAR, CONSTRUCTIONS AND INTERFACES

Eulalia Sosa Acevedo and Francisco José Cortés Rodríguez, guest-editors

INTRODUCTION

It is already a long established tradition to assume that predicates —and, more specifically, verbs— should be clustered in the lexicon in terms of their closeness or similarity in meaning, and that some of their semantic features determine their grammatical behaviour. This statement can at least be traced to as far back as the work by Fillmore in 1970.[1] There, Fillmore compared the grammatical behaviour of some verbs of breaking with some verbs of hitting and arrived at the conclusion that differences in the possibilities for argument expression are motivated by differences in meaning. Thus, the following examples illustrate two structures that have been treated as diagnostics for the semantic differences between those two groups of verbs:

(1) (His) hands caught him, untied the rope, rolled him over and *thumped at him* to empty his lungs (5.205\flob_p.txt 7)
(2) *the glass cracked*, brown paint bubbled,... (38.088\flob_k.txt 54)[2]

In the first case, a verb of hitting is followed by a prepositional phrase whose complement designates the entity receiving the impact. This is an example of the conative construction, which is not found with *break* verbs. The second sentence shows an anticausative or inchoative use of a verb of breaking; this kind of structure seems to be blocked by verbs of contact. Since there is in principle no syntactic reason for this disparate behaviour —both *hit* and *break* verbs are subcategorized as transitive predicates— it is necessary to find an explanation elsewhere, and for a vast group of researchers the locus for an explanation is meaning: *break* verbs can appear in inchoative structures because their semantics involves a change of state, a feature absent in the meaning of *hit* verbs; on the other hand, these encode a notion of contact which is what motivates their "conative" behaviour.

Fillmore's seminal paper, together with others from that period, paved the way for a new line of research that has become central in grammatical theory: the need to develop a theory of lexical representation that not only unveils the meaning

of lexical units, but also does it in such a way that it becomes relevant for the rest of the grammar. Such a theory must also establish the mechanisms that will explain the 'transition' from lexical semantics to grammatical structures; this has been generally —though not exclusively—termed "linking" or "lexis-grammar interface." The design of such a semantics-syntax linking algorithm is heavily dependent upon a number of factors,[3] among which the following two occupy a central place:

> (a) the amount and type of information encoded in a predicate's lexical representation; and
> (b) the amount and type of information that is attributed to grammatical structures/constructions.

Thus, if constructions are understood merely as the arrangement of grammatical structures (e.g. a sequence of phrasal constituents that can be functionally characterized or otherwise), the load of semantic description is put solely on the representation of lexical units. Lexical representation will be centrally —in some cases even exclusively— based on semantic notions that will be projected onto the grammatical component.

If, on the other hand, one accepts that constructions are not mere configurational arrangements but full linguistic signs —and as such constitute form-meaning pairings, they must have their own space in the overall organization of the grammar and should indeed play a fundamental role in explaining what Levin and Rappaport Hovav term "multiple argument realization." The verb *smash* in the following examples is an instance of this:

> (a) [...] high in the chest, smashed him back and downwards while Grundy's shot. (lob_l.txt9) [caused motion construction, "move by hitting"]
> (b) To secure such an end men like Will Dowsing undertook to smash several churches at a time. (lob_d.txt26) [transitive, "'destroy' verb"]
> (c) The police smashed their way into eleven homes (Cobuild 1373) [way construction, "create path & move by hitting"]
> (d) [...] by dashing her mug to the floor, smashing it to pieces. (lob_g.txt36) ([resultative, "bring to a specific result by breaking"]
> (e) Ricky hauled him to his feet and smashed him against the wall (flob_r.txt94) [transitive locative, "contact by impact"]

---

[1] Charles J. Fillmore, "The Grammar of *hitting* and *breaking*," *Readings in English Transformational Grammar*, ed. Roderick Jacobs and Peter S. Rosenbaum (Waltham: Ginn, 1970) 120-133.

[2] The examples used in this introduction have been extracted from the LOB and the FLOB corpus (compiled in Knut Hofland, Anne Lindebjerg and Jørn Thunestvedt, eds. *ICAME Collection of English Language Corpora*, CD-ROM, (University of Bergen, Norway: The HIT Centre, 1999). Each of these examples is followed by a code giving a reference to its location within the corresponding text.

[3] For an excellent and extensive study of such conditioning factors see Beth Levin, and Malka Rappaport Hovav, *Argument Realization: Research Surveys in Linguistics Series* (Cambridge: Cambridge UP, 2005).

(f) The nine-millimetre bullets smashed the chain as if it had been plastic (lob_l.txt9) [instrument as subject construction]
(g) With his long-range artillery he aimed to smash the glitter of Western plutocracy (flob_g.txt16) [instrument-oblique]
(h) A plate dropped from his fingers and smashed on the kitchen floor (Cobuild 1373) [conative, "attempted contact by hitting"]

Thus constructions would integrate a number of constraints into their semantic description to mediate in the fusion of a lexical unit.

While some effort has been made to describe this process of integration, published studies are both few in number and limited in scope. The precise mechanisms that act in the integration of a predicate into a construction are yet to be fully described. Several of the papers in this volume are devoted to ascertaining such mechanisms with regard to some of the more vexing constructions in English and other languages like Spanish. Thus, in "From Symmetric to Non-inheriting Resultatives: On Gradience and Conceptual Links in Resultative Constructions," Broccias looks closely to the relations that hold between the arguments of a verb and the English resultative construction. His paper opens by questioning Iwata's twofold typology of resultatives, from which Broccias concludes two of the most relevant claims highlighted in his work. First, that the relation between a verb's arguments and the resultative construction is a matter of degree; second, that this relation is better captured by considering the resultative construction in terms of a causal event sequence. In support of these claims, he presents evidence drawn from the analysis of illustrative key examples that invalidates argument obligatoriness as a reliable criterion and calls into question Levin and Rappaport Hovav's treatment of (im)possible resultative constructions as well as Goldberg and Jackendoff's Full Argument Realization principle and "past tense test." On the basis of this evidence and drawing on some of his previous work, the author proposes to consider resultatives as part of a cognitively motivated gradience, from symmetric to non-inheriting, which is regulated by tight conceptual links (i.e. identity and entailment links) between the causing and the caused subevents.

One of the central issues raised by Gonzálvez-García in his paper "Towards a Constructionist, Usage-based Reappraisal of Interpersonal Manipulation: Evidence from Secondary Predication in English and Spanish" concerns the crucial role of Goldberg's constructions in both lexical description and interpretation. The analysis presented throughout centers around a detailed corpus-based contrastive study of the semantico-pragmatic features associated to secondary predication involving verbs of causation, volition, wish and preference in English and Spanish. Specifically, the author lays emphasis on the fact that a purely semantic and/or structural account based on object-related obligatoriness proves insufficient to account for the overt acceptability differences in the predicative realization of these verbs. This is particularly evidenced by the fact that these differences, as the author demonstrates, are heavily determined by psychophysical and socio-cultural factors. In order to ascertain the role of such factors, the author adopts the Goldbergian constructionist approach and incorporates the notions of "interpersonal subjectiv-

ity" (i.e. the enactment of speaker's position with regard to content) and of force dynamics (Talmy). He concludes that the subjective-transitive construction constitutes a "family" comprising at least four sub-constructions which emerge from differences in how the lexical semantics of the matrix verb is modulated with respect to constructional meaning.

Other contributions in this monograph deal with the issues mentioned above, i.e., the nature of lexical and constructional meanings and the way both interact in the representation of a grammatical structure, from several perspectives. Christopher S. Butler's paper "Formulaic Sequences in Functional and Cognitive Linguistics" is inspired by an attempt to reconcile two approaches to linguistic structure, namely one in which lexical items are judged to fit individual slots in syntactic frames, and another in which language is conceived primarily as a set of recurrent, reusable multi-word lexical items or "chunks." He begins by considering the importance of evidence provided by corpus linguistics (particularly the work of Sinclair and his colleagues) and of psycholinguistic and sociolinguistic studies (like Wray's work) in showing the pervading role of prefabricated units in both language production and language processing, a fact that communication-oriented approaches should be, if they are not, concerned with. After presenting three specific formulaic sequences (*come a cropper*, *bare hands* and *naked eye*) as instances that show varying degrees of fixedness in terms of collocation as well as specific effects on semantic prosody, he goes on to consider the extent to which this kind of multi-word structures is properly accounted for within four functional and cognitive linguistic frameworks: the constructionist approach, the collostructional approach, the parallel architecture model developed by Jackendoff and Systemic Functional Grammar. He concludes that none of these frameworks succeeds in providing a satisfactory explanation for idiomatic language phenomena which go beyond the level of constituent structure, as is the case of semantic prosody. He thus proceeds to propose a novel approach which expands the interpretation of formulaic expressions beyond the constituency level by incorporating the concept of "syntagmatic association." Associations are specifically characterized by their ability to operate at different levels: they may function between specific words (e.g. collocations) or at a more general level within a semantic or syntactic class of items (e.g. semantic prosodies).

Hans Boas' paper "Towards a Frame-constructional Approach to Verb Classification" focuses on the claim that an inventory of verb classes can be more appropriately designed by conflating insights from both semantic and grammatical approaches. In the first part of this paper, Boas weighs up the pros and cons of some well-entrenched perspectives in lexical semantics. In doing so, he shows that, within the event-structure model developed by Rappaport Hovav and Levin, constraints like *Template Augmentation* and the *Argument-per-subevent-condition* seem inappropriate insofar as they allow unacceptable mappings from event structure to syntax. Furthermore, Levin's taking syntactic alternation as the basic criterion for verb classification disregards, as Baker and Ruppenhofer demonstrate, the crucial role of fine-grained semantic descriptions in determining verb class membership. As for FrameNet, which does rely more on semantic criteria, it overlooks the fact that semantic differences have an impact on syntactic realization. After discussing in

detail the differences and similarities in meaning between verbs in the Self_motion frame, Boas propounds an alternative 'frame-constructional' approach that integrates important aspects of componential analysis and verb descriptivity into Frame Semantics.

Within the broader context of a functional and cognitive paradigm, Mairal and Ruiz de Mendoza's "New Challenges for Lexical Representation within the Lexical-Constructional Model (LCM)" offers a model which seeks to refine lexical representations in an attempt to show their potentialities within the field of natural language ontologies and artificial intelligence. Starting from the notion of lexical template, originally a development of Role and Reference Grammar's logical structures, these authors present a step-by-step argumentation of why and how these templates have been subject to subsequent refinement and enrichment as to incorporate the pragmatic and semantic properties of predicates in terms of a universal abstract semantic metalanguage. From this they proceed to reformulate lexical templates by integrating basic features of Pustejovsky's generative lexicon, particularly *Qualia Theory*, thus following the recent proposal in Mairal and Cortés [forthcoming]. In order to illustrate the benefits of this new proposal they provide detailed representations for the lexical classes of change of state verbs, contact-by-impact verbs, consumption verbs and cognition verbs. Cortés and Sosa's paper, entitled "The Morphology-semantics Interface in Word-formation" also subscribes to the LCM's research program and seeks to explore the potential of LCM lexical representations in the domain of word-formation. This has involved integrating Lieber's co-indexation and Pustejovsky's generative mechanisms (*qualia* specification, subtyping and co-composition) as the fundamental tools to account for the integration of the semantic structures of the components of a complex (derived or compound) word.

The papers that form the monograph section of this volume provide a neat image of one of the most tantalizing quests in grammatical theory nowadays, as is the analysis of the interaction between semantics and syntax in sentence production, within the framework of a functionally and/or cognitively-based conception of language. We wish to thank all the contributors for their valuable participation in this volume.

ARTICLES

TOWARDS A FRAME-CONSTRUCTIONAL
APPROACH TO VERB CLASSIFICATION

Hans Boas
University of Texas at Austin

ABSTRACT

This paper proposes a novel approach towards identifying English verb classes by combining insights from Componential Analysis (Katz and Postal), Verb Descriptivity (Snell-Hornby), and Frame Semantics (Fillmore, "Frames"). It differs from syntactico-centric and event structure approaches in that frame-semantic information is shown to directly influence a verb's ability to occur in grammatical constructions. This frame-constructional approach emphasizes the importance of form-meaning correspondences between the information specified in semantic frames and their different syntactic realizations, leading to a more fine-grained classification of English verbs.

KEY WORDS: Componential analysis, verb descriptivity, frame semantics, frame-constructional approach.

RESUMEN

Este artículo propone un nuevo enfoque para la identificación de las clases verbales del inglés. Para ello combina aspectos del análisis componencial (Katz and Postal), la "descriptividad" verbal (Snell-Hornby) y la semántica de marcos (Fillmore, "Frames"). Se diferencia tanto de las propuestas sintáctico céntricas como de las que se basan en la estructura eventual en que la información de los marcos semánticos se presenta como un aspecto que influye directamente en la capacidad que un verbo muestra para formar parte de las construcciones gramaticales. Asimismo, este enfoque "marco-construccional" pone de manifiesto la relevancia de las correspondencias entre forma y significado, esto es, entre la información especificada en los marcos semánticos y sus diferentes realizaciones sintácticas, lo que permite establecer una clasificación más exhaustiva de los verbos del inglés.

PALABRAS CLAVE: análisis componencial, descriptividad verbal, semántica de marcos, enfoque marco-construccional.

1. INTRODUCTION

One of the main goals of lexical semantic theories is to classify the lexical items of a language into classes predictive of their syntactic and semantic expressions (Pustejovsky 8). Studies of English verb classes have often focused on identi-

fying specific syntactic features that allow for broad-scale generalizations. For example, Levin proposes a syntactic classification of argument alternations to classify verbs into unique classes. In later work, Rappaport Hovav and Levin ("Building", "English", "Event") develop a model that builds on previous accounts using lexical conceptual structures (LCSs) to represent systematic alternations in a verb's meaning and to define the set of verbs which undergo alternate mappings to syntax (Jackendoff, *Structures*; Hale and Keyser "Argument"; Wunderlich; Van Valin and LaPolla). On this view, verbs with multiple meanings have multiple lexical semantic representations, one for each meaning, where meanings are modeled by event structure templates. This approach has the advantage that the different meanings —represented in terms of event structures— make it possible to determine the various syntactic structures that a verb can be found in.

Recently, however, Baker and Ruppenhofer, Boas (*Constructional*), and Nemoto, among others, have noted empirical problems for such accounts. These findings call into question the role of LCSs and the status and number of predicates used in the event structure representations proposed by Rappaport Hovav and Levin ("Building", "English", "Event"). In fact, several authors (Iwata; Langacker; Boas, "Frame-semantic") have proposed that the lexical semantic representations necessary for defining verb classes are best explained by appealing to more fine-grained semantic descriptions. In this article I propose a comprehensive semantic account of verb classes, in which the explanatory burden is borne by frame-semantic descriptions (Fillmore, "Frame"; Fillmore and Atkins) of the various senses of verbs, a detailed constructional inventory covering each sense of a verb, and an exact inventory of form-meaning correspondences listing the combinatorial possibilities (valencies). My approach maintains the wide empirical coverage of syntactic accounts such as Levin, without suffering from their shortcomings. In addition, I demonstrate that event structure representations of the type proposed by Rappaport Hovav and Levin ("Building", "English", "Event") do not cover the full range of empirical data. The alternative frame-constructional approach to verb classification outlined in this paper thus follows Langacker's (186) proposal that "semantic and grammatical analyses are best pursued in parallel, each informing and constraining the other."

This paper is structured as follows. In section 2, I provide an overview of Rappaport Hovav and Levin's ("Building", "English", "Event") event structure approach and show that it fails to cover the full range of data. In section 3, I review Baker and Ruppenhofer's comparison of FrameNet's verb classes with those proposed by Levin. I argue that while it is important to pay closer attention to frame-semantic information underlying the interpretation of specific senses of verbs, one should not lose sight of syntactic information when determining membership in individual verb classes. In section 4, I propose a unified frame-constructional approach to verb classification that emphasizes the importance of form-meaning correspondences between the information specified in semantic frames and their different syntactic realizations. Section 5 concludes and offers suggestions for further research.

2. VERB CLASSIFICATION BASED ON EVENT STRUCTURES

Before discussing the details of Rappaport Hovav and Levin's ("Building", "English", "Event") event structure approach to verb meaning, a brief overview of earlier accounts incorporating Lexical Conceptual Structures (LCSs) is in order. One of the goals of LCSs and related forms of predicate decomposition is to overcome some of the problems associated with the lists of thematic roles proposed by Fillmore ("Frame") and Gruber, as well as the different types of thematic relations suggested by Jackendoff (*Semantic*).[1] For instance, Guerssel *et al.* intend to catalogue those elements of meaning that determine grammatical facets of behavior, including argument realizations. Consider the following sentences involving the transitive verbs *cut* and *break*.

(1) a. Lena cut the cake.
b.*The cake cut.
c. Lena cut at the cake.
(2) a. Rosa broke the vase.
b. The vase broke.
c.*Rosa broke at the vase.

The examples illustrate that *cut* exhibits a conative use (1c), but not an intransitive noncausative use (1b). In contrast, *break* exhibits an intransitive noncausative use (2b), but not a conative variant (2c). Guerssel *et al.* (51-59) therefore propose different LCSs to explain the variation in intransitive noncausative use between the two verbs as follows.

(3) a. *break*: *y* come to be BROKEN
b. *break*: *x* cause (*y* come to be BROKEN)
(4) a. *cut*: *x* produce CUT in *y*, by sharp edge coming into contact with *y*
b. *cut*: *x* causes sharp edge to move along path toward *y*, in order to produce CUT on *y*, by sharp edge coming into contact with *y*.

The LCS of *cut* does not exhibit a meaning constituent [come to be in STATE], although the LCS of *break* does (see (3b)). Therefore, a mapping to syntax for *y* is possible with *break*, but not with *cut*, according to Guerssel *et al.* Conversely, the LCS of *break* lacks a meaning constituent including a contact component, whereas the LCS of *cut* exhibits one. A mapping from *y* to syntax is thus possible with *cut*, but not with *break*. The examples illustrate how LCSs are used to capture variations in verb meaning, which, in turn, have an effect on how the arguments of verbs are realized morpho-syntactically.[2]

---

[1] See Dowty, and Levin and Rappaport Hovav (*Argument*) for details.
[2] See Hale and Keyser, "View¨; Laughren; Rappaport, Levin and Laughren; Levin and Rappaport Hovav, *Unaccusativity*, for similar types of analyses.

Throughout the 1990s, researchers developed different versions of LCSs to represent a limited stock of basic event types, in the hope of arriving at broad-scale generalizations about the morpho-syntactic behavior of verbs based on the largest common meaning denominator. To achieve this goal, Rappaport Hovav and Levin ("Building", "English", "Event") suggest that a verb's meaning consists of two parts: (1) an event structure, also called a lexical semantic template, which it shares with other verbs in the same semantic class; (2) a root, representing the idiosyncratic aspects of a verb's meaning, thereby setting it apart from other members of the same semantic class. To illustrate, the class of noncausative verbs of change of state exhibit a predicate decomposition consisting of a predicate BECOME describing the notion of change of state as in (5), together with the specified result state indicated in italics (cf. Rappaport Hovav and Levin, "Building" 108).

(5)   [BECOME [x <*STATE*>]]

The event structure representation in (5) illustrates the common meaning shared by all noncausative verbs of change of state, such as *dry*, *widen*, and *dim*. At the same time, these verbs differ in their roots, i.e., their idiosyncratic meaning components, which are specified in terms of an attribute of an entity whose value is specified as changing. Compare, for example, the LCSs of *dry*, *melt*, and *freeze* in (6).

(6)   a.   *dry*: [BECOME [y <*DRY*>]]
       b.   *melt*: [BECOME [y <*MELTED*>]]
       c.   *freeze*: [BECOME [y <*FROZEN*>]]

According to Levin and Rappaport Hovav (*Argument*, "Lexical", *Unaccusativity*) a description of verb meaning in terms of event structures does not necessarily entail providing a complete semantic analysis. Instead, it focuses on isolating those facets of meaning which recur in significant classes of verbs and on determining key facets of the linguistics behavior of verbs. In the case of the verbs in (6), the event structure represents the fact that all three verbs license a noncausative change of state as in sentences like *The shirt dried*, *The butter melted*, or *The water froze*.

One of the main ideas of Rappaport Hovav and Levin's event structure approach to semantic classification and analysis is that verbs exhibiting multiple argument realizations must be associated with distinct event structures. According to this view, each distinct event structure gives rise to an appropriate argument realization when verb roots are integrated into different event structure templates. They can either occur in an argument position of a primitive predicate as in (6) above, or they can modify a predicate, as is the case with activity verbs in (7) and (8), where the subscript signals the modification of the predicate.

(7)   *Gavin ran*
       [x ACT$_{<RUN>}$]

(8)   *Natasha wiped the table*
       [x ACT$_{<WIPE>}$ y]

According to the Rappaport Hovav and Levin ("Building"), verb roots are of different ontological types, which in turn determine the event structures with which they can be associated. Consider, for example, the difference between the roots of verbs from the same semantic field such as *clean* and *scrub*. *Clean* has a result root specifying a state that typically results from some activity, and result verbs such as *clean* therefore lexicalize the result of some sort of activity in their root, as can be seen in (9).

(9) $[[x \text{ ACT}_{<MANNER>}] \text{ CAUSE } [\text{BECOME } [y <CLEAN>]]]$

Levin and Rappaport Hovav propose that the only way in which result verbs such as *clean* and *empty* differ from each other is the end state specified by their roots: the root of *clean* represents the absence of any materials that could be considered as dirty, while the root of *empty* represents the absence of any materials in a container. This common meaning allows roots of result verbs to be associated with a causative change of state LCS like the one in (9). In contrast, verbs such as *scrub*, *wipe*, and *sweep* have a manner root specifying an activity that is conventionally carried out to achieve a particular result. Such verbs are associated with an activity LCS, as in (10).

(10) $[x \text{ ACT}_{<SCRUB>}]$

Levin and Rappaport Hovav suggest that manner verbs describe activities that are identified by some sort of means, manner, or instrument. They characterize the difference between manner verbs as follows:

> [T]he manner verbs *scrub* and *wipe* both describe actions that involve making contact with a surface, but differ in the way the hand or some implement is moved against the surface and the degree of force and intensity of this movement. (...) Despite the differences in the way the instruments are used linguistically all these verbs have a basic activity LCS. (Levin and Rappaport Hovav, "Lexical" 6-7)

Besides being associated with an activity LCS, Levin and Rappaport Hovav claim that manner verbs also entail a specific result, i.e. "cleanness." In their view, this entailment "explains the intuition of relatedness between the manner verb *scrub* and the result verb *clean*" (6). To achieve this interpretation, the LCS of all activity verbs as in (10) can be augmented by an additional result state, thereby yielding a causative LCS as in (9).[3] This generative process of Template Augmentation in (11) is constrained by the Argument Realization Condition in (12), which imposes well-formedness conditions on the mapping from event structure to syntax.

---

[3] Rappaport Hovav and Levin ("Building" 108) distinguish five different types of event structure templates: activities, states, achievements, externally caused accomplishments (also known as causative change of state), and internally caused accomplishments.

(11) *Template Augmentation*
Event structure templates may be freely augmented up to other templates in the basic inventory of event structure templates. (Rappaport Hovav and Levin, "Building" 111)

(12) *Argument-per-subevent-condition*
There must be at least one argument XP in the syntax per subevent in the event structure. (Rappaport Hovav and Levin, "Event" 779)

Rappaport Hovav and Levin ("Event" 779-780) claim that the basic inventory of event structures, including activity LCSs associated with manner verbs and causative change of state LCSs associated with result verbs, suffices to capture a verb's syntactic behavior, together with Template Augmentation and the Argument-per-subevent condition. The Argument-per-subevent-condition ensures that complex event structures of the type in (9) always give rise to sentences with a subject and an object, because both event participants "x" and "y" need to be overtly realized, hence the unacceptability of *Tracy broke* (compare *Tracy broke the dishes*) (Rappaport Hovav and Levin, "Building" 119). In contrast, simple activity event structures of the type in (10) only require a subject, because the well-formedness condition on argument realization in (12) only requires one event participant "x" to be realized (as the subject), but not necessarily an object (cf. *Phil swept* and *Phil swept the floor* (Rappaport Hovav and Levin, "Building" 115)).

Let us now return to the question of why manner verbs can be associated with both simple and complex event structures (cf. *Phil swept / Phil swept the floor / Phil swept the floor clean*).[4] To explain this syntactic behavior, Rappaport Hovav and Levin suggest that verb meanings are built up incrementally through Template Augmentation (cf. (11)). This process allows basic activity templates, like that associated with *scrub* in (9), to enter into other possible event structure templates that are more complex like that in (10), "as long as the resulting complex event structure meets the well-formedness conditions of syntactic realization" (Rappaport Hovav and Levin, "Building" 73). Summarizing their classification of verbs, the authors point out the following:

> [B]ecause the template associated with a verb like *break* cannot be augmented further, no other achieved state or location can be added to a sentence with *break*, even with the normal direct object. (...) Thus, the properties that distinguish the verb *break* from the verb *sweep* can be accounted for through the interaction of their event structure representations, the operation of Template Augmentation, and the well-formedness conditions. (Rappaport Hovav and Levin, "Building" 122-23)

---

[4] Another difference between manner and result verbs is that the former are more flexible with respect to their subcategorization restrictions on the object, whereas the latter are not. For details, see Rappaport Hovav and Levin ("Event" 779-780).

Rappaport Hovav and Levin's event structure account has been quite successful in explaining a range of syntactic behaviors based on the types of LCSs associated with the roots of verbs. However, their approach has a number of limitations to which I now turn. To begin, let us take a look at the range of data covered by their approach. Following their verb classification based on LCSs, the authors claim that English allows the LCSs of all activity verbs to be "augmented" by the addition of a result state, giving rise to causative LCSs. Indeed, as the examples in (13)-(15) illustrate, Rappaport Hovav and Levin's analysis accounts for a range of activity verbs that are associated with both a simple activity event structure and with a complex causative change of state event structure.

(13) a.   Terry swept.
        b.   Terry swept the floor.
        c.   Terry swept the crumbs into the corner.
        d.   Terry swept the leaves off the sidewalk.
        e.   Terry swept the floor clean.
        f.   Terry swept the leaves into a pile.
           (Rappaport Hovav and Levin, "Building" 97/98)

(14) a.   Kim whistled.
        b.   Kim whistled at the dog.
        c.   Kim whistled a tune.
        d.   Kim whistled a warning.
        e.   Kim whistled me a warning.
        f.   Kim whistled her appreciation.
        g.   Kim whistled the dog to come.
        h.   The bullet whistled through the air.
        i.   The air whistled with bullets.

(15) a.   Pat ran.
        b.   Pat ran to the beach.
        c.   Pat ran herself ragged.
        d.   Pat ran her shoes to shreds.
        e.   Pat ran clear of the falling rocks.
        f.   The coach ran the athletes around the track.
           (Rappaport Hovav and Levin, "Building" 98)

The verbs *sweep*, *whistle*, and *run* are activity verbs and are thus associated with simple event structures such as those in (7) and (8). Per the *Argument-per-subevent-condition* in (12), the simple activity event structure requires the syntactic realization of one event participant, compare (13a)-(15a)), or two event participants, compare (13b) and (14c). Per Rappaport Hovav and Levin's *Template Augmentation* mechanism in (11), these simple activity event structures can be augmented to yield more complex event structures of the type in (9). As already discussed above, the event participants of these causative change of state event structures are obligatorily mapped to syntax per the *Argument-per-subevent-condition*, resulting in sentences like (13c)-(13f), and (15c), (15d), and (15f).

Note, however, that not all activity verbs allow template augmentation similar to the ones in (13)-(15). For example, other *wipe* verbs (Levin 125-128) similar in meaning to *sweep*, such as *erase*, *purge*, *squeeze* and *suction*, do not allow the full range of argument realization as *sweep*, as the following examples demonstrate.

(16) a.   *Terry erased the marks into the corner. (cf. (13c))
     b.   *Terry purged the leaves into a pile. (cf. (13f))
     c.   *Terry squeezed the floor clean. (cf. (13e))
     d.   *Terry suctioned the leaves into a pile. (cf. (13f))

According to Rappaport Hovav and Levin, verbs such as *erase*, *purge*, *squeeze*, and *suction* should be categorized as activity verbs associated with the same activity event structure as *sweep*. As such, one would expect that these simple event structures can be augmented per *Template Augmentation* (cf. (11)), leading to a complex event structure of the type in (9). Given the *Argument-per-subevent condition*, we would expect the two event participants to be syntactically realized as in (16a)-(16d). However, the unacceptability of these sentences shows that the event structure account lacks crucial features that prevent *Template Augmentation* from generating unacceptable event structures, which in turn license unacceptable sentences. Note that this is not an isolated problem, as it also occurs with other verbs discussed by the authors. For example, verbs similar in meaning to *whistle* in (14) and *run* in (15) also exhibit a syntactic behavior that is unexpected under the event structure account. First, consider the syntactic behavior of manner of motion verbs in (17) and (18).

(17) a.   Pat ran her shoes to shreds. (cf. (15d))
     b.   Pat walked her shoes to shreds.
     c.   ?Pat tiptoed her shoes to shreds.
     d.   ?Pat crawled her shoes to shreds.
     e.   *Pat crept her shoes to shreds.
     f.   *Pat meandered her shoes to shreds.
     g.   *Pat swam her shoes to shreds.

(18) a.   The coach ran the athletes around the track. (cf. (15f))
     b.   ?The coach jogged the athletes around the track.
     c.   ?The coach promenaded the athletes around the track.
     d.   *The coach staggered the athletes around the track.
     e.   *The coach roamed the athletes around the track.
     f.   *The coach ambled the athletes around the track.

In (17) and (18), not all manner of motion verbs allow the same syntactic pattern as *run*. This distribution is not expected under Rappaport Hovav and Levin's proposal which predicts that the LCSs of all activity verbs can be augmented by the addition of a result state. Thus, *Template Augmentation* and the *Argument-per-subevent-condition* are not sufficient for preventing the licensing of unacceptable sentences as in (17) and (18) (Boas, *Constructional*; "Determining").

In my view, the problems faced by Rappaport Hovav and Levin's approach are caused by a verb classification system that is too coarse grained. Their account

relies too much on the distinction between different types of LCSs expressed as types of event structures, which in turn can be augmented. I have shown that *Template Augmentation* is not appropriately constrained and thus leads to over-generation. Distinguishing between different event structure types may be useful for explaining certain types of phenomena such as aspectual behavior of verbs (Tenny; Smith), but, as demonstrated above, closer examination of the linguistic facts reveals that event structures are not sufficient to explain linguistic idiosyncrasies such as why certain verbs exhibit a wide range of argument expression while other verbs closely related in meaning do not. The lexicon thus once again successfully resists the efforts of linguists to make it neat and clean. In the following section I discuss two alternative approaches to verb classification.

3. VERB CLASSIFICATION BASED ON SYNTACTIC OR SEMANTIC FRAMES?

Baker and Ruppenhofer compare how Levin and FrameNet (Fillmore *et al.*) classify English verbs. In summarizing Levin's seminal work, they point out that her approach relies on intuitive semantic groupings as well as the syntactic behavior of verbs, specifically their participation in valence alternations. Based on data taken from the linguistic literature, Levin arrives at a total of 193 verb classes whose members participate in more than 60 syntactic alternations such as the locative alternation (*Mary loaded the wagon with hay* vs. *Mary loaded hay onto the wagon*), and other syntactic constructions such as the Cognate Object Construction, the Reaction Object Construction, and the Resultative Construction, among others.

In contrast, FrameNet's verb classification relies on semantic frames (Fillmore, "Frame") that underlie the understanding and interpretation of words. Based on corpus evidence from the BNC, FrameNet groups words together that are semantically similar, i.e. they evoke the same semantic frame (Petruck). Another difference to Levin's or WordNet's (Fellbaum) classification is that verbs, nouns, and adjectives are all classified with respect to the same underlying semantic frame. Words are distinguished based on the frames they evoke. For example, *fill* is a lexical unit (LU), a word in one of its senses, which evokes the Filling frame, whose description specifies scenes in which containers are filled and areas are covered with some thing, things or substance (the Frame Element (FE) THEME). The area or container can appear as the direct with all these verbs, and is designated GOAL because it is the goal of motion of the THEME. Corresponding to its nuclear argument status, it is also affected in some crucial way, unlike goals in other frames. A frame-semantic description of *fill* includes the frame description, as well as a lexical entry summarizing how the FEs are realized syntactically, together with a list of annotated example sentences illustrating these uses.[5]

_____

[5] See Fillmore et al. and Boas, "Theory" for details.
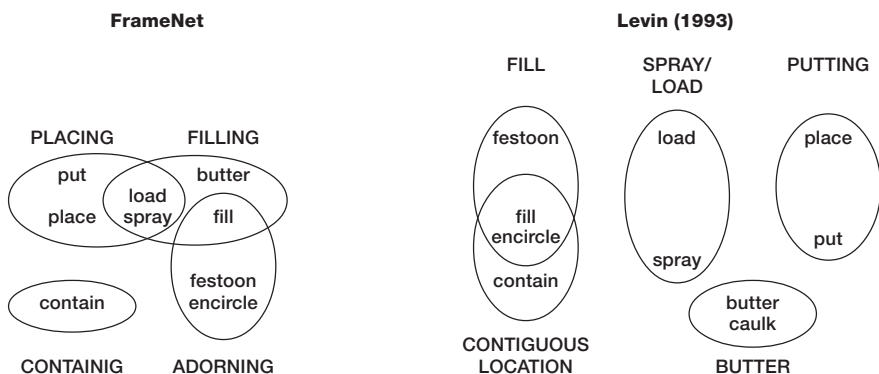
Figure 1: *Load*, *fill*, and related verbs in FrameNet and Levin. (Baker and Ruppenhofer 28)

In contrast to Levin, FrameNet does not view valence alternations as a primary means for identifying verb class membership. In fact, in FrameNet "verbs which share the same alternation might be represented in two different semantic frames" (Baker and Ruppenhofer 27). For example, FrameNet's Filling frame is evoked by both *fill* and *load*. *Load* additionally evokes the Placing frame, whereas *fill* also evokes the Adorning frame. This classification shows that Filling is causative (Theme-Object) and Adorning (Theme-Subject) is not. Figure 1 illustrates how Levin's account and FrameNet's approach classify verbs differently.

The main difference between the two approaches is that Levin regards a verb's syntactic ability to alternate as a deciding factor for verb class membership, whereas FrameNet does not. Thus, Levin does not allow alternating and non-alternating verbs in the same class, while FrameNet does. This difference in methodology leads to important variations in how verb classes are defined in the two approaches. For example, Baker and Ruppenhofer (31) discuss cases where Levin's verb class is narrower than the comparable frame underlying FrameNet's verb classification. They point out that Levin identifies verbs of putting and placing based on a verb's morphological relation to a noun denoting the goal location. Verbs that do not exhibit this morphological relation do not belong to the same class. FrameNet, however, does not apply such morphological principles to verb classification. Instead, it presumes that the incorporated argument is interpreted as an indefinite null instantiation (Fillmore,"Pragmatically"), i.e., it is implicitly understood. Verbs of putting and placing are thus classified differently by FrameNet than by Levin. This difference also leads to cases where Levin's verb classes are broader than FrameNet's classes based on frames. Baker and Ruppenhofer (31) discuss Levin's classes of social interaction, including *correspond*, *marry* and *meet* verbs, which are defined syntactically in terms of alternations indicating reciprocality, such as the Simple Reciprocal Alternation, the Understood Reciprocal Alternation, and the Collective Subject NP.

TABLE 1: SOME OF LEVIN'S VERBS OF SOCIAL INTERACTION. (BAKER AND RUPPENHOFER 32).		
CORRESPOND VERBS	MARRY VERBS	MEET VERBS
agree, argue, banter, bargain, bicker, brawl, clash, coexist, collaborate, collide, combat, commiserate, communicate, compete, concur, confabulate, (...), struggle,	*...court, cuddle, date, divorce, embrace, hug, kiss, marry, muzzle, pass, pet,*	*...battle, box, consult, debate, fight, meet, play, visit, ...*

TABLE 2: SYNTACTIC CRITERIA FOR IDENTIFYING VERB CLASSES IN LEVIN (*ENGLISH*). (BAKER AND RUPPENHOFER 31).	
Collective Subject NP	*The committee bantered/met*
Simple Reciprocal Alternation	*Pat bantered/met/*married with Kim*
Understood Reciprocal Object	*Pat married/met/*bantered Ki* *Pat and Kim bantered/married/met*

One problem with this methodology is that the alternations used to identify the verb classes are not diagnostics of reciprocality, according to Baker and Ruppenhofer. For example, they point out that the encoding of one argument slot by a reciprocal is also available with events that are not inherently reciprocal (cf. *Larry and Moe looked at each other*). More problems arise in cases when the actions of the participants are not directed at each other but are simply jointly or simultaneously undertaken, since plural, coordinate and collective subjects are also acceptable in such cases as in the following examples.

(19) John and Sue jogged.
(20) John jogged with Sue.
(21) The group jogged.   (Baker and Ruppenhofer 31)

These observations lead the authors to conclude that "verbs of social interaction, in so far as they are understood as involving reciprocal action of the participants, cannot be identified with the help of the above constructions", i.e. those in Table 2 (Baker and Ruppenhofer 31). Instead, they propose that semantic criteria are more useful to establish a coherent classification than syntactic criteria. To illustrate, Baker and Ruppenhofer discuss how FrameNet employs semantic criteria to classify Levin's verbs of social interaction (see Table 2 above). Among Levin's correspond verbs *argue*, *bicker*, *chat* and *gossip*, along with other communication verbs are classified as evoking the Communication_conversation frame because of their shared semantics. In contrast to Levin's classification, *struggle*

does not belong to the same class, but is classified as evoking the Hostile_encounter frame.

Baker and Ruppenhofer (33) also point out that not all syntactic frames occurring with verbs in Levin's classes constitute a heterogeneous semantic group. They show that the transitive and *with*-PP uses of verbs such as *box*, *play* and *meet* of Levin's (*English*) *meet*-class encode different types of meanings. Thus, *box* with a transitive syntactic frame in (22b) has more of a competition sense than *box* with a *with*-PP frame in (22a).[6] Other comparable meaning differences arise with *play* and *meet* in (23) because of the various syntactic frames, according to the authors.

> (22) a.   I ended up boxing with him.
>   b.   Tyson will box Lewis.

> (23) a.   My son played/met with your son.
>   b.   My son played/met your son.   (Baker and Ruppenhofer 32)

Data such as in (19)-(23) lead Baker and Ruppenhofer (33) to the conclusion that "the meaning which is to be associated with a Levin class is often hard to define. (...) In addition, many verbs are cross-listed in classes which pick out one aspect of their meanings but do not capture separate senses." To overcome such problems, the FrameNet approach relies on semantic criteria and would for each verb in (22) and (23) distinguish between two different lexical units, each evoking a separate semantic frame. For example, the *with*-PP frames of *box* and *play* in (22a) and (23a) would evoke a more general Activity frame, while the transitive frame in (22b) and (23b) would evoke the Competition frame (with parts of the semantics inherited from the Activity frame).[7]

On the whole, Baker and Ruppenhofer's arguments convincingly demonstrate that the importance of syntactic information for identifying verb classes has been overrated. Instead, detailed frame-semantic criteria offer a more coherent way of identifying shared meaning components, thereby leading to a more unified way of classifying verbs. At the same time, FrameNet captures the types of syntactic regularities described by Levin (*English*) by categorizing alternating verbs as two LUs evoking two different yet often related semantic frames. Nevertheless, what is still at issue here is the question of whether FrameNet's semantic classification of verbs can be improved to result in a more fine-grained semantic analysis capturing how specific meaning elements influence the syntactic realization of FEs. Consider, for example, verbs in the Self_motion frame such as *run*, *jog*, *walk*, *parade*, etc., which all evoke the same semantic frame yet differ quite widely in their idiosyn-

---

[6] In this paper, the term "frame" is used in two different ways. First, it denotes semantic frames that describe particular scenes or scenarios, including frame elements (FEs). Second, it denotes syntactic frames specifying syntactic order and phrase type, e.g., [NP V NP PP].

[7] See Johnson on inheritance relations.

cratic meanings. In the following section, I first follow Taylor in arguing that such semantic differences have syntactic repercussions. Building on insights from Boas ("Frame-semantic") I then argue that a verb's descriptivity (Snell-Hornby) influences the range of constructions in which a verb may occur. Finally, I outline a more fine-grained frame-constructional analysis of verbs in the Self_motion frame that allows us to explain how specific elements of meaning are syntactically relevant.

4. FINE-GRAINED FRAME-SEMANTIC COMPONENTS
THAT ARE SYNTACTICALLY RELEVANT

Taylor claims that an account of syntactic behavior should also include a characterization of encyclopedic knowledge. Arguing against the claims of Jackendoff (*Structures*), he discusses how the meanings of *run* and *jog* differ. He claims that the meaning of *jog* should be characterized against an Idealized Cognitive Model (ICM) (Lakoff) that stands for a particular lifestyle including health, fitness, physical well-being, and which is embraced by members of middle classes in affluent first-world societies. According to Taylor, the ICM of *jog* crucially differs from that of *run* in that a jogger typically jogs for exercise, jogging is not a competitive activity, and one does not jog to beat the world record or to beat fellow joggers. In contrast to *jog*, the essential meaning aspect of *run* is speed (it is faster than walking), involving more vigorous bodily movements. Taylor's main point is that although the two verbs occur in many identical syntactic environments, the differences in meaning between them actually have direct consequences for the syntactic environments in which they occur as the following examples illustrate.

(24) a.   Bruce ran against Phil.
      b.   *Bruce jogged against Phil.

(25) a.   He ran a mile in less than four minutes.
      b.   *He jogged a mile in less than four minutes.

(26) a.   The race will be run tomorrow.
      b.   *The race will be jogged tomorrow.

(27) a.   He ran to catch the bus.
      b.   *He jogged to catch the bus.

(28) a.   I've been running up and down all morning.
      b.   *I've been jogging up and down all morning.   (Taylor 27)

The difference in acceptability between (24a)-(26a) and (24b)-(26b) is caused by the absence of a competition component in the meaning of *jog*. Similarly, the unacceptability of (27b) vis-à-vis (27a) is explained by a particular conventionalized meaning inherent to *run*, but not to *jog*, i.e. the idea to move fast in order to reach a goal in a focused manner. Finally, the difference in acceptability between

(28a) and (28b) can be attributed to an interpretation associated with *run* (but not with *jog*) that implies some type of purpose or intended goal. Taylor summarizes his view of how detailed knowledge about a verb's semantics is relevant for its syntactic distribution as follows:

> At the end of the day, it is our knowledge of what jogging actually is —knowledge which in turn is based in stereotypical conceptions of postindustrial lifestyles, and which goes way beyond the action pattern stereotypes that Jackendoff envisages— that motivates the kinds of contexts in which the word jog can be appropriately used, in contradistinction to those contexts in which run is appropriate. (Taylor 32)[8]

Following Taylor's ideas, Boas ("Frame-semantic") analyzes the syntactic distribution of a wider range of motion verbs to determine to what degree a verb's meaning influences its syntactic distribution. Boas observes that the Self_motion frame is evoked by a wide array of verbs whose semantics differ considerably from each other. To capture the differences in meaning between these verbs and to develop a more principled distinction between meaning components in Frame Semantics, he adopts Snell-Hornby's notion of verb descriptivity. It distinguishes two main meaning components: the act nucleus (ANu) and the modificants (Mod). For example, the act nucleus of the verb *strut* constitutes the underlying semantics shared by all verbs evoking the Self_motion frame. This meaning is typically associated with the most prototypical verb of that frame, in this case *walk*. In contrast, the modificant, also known as the modifying adverbial, is a semantic bundle further analyzable into distinct physical characteristics (*stiff*, *erect*), and (negative) value-judgments passed on the character of the agent and his manner of walking (*self-satisfied*, *proud*, *pompous*, *with affected dignity*). Verbs such as *strut*, which exhibit a high degree of verb descriptivity are called descriptive verbs (DVs) (Snell-Hornby 25-26; Boas, "Frame-semantic" 138). To capture the relationship between the two meaning components, Snell-Hornby proposes the formula in (29), where *x* is understood "as an optional element without evaluative properties and not expressible in terms of adjectives or manner adverbs" (25-26).[9]

---

[8] See Iwata's lexical-constructional approach for further arguments that particular meaning components are grammatically relevant. Arguing against Pinker, Iwata demonstrates that the syntactic distribution of manner-of-motion verbs crucially depends on the make-up of the MANNER component. On this view, image-schematic structures associated with a verb's sense plays a crucial role in determining whether verbs such as roll and bounce can alternate or not *(roll the doll into a blanket vs.?bounce/?slide/?*skid the doll into a blanket, roll a blanket around the doll vs. *bounce/?slide/*skid a blanket around the doll)*.

[9] According to Snell-Hornby, there are two different types of verb descriptivity: direct verb descriptivity describes scenes in which the modificant refers directly to the activity described by the verb, as in *shout*. Indirect verb descriptivity captures scenes in which "the modificant refers to a participant (or participants) or a circumstance (or circumstances) behind the action or a combination of these," as is the case with a speaker's value judgments about the agent of a verb such as *strut*

(29)   DV = ANu + Mod (+x)

Snell-Hornby points out that the relationship between the act-nucleus and the modificant is crucial in determining the degree of verb descriptivity. Thus, a verb has a higher degree of descriptivity whenever the modificant takes up more semantic weight vis-à-vis the act-nucleus. An example of a highly descriptive verb discussed by Snell-Hornby is *bustle*, where the act-nucleus is not clearly definable, and can best be paraphrased as *behave*, *move about*. In contrast, the modificant of *bustle* is clearly definable and complex, involving descriptions such as *excitedly*, *energetically*, *often with apparent purpose, but usually noisily or inefficiently*. *Shout* is a verb low in descriptivity because its modificant is relatively simple when compared to modificants of highly descriptive verbs such as *bustle*, describing the activity only as *loudly*. In this case, the modificant of *shout* does not take up more semantic weight vis-à-vis the act-nucleus, which can be described as *say*, *speak* or simply *cry out* (Snell-Hornby 33-34; Boas, "Frame-semantic" 139).

Reviewing the syntactic range of some verbs, Snell-Hornby claims that "the higher the degree of descriptivity (in other words the more that it is specified by the modificant), the narrower the verb's range of application is likely to be" (35). Boas ("Frame-semantic" 141-145) tests Snell-Hornby's proposal by integrating it into Frame Semantics to determine the range of descriptivity of LUs evoking the Self_motion frame.[10] He starts by comparing dictionary definitions of *walk*, *parade*, *totter* and *stagger*, all of which evoke the *Self_motion* frame, in order to get an indication of the semantic make-up of the Self_mover of each verb. He finds a wide range in how the Self_mover is described for each of the four LUs.[11] While the description of the Self_mover of *walk* only implies that someone is moving on foot, the description of the Self_mover of *parade* presents a close-up view of the moving activity, focusing on the individual steps taken in a controlled regular manner, often in an energetic way and as a part of a procession to show off. The Self_mover of *totter* is different in that its steps deviate from the norm of regular intervals, often having difficulties to maintain an upright position, which may be the cause of weakness or intoxication. Finally, the Self_mover of *stagger* appears to have even less control over its movements than the Self_mover of *totter*. Its steps are even less controlled while its upright posture is not maintained easily, often due to balancing problems. Based on these differences, Boas ("Frame-semantic" 142) proposes a ranking of the four LUs according to their degree of descriptivity.

(see above). This type of descriptivity is usually made up of dynamic adjectives, which are susceptible to subjective measurement and express a distinct attitude of the speaker, i.e. speaker-evaluation (Snell-Hornby 30; Boas "Frame-semantic" 138). For further details, see Snell-Hornby (30-66) and Boas ("Frame-semantic" 137-140).

[10]   Definition of Self_motion frame: The Self_mover, a living being, moves under its own power in a directed fashion, i.e. along what could be described as a PATH, with no separate vehicle.

[11]   In this paper I use the term "verb" to mean a verb in one of its senses, evoking a particular semantic frame. Thus, I use the terms "verb" and "lexical unit (LU)" interchangeably.

Table 3: LUs in the Self_motion frame ranked by their degree of descriptivity (Boas,"Frame-semantic" 142).		
Verb	ANu	Mod
walk	**AG** [S→P→G]	(a, ...)
parade	**AG** [S→P→G]	(a, b, c, ...)
totter	**AG** [S→P→G]	(a, b, c, d, ...)
stagger	**AG** [S→P→G]	(a, b, c, d, e,...)

The middle column in Table 3 represents in a very schematic way the act-nucleus common to all four LUs. In this case, the act-nucleus coincides with the semantics of the Self_motion frame and all of its relevant world knowledge. The schematic representation indicates that an AGENT (AG) (i.e., the Self_mover) is moving from a SOURCE (S) along a PATH (P) towards a GOAL (G). The decreasing font size represents a lesser prominence of the act-nucleus, i.e., the schematic directed motion semantics associated with the Self_motion frame. Thus, the semantics of the act-nucleus is most prominent in the meaning of *walk* (which may be regarded as the most prototypical verb evoking the frame), and the least prominent in the meaning of *stagger*. The column on the right side in Table 3 represents the prominence of the modificant in a verb's meaning. For example, the modificant of *walk* contains only very few semantic attributes, such as *using feet*, and perhaps *upright posture*. The small font size indicates that the modificant is only of minor weight vis-à-vis the act-nucleus; hence *walk* exhibits a relatively low degree of verb descriptivity. In contrast, *parade* exhibits a comparatively higher degree of descriptivity, indicated by more semantic attributes contained in its modificant and a concomitantly larger font size (Boas, "Frame-semantic" 143).

Table 3 illustrates the idea that a verb's semantics can only encode a certain "amount" of modification vis-à-vis its act-nucleus, and not more. Located on opposite ends of what I call the descriptivity continuum there are two divergent ways of expressing the combined semantics (act-nucleus and modificant) of verbs in the Self_motion frame. On one end we find verbs with a relatively low level of descriptivity such as *walk*. The meaning of such verbs consists of a very prominent act-nucleus and a very minimal modificant. On the opposite end of the continuum we find verbs with a very high level of descriptivity such as *bustle*, with a modificant so detailed and prominent that its act-nucleus is rather vague and is only implicitly understood.[12] Other verbs in the Self_motion

HANS BOAS

---

[12] This description is only for the Self_motion frame. While I suspect that similar tendencies can be observed among verbs in other frames, I do not claim that the same dynamics hold for these other frames. I expect further research to show that the variables and attributes will differ between frames, as will the descriptivity continuum with respect to the specifications for the modificant.

frame are located between these two opposite ends of the descriptivity continuum, with the prominence of a verb's act-nucleus depending on the extent of its modificant.

With this systematic way of analyzing verb descriptivity in hand, Boas ("Frame-semantic" 143-145) explores whether there is a correlation between the degree of descriptivity and the types of syntactic patterns in which a LU can occur. To this end, he investigates whether the four LUs discussed above can appear in a number of grammatical constructions and alternations discussed by Levin. They include (1) zero-related nominals corresponding to the inclusion of a location PP with the respective verbs (*Gerry walked down the street/a walk*), (2) the resultative construction (*Cathy walked {herself to exhaustion/Pat off the street}*) (Levin 1993: 99), (3) the locative preposition drop alternation (*Julia walked across the town/Julia walked the town*) (Levin 43-44), (4) the induced action alternation (*Claire walked the dog down the street/The dog walked down the street*) (Levin 31), and (5) adjectival passive participles (*the walked dog*) (Levin 86-87).

Table 4 summarizes his findings with respect to the ability of *walk*, *parade*, *stagger*, and *totter* to occur in these syntactic patterns.

TABLE 4: SUMMARY OF SYNTACTIC DISTRIBUTION OF *WALK*, *PARADE*, *STAGGER*, AND *TOTTER* (BOAS, "FRAME-SEMANTIC" 144).				
	WALK	PARADE	STAGGER	TOTTER
Location PP	+	+	+	+
Zero-related Nominal	+	+	+	+
Resultative Construction	+	?	-	-
Caused-motion Construction	+	-	-	-
Preposition Drop Alternation	+	+	-	-
Induced Action Alternation	+	+	-	-
Adjectival Passive Participle	+	??	-	-

A comparison of Table 4 with Table 3 shows that there is indeed a correlation between a LU's level of descriptivity and the range of syntactic constructions in which it may occur. More specifically, LUs with a low level of descriptivity such as *walk* occur in a wider range of syntactic contexts than LUs with a higher level of descriptivity such as *totter* (Boas, "Frame-semantic" 144). Although there is an obvious correlation between a LU's level of descriptivity and the range of syntactic constructions in which it occurs, a number of open questions remain. First, does this correlation only hold for the four LUs investigated by Boas, or also for a wider range of verbs evoking the Self_motion frame? Second, how do we go about systematically integrating detailed descriptions of a LU's level of descriptivity, i.e., the make-up of its modificant, into existing semantic frames? Finally, are there any particular mean-

ing components of LUs that contribute more to a verb's descriptivity than other components and thereby have a direct impact on a LU's syntactic distribution?

4.1. Correlation between verb descriptivity and range of syntactic patterns

To answer these questions, let us first consider the syntactic distribution of a larger number of LUs. To this end, I expand Table Y by including sixteen additional LUs evoking the Self_motion frame, namely *amble*, *bustle*, *crawl*, *creep*, *frolic*, *hike*, *jog*, *jump*, *limp*, *meander*, *scurry*, *swim*, *trot*, *wade*, *waltz*, and *wander*. Table 5 summarizes their syntactic distribution with respect to the seven syntactic patterns discussed by Boas ("Frame-semantic").

TABLE 5: SYNTACTIC DISTRIBUTION OF 20 LUS IN THE SELF_MOTION FRAME.									
	walk	parade	amble	meander	wander	hike	jog	stagger	totter	limp
Location PP	+	+	+	+	+	+	+	+	+	+
Zero-related Nominal	+	+	-	-	+	+	+	+	+	+
Resultative Construction	+	?	-	-	-	+	+	-	-	-
Caused-motion Construction	+	-	-	-	-	-	+	-	-	-
Preposition Drop Alternation	+	+	+	-	+	+	+	-	-	-
Induced Action Alternation	+	+	-	-	-	-	-	-	-	-
Adjectival Passive Participle	+	?	?	-	-	-	-	-	-	-

TABLE 5 CONTINUED									
	jump	waltz	wade	swim	scurry	trot	frolic	crawl	creep	bustle
Location PP	+	+	+	+	+	+	+	+	+	+
Zero-related Nominal	+	+	+	+	+	+	+	+	+	+
Resultative Construction	+	+	-	+	-	-	-	-	-	+
Caused-motion Construction	-	+	-	-	-	-	-	-	-	+
Preposition Drop Alternation	+	-	-	+	-	-	-	-	-	-
Induced Action Alternation	-	+	+	-	-	-	-	-	-	-
Adjectival Passive Participle	-	-	-	-	-	+	-	-	-	-

Table 5 shows that the twenty LUs fall into roughly four groups with respect to their syntactic distribution. The first group is syntactically the most flexible and includes only *walk*. Members of the second group, including *jog*, *jump*, and *waltz*, are a bit less flexible syntactically. The third group includes LUs that are even less flexible, i.e. *bustle*, *hike*, *parade*, *swim*, and *wander*. Finally, the fourth group includes the least flexible LUs, namely *amble*, *crawl*, *creep*, *frolic*, *limp*, *meander*, *scurry*, *stagger*, *totter*, *trot*, *wade*, and *wander*. Interestingly, there is a correlation between verb descriptivity and syntactic distribution as the following discussion of the meaning differences between these twenty LUs shows.

As argued above, *walk* differs from all other LUs in the Self_motion frame in that it is the least descriptive. Besides evoking the basic semantics of the frame (represented as the act-nucleus, see above), it does not offer much more information about the motion event except for that it takes place on foot, presumably at a normal speed, and with an upright posture. The absence of further inherent meaning suggests that the modificant of *walk* is very minimal vis-à-vis its act-nucleus. Support for this view comes from the broad semantic range of DEPICTIVE and MANNER FEs providing further details about the many different ways of walking. Examples of these FEs found in FrameNet include *with the sinuous grace of a cat*, *in a daze*, *with posed uncertainty*, *calmly*, *fiercely*, *aerobically*, *springily*, *silently*, *purposefully*, *like drunk soldiers in from the war*, *quickly and secretly*, and *curiously*. These semantic specifications cover a wide range of concepts, such as agility, different types of mental states, level of energy and intensity, intent, speed, disguise, loudness, and interest. In my view, these semantic specifications are possible only because the modificant of *walk* is very minimal and does not imply any type of meaning that would be incompatible as is the case with verbs that are more descriptive. Compare, for example, the unacceptable semantic specification of the modificant of *bustle* as in **Kim bustled calmly out of the house*, where *calmly* is incompatible with the implied meaning of the modificant of *bustle* specifying it as *energetically*, *excitedly*, etc. I thus regard the broad variety of possible modifications of *walk* as an indicator of its low level of descriptivity.

Members of the second group differ from *walk* in that their modificants are slightly more complex. They provide up to three additional meaning components specifying concepts that can either be measured on a scale (e.g., speed, level of energy, casualty), or that are binary opposites of each other (e.g., feet on the ground/ feet not on the ground). For example, *jog* implies a higher speed than *walk* combined with an element of exercise. *Jump* denotes quickness and suddenness, implying that the feet leave the ground. In addition, both verbs express a higher energy level than *walk*. *Waltz* is different from *walk* in that its modificant expresses lightness, casualness, or inconsiderateness, thereby contributing more meaning to the act-nucleus. The make-up of these slightly more complex modificants can be tested by inserting DEPICTIVE and MANNER FEs that express incompatible information vis-à-vis the modificants. This is relatively simple in cases where the concepts involve binary opposites such as *feet on the ground/feet not on the ground* (cf. **He jumped with his feet on the ground*) or *exercise/no exercise* (**They jogged around the track without exercising*). In cases involving concepts measured against scales it is not as easy to find DEPICTIVE and MANNER FEs that are straightforwardly incompatible, as

is illustrated by *They jogged slowly around the track* or *?She waltzed out of the house with a limp*.

LUs belonging to the third group exhibit a higher level of descriptivity than the previous two groups because their modificants are even more complex, providing up to six additional concepts that modify the act-nucleus. For example, the modificant of *hike* implies several concepts that are not combined in such a way in any of the other LUs discussed so far. These include (1) duration and distance (a hike is typically longer than a walk or a jog), (2) purpose (one typically hikes for recreational reasons), (3) location (hiking usually takes place outdoors, often in forests or mountains), and (4) path (hiking typically takes place along a predetermined path). The modificant of *parade* also exhibits a more complex combination of concepts, involving (1) display (usually intended to be viewed publicly), (2) organization (typically a (long) moving line of people or vehicles), (3) celebration (often performed on special occasions to express pride), (4) uniformity (all units of a parade move at the same speed and perform specific activities simultaneously or according to a choreographed plan), (5) path (parades typically move along a predetermined path), and (6) place (often in a square, down a street, outside of a building, or in front of a particular person). There is an interesting difference between the six concepts implied by the modificant of *parade*. The first four concepts can all be subsumed under the FE MANNER of the Self_motion frame and are implicitly understood. This explains why *parade* in its default interpretation does typically not appear with any additional phrases providing information about display, organization, celebration, and uniformity. Thus, such additional information is only expressed when there is a particular need for it, such as profiling a specific aspect of a scene described by *parade* that is either non-prototypical, or so important to the speaker that it deserves mentioning in that context. In contrast, the other two concepts that make up the modificant of *parade* are directly connected to the FEs PATH and PLACE. They are usually more relevant as they provide crucial information that help distinguish the types of PATH and PLACE FEs from those of other LUs in the Self_motion frame.

Members of the fourth group display the highest level of descriptivity because their modificants are the most complex among the twenty LUs discussed here. The modificants of *amble*, *meander*, and *wander* describe the motion as it were from a distant perspective. Snell-Hornby (133) proposes that these LUs do not provide information about the physical properties of the agent (as is the case with *limp*) or details of his gait (as is the case with *jump*). Instead, they focus "on the background, the atmosphere, and the agent's attitude, typically favoring an outside setting, usually over a wide area, and without prescribing any particular goal or any impediment to terminate the action." More specifically, *amble* implies a leisurely, easy-going attitude of the Self_mover, an easy pace and even movement, and a positive evaluation by the speaker. In contrast, *meander* describes motion or progress that is random or casual, while *wander* indicates movement over a larger area, focusing on an unsettled aimlessness, without route or destination, usually slow or idle in manner (cf. Snell-Horny 134).

Next, consider *limp*, *stagger*, and *totter*, whose modificants describe a deviant or impeded mode of walking, caused either by the agent's physical or mental state, or by external factors. More specifically, *limp* indicates irregular, laborious walking caused

by lameness or injury. Often, this is caused by a disability and the speaker evaluation is typically sympathetic towards the Self_mover. In contrast, both *stagger* and *totter* describe unsteady movements. The modificant of *stagger* involves unsteady, irregular movement and uncertain balance of someone not in complete control of the movement, usually caused by intoxication, a serious injury to the head, or a heavy weight carried by the Self_mover. The modificant of *totter* focuses on the coordination of movement by describing a feeble, shaky walk, as of an agent who has lost control of his movement (in particular lack of coordination and control of the limbs) (cf. Snell-Hornby 139). Finally, consider *frolic*, *scurry*, and *trot*, which involve a more extensive movement of the body and thus typically require agility or a higher level of energy. The modificant of *trot* focuses on the ease of running with quick and short steps, typically covering only short distances and sometimes involving hurriedness (I leave out the use of *trot* to denote the movement of a horse). The modificant of *frolic* is different from that of *trot* in that it involves moving around at a fast speed while playing, with a positive evaluation by the speaker. In addition, it indicates play of a less boisterous and more joyful nature (as opposed to *romp*), typically of small animals. The modificant of *scurry* evokes a different set of concepts, involving short quick steps of a very small animal such as a mouse or a squirrel. When used to describe the movement of humans, it usually refers to the hurried activities of frightened people moving fast to accomplish their goals (cf. Snell-Hornby 140-142). The last set of highly descriptive LUs includes *crawl* and *creep*. These are particularly interesting because their modificants describe a number of concepts not found in this combination in the modificants of other LUs. The modificant of *crawl* typically evokes the concepts of slowness, laborious motion, proximity to the ground, horizontal body posture (on hand and feet), loss of control (by injured or intoxicated people who cannot more standing up), age (typical of babies), and insects.[13] The modificant of *creep* also implies slowness, but in addition emphasizes quietness, caution, secrecy, and the intention of the SELF_MOVER to escape attention while moving (cf. Snell-Hornby 142).

   In sum, comparing the level of verb descriptivity among twenty verbs in the Self_motion frame, I have identified four groups of verbs according to their level of descriptivity. Taking these results and comparing them with the syntactic range in which the verbs occur (see Table 5) answers our first question, i.e., it confirms Boas' proposal that a verb's level of descriptivity appears to influence the range of syntactic patterns in which it can occur.

4.2. COMBINING FRAME SEMANTICS, VERB DESCRIPTIVITY, AND COMPONENTIAL ANALYSIS

   Answering our second question about whether it is possible to systematically integrate detailed descriptions of a LU's level of descriptivity, i.e., the make-up of its

---

[13] See Fillmore and Atkins for further details.

modificant, into existing semantic frames proves to be more complicated, because we do not yet have a systematic way of identifying and measuring the types of concepts that make up the modificants of the verbs discussed above. However, classifying such meaning components in a way that they can be compared, and perhaps even weighed against each other, is a necessary prerequisite for determining their relative status vis-à-vis each other and with respect to their influence on syntax.

One way of classifying meaning components and the concepts they represent would be to apply the methods of componential analysis as proposed by Katz and Postal, Bierwisc, Hundsnurschner, and Nida, among many others. Adherents of this approach compare and contrast related words and summarize their similarities and contrasts in terms of distinctive semantic components (similar to distinctive features in phonology). For example, a set of words describing humans such as *man*, *woman*, *boy*, and *girl* can be distinguished from each other like binary opposites with the minimal semantic features +/- MALE and +/- MATURE. This approach is successful because it allows a highly explicit and economical account of meaning relations such as hyponymy and incompatibility. At the same time, these semantic features are not intended to describe the full meaning of words, but only those aspects of meaning that are in opposition to each other. Another problem with this approach is that features are purely provisional and always need to be revised depending on the granularity of the analysis, thereby leading to potential circularity. Componential analysis has also been criticized because there are no attempts to standardize the inventory of semantic features or to constrain its size (Goddard 49-50). Snell-Hornby observes that some aspects of componential analysis are applicable to the analysis of descriptive verbs, while others are not. For example, she claims that semantic features lend themselves quite frequently to the analysis of the act-nucleus of descriptive verbs whenever the "components refer to extra-linguistic phenomena of the physical world that are expressible in binary opposites" (63). However, she also points out that componential analysis is not that successful when it comes to hazier areas of subjective evaluation, an important part of the meaning of descriptive verbs. Snell-Hornby supports her critique by pointing to Wotjak's study of 44 German motion verbs, which analyzes their meanings in terms of binary opposites as well as defining words providing more specific information. She argues that the column referring to speed is inadequate, because it only allows a plus or minus specification of *schnell* ('fast'). In her view, such an analysis is insufficient because speed is a relative term that should be expressed by gradation on a scale. She concludes that, although Wotjak's system of binary opposites is quite capable of modeling the meaning components that make up the semantics of the act-nucleus in her framework, it does not provide the necessary means to characterize the details of the modificants appropriately. Interestingly, Snell-Hornby does not offer a "more precise terminology" (64) for characterizing the modificant beyond her introduction of "dynamic adjectives, which are themselves elements of language, relative and not absolute, and dependent on precise wording" (65).

Despite these problems with identifying and measuring meaning elements in the modificant, I propose to develop a preliminary classification system combining insights from componential analysis, Snell-Hornby's approach, and Frame Se-

mantics. This method will allow us to identify semantic features as well as gradable adjectives, both of which are specific meaning elements that need to be understood against the background knowledge of semantic frames. To this end, I focus on four LUs evoking the Self_motion frame, namely *crawl*, *jog*, and *totter*, and *wander*. All four LUs share the same act-nucleus, i.e. the underlying semantics of the Self_motion frame. As such, the components of the modificants must be understood against the semantics of that frame. The discussion is structured as follows. I first isolate the semantic features that set the four LUs apart, focusing on those which can be used to provide more details about the semantic make-up of FE Self_mover. Then, I discuss aspects of meaning that cannot be clearly captured by binary semantic features, focusing again on the Self_mover, which results in a list of descriptors with specific values. A number of points are important to keep in mind. First, the semantic analysis is only an approximation and should not be regarded as the final product. Second, the values of some features and descriptions used to characterize the modificant should only be regarded as default information representing a prototypical instance of that meaning component, which can be modified given the appropriate context. Finally, some features and descriptions do not apply to the analysis of specific LUs since their modificants do not contain any aspect of that particular meaning element.

I begin with those meaning elements of the modificant which provide detailed information about the Self_mover, illustrated in Table 6. The first four rows of Table 6 employ semantic features characterizing the modificant of the four LUs. The first feature "on feet" captures the fact that the Self_mover of *jog*, *totter*, and *wander* moves on its feet, while that of *crawl* does not. The second feature "laborious motion" differentiates *jog* and *totter* from *crawl* and *wander*. The third and fourth feature, "steady movement" and "controlled body movement" set *totter* apart from *crawl*, *totter*, and *wander*. The last four rows in Table 6 contain gradable descriptors used to characterize those aspects of the modificant that cannot be described successfully with semantic features. Each of these descriptors are measured against a scale with opposite ends whose middle value is somewhat equal to the meaning of the prototypical LU of that frame, namely *walk*. Consider the descriptor "speed" in Table 6 which is specified as "slower than walking" for *totter*. This specification differs from the one for *jog,* which is comparatively higher on the scale. In contrast, the speed of *crawl* is specified as "flexible," capturing the fact that this LU is not inherently specified for a particular value. The descriptor "energetic" does not apply to *wander*; hence there is no specification for it (the same holds for "steps," "posture," and "speed"). In contrast, the descriptor "mood" only applies to *wander* because its Self_mover is typically aimless. The other three LUs do not describe any particular mood of the Self_mover, which is why the remaining cells in Table 6 are left blank.

It is important to keep in mind that when a meaning element is not specified this does not entail that a particular descriptor does not apply to a FE. Instead it means that the modificant of that verb does not provide that meaning element. For example, the absence of a specification for "mood" for *crawl* does not entail that its Self_mover does not have a particular mood. It just means that the modificant of *crawl* does not

provide any such specific meaning element. At the same time, this meaning element can be provided by context (e.g. *The baby crawled happily to her mother*).

TABLE 6: SEMANTIC FEATURES AND DESCRIPTORS CHARACTERIZING THE SELF_MOVER[a]				
	crawl	jog	totter	wander
on feet	-	+	+	+
laboriousmotion	-	+	+	-
steady movement	+	+	-	+
controlled body movement	+	+	-	+
speed	flexible	rather quickly	slower than walking	
energetic	regular	very	less than walking	
steps	Short	longs	horter than walking	
posture	horizontal	vertical	bent over	
mood	aimless			

[a] I have not included other meaning elements such as "speaker evaluation," "age," or "fitness" in the description of the modificant of the SELF_MOVER. These elements, as well as many others, should be included in future work to determine their syntactic relevance.

Note that the data in Table 6 serve only to compare and contrast four LUs in the Self_motion frame against each other. As such, the list of features and descriptors in Table 6 serves only as a first step towards systematically characterizing the modificants of all LUs in the Self_motion frame. It will grow as the analysis is extended. For example, expanding the list of LUs in Table 6 to include *waddle* and *shamble* would necessitate the inclusion of the descriptor "speaker evaluation" and the feature "dragging feet." Similarly, an analysis of *stumble* and *trip* would lead us to incorporate the feature "external obstruction" into Table 6. Besides including in our account the full range of LUs of the Self_motion frame, it will also become necessary to provide a detailed analysis of other FEs. Applying the same methodology as above will yield a clearer picture of the semantic make-up of the modificant, including information about the features and descriptors that characterize all other FEs. For example, the FE PATH can be characterized in the modificant by including a semantic feature "clear and directed." *Totter* and *wander* would have a minus specification while *crawl* and *jog* would have a plus specification. Similarly, the size of the FE AREA of *wander* can be characterized as "large," while *crawl*, *jog*, and *totter* do not provide specific information about this FE.

Clearly, our discussion of the SELF_MOVER is only a first approximation of its semantic make-up. At this point, it is not clear how large the inventory of features and descriptors will be. Earlier studies on componential analysis by Wotjak

and by Nida suggest that it will be rather extensive. The challenge will not only be to arrive at a complete inventory capable of characterizing the modificants of all LUs in a frame. In addition, we will be interested in capturing generalizations across frames to see whether certain parallels emerge. For example, the descriptor "mood" used to characterize *wander* in Table 6 also appears to be an integral part of the modificant of the LUs in the Complaining frame, such as *bitch*, *complain*, *grumble*, and *whine*. While I have shown that it is in principle possible to integrate important aspects of componential analysis and verb descriptivity into Frame Semantics to arrive at a more systematic characterization of the similarities and differences between LUs in the same frame, some important tasks remain. First, how do we go about thoroughly integrating detailed descriptions of a LU's level of descriptivity, i.e., the make-up of its modificant, into existing semantic frames? While the preliminary analysis of four LUs from the Self_motion frame has highlighted some crucial differences between features and descriptors, we still need to develop a thorough methodology that allows us to combine the various types of information. Second, we need to develop more sophisticated strategies to methodically discover and determine the list of features and descriptors that make up the modificant. Prior studies in this area by Bülow, Hundsnurscher, Wotjak, Nida, and Meliss, among others, will be instructive. Third, we are interested in finding methods that will help us "weigh" components of verb meaning against each other to determine what aspects of a verb's semantics is most relevant, both in its default context as well as in other contexts. Achieving this goal will make it possible to overcome one of the main problems with traditional componential analysis, that is, the fact that bundles of features are of evenly distributed importance. Finally, and perhaps most interesting, is our third research question formulated above, i.e., are there any particular meaning components in a verb's meaning that directly influence its syntactic distribution? In the following section I briefly outline the cornerstones of a frame-constructional approach that seeks to answer this question.

4.3. Syntactically relevant units of meaning in a frame-constructional approach

Instead of focusing on abstract meaning components such as LCSs to determine a verb's syntactic distribution, I propose to pay close attention to the structure of its modificant. More specifically, I am interested in identifying a particular combination of semantic features and descriptors that directly influence a LU's syntactic distribution in a specific grammatical construction. To illustrate, consider the distribution of the LUs in one of the constructions discussed in Tables 4 and 5 above, namely the English Resultative Construction.

The resultative has received a great deal of attention (Jackendoff, *Structures*; Goldberg, *Constructions*, *Work*; Levin and Rappaport Hovav, *Argument*; Boas, *Constructional*; Goldberg and Jackendoff; Boas, "Determining"; Wechsler) because it is not fully productive and appears to apply only selectively to specific classes of verbs. For example, Goldberg (*Constructions, Work*) posits an independently exist-

ing resultative construction with its own meaning that is capable of fusing with senses of verbs, thereby providing additional semantics and allowing verbs to occur with the syntactic pattern of the resultative as in *Lena walked herself to exhaustion* or *Claire sneezed the napkin off the table*. Goldberg's constraints on the application of the resultative construction appear to be very detailed at first sight. However, Boas (*Constructional*, "Determining", "Theory") points out a broad range of counterexamples where some verbs can occur in the resultative while others closely related in meaning cannot. This observation leads him to suggest that Goldberg-style constructions are not sufficient for explaining the distribution of resultatives from the perspective of encoding (as opposed to decoding). Instead, Boas (*Constructional*) proposes so-called mini-constructions in which each sense of a verb constitutes its own conventionalized pairing of form and meaning, together with appropriate syntactic, semantic, and pragmatic subcategorization restrictions. This alternative account provides detailed event-based frame semantic information for each mini-construction that allows Boas to explain the distribution of the resultative appropriately.

Adopting the idea that mini-constructions inherently specify their subcategorization restrictions allows us to view our data above in a new light. Parallel to Boas' (*Constructional*) analysis I suggest that the combination of act-nucleus and modificant constitute the semantic core of a mini-construction (i.e., the sense of a verb). Assuming that all LUs in a frame share the same act-nucleus it then becomes possible to focus on the make-up of the modificant of each individual LU to isolate meaning components that are syntactically relevant. That is, when looking at the syntactic distribution of the four LUs discussed in Table 6 above, we see that *jog* appears with a resultative pattern, while *crawl*, *totter*, and *wander* do not, as the following data illustrate:

> (30) a.   Kim jogged Pat off the street.
>   b.   *Kim crawled Pat off the blanket.
>   c.   *Kim tottered Pat off the sidewalk.
>   d.   *Kim wandered Pat off the street.

Using these data we are now interested in identifying meaning components in the modificants of the four LUs to see whether they may influence their distribution in the resultative construction. Comparing the values of the semantic features in Table 6 suggests that they do not directly influence the syntactic distribution. Thus, while *jog* has positive values for all four features "on feet", "laborious motion," "steady movement," and "controlled body movement," the other LUs all have a varied distribution that do not appear to make any differences at first sight. Taking a look at the descriptors of the four LUs we see that *jog* differs from the other three LUs in that it has a higher speed and is also associated with a higher level of energy. To test whether these descriptors might be relevant for syntactic distribution in the resultative I provide additional information through context as in the following examples:

(31) a.   Kim jogged Pat off the street.
      b.   Kim was excited and crawled very fast. Kim crawled Pat off the blanket.
      c.   ?Kim was drunk and wanted to walk fast to get home. When exiting the bar, Kim tottered Pat off the sidewalk.
      d.   *Kim didn't know where she was going and moved around quickly. By accident, Kim wandered Pat off the street.

In contrast to (30b), the basic semantics of the modificant of *crawl* in (31b) is amended by contextual background information about the activity, more specifically the higher degree of speed and energy of the SELF_MOVER. The addition of this information from the prior sentence changes the default value of the "speed" and "energetic" descriptors of *crawl* to become closer to the values associate with *jog*. It is because of this additional background information that (31b) sounds more acceptable than (30b). Similarly, *totter* in (31c) sounds a bit more acceptable than in (30c), yet not as acceptable as *crawl* in (31b). This difference is probably due to the difference in semantic similarity between *jog*, *crawl*, and *totter*. While contextual background information provides a different value for "speed" and "energetic" to both *crawl* and *totter* in (31b) and (31c), it does not provide information to change the semantic features "steady movement" and "controlled body movement" from minus to plus for *totter*. As such, even the amended modificant of *totter* is too different from the modificant of *crawl* or *jog*, both of which exhibit positive values for "steady movement" and "controlled body movement." This example suggests that although semantic default information encoded in the descriptor of the modificant can be changed by contextual background information this is not the case for binary semantic features. Finally, consider wander in (31d), which remains unacceptable in the resultative despite additional contextual background information. Perhaps one of the reasons why the modificant of *wander* is not open to contextual background information is that its descriptor is not assigned any value at all. As such, it may not allow modification that would change its basic meaning to be closer to that of *jog* (or the prototypical LU of the frame, *walk*). This point, like so many others discussed in this section, requires further investigation.

Despite the preliminary nature of my analysis, I hope to have shown that certain meaning elements of the modificant are more relevant for syntactic behavior than others. The limited data on the ability of four LUs from the Self_motion frame to occur in the resultative construction suggest that the descriptors "speed" and "energetic" are relevant for determining whether an LU can occur in the resultative. The preliminary data also illustrate that contextual information can override the default values of descriptors more easily than that of semantic features. This difference is probably due to the fact that the values of descriptors are measured against a scale, and can thus be modified, while the values of semantic features are either plus or minus, and can thus not be amended.

5. CONCLUSIONS AND OUTLOOK

I have argued that frame-semantic information directly influences a verb's ability to occur in grammatical constructions, hence my label "frame-constructional." Combining key insights from Frame Semantics, verb descriptivity, and componential analysis has led me to propose a methodology for systematically identifying syntactically relevant units of meaning. Differentiating between a more general act-nucleus and a more specific modificant (made up of semantic features and descriptors) also helps us to distinguish the semantics of LUs in the same frame from each other in a more precise way. In my view, this bottom-up usage-based approach overcomes many of the shortcomings of other analyses discussed in sections 2 and 3 above.

Clearly, my alternative proposal is only a first step towards a more comprehensive frame-constructional account of verb classification. To develop this approach further, future work will first have to provide a complete analysis of all LUs in the Self_motion frame, similar to the methodology sketched out above. This phase will focus on the ability of these LUs to occur in the resultative construction alone, thereby identifying additional relevant meaning components. One of the main obstacles ahead will be the search for a more vigorous methodology that goes beyond the relatively unstructured use of contextual background information as in (31) to identify meaning components. Once the relevant meaning elements are identified, a procedure must be devised that allows us to measure them against a scale. This will allow us to determine their importance with respect to syntactic distribution in the resultative construction. The next phase will apply the same methodology to determine which meaning elements of LUs in the Self_motion frame are syntactically relevant when it comes to other syntactic constructions, such as the *way*-construction (Goldberg, *Constructions*; Israel), the ditransitive construction (Goldberg, *Constructions*), and the *a-hole-through-y*-construction (Boas, "Resolving"), among many others. Based on the work by Goldberg and Jackendoff and on Boas (*Constructional*, "Determining", "Theory"), I expect that each construction will imply a unique grid of syntactically relevant units of meaning for the LUs in the Self_motion frame. Once the relevant meaning components are identified for all LUs in this frame vis-à-vis the full range of constructions, we need to expand our methodology further to cover the remaining LUs in the other frames of the English verb lexicon. This methodology will eventually result for each semantic frame in a list of grammatical constructions that specifies for each construction the relevant range and weight of syntactically relevant units of meaning that determine whether a LU may occur in that construction.

WORKS CITED

BAKER, Collin, and Joseph RUPPENHOFER. "FrameNet's Frames vs. Levin's Verb Classes." *Proceedings of the 28th Annual Meeting of the Berkeley Linguistics Society*. Ed. J. Larson and M. Paster. Berkeley: U of California at Berkeley, Linguistics Department, 2002. 27-38.

BIERWISCH, Manfred. "Some Semantic Universals of German Adjectivals." *Foundations of Language* 5 (1967): 153-184.

BOAS, Hans C. "Construction Grammar in the Twenty-first Century." *English Language and Linguistics* 11.3 (2007): 569-585.

——. *A Constructional Approach to Resultatives*. Stanford: CSLI, 2003.

——. "Determining the Productivity of Resultative Constructions: A Reply to Goldberg and Jackendoff." *Language* 81.2 (June 2005): 448-464.

——. "A Frame-semantic Approach to Identifying Syntactically Relevant Elements of Meaning." *Contrastive Studies and Valency: Studies in Honor of Hans Ulrich Boas*. Ed. P. Steiner, H.C. Boas and S. Schierholz. Frankfurt: Peter Lang, 2006.119-149.

——. "Resolving Form-meaning Discrepancies in Construction Grammar." *Constructional Reorganization*. Ed. J. Leino. Amsterdam: John Benjamins, 2008. 11-36.

——. "The Structure of Lexical Entries and Grammatical Constructions in Construction Grammar." *Annual Review of Cognitive Linguistics*. [Forthcoming].

——. "From Theory to Practice: Frame Semantics and the Design of FrameNet." *Semantik im Lexikon*. Ed. S. Langer and D. Schnorbusch. Tübingen: Narr, 2005. 129-160.

BÜLOW, Edeltraud. *Versuch einer semantischen Faktorenanalyse der verbalen Ausdrücke des Sehens*. Diss. Universität Bonn, 1970.

DOWTY, David. "Thematic Proto-roles and Argument Selection." *Language* 67 (1991): 547-619.

FELLBAUM, Christiane. *WordNet*. Cambridge: MIT P, 1998.

FILLMORE, Charles. "The Case for Case." *Universals in Linguistic Theory*. Ed. E. Bach and R. Harms. New York: Holt, Rinehart, and Winston, 1968. 1-88.

——. "Frame Semantics." *Linguistics in the Morning Calm*. Ed. Linguistic Society of Korea. Seoul: Hanshin, 1982. 111-138.

——. "Frames and the Semantics of Understanding." *Quadernie di Semantica* 6 (1985): 222-254.

——. "Pragmatically Controlled Zero Anaphora." *Proceedings of the 12th Annual Meeting of the Berkeley Linguistics Society*. Ed. V. Nikiforidou, M. VanClay, M. Niepokuj, and D. Feder. Berkeley: U of California at Berkeley, Linguistics Department, 1986. 95-107.

FILLMORE, Charles, and B.T.S. Atkins. "Starting where the Dictionaries Stop: The Challenge for Computational Lexicography." *Computational Approaches to the Lexicon.* Ed. B.T.S. Atkins and A. Zampolli. Oxford: Oxford UP, 1994. 349-393.

FILLMORE, Charles, Christopher JOHNSON, and Miriam R.L. PETRUCK. "Background to FrameNet." *International Journal of Lexicography*, 16.3 (2003): 235-250.

GODDARD, Cliff. *Semantic Analysis*. Oxford: Oxford UP, 1998.

GOLDBERG, Adele. *Constructions*. Chicago: U of Chicago P, 1995.

——. *Constructions at Work*. Oxford: Oxford UP, 2006.

GOLDBERG, Adele, and Ray JACKENDOFF. "The Resultative as a Family of Constructions." *Language* 80 (2004): 532-568.

GROSS, Maurice. *Méthodes en Syntaxe*, Paris: Hermann, 1975.

GRUBER, Jeffrey. *Lexical Structures in Syntax and Semantics*. Amsterdam: North Holland, 1976.

GUERSSEL, M., K. HALE, M. LAUGHREN, B. LEVIN, and J. WHITE EAGLE. "A Cross-linguistic Study of Transitivity Alternations." *Papers from the Parasession on Causatives and Agentivity*. Ed. Chicago Linguistic Society. Chicago: U of Chicago, Linguistics Department, 1985. 48-63.

HALE, Ken, and Jay KEYSER. "On Argument Structure and the Lexical Expression of Syntactic Relations." *The View form Building 20*. Ed. K.L. Hale and S.J. Keyser. Cambridge: MIT P, 1993. 53-72.

——."A View from the Middle." *Lexicon Project Working Papers 10*. Cambridge: MIT, Center for Cognitive Science, 1987.

HUNDSNURSCHER, Franz. *Neuere Methoden der Semantik: Eine Einführung anhand deutscher Beispiele*. Tübingen: Niemeyer, 1970.

ISRAEL, Michael. "The Way Constructions Grow." *Conceptual Structure, Discourse and Language*. Ed. Adele Goldberg. Stanford: CSLI, 1996. 217-30.

IWATA, Seizi. "Does MANNER Count or Not? Manner-of-Motion Verbs Revisited." *Linguistics* 40 (2002): 61-110.

——. "*Over*-prefixation: a Lexical Constructional Approach." *English Language and Linguistics* 8.2 (2004): 239-292.

JACKENDOFF, Ray. *Semantic Interpretation in Generative Grammar*. Cambridge: MIT P, 1972.

——. *Semantic Structures*. Cambridge: MIT P, 1990.

JOHNSON, Christopher R. *Multiple Frame Inheritance in Lexical Descriptions*. Presentation at the Annual Meeting of the Linguistic Society of America. Los Angeles, January 9, 1999.

KATZ, J.J., and P. POSTAL. *An Integrated Theory of Linguistic Descriptions*. Cambridge: MIT P, 1964.

LAKOFF, George. *Women, Fire, and Dangerous Things*. Chicago: U of Chicago P, 1987.

LANGACKER, Ronald. "Integration, Grammaticization, and Constructional Meaning." *Grammatical Constructions: Back to the Roots*. Ed. Mirjam Fried and Hand C. Boas. Amsterdam: John Benjamins, 2005. 157-190.

LAUGHREN, M. "Towards a Lexical Representation of Warlpiri Verbs." *Syntax and Semantics 21: Thematic Relations*. Ed. W. Wilkins. New York: Academic Press, 1988. 215-242.

LEVIN, Beth. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: U of Chicago P, 1993.

LEVIN, Beth, and Malka RAPPAPORT-HOVAV. *Argument Realization*. Cambridge: Cambridge UP, 2005.

——. "Lexical Conceptual Structure." *Semantics: An International Handbook of Natural Language Meaning*. Ed. K. von Heusinger, C. Maienborn and P. Portner. Berlin: Mouton de Gruyter. [Forthcoming].

——.*Unaccusativity*. Cambridge: MIT P, 1995.

MELISS, Meike. "Kontrastive Wortfeldstudie für das Sprachenpaar Deutsch-Spanisch am Beispiel der Verben für GERÄUSCH." *Lexikalische Semantik und Korpuslinguistik*. Ed. Dietrich Wolf, Ulrich Hoinkes, Bàrbara Roviró, and Matthias Warnecke. Tübingen: Gunter Narr Verlag, 2005. 141-168.

NEMOTO, Noriko. "Verbal Polysemy and Frame Semantics in Construction Grammar: Some Observations on the Locative Alternation." *Grammatical Constructions: Back to the Roots*. Ed. Mirjam Fried and Hand C. Boas. Amsterdam: Benjamins, 2005. 199-138.

NIDA, Eugene. *Componential Analysis of Meaning*. The Hague: Mouton, 1975.

PETRUCK, Miriam. "Frame Semantics." *Handbook of Pragmatics.* Ed. J. Verschueren, J-O Östman, J. Blommaert and C. Bulcaen. Amsterdam: John Benjamins 1996. 1-13.

PINKER, Steven. *Learnability and Cognition*. Cambridge: MIT P, 1989.

RAPPAPORT, Malka, Beth LEVIN, and M. LAUGHREN. "Niveaux de représentation lexicale." *Lexique* 7 (1988): 13-32.

RAPPAPORT HOVAV, Malka, and Beth LEVIN. "Building Verb Meaning." *The Projection of Arguments.* Ed. M. Butt and W. Geuder. Stanford: CSLI, 1998. 97-134.

——. "The English Dative Alternation: The Case for Verb Sensitivity." *Journal of Linguistics* 44 (2008): 129-167.

——."An Event Structure Account of English Resultatives." *Language* 77 (2001): 766-797.

PUSTEJOVSKY, James. *The Generative Lexicon*. Cambridge: MIT P, 1995.

SMITH, Carlotta. *The Parameter of Aspect*. Dordrecht: Kluwer, 1997.

SNELL-HORNBY, Mary. *Verb-descriptivity in German and English*. Heidelberg: Universitätsverlag C. Winter, 1983.

TAYLOR, John. "On Running and Jogging." *Cognitive Linguistics* 7.1 (1996): 21-34.

TENNY, Carol. *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht: Kluwer, 1994.

VAN VALIN Jr., R. D. and R. J. LAPOLLA. *Syntax. Structure, Meaning and Function*. Cambridge: Cambridge UP, 1997.

WECHSLER, Steven. "Weighing in on Scales: A Reply to Goldberg and Jackendoff." *Language* 81.2 (June 2005): 465-473.

WOTJAK, Gerd. *Untersuchungen zur Struktur der Bedeutung*. München: Hueber, 1971.

WUNDERLICH, Dieter. "Cause and the Structure of Verb." *Linguistic Inquiry* 28 (1997): 27-68.

FROM SYMMETRIC TO NON-INHERITING RESULTATIVES: ON GRADIENCE AND CONCEPTUAL LINKS IN RESULTATIVE CONSTRUCTIONS

Cristiano Broccias
Università di Genova

ABSTRACT

This paper investigates the relation between the arguments of the English resultative construction (RC) and the arguments (either "optional" or "obligatory") of the RC verb. Two types of RC are distinguished, inheriting and non-inheriting RCs, although it is pointed out that the distinction between the two may be a matter of degree. It is argued that existing approaches do not handle all RC cases satisfactorily and an alternative analysis is offered which does not rely on the notion of obligatory argumenthood. RCs are claimed to involve the blending of a causing subevent and a caused subevent by way of the existence of tight conceptual links (such as identity and entailment) between the two.

KEY WORDS: Resultative construction, inheriting, non-inheriting, metonymy, Full Argument Realization, blending, tight conceptual links.

RESUMEN

Este artículo explora la relación entre los argumentos de la construcción resultativa (CR) en inglés y los argumentos (opcionales u obligatorios) del verbo en CR. Se distinguen dos tipos de CRs, "heredadas" y "no heredadas", distinción que se presenta, no obstante, como una cuestión de grado. Se considera el hecho de que los enfoques existentes sobre esta materia no abordan todos los casos de CR de forma satisfactoria y se propone un análisis alternativo que no se basa en la noción de obligatoriedad de argumentos. En este nuevo enfoque, las CRs se consideran como una combinación entre un subevento causante y un subevento causado, combinación que determina la existencia de enlaces conceptuales estrechos entre estos subeventos.

PALABRAS CLAVE: construcción resultativa, "heredado", "no heredado", metonimia, "Full Argument Realization", "blending", enlaces conceptuales estrechos.

1. INTRODUCTION: GRADIENCE IN RESULTATIVE CONSTRUCTIONS

One of the dimensions of variation in the analysis of so-called Resultative Constructions (e.g. *He hammered the metal flat*, Boas; Broccias, *English*; Goldberg,

Constructions; Goldberg and Jackendoff), RCs for short, concerns the relation between a verb's argument structure and the RC. Consider the following examples:

(1) (a)   The police <u>kicked</u> him [black and blue]$_{AP}$.
     (b)   He <u>cut</u> the bread [thick]$_{AP}$.

Both sentences in (1) are usually regarded as RCs, i.e. constructions which symbolise a causal relation between two constitutive subevents, a causing event and a caused event. The bracketed APs in (1a) and (1b) describe the final state achieved by the referent of the direct object NP as a result of the action symbolised by the verb. For example, the referent of the pronoun *him* ended up *black and blue* because the police kicked him. However, as Rapoport points out in connection with the example *Smith cut the bread into thick slices*, which differs minimally, from a syntactic point of view, from (1b) in that it employs a resultative PP (*into thick slices*) rather than a resultative AP (i.e. *thick*),

> [the e]xample [Smith cut the bread into thick slices] ... is not some kind of (double) resultative meaning "Smith caused the bread to go into thick slices by causing the bread to go to a cut state." What [this example] means, roughly is "Smith caused the bread to go to a cut state and the (final) cut state was (into) thick slices." The PP into thick slices is a modifier of the final cut state [...]. (Rapoport 671)

By contrast, (1a) can easily be paraphrased using a *by*-phrase: "The police caused him to become black and blue by kicking him." This is so because while *cut* is an accomplishment (causative) verb, i.e. it entails a change of state, *kick* does not entail any change. In other words, *thick* and *into thick slices* are classifiable as **specifiers** —they specify the state achieved by the bread— whereas *black and blue* points to a change which is not lexicalised through the verb (*kick*).

There is one more important difference between (1b) and (1a). The AP in (1b) is not strictly speaking predicated of the direct object, i.e. *bread*, but rather of what Geuder calls the "created object": the action of cutting the bread results in the creation of slices of bread and it is these slices, i.e. the created object, which are thick.

Observations like these —the impossibility of a causal paraphrase for (1b) and the fact that a predicative relation is established between the AP and the resultant object, rather than the "syntactic" object, in (1b)— have led analysts such as Iwata to contend that examples such as (1b) and (1a) instantiate two different RCs. In the cases at hand, Iwata would claim, among other things, that *thick* in (1b) is an adjunct,[1] and that *black and blue* in (1a) is an argument.

Although Iwata has of course a point in highlighting the difference between the two types, his analysis seems to be a dichotomous one. He seems to claim that

---

[1] It is far from clear what Iwata means by the term 'adjunct' since he does not identify it with the traditional notion of syntactic adjunct (as used, for instance, in generative grammar) and never gives an explicit definition for it.

RCs are either of the (1b) type, which he calls Type B, or of the (1a) type, which he calls Type A. It is beyond the scope of this paper to offer a detailed analysis of Iwata's paper. Suffice here to say that his claim that Type B resultatives do not obey Goldberg's (*Constructions*) Unique Path Constraint —the fact that only one path can be predicated of the resultant object— may be questionable. Iwata points out that one can say, for example, *He spread the butter thick on the bread* but not **Sam kicked Bill black and blue out of the room*. In the former case, one could claim that there are two paths, that of becoming thick and that of ending up on the bread. In the latter example, the two paths are those of becoming black and blue and of ending up out of the door. Iwata contends that the difference in acceptability is to be related to the adjunct status of *thick* in the former example since the "adjunct construction [...] makes no reference to a property path in its semantics" ("Argument" 464). That is, in Iwata's view *thick* is not construed as a path and can therefore co-occur with a truly path-like PP such as *on the bread*. By contrast, *black and blue*, which is not an adjunct, is construable as a path and hence cannot co-occur with the path PP *out of the room*. But this line of reasoning clearly smacks of circularity. Further, although Iwata acknowledges that RCs with prepositional resultative phrases may require a different analysis[2], I struggle to see why one should not conclude that, given an RC such as *He broke the cookies into small pieces into the bowl*, *into small pieces* is not an adjunct (in Iwata' sense). But if one takes *into small pieces* as an adjunct, the occurrence of the following PP would be left unexplained because *into small pieces* clearly refers to a metaphorical path, as is signalled by the dynamic preposition *into*. Hence, one would end up with two path phrases, *into small pieces* and *into the bowl*, which contradicts Iwata's analysis. The solution seems rather to be that only one resultative phrase can be added to a given event. If we take *He spread the butter thick on the bread*, the event depicted is that of spreading the butter. Now, either *thick* or *on the bread* (or both) can be regarded as belonging to the event of spreading by default. They simply specify the manner in which the spreading took place (*thick*) and the place where this event occurred (*on the bread*). They are not genuine additions to the spreading event. By contrast, in the case of *kick*, both *black and blue* and *out of the room* constitute genuine additions to the event of kicking somebody since this event only symbolises a causing event in the causal chain.

Iwata's analysis fails to recognise that Type A and Type B are actually opposing endpoints along a continuum. Consider (2), which includes the examples in (1) above:

(2)   (a)   The police <u>kicked</u> him black and blue.
         (b)   He <u>wiped</u> the table clean.
         (c)   He <u>cut</u> the bread thick.

Whereas *kick*, unlike *cut*, does not entail any change of state, it is intuitively clear that *wipe* lies in between *kick* and *cut*. *Wipe* implicates, rather than entails, a

---

[2]   See note 1 in Iwata's paper.

change of state. It is not contradictory to say *He wiped the table but he didn't manage to clean it*, even if one, by default, expects wiping to lead to cleanness. In other words, if one analyses transitive RCs, following Broccias (*English*), as originating from the (force-dynamic) conflation (or blending) of a causing event and a caused event, then all three examples in (2) are RCs. They all depict a causal chain of events in the sense of Talmy, see also Ungerer and Schmid (226-9). What differs is the relation between the verb and the causal sequence. The causative verb *cut* can be said to symbolize both the causing event and the caused event. *Kick*, by contrast, symbolizes only the causing event. Finally, *wipe* lies between *cut* and *kick* in that it depicts the causing event but also usually implies (i.e. implicates) the caused event. In other words, the three verbs are not on a par in terms of their degree of association with the caused event but can be arranged along a continuum from necessary association (*cut*) through possible association (*wipe*) to no association (*kick*).

So far, I have been dealing with transitive verbs and I have shown that the interaction between such verbs and the RC is a matter of degree. But the issue of the interaction between verbs and the RC needs, of course, to be addressed also in the case of other verb types, such as intransitive verbs. A detailed examination of this question is what this paper is about. I will try to show that the relation between verbs and the RC is a rather complex affair which should be approached using plausible cognitive principles rather than "formal" (i.e. not cognitively motivated) criteria.

2. TRANSITIVITY

Recently, Goldberg and Jackendoff have proposed the Full Argument Realization Principle (FAR) to account for the relation between verbal participants and constructional roles. They claim that:

> All of the arguments obligatorily licensed by the verb and all of the syntactic arguments licensed by the construction must be simultaneously realized in the syntax, sharing syntactic position if necessary in order to achieve well-formedness. (Goldberg and Jackendoff 547).[3]

They contend that "[a]n argument is considered obligatorily licensed by a verb if and only if an expression involving the verb in active simple past tense without the argument is ill-formed" (548). If we consider the verbs *kick*, *wipe* and *cut* and use this test, which I will refer to as "the past tense test", to establish whether their direct objects are obligatory (i.e. whether they are obligatorily subcategorised by the verb), we would probably contend that they are. See (3) below.

---

[3] See also Goldberg's (*Constructions* 50) Correspondence Principle. Goldberg and Jackendoff observe that "... the correspondence principle is a default principle that can be overridden by the specifications of particular constructions; for example, the passive construction specifically serves to allow a normally obligatory argument to be omitted." ("English" note 20).

(3) a.   The police kicked.
    b.   He wiped.
    c.   He cut.

The objectless sentences in (3) are only possible in very specific contexts but probably not out of the blue. For example, Goldberg 2001 ("Patient" 29) observes that causatives can occur without an object when repetition is implied as in (4):

(4)   The chef-in-training chopped and diced all afternoon.

The fact that specific contexts are needed for examples such as (3) to be acceptable probably warrants the conclusion that *kick*, *wipe* and *cut* should be treated as obligatorily transitive verbs. From the obligatory status of the direct objects of *kick*, *wipe* and *cut*, it follows that they must be inherited at the constructional level, i.e. in the RC. Therefore, we would correctly expect RCs with unsubcategorised objects such as (5a) to be impossible:

(5) a.   *The police kicked the square empty.
    b.   The police kicked the demonstrators.
    c.   *The police kicked the square.

(5a), with the intended meaning of "the police kicked the demonstrators (and as a consequence they left the square where they were staging a rally) so that the square became empty" would not be allowed because *the square* is not a possible object for the verb *kick* in isolation, i.e. independently of the RC. To put it differently, the subcategorised, obligatory object *the demonstrators* has not been inherited at the constructional level and this results in an impossible RC.

Similar examples can probably be constructed for the verbs *wipe* and *cut*. In fact, the contention that obligatorily licensed arguments must be inherited at the constructional level is also found in Levin and Rappaport Hovav. They claim that the impossibility of (6d) (with the intending meaning of "the bears frightened the hikers and, as a consequence, they left the campground empty") vs. (6c) can be explained away precisely by appealing to the fact that (6d), unlike (6c), contains an unsubcategorised object.

(6) a.   The bears frightened *(the hikers).
    b.   *The bears frightened the campground.
    c.   The bears frightened the hikers away / out of the campground.
    d.   *The bears frightened the campground empty.

Of course, if an argument is not obligatorily licensed, then the previous restriction on the RC does not hold. For example, optionally transitive verbs like *drink* do allow unsubcategorised objects in the RC:

(7) a.   They drank (beer).
    b.   *They drank the pub.
    c.   They drank the pub dry.

Further, in the case of unergative verbs like *shout* an ¨obviously¨ unsubcate-gorised object is indeed obligatory:

(8) a.   Sally shouted.
    b.   *Sally shouted hoarse. (intended meaning as in (8c))
    c.   Sally shouted herself hoarse.
    d.   *Sally shouted herself.

The objectless (intransitive) RC in (8b) is impossible. A so-called fake-reflexive, which is not subcategorised by the verb (see 8d), is required, as is shown in (8c). Under Goldberg's (*Constructions*) constructional analysis, the reflexive is contributed by the construction.

Finally, in the case of unaccusative verbs like *dry*, an object is not necessary in the construction (i.e. the construction does not contribute any object):[4]

(9) a.   The clothes dried.
    b.   The clothes dried wrinkled.

This is so because unaccusative verbs in Goldberg's (*Constructions*) and Goldberg and Jackendoff's analyses are merged with a construction which only describes a change of state. The difference between the transitive and intransitive RC is schematised in Figure 1 and Figure 2 below.[5]

Sem	CAUSE-BECOME	<	**agt**	**pat**	result-goal	>
	HAMMER	<	**hammerer**	**hammered**		>
Syn	V		SUBJ	OBJ	ADJ/PP	

Figure 1

Sem	BECOME	<	**pat**	result-goal	>
	DRY	<	**dried**		>
Syn	V		SUBJ	ADJ/PP	
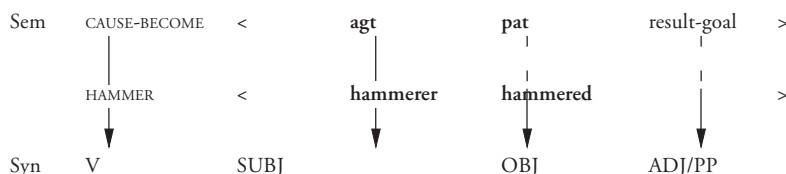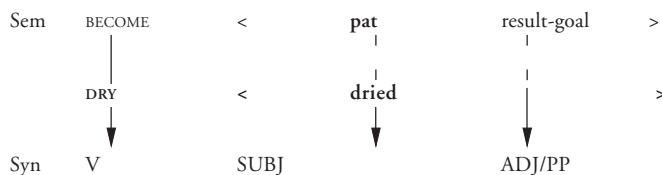
Figure 2

---

[4] A fake-reflexive variant like *The clothes dried themselves wrinkled* is indeed possible but the meaning would be slightly different, in that some agentive nuance would be present in its inter-pretation (see also Rappoport Hovav and Levin on such cases).
[5] The reader is referred to Goldberg's *Constructions* for a detailed explanation of the for-malism employed.

However, it must be pointed out that although Goldberg (*Constructions*) analyses unaccusative verb based RCs, i.e. intransitive RCs, as non-causal, this is not necessarily correct. A causal paraphrase for (9b) such as "the fact that the clothes dried (too much) caused them to become wrinkle" seems to be acceptable. This observation has lead Broccias (*English*) to suggest that so-called intransitive RCs also depict a causal sequence. The causing event in (9b) is the drying event and the caused event is that of the clothes becoming wrinkled. Further, as was the case with the transitive gradient observed in the previous section, intransitive RCs also exhibit variation in the association between verb and construction. Whereas *dry* possibly symbolises only the causing event (or, at least, has weak connections with the caused event) in (9b), the verb *freeze*, as in the frequently quoted example *The river froze solid*, can be associated both to the causing event and the caused event. This implies that *solid* is interpreted as a specifier, i.e. it specifies that the freezing process was complete or, to put it differently, that the freezing process affected the whole river.

So far I have shown that gradience in the association between verbs and the RC can be observed both in transitive and intransitive RCs and the latter type can also be interpreted causally, *pace* Goldberg (*Constructions*)[6]. Further, I have reported on Goldberg and Jackendoff's and Levin and Rappaport Hovav's explanation for the impossible RCs containing unsubcategorised objects of "obligatorily" transitive verbs. In the following section, I will try to show that there are important complications which cast doubt on this solution.

3. ASYMMETRIC RESULTATIVES

Levin and Rappaport Hovav observe that, with verbs such as *wash*, *shave* and *rub*, unsubcategorised objects are possible in RCs:

(10) a. He washed his eyes. ([1] He washed)
     b. *He washed the soap.
     c. He washed the soap out of his eyes.

(11) a. He shaved his head. ([1] He shaved)
     b. *He shaved his hair.
     c. He shaved his hair off.

(12) a. He rubbed his eyes. (cf. *He rubbed)
     b. *He rubbed the tiredness.
     c. He rubbed the tiredness out of his eyes.

---

[6] Broccias (*English*, "Construal¨") contends that the difference between the (causal) transitive RC and the (causal) intransitive RC involves force-dynamics, which is a necessary notion in the analysis of the former. Force-dynamics in RCs involves the use of verbs which denote or are construed as denoting an energetic interaction or energetic flow between a manipulator and a manipulee. The interested reader is referred to Broccias (English Ch. 5) for details.

This is potentially problematic because, for example, *wash* in (10c) is used in the context of somebody washing his eyes. But if this is so, *his eyes* counts as an obligatory object because the objectless version *He washed* means something else, namely that the subject referent washed his whole body rather than a specific part of his body (e.g. his eyes). A similar line of reasoning applies to *shave*. Under the intended reading of (11c), *shave* describes an action carried out on one's head rather than, for instance, on one's beard or one's whole body. Hence, we would expect the unsubcategorised object *his hair* to be impossible in the RC.[7] Finally, *rub*, see (12), seems to be an obligatorily transitive verb and yet an unsubcategorised object like *the tiredness* is possible in the RC (12c).

Faced with such examples, Levin and Rappaport Hovav claim that (10c), (11c), and (12c) should not be considered as instances of the RC. They claim that

> Rather, they involve an alternate projection of the arguments of certain verbs into the syntax that comes about because verbs from a variety of semantic classes (usually, but not exclusively, verbs of contact through motion such as *wipe* and *rub*) can also become verbs of removal [...]. (Levin and Rappaport Hovav 66).

This is obviously not a satisfactory move because a causal chain sequence can also be identified in (10c), (11c), and (12c). The events depicted in (10c), (11c), (12c) result, respectively, in the soap coming out of the eyes, the hair being removed from the head, and the tiredness leaving the person concerned. As was the case with *cut* in (1b), however, *wash* and *shave* symbolize both the causing event and the caused event. Washing is basically an event of removal (of some substance from, for example, one's body) and so is shaving. Therefore, they describe both a cause (an energetic interaction with, for instance, parts of one's body) and a result. *Rub*, by contrast, resembles *kick* in (1a) because it only symbolizes the causing event and does not entail a change of state.

It should also be noted that the subcategorised objects of the verbs *wash*, *shave* and *rub* are in fact inherited at the constructional level. They are the (either expressed or understood) prepositions' objects in the RCs. The subcategorised object *his eyes* is the object of the preposition *out of* in both (10c) and (12c), and *his head* is the understood object of the preposition *off* in (11c).

Since the subcategorised objects in such examples are inherited at the constructional level but their position in the RC is not symmetric to the one they have in isolation (i.e. when the verb is used independently of the RC), I call the corresponding RCs **asymmetric RCs** (Broccias "Unsubcategorized").

It is not obvious whether asymmetric RCs are compatible with Goldberg's analysis. She observes that,

---

[7] In fact, the sentence *He shaved his hair* (without *off*) can be found, so this example should perhaps be discounted in the discussion, *pace* Levin and Rappaport Hovav.

[t]he construction itself does not prohibit a hypothetical verb with participant roles which are instances (types) of agent and result-goal from integrating into the construction, since the construction could presumably add the patient argument. (*Constructions* 190).

This scenario seems akin to the case at hand because the RC could be said to contribute the patient argument (e.g. *the soap* in (10c)) and the subcategorised object (i.e. *his eyes* in (10c)) could be taken to correspond to the result-goal in the construction, as shown in Figure 3 for (10c):

Sem	CAUSE-BECOME		<		**agt**		**pat** result-goal >
	WASH	<	**washer**		**washed**		>
Syn	V		SUBJ	OBJ	ADJ/PP		
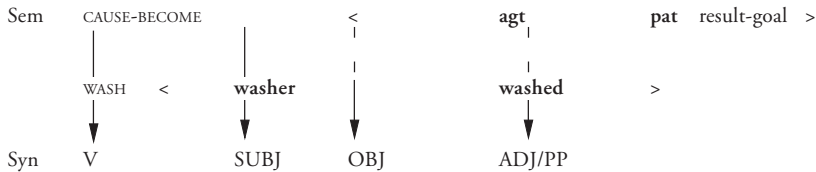
Figure 3

Admittedly, however, the subcategorised object (e.g. *his eyes*) does not necessarily have a result-goal participant role independently of the RC. *His eyes* could simply be classified as having a patient participant role. In fact, Goldberg supplements the hypothetical scenario sketched above with the claim that "[h]owever, the existence of such a verb is disallowed by the general constraint that instances of the result-goal role can only be predicated of patient-like roles." (*Constructions* 190). Hence, it is debatable whether a representation like the one depicted in Figure 3 for asymmetric RCs is warranted in Goldberg's theory, after all.

A further complication stems from the fact that the lack of inheritance of obligatorily selected verbal objects as constructional objects (i.e. objects in the RC) —and their occurrence in the oblique (i.e. resultative phrase) slot in the asymmetric RC— is not limited to removal verbs, or verbs construed as such, as the following examples illustrate.

(13) a.   She beat *(her children).
     b.   *She beat the Ten Commandments.
     c.   *She beat her children into the Ten Commandments.
     d.   She beat the Ten Commandments into her children. (Rivière)

(14) a.   She kicked *(a hole).
     b.   She kicked the door.
     c.   She kicked a hole in the door.

The verb *beat* in (13d) is in no sense construable as a verb of removal, quite the contrary of course. It occurs in an RC which evokes a (metaphorical) ingressive scenario: the Ten Commandments moved metaphorically into the children. Inter-

estingly, the variant in (13c), whose object is identical to the verb's subcategorised object (*her children*), is not possible[8]. (13) therefore shows that obligatorily subcategorised objects "may" not only be used in the resultative phrase slot rather than the constructional object slot but that, sometimes, they "cannot" be used in the constructional object slot at all.

Similarly, *kick* occurs in an RC, (14c), which does not evoke a removal scenario but, rather, a creation scenario: a hole came into existence in the door. Further, (14c) is an asymmetric RC because the obligatorily subcategorised object *the door* appears in the oblique slot as the object of the preposition *in*.

The obvious question is what principles, if any, regulate the distribution of the arguments in the RC. Why is (13c) impossible, for example? The explanation seems to be rather simple. The distribution of the arguments in the RC is regulated by the potential meaning we can assign to what in generative grammar analyses is called the "small clause" in the RC, i.e. the complex made up of the resultative phrase and the entity of which it is predicated. This complex is labelled "change complex" in Broccias (*English*). Since we conceptualise pieces of knowledge, rules and the like as entities which move into us rather than ourselves as moving into them, the change complex *the Ten Commandments into the children* can be easily made sense of, while *the children into the Ten Commandments* cannot. Of course, we can conceptualise ourselves as moving into actions, hence the acceptability of the variant *into following the Ten Commandents* mentioned in note 8. Similarly, the string *a hole in the door* in (14c) is easily interpretable.

To sump up, although the asymmetric cases discussed above are not always compatible with Levin and Rappaport Hovav's approach —they are not limited to the removal scenario but can also evoke ingressive and creation scenarios— they are compatible with FAR, and possibly with Goldberg's (*Constructions*) approach, because the obligatorily subcategorized verbal object still occurs in the RC, albeit as an oblique. It is used not in the constructional object position but, rather, in the resultative phrase slot.

4. NON-INHERITING RESULTATIVES

I will now show that FAR is too restrictive for RCs. I will contend that obligatorily subcategorised objects are not always realised in RCs, not even as "possibly understood" obliques. Consider the following examples:

(15) a.   [He] used a pocket knife to **cut himself free** from his **seatbelt.**
             <www.topix.com/forum/city/laurel-md/TMVSVTLVU1DSOSMCA>
       a'.   He cut the seatbelt.

---

[8] The RC is possible, however, if instead of *into the Ten Commandments* we have *into following the Ten Commandments*. The analysis of this variant is however beyond the scope of the present paper.

(16) a.   Mallory **cut himself free** from Irvine.
           <www.pbs.org/wgbh/nova/everest/lost/dispatches/990525n2.html>
     a'.   *He cut Irvine.
     a".   He cut the rope connecting him with Irvine.

(17) a.   He decided to **cut himself free from so many aspects of modern
           culture.**
           <www.johnnydeppfan.com/interviews/filmreview03.htm>
     a'.   He cut his ties with so many aspects of modern culture.

(15a) is an instantiation of the asymmetric RC. The subcategorised object
seatbelt, see (15a'), occurs in the oblique slot in the RC. (16a) is similar to (15a) in
that it also contains the verb *cut* and the same unsubcategorised object (*himself*).
However, there is an important difference between (15a) and (16a). The object of
the preposition *from* in (16a) is not, as in (15a), a possible object for *cut*. What
Malory cut was not Irvine, of course, but the rope connecting him with Irvine, see
(16a"). However, (16a) could still perhaps be classified as an asymmetric RC if the
object of the preposition *from* is analysed metonymically as standing for the
subcategorised object *the rope*. A similar metonymic analysis can also be applied to
(17a), where what was severed were the connections or ties with (the denotation of)
the object of the preposition *from* (*so many aspects of modern culture*).
       I have therefore shown that there is at least one type of RC where the ob-
ligatorily subcategorised verbal object does not appear in the RC at all. Still, one
can envisage a metonymic relation between it and the entity which the object of the
preposition in the resultative phrase refers to.
       Even more interesting, it is possible to find examples where an obligatorily
subcategorised object is not used in the RC and yet one cannot envisage a metonymic
link between it and the resultative phrase. Consider the following example:

(18) a.   Didier Drogba **headed** Chelsea in front from Frank Lampard's cor-
           ner seven minutes before half-time. (i.e. Didier Drogba scored a goal
           by hitting the ball with his head so that his team, Chelsea, went one
           up against their opponents.)
           (<news.bbc.co.uk/sport1/hi/football/eng_prem/6200073.stm>)
     b.   Dimitar Berbatov **nodded** Spurs [i.e. Tottenham Hotspur] in front.
           (<news.bbc.co.uk/sport1/hi/football/eng_prem/7008206.stm>)
     c.   {Didier Drogba/Dimitar Berbatov} {headed/nodded} *(the ball).

       Using Goldberg and Jackendoff's past tense test for obligatory arguments,
see (18c), one would perhaps conclude that both *head* and *nod* —which both de-
note the hitting of the ball with one's head in the context of a football (soccer)
game— take *the ball* as their obligatory object. Still, both (18a) and (18b) —the
latter has the same interpretation as (18a)— do not use *the ball* at all. The oblique
slot is taken by *in front* (i.e. in front of their opponents), which is not immediately
(i.e. metonymically) linkable to *the ball* as was the case in (16a) and (17a) above.
       A similar (baseball) example is (19):

(19) a. The plate umpire roared and **punched** a batter out. (Jonathan Franzen, *Strong Motion*, 2003: 189; Guillaume Desagulier p.c.)
   b. The umpire punched *(the air).

What the umpire punched was, of course, the air, not the batter. Further, using the past tense test, one should perhaps conclude that *punch* is an obligatorily transitive verb. However, the subcategorized object "air" is not linked metonymically to the intended object of the preposition *out* (*out* stands for *out of play*).

In sum, both (18) and (19) seem genuine counterexamples to FAR. The obligatorily subcategorized objects (*ball* and *air*, respectively) are not inherited at the constructional level, not even via metonymic links as was the case in (16a) and (17a). Since FAR cannot be maintained in the face of such examples —and it is at least problematic for metonymic cases such as, for example, (16a) and (17a) since the inheritance link is only indirect— I will use the label **non-inheriting resultative** for all cases where no subcategorised object, either obligatory or optional, appears in the resultative construction. The label non-inheriting resultative therefore also applies to optionally transitive and unergative verb-based cases (see (7) and (8) above).

Such a move is not only a terminological quibble but it amounts to dispensing with the past tense test to decide which arguments should be inherited at the constructional level. RCs which contain obligatorily transitive verbs (given Goldberg and Jackendoff's past tense test) but do not inherit subcategorised verbal objects are treated on a par with, for instance, RCs whose constructional verb is optionally transitive. In fact, one may also wonder where the past tense test comes from. Since "obligatory" transitivity is a notion which depends on context (see Section 2), I think it is safer to dispense with it. The past tense test only shows that certain verbs, if uttered out of the blue, would tend to combine with certain objects, but such default assumptions can be more or less easily overridden, thus making the notion of "obligatory object" rather murky.

5. TIGHT CONCEPTUAL LINKS

Having dispensed with FAR because of the existence of non-inheriting resultatives, I must now show what principles may regulate their occurrence. This also involves explaining why non-inheriting RCs such as (5a) (**The police kicked the square empty*)[9] seem to be impossible.

My contention is that all RCs rest on tight conceptual links between their constitutive subevents, i.e. the causing event and the caused event.[10] In the case of

---

[9] See also Levin and Rappaport Hovav's, *Unaccusativity* : **The bears frightened the campground empty*

[10] If one views RCs as stemming from the merger of two subevents (as in Broccias, *English*), then this operation can be considered an instance of Fauconnier and Turner's conceptual blending

inheriting symmetric RCs, tight links between the two subevents are guaranteed by the sharing of one participant. I will call this type of link an **identity link**. For example, *him* in *The police kicked him black and blue* (see (2a) above), stands for both the patient in the causing event (the event of kicking, which involves the referent of *him*) and the entity which undergoes change (the theme) in the caused event (the event of becoming black and blue, which again involves the referent of *him*). The two subevents are "welded" together thanks to the shared argument *him*. This line of reasoning also applies to intransitive RCs, of course. In *The clothes dried wrinkled* (see (9b) above), *the clothes* is shared, under my bi-componential analysis for intransitive RCs (see Section 1) by the causing event (the event of drying) and the caused event (the event of becoming dry).

If one now considers (inheriting) asymmetric RCs, one also observes that they rely on an identity link between their constitutive subevents. For example, in *She beat the Ten Commandments into her children* (see (13d) above), the causing event (the event of beating) and the caused event (the event of the Ten Commandments moving metaphorically into the children) are "welded" together by virtue of the fact that the affected participant is shared: the patient in the causing event is also the metaphorical spatial target in the caused event. This is schematised in Figure 4, where "⇒" stands for the causal relation between the two subevents.

SUBEVENT₁: She beat her children ⇒ SUBEVENT₂: the Ten Commandments moved into the children

Figure 4

Tight links also obviously exist in the case of asymmetric resultatives involving metonymy, as in *Malory cut himself free from Irvine* (see (16a) above). *Irvine* is "activated" both in the causing event via its link to the affected object *rope* and in the caused event, where it corresponds to the landmark Malory moved away from. This type of activation, involving metonymy, could also be subsumed under the notion of identity link. There is also at least one more link between the causing and the caused subevents in this example. Cutting the rope necessarily implies (i.e. entails) that Malory is free from Irvine. This amounts to saying that the conceptual link between the causing event and the caused event is strongest. I will label this type of link involving an entailment relation an **entailment link**. Interestingly, it should be observed that there may be no entailment or necessary link in asymmetric (non-metonymic) cases like (13d), *She beat the Ten Commandments into her children*. The fact that the children followed the Ten Commandments is a possible but not necessary consequence of their mother beating them.

_____

and the notion of tight links I refer to in this section can be related to Fauconnier and Turner's vital relations. I will not comment any further on this point because it is not essential to the argument put forward here, i.e. the existence of easily retrievable links between the constitutive subevents of a RC.

A similar situation obtains in the non-inheriting examples (18a), (18b) and (19a) above. In (18a) and (18b), there is an identity link between the causing subevent (scoring a header) and the caused subevent (one's team going one up) because the entity undergoing change (*Chelsea*, *Spurs*) is the team the player mentioned in the subject position (*Drogba*, *Berbatov*) play for. That is, the identity link is a part-whole relation. Further, as was the case in example (16a), scoring a goal necessarily implies that one's team go in front, given the context of the specific matches (18a) and (18b) refer to. This entailment link guarantees the strongest possible association between the two constitutive subevents of the RC.

(19a) differs from (18a) and (18b) in that there is no identity link between the subject's referent and the object's referent, unless one treats them as being both members of the set of people involved in a game of baseball so that a part-whole relation obtains between such a set, on the one hand, and the umpire and the batter, on the other. To be sure, there is an entailment link because the umpire's punching of the air necessarily signifies, at the stage of the game the sentence refers to, the dismissal of the batter.

By appealing to the conceptual notion of tight links, I think that one can also go some way towards motivating the impossibility of examples such as (5a), *The police kicked the square empty*, or Levin and Rappaport Hovav's *The bears frightened the campground empty* (see (6d) above for that matter). Under the intended interpretation of (5a), "the police kicked the demonstrators, who as a consequence left the square, which then became empty," it is clear that its semantic pole makes reference to an actually more complex causal chain than in the previous examples. The intended caused event is, first of all, the leaving of the square on the part of (all) the demonstrators. This in turn causes the square to become empty. There is an entailment link between the event of the demonstrators leaving the square and the square becoming empty, assuming that only the demonstrators were on the square. But this is not the case when one analyses the link between the causing event of the police kicking the demonstrators and the demonstrators leaving the square. The link between the two events is guaranteed only by the knowledge that square is the place where the demonstrators were based. Even conceding that the police kicked the demonstrators while they were on the square, rather than, say, while the demonstrators where walking in the streets to the square, this is probably too tenuous a link to make the sentence acceptable. Admittedly, however, if the scenario envisaged for (5a) took place often enough, (5a) might turn out to be a possible and very compact way of referring to what the police usually do when rallies are organised in squares. Significantly, the previous examples of non-inheriting resultatives based on transitive verbs had caused events which were entailments of the causing events. But this does not hold for (5a), of course. A similar line of reasoning applies to *The bears frightened the campground empty*, of course, as readers can easily verify for themselves.

The notion that tight links (e.g. identity and entailment links) must be established between the two constitutive subevents of an RC for it to be acceptable ties in well with Felser and Wanner's (106) observation that "[r]esultative constructions [with intransitive verbs] typically involve a reflexive anaphor that is bound by the matrix subject," as in (20):

(20)   He drank himself stupid.

This is not surprising because the occurrence of a reflexive anaphor contributes to the creation of a tight "identity" link between the causing event and the caused event. Both subevents share a participant, namely the entity referred to by the subject of the RC. Even if no reflexive anaphors occur in the direct object slot of intransitive verb-based RCs, one can detect the existence of tight conceptual links. Consider the following examples:

(21)   a.   They drank me under the table.
     b.   Alice cooked Tom and Bill to death.
     c.   Penny surfed the night away

In (21a), both *me* and *they* refer to entities which were involved in the same event of drinking. *Tom* and *Bill*, in (21b), are the people for whom *Alice* cooked; hence, there is a tight link between the causing subevent (Alice cooked for Tom and Bill) and the caused subevent (Tom and Bill died) because Tom and Bill are activated in both subevents. Finally, in (21c), *the night* stands for the temporal framework in which the event of Penny's surfing the net took place. This ensures a tight link between the causing event (Penny surfed during the night) and the caused event (The night went, metaphorically speaking, away), where the temporal framework is treated as a theme.[11]

To conclude, the notion of tight conceptual links seems promising when non-inheriting resultatives are also analysed. It may be that some of the explanations sketched above need revising. Indeed this paper has elaborated on earlier proposals put forward in Broccias (*English*, "Unsubcategorized"). But I view the notion of conceptual link as preferable to FAR and the past tense test. The combination of the latter two most often than not results in correct predictions as to (im)possible RCs but leaves the question of their psycholinguistic motivation unsolved. By contrast, the tight link hypothesis is more appealing from a psycholinguistic point of view. It simply amounts to saying that we integrate or blend (see note 10) different facets of composite events into compact grammatical structures if their conceptual distance is not too great. This is probably so because, otherwise, the encoding and decoding of information would be too burdensome.

6. CONCLUSION

I have argued that, when one considers the relation between a verb's arguments and the RC, two types of RC can be identified: inheriting and non-inherit-

---

[11] The construction instantiated in (21c), which I classify as a RC, has been studied in some detail by Jackendoff ("Twistin'").

ing RCs. Inheriting RCs, unlike non-inheriting RCs, contain the verb's object also in the RC. The verb's object can occur either in the constructional object position (symmetric RC) or in the constructional oblique position (asymmetric RC). In between the two are metonymic RCs, where the constructional oblique argument is related metonymically to the "intended" verb's object. This is one more example of gradience in RCs. At the very outset I pointed out that, in the case of inheriting symmetric resultatives, the degree of overlap between verb and RC can be either complete (e.g. with *cut*), limited only to the causing event (e.g. with *kick*) or in between the two (e.g. with *wipe*).

I have also contended that the distribution of arguments in inheriting RCs is regulated by the meaning which can be assigned to the change complex. This implies that resultatives are not simply obtained by adding "some" material at the end of a simpler structure (e.g. *He hammered the metal* à *He hammered the metal flat*) but may involve the positional restructuring of a verb's arguments (Broccias "Unsubcategorized").

Finally, I have tried to show that the blending of the causing and caused subevents in RCs is possibly based on the existence of tight conceptual links between the two. That is, the causing and the caused subevents which describe the semantic import of RCs are "welded" together by virtue of tight connections. They can be established, for example, by the sharing of a participant (identity link) and/ or the fact that the caused event is a necessary consequence of the causing event (entailment link). In this way, one can dispense with formal principles and tests like Goldberg and Jackendoff's FAR and past tense test which are difficult to understand from a psycholinguistic point of view.

WORKS CITED

Boas, Hans. *A Constructional Approach to Resultatives*. Stanford: CSLI, 2003.

Broccias, Cristiano. "The Construal of Constructions: Causal and Temporal Interpretations in Change Constructions." *Constructions*. April 1, 2006. <www.constructions-Online.de>.

——. *The English Change Network*. Berlin: Mouton de Gruyter, 2003.

——. "Unsubcategorized Objects in English Resultative Constructions." *On Interpreting Construction Schemas*. Ed. Nicole Delbecque and Bert Cornillie. Berlin: Mouton de Gruyter, 2007. 103-124.

Fauconnier, Gilles and Mark Turner. *The Way We Think*. New York: Basic, 2002.

Felser, Claudia and Anja Wanner. "The Syntax of Cognate and Other Unselected Objects." *Structural Aspects of Semantically Complex Verbs*. Ed. Nehé Dehé and Anja Wanner. Frankfurt am Main: Peter Lang, 2001. 105-130.

Geuder, Wilhelm. *Oriented Adverbs: Issues in the Lexical Semantics of Event Adverbs*. Diss. Universität Tübingen, 2000.

Goldberg, Adele. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: The U of Chicago P, 1995.

CRISTIANO BROCCIAS

——. "Patient Arguments of Causative Verbs Can Be Omitted: The Role of Information Structure in Argument Distribution." *Language Sciences* 34.4-5 (2001): 503-524.

GOLDBERG, Adele and Ray JACKENDOFF. "The English Resultative as a Family of Constructions." *Language* 80 (2004): 532-567.

IWATA, Seizi. "Argument Resultatives and Adjunct Resultatives in a Lexical Constructional Account: The Case of Resultatives with Adjectival Result Phrases." *Language Sciences* 28 (2006): 449-496.

JACKENDOFF, Ray. "Twistin' the Night Away." *Language* 73 (1997): 534-559.

LEVIN, Beth and Malka RAPPAPORT HOVAV. *Unaccusativity: At the Syntax-Lexical Semantics Interface*. Cambridge: MIT P, 1995.

RAPPAPORT, Tova. "Structure, Aspect, and the Predicate." *Language* 75 (1999): 653-677.

RAPPAPORT HOVAV, Malka and Beth LEVIN. "An Event Structure Account of English Resultatives." *Language* 77 (2001): 766-797.

RIVIÈRE, Claude. "Résultatifs anglais : un conflit entre la syntaxe et la sémantique." *Langues et langage, Mèlanges Culioli*. Ed. Jean-Jacques Franckel and Stéphan Robert. Paris: Presses Universitaires de France, 1995. 359-372.

TALMY, Leonard. *Toward a Cognitive Semantics*. Vol. 1. Cambridge: MIT P, 2003.

UNGERER, Friedrich and Hans-Jörg SCHMID. *An Introduction to Cognitive Linguistics*. 2nd ed. Harlow: Pearson Longman, 2006.

FROM SYMMETRIC TO NON-INHERITING RESULTATIVES…

FORMULAIC SEQUENCES IN FUNCTIONAL AND COGNITIVE LINGUISTICS*

Christopher S. Butler
Swansea University

ABSTRACT

This paper attempts to resolve the tension between an approach to language in which lexical items are matched individually with slots in frames provided by the syntax of a language, and one which holds that much of our language consists of recurrent, reusable multiword chunks, with differing degrees of variability, and often with rather ill-defined boundaries. The properties of three formulaic sequences are briefly described, and then four linguistic approaches are examined to determine to what extent they can account for these properties. It is concluded that all the approaches fail to accommodate semantic prosodies which can extend over ill-defined stretches of language. A model is proposed in which associative patterns at different levels of description are linked by constraint satisfaction mechanisms.

KEY WORDS: Formulaic sequence, corpora, functionalism, cognitivism, semantic prosody.

RESUMEN

Este artículo intenta resolver la tensión entre un enfoque en el que las unidades léxicas se asocian con posiciones determinadas dentro de los marcos sintácticos, y otro que mantiene que gran parte del lenguaje está impregnado de piezas complejas recurrentes y reutilizables que muestran distintos grados de variabilidad y cuyos límites no están siempre definidos con claridad. Se describen las propiedades de tres secuencias formulaicas y se examinan cuatro enfoques lingüísticos y su capacidad para dar cuenta de estas propiedades. Se concluye que ninguno de estos enfoques es capaz de acomodar diferencias de prosodia semántica y se propone un modelo alternativo en el que patrones asociativos que funcionan en distintos niveles de descripción se interrelacionan según mecanismos de satisfacción de restricciones.

PALABRAS CLAVE: secuencia formulaica, corpus, funcionalismo, cognitivismo, prosodia semántica.

1. INTRODUCTION: TWO VIEWS OF LINGUISTIC STRUCTURE

The principal aim of this article is to discuss the tension between two views of linguistic structure, and to take some initial steps towards reconciling them. Grammars have often been constructed according to the "open choice" principle,

according to which lexical items are matched individually with slots in frames provided by the syntax of a language. On the other hand, work in corpus linguistics (especially that associated with Sinclair and his colleagues)[1] suggests that this is a grossly oversimplified, indeed potentially misleading view, if we take as our source of data for description the attested productions of native speakers of a language. Such language, as opposed to the neatly packaged constructed sentences of the armchair linguist, consists to a considerable extent of recurrent, reusable multiword chunks, with differing degrees of variability, and often with somewhat ill-defined boundaries, if we take into account not only syntax but also syntagmatic lexical patterning (collocation) and, above all, meaning. There has been much discussion of idioms and other aspects of phraseology in the literature, from a variety of theoretical and applied points of view (Nunberg, Sag and Wasow; Moon; Cowie; Taylor, Ch. 27; among others), but it is corpus analysis which has revealed that actual usage systematically makes use of much subtler devices than are generally discussed by writers of grammars. So pervasive is the use of semi-preconstructed chunks that Sinclair has proposed that the open choice principle on which most grammars are based should be supplemented by an **idiom principle**, stated as follows:

> The principle of idiom is that a language user has available to him or her a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analysable into segments. (Sinclair, *Corpus* 110)

Furthermore, the work of Wray, with roots in psycholinguistic and sociolinguistic modes of explanation, comes to similar conclusions, postulating a key role, in "normal" adult language, child language acquisition, and the language of aphasics and second/foreign language learners, for reusable, holistically stored and processed formulaic sequences. Wray defines a **formulaic sequence** as,

> [A] sequence, continuous or discontinuous, of words or other elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar. (Wray 9)

All this is, of course, of little consequence for those who largely rely on native speaker intuition as a source of data and follow Chomsky's line, namely that since "linguistic theory is mentalistic,"

> Observed use of language or hypothesized dispositions to respond, habits, and so on, may provide evidence as to the nature of the this mental reality, but surely cannot constitute the actual subject matter of linguistics, if this is to be a serious discipline. (Chomsky 4)

---

* I am grateful to Gordon Tucker and Francisco Gonzálvez García for comments which led to improvements in this paper.

[1] See, for example, Sinclair, *Corpus*, "Search", *Trust*.

But for functionalists, and also for proponents of Cognitive Linguistics, including some types of constructionist approach, the patterns revealed by corpus analysis are, or should be, a serious matter, since these linguists adopt a perspective which involves seeing language as essentially a form of human communication, and a primary aim, at least for some proponents of such approaches, is to explore the structure (and also the effects) of the actual usage events engaged in by speakers and writers, hearers and readers, in their linguistic interactions.[2]

I shall first discuss briefly three formulaic expressions which will be used for illustration in the rest of the article. I shall then look at four approaches, within functional and cognitive linguistics, which have taken the issue of formulaic language seriously, the aim being to assess the extent to which they are able to account for the properties of formulaic constructions. The conclusion from this survey is that the models examined are able to account for only those properties which can be described in terms of the constituent structure of expressions, so that any phenomena which operate over stretches of language not coextensive with such constituents remain unexplained. I then propose an alternative way of approaching formulaic phenomena, based on the concept of syntagmatic associations operating at different levels, unified by constraint satisfaction.

2. THE DATA

The extensive literature on idiomatic, formulaic language shows clearly that there is a cline from totally fixed expressions such as *by and large* at one end (Taylor 543, *inter alios*) to looser collocational patterning at the other. Most formulaic expressions, however, display some degree of variability.

The first formulaic expression we shall look at is COME *a cropper*, with the meaning "have an unexpected, embarrassing, and disastrous failure" (*Collins COBUILD Dictionary*). Detailed examination of the 50 idiomatic occurrences of *cropper* in the British National Corpus, World Edition (henceforth BNC) reveals the following variants in addition to the basic form:

> *came a 5 & 3 cropper [in a sports match]*
> *come an almighty cropper*
> *came the most appalling cropper*
> *gonna come a right bloody cropper*
> *came a complete cropper*
> *has come a catastrophic cropper*
> *has come the most frightful cropper*
> *had nearly come a nasty cropper*
> *came such a cropper*

---

[2] For discussion of the roles of corpora in functional linguistics, see Butler, "Corpus".

This shows that although the default is to use *COME a cropper*, suggesting a possible fixed unit (except for variations of tense, aspect and person) it is possible to treat the sequence analytically, in order to insert a modifier of the noun which is normally concerned with the size or disastrous nature of the failure.[3] The modifier is normally (i) an ordinary adjective, (ii) an adjective indicating size or disastrous nature premodified by the degree word *most*, or (iii) the predeterminer *such*. A further point to note is that in the default form of the expression, and also with modification just by an adjective or predeterminer, the article is indefinite *a*, an example of **colligation**, the preference of an item for a particular grammatical item. However, with *most* premodifying the adjective, the article changes to the definite *the*, despite the fact that expressions such as *came a most appalling/frightful cropper* would seem to be grammatical.

Syntactically, we could either treat *COME* as, exceptionally, a (non-passivisable) transitive verb, or regard the idiom *COME a cropper* as occupying a slot which would normally be occupied by a single intransitive verb. However, the fact that the NP can be modified suggests that we need a schema with an open slot, into which only a restricted range of items can be inserted, as shown in (1).

(1)	*COME* (*such*) *a*	(adjective)	*cropper*
	the most	adjective of size or seriousness	

Secondly, let us consider an example where the co-occurrence patterns are more complex, and defy packaging into neat bundles. The BNC contains 70 examples of the sequence *bare hands*, and only 3 of the singular *bare hand*. Taking both forms together, the dominant determiners are possessives (58/73 = 79%), almost all other occurrences having a zero determiner (13 = 18%) with only single occurrences of indefinite and definite articles. For the plural form *bare hands*, 62/70 (= 89%) occur within a PP with *with* as the preposition, acting instrumentally, the others being phrases acting as subject, object, complement or *by*-agentive. Expressions centred around *bare hands* show what Sinclair terms a **semantic preference** for verbs indicating force (50%), the proportion rising to 75% if the lexical head of the direct object is also taken into account. There is also a **semantic prosody** of difficulty attached to this construction[4]: not only does the use of force imply difficulty, but there is also often a further indication of this in the surrounding context,

---

[3] The view of formulaic sequences as analysable constructs is supported by psycholinguistic evidence on the processing of such sequences (for a summary, see Gibbs).

[4] Note that the term **semantic prosody** is being used here with the meaning given to it in Sinclair's work, in which it "expresses something close to the 'function' of the item – it shows how the rest of the item is to be interpreted functionally" (Sinclair, "Search" 87-88). The term has also been used (see e.g. Partington 66ff, also Stubbs, *Words* 65-66, who himself prefers the term **discourse prosody**) to refer to attitudinal features revealed by the list of single words with which a particular word collocates (e.g. CAUSE collocates strongly with words indicating unpleasant events – see Stubbs, "Collocations"). For discussion of different approaches to semantic prosody, see Hunston, "Semantic".

for instance, the conjunction of *bare hands* with more effective means, for example, *using daggers, tridents and bare hands* or *with buckets, shovels and bare hands*; the use of *nothing/little more than* in front of *bare hands*; or *if it meant* (*if it meant digging the hole with my bare hands*). Expressions with *bare hands* are in some ways similar to, but in other ways different from, those with *naked eye* studied by Sinclair ("Search"). Table 1 compares the two types of expression.

TABLE 1: COMPARISON OF *NAKED EYE* AND *BARE HANDS*.		
FEATURE	*NAKED EYE*	*BARE HANDS*
Number of noun	Singular	plural
Determiner	definite article	possessive/zero
Preposition before det	yes: mainly *with*, *to*	Yes: mainly *with*
Semantic preference	Visibility	force
Semantic prosody	Difficulty	difficulty

The important difference between the *naked eye* and the *bare hands* examples and those considered earlier is that we have here a semantic prosody, in this case one of difficulty, which is not confined to a constituent with some particular grammatical and/or semantic function but operates over a wider span which cannot be defined in terms of constituency.

In the next four sections, four approaches to formulaic constructions are discussed, in order to determine to what extent they can cope with the examples just presented.

3. CONSTRUCTIONIST APPROACHES

A natural place to start looking for ways of accommodating the corpus findings within a grammar is the set of approaches which are subsumed under the term "constructionist."[5] As pointed out by Croft and Cruse (Ch 9) in the useful though brief guide to these approaches on which the following discussion is based,

---

[5] I use the term "constructionist approach" to refer to the whole set of approaches which are based on the construction as a pairing of form and meaning, including, for example, the unification-based Construction Grammar of Fillmore and his colleagues (Fillmore, Kay and O'Connor), the model of Goldberg (*Constructions*), the Cognitive Grammar of Langacker and the Radical Construction Grammar of Croft. For reasons of space, I shall concentrate here on the approach of Fillmore Kay and O'Connor, which I shall refer to simply as Construction Grammar, and that of Goldberg.

the Construction Grammar of Fillmore and his colleagues, which, together with Langacker's Cognitive Grammar, was instrumental in stimulating the development of grammars in which the construction is central, came about largely through an attempt to deal with idioms.

Fillmore, Kay and O'Connor, after presenting a classification of idioms, proceed to examine in some detail what they describe as formal, lexically open idioms, illustrating their discussion by means of a detailed analysis of the *let alone* construction, as in *I barely got up in time to* EAT LUNCH, *let alone* COOK BREAKFAST. What this analysis shows is that the *let alone* construction, although similar to other constructions in various ways, has its own set of properties, at syntactic, semantic and pragmatic levels, which are not entirely predictable from more general principles operating at these levels. As Croft and Cruse (240) observe, later work has brought to light many other constructions whose properties cannot be predicted from the individual constituents of the constructions or other constructions in the language under description, so motivating their assignment to the construction as a free-standing theoretical entity.

In the conclusion to their article, Fillmore, Kay and O'Connor (534) say the following:

> It has seemed to us that a large part of a language user's competence is to be described as a repertory of clusters of information including, simultaneously, morphosyntactic patterns, semantic interpretation principles to which these are dedicated, and, in many cases, specific pragmatic functions in whose service they exist.

Construction Grammar thus recognises that there are patterns at the morphosyntactic, semantic and pragmatic levels, all of which need to be brought together in specifying the properties of a construction.[6]

Fillmore, Kay and O'Connor (534) also express the hope that the machinery for dealing with idioms may also be applicable to the grammar as a whole. This, of course, is the basic claim of constructionist approaches. In another key paper, Kay and Fillmore demonstrate that the *What's X doing Y?* (WXDY) construction, as in *What is this scratch doing on the table?*, although having its own unique semantic interpretations and morphosyntactic properties, and so qualifying as a construction in its own right, interacts with other constructions (the VP, the left isolation construction, etc.) to give the final forms in which the WXDY construction can appear.

Constructions containing varying degrees of idiomatic material have also been studied in other variants of construction grammar which arose under the stimulus of the work of Fillmore and his colleagues. Goldberg (*Constructions*), for instance, devotes a whole chapter of her book to the *way* construction, as in *Frank*

---

[6] It should be noted that later work by Fillmore and his colleagues has introduced some changes to the model originally put forward in the *let alone* paper. Space constraints preclude further discussion here.

dug his way out of the prison, in which "possessive + *way*" is obligatory and unpredicatable. She shows that there is a basic interpretation involving the means for creation of a path (as in the example just given), and a less basic interpretation involving manner (e.g. *He seemed to be whistling his way along*), and provides a formalisation of these variants. For instance, the means interpretation involves, at the semantic level, a CREATE-MOVE predicate, with "creator-theme," "createe-way" and "path" as its arguments, while at the syntactic level these are mapped on to a Verb, Subject, Obj_{way} and Oblique respectively. She also discusses semantic constraints on the construction: the verb must represent repeated action or unbounded activity; the motion must be self-propelled and directed. Furthermore, Goldberg explicitly makes use of the concept of simultaneous satisfaction of constraints when she says that "[c]onstructions are combined freely to form actual expressions as long as they are not in conflict" (Goldberg, *Work* 12). Note, however, that this applied to combinations of constructions, rather than to constraints at different levels on particular constructions.

We see, then, that constructionist approaches not only treat idiomatic expressions as an important, rather than a merely peripheral, part of language, but that they also recognise clusters of morphosyntactic, semantic and pragmatic properties which attach to them and differentiate them from other pieces of structure, so motivating the postulation of a separate construction,[7] and also providing a mechanism which, it is claimed, is equally operative within what Chomskyans would call the "core" grammar. We have also seen that a constraint satisfaction mechanism operates in relation to the combination of different constructions, and that Construction Grammar describes the native speaker's competence as consisting of clusters of simultaneously operative syntactic, semantic and pragmatic properties. How, then, might such grammars cope with the three formulaic sequences selected for exemplification here, *COME a cropper* and expressions centred around *bare hands* and *naked eye*?

Idioms of the *COME a cropper* kind are syntactically, semantically and pragmatically irregular, and must be listed at the lexical end of the so-called **construct-i-con**, the total set of constructions in a language, which in some constructionist models (e.g. that of Goldberg) includes individual word-sized lexical items. It would presumably not be difficult to specify conditions on, for example, the need for an indefinite article except in cases where there is a superlative adjective (e.g. *came the most appalling cropper*).

With our *bare hands* and *naked eye* examples, however, things get somewhat trickier. As pointed out in section 2, these expressions act as the core of extended units of meaning whose boundaries are fuzzy rather than discrete, in that the semantic prosody of difficulty which is associated with the idiom may appear not

---

[7] It should be noted that individual constructionist approaches differ somewhat in the exact nature of what they recognise as a construction. For discussion, see Croft and Cruse (Ch. 10), Goldberg (*Work* Ch. 10), and Gonzálvez-García and Butler.

only in various lexical guises, but also at varying distances and varying positions with respect to the core. This is difficult in a model, such as the various constructionist approaches, in which the boundaries of any particular construction must be clearly specified. In order to account for the *bare hands/naked eye* type of phenomenon, a *sine qua non* of our grammar must be a syntagmatic component which takes account of probabilistically characterised lexical co-occurrence, and this so far appears to be lacking in constructionist approaches, in the sense that the only way of indicating co-occurrence is to specify particular lexical items which are obligatory for the construction.

To summarise, then, constructionist approaches recognise that clusters of morphosyntactic, semantic and pragmatic properties must be brought together in relation to a particular construction, but individual constructions, as studied in constructionist approaches, have precisely defined boundaries, making it difficult to see how the more diffuse constraints involved in semantic prosody could be accommodated.

4. THE COLLOSTRUCTIONAL ANALYSIS

Stefanowitsch and Gries present a model which combines the assumptions of constructionist approaches (in particular, the approach developed in the work of Lakoff (1997) and Goldberg (*Constructions* with corpus-based collocational analysis. This **collostructional** approach follows up on Goldberg's (*Constructions*) demonstration that grammatical constructions provide a meaning of their own, which interacts with that of the lexical items which occur in the construction. For instance, although *hit* does not itself have the concept of transfer as part of its meaning, it can be combined with the ditransitive construction in expressions such as *Pat hit Chris the ball*, where transfer is clearly a part of the overall meaning, which must have come from the construction itself. The aim of collostructional analysis is to explore in detail the associations between constructions and the lexical items which occur in them in corpora. The analysis begins with the isolation of corpus examples of particular constructions, and then examines which lexical items are strongly attracted to, or repelled from, that construction, or rather a particular slot within it, as determined by the results of a Fischer exact test applied to the two-by-two table which contains the single and joint frequencies of the construction and the associated word, or **collexeme**. For instance, Stefanowitsch and Gries investigate the construction *N waiting to happen*, drawing up a table in which the cells represent the frequency of co-occurrence of a particular noun, say *accident*, with *waiting to happen*, the frequency with which *waiting to happen* occurs in the absence of *accident*, and also the frequency of *accident* in the absence of *waiting to happen*, and the frequency of other relevant words (in this case verbs) which have nothing to do with either of the elements under investigation. The value of the Fischer exact probability is then taken as a measure of collostructional strength, the lower the value, the stronger being the bond. In this particular case, the results show that *accident* and *disaster* are by far the most strongly attracted collocates.

Interestingly from the perspective of the present article, Stefanowitsch and Gries also investigate the behaviour of a single word, the verb *cause*, whose attitudinal collocational preferences have been studied in previous work, and a partially variable idiom, the *X think nothing of V$_{gerund}$* construction. The results for *cause* confirm that it co-occurs strongly with items which have a negative connotation. However, the authors also perform a more detailed analysis which isolates the words most strongly associated with each of the grammatical constructions with which verbal *cause* is associated, namely transitive (*it's progressively caused slight breathing problems*), prepositional dative (*it caused harm to others*) and ditransitive (*I am sorry to have caused you some inconvenience*). Although all three constructions attract collexemes with negative connotations, the transitive occurs only, and the prepositional dative mainly, with external states and events, while the ditransitive occurs chiefly with mental states and experiences. For *X think nothing of V$_{gerund}$*, the ranked collexemes reveal some verbs which, in appropriate contexts, could denote activities which could be risky or otherwise potentially undesirable.

Stefanowitsch and Gries go on to demonstrate the usefulness of their technique with more abstract constructions: the *into*-causative (e.g. *He tricked me into employing him*), the ditransitive, progressive aspect, the imperative and past tense. More recently, the collostructional technique has been used to study a variety of "alternations": the dative alternation (*John sent Mary the book* vs. *John sent the book to Mary*), active and passive, word order in verb-particle constructions (*John picked up the book* vs. *John picked the book up*), markers of futurity (*will* vs. *be going to*), and alternative ways of indicating possession (*s*-genitive vs. *of* construction) (Gries and Stefanowitsch).

The collostructional technique is undoubtedly of great value in empirical studies of the relationship between constructions and the lexical items which occur in them, making the study of collocation more precise by relating it to particular structures. It is also clear that such studies yield useful data in relation to the attitudinal associations of particular lexical items. However, because the technique deliberately anchors collocates to slots in particular constructions, it will not tell us anything about the context surrounding those constructions and this, we have seen, is crucial for the analysis of expressions such as those centred on *naked eye* or *bare hands*.

5. JACKENDOFF'S PARALLEL ARCHITECTURE MODEL

We have seen that constructionist approaches are based on the concept of constraint satisfaction. Another model based on the same principle, and itself showing strong constructionist tendencies, is the parallel architecture model developed by Jackendoff, whose latest manifestation is the Simpler Syntax model of Culicover and Jackendoff. Although still formalist in the sense of upholding the importance of Universal Grammar (though as a guide to acquisition rather than determining it) and postulating the autonomy of syntax from the other two levels, Culicover and Jackendoff's model rejects four of the key postulates of mainstream generative grammar, substituting for them claims which were long ago made by functionalists and

cognitivists. Firstly, as has already been pointed out, the model is constraint-based rather than derivational; secondly, there are no hidden levels of syntax, such as "deep structure"; thirdly, the model rather than being syntactocentric as in mainstream generative grammar, is organised on the principle that conceptual semantics, syntax and phonology all have their own autonomy, and that the representations they generate are mapped on to one another through the simultaneous satisfaction of constraints at the three levels; and fourthly, grammar and the lexicon are seen as a continuum rather than as separate components of the model (Culicover and Jackendoff 14-15).

Idioms and other "syntactic nuts" (the term is from Culicover) were seminal to the development of this model, as they were in constructionist approaches. As Culicover and Jackendoff (25) point out, these aspects of language, regarded by mainstream generativists as "peripheral" rather than belonging to the "core grammar," turn out to be very numerous, and present at least as many problems for children acquiring a language as does the "core." Culicover and Jackendoff therefore pursue the line that a theory of learning which is capable of explaining how the lexicon and the "peripheral" elements of languages can be acquired should, in principle, be applicable to the learning of the "core" too.

Within the Simpler Syntax model, parallel structure accounts are given for illustrative idiomatic constructions. (2) below shows the lexical entry for the idiom *KICK the bucket* meaning DIE, while (3) shows how this can be integrated into a sentence. Both are taken from Culicover and Jackendoff (225, example (64) a and b).

(2) $[\text{DIE (X)}]_2 \leftrightarrow [_{VP} \text{V}_2 [_{NP} \text{Det}_4 \text{N}_5]]_2 \leftrightarrow \text{kick}_2 \text{ the}_4 \text{ bucket}_5$

(3) $[\text{PAST} ([\text{DIE (FRED}_3)]_2]_1$

$$[\text{GF}_3 \qquad > \qquad \text{GF}_5]_1$$

$$[_S \text{NP}_3 \text{ T}_1[_{VP} \text{V}_2 [_{NP} \text{Det}_4 \qquad \text{N}_5]]]_{12}$$

$$\text{Fred}_3 \text{ kick}_2 -\text{d}_1 \qquad \text{the}_4 \qquad \text{bucket}_5$$
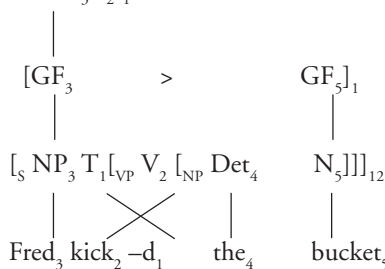
In (3), the conceptual semantic element is co-indexed with the whole construction but also with the head verb KICK. GF represents the grammatical function tier of the model (including the ranking of the two arguments), T represents tense, and again the various elements of the syntactic structure are co-indexed not only with elements of conceptual semantic structure but also with the final phonological structure, represented here orthographically.

Culicover and Jackendoff (226-227) are also able to formalise the structure of other VP constructions such as the sound + motion construction, as in the corpus example (4), the structure of which, modelled on a similar example given by Culicover and Jackendoff (227, example (65)b), is shown in (5).

(4)   ... a car roared round the corner, ... (BNC CDT 48)

(5) $[GO ([CAR]_4^{á}), [ROUND ([CORNER]_6)]_5; [ROAR] (á)]_2]_3$

$[GF_4]$

$[NP_4 [_{VP} V_2 \quad [_{PP} P_5 \qquad NP_6]_5]_3]_3$

car$_4$ roar$_2$ round$_5$ corner$_6$
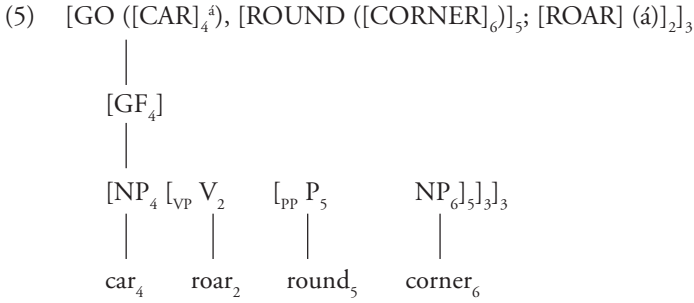
The conceptual semantics here is exactly the same as for the version shown in (6):

(6)   ... a car went round the corner, roaring ...

The mapping on to the syntax, however, is clearly different in the two cases, and (5) shows how it occurs for the sound + motion construction. The symbol á indicates that the two arguments are bound within the conceptual structure, and again subscripts show the matching of the three levels.

It remains to be seen whether such formalisations can be extended to cover the wider range of types of semi-fixed expression revealed by corpus analysis. The specification of examples such as *COME a cropper* should also prove possible, though it might be harder to formulate an adequate conceptual semantic representation than for *KICK the bucket*, which can be paraphrased in terms of a single conceptual entity DIE. Furthermore, the mapping on to the syntax would have to be more complex, in order to account for the various structural possibilities found in the corpus.

Turning now to constructions of the kind typified by the sequences centred around *naked eye* and *bare hands*, we might attempt a mapping of conceptual structure on to syntactic structure as in (7), which shows the situation for expressions of the form *NP$_1$ SEE NP$_2$ with the naked eye*.

(7) $[PERCEIVE ([A]_2 [B]_3)]_4; [UNAIDED]_5; [DIFFICULT]_4]_1$

$[GF_2 > GF_3]_1$

$VNP_2 [_{VP} V_{percep 1} \quad NP_3 [_{PP} P_6 [_{NP} \quad Det_7 \; Adj_8 \; N_9]_6]_5$

NP$_2$ V$_{percep 1}$ NP$_3$ with$_6$ the$_7$ naked$_8$ eye$_9$???
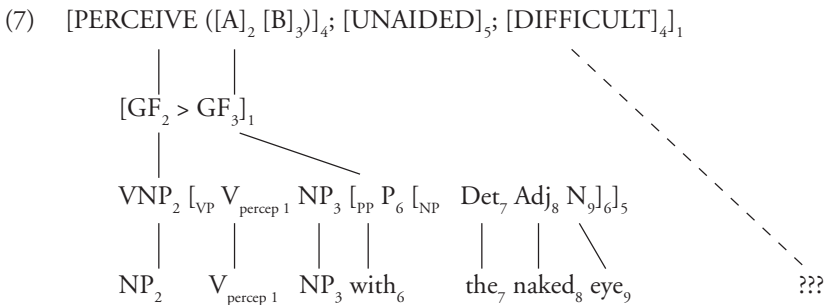
It would be possible to formulate similar structures for the alternative pattern exemplified by *visible to the naked eye*. However, the analysis runs into the same problems as that offered by constructionist approaches. One, as we have seen, is

concerned with mapping the meaning of difficulty on to some specific item or structure, since we have shown that there is a whole range of possible realisations of this semantic prosody, including the grammatical category negativity, lexical adverbs (e.g. *barely*, *hardly*, *just*), and also a variety of more subtle, and less easily categorised, means. The other problem is the inherently probabilistic nature of the choices made in the generation of this structure, again something which is not discussed in the context of the Simpler Syntax model.

6. SYSTEMIC FUNCTIONAL GRAMMAR

At the end of the previous section, I mentioned the choices made in the generation of a particular type of multiword sequence which can be considered as an extended unit of meaning. Systemic Functional Grammar (henceforth SFG) is the only grammatical theory which places at its generative heart the choices (or, to put it more neutrally, the paradigmatic oppositions) which are available to users of a language. It is therefore possible, within this framework, to think about alternative strategies for the expression of particular meanings. This gives us some cause to hope that the theoretical apparatus of SFG will be appropriate for modelling the things that speakers actually say, in relation to what they could have said but did not, and this is clearly of particular importance when we are looking at conventionalised ways of expressing particular meanings. Furthermore, SFG fully recognises the probabilistic nature of the choices made.[8]

A further advantage of SFG for our purposes is the fact that from the very inception of its precursor, Scale and Category Grammar (Halliday, "Categories"), syntagmatic lexical association, or collocation, as described initially by Firth (196), has been recognised as one dimension of linguistic patterning. Halliday ("Some") treats lexis and grammar as distinct though related kinds of linguistic patterning, collocational patterning along the syntagmatic axis being superimposed on the syntagmatic patterns of the grammar. However, in another paper published in the same year, Halliday ("Lexis" 62) suggests that it might be useful to see paradigmatic description as the central, underlying core of the grammar, if it could be shown that structural description could be derived from it. Thus was born Systemic Functional Grammar, where "systemic" refers to the technical device of the system, as a means for representing related options. As this idea took root and developed, it came to be seen that both grammar and lexis are instruments for realising meaningful choices, but that they differ in their degree of specificity. We see here, then, the genesis of the idea, shared by cognitively-oriented theories, that grammatical and lexical elements of language are not separate, but form a continuum, the **lexicogrammar**, in which lexis is seen as "most delicate grammar," where "delicate" is to be understood

CHRISTOPHER S. BUTLER

---

[8] For discussion of this concept within SFG see Tucker, "Systemic"; "Between"; "Exposure".

as "detailed, more specific." In other words, the options towards the left-hand end of a network of systemic oppositions (that is, a set of systems related by dependency) tend to be realised grammatically, while the most detailed options, to the far right of such a network, tend to be realised lexically. At the point where this paradigmatic approach to the relationship between grammar and lexis was formulated, syntagmatic relations began to recede in importance within the theory, only to be revived relatively recently, in the work of Tucker[9].

Tucker ("Grammarians," "Getting, "Extending," "Systemic, "Between," "Sorry") has attempted to show how system networks can be formulated, together with rules for the realisation of the various options, in such a way that collocational phenomena, including the limited variability of semi-fixed idiomatic constructions, can be accounted for. Tucker's aim is to achieve a reconciliation of the "lexis as most delicate grammar" approach of Halliday and the lexis-driven approach of Sinclair, "by showing how systemic functional grammar can model the relationship between lexically and grammatically realized meanings in a unified manner, where grammar and lexis are interdependent" (Tucker, "Grammarians" 148). The key point from which Tucker's argument emerges is that seeing lexical items merely as realisations of very specific, delicate choices in system networks is misleading, in that the choice of (options leading to) specific lexical items, or groupings of such items, can in turn have an effect on further grammatical choices. This approach fits nicely with the demonstration, by corpus linguists, of the intimate association between grammatical and lexical patterning.

An example of the lexical conditioning of further grammatical choices (Tucker, "Grammarians" 161-162) is that when we traverse what is known as the transitivity network, which specifies types of process in the clause, we may first select the category of "mental process" (as opposed to a "material" process of doing and happening, or a "relational" process of being, having and the like), and then choose among the more delicate possibilities afforded by the English language, resulting in a lexical verb such as *love*, *like*, *know*, or *remember*, to give just a few examples. But these verbs differ in their complementation patterns: for instance, *like* can take a *to*-infinitive clause as complement, but *dislike* cannot.

Tucker ("Grammarians") goes on to examine in detail the expression *I haven't the faintest idea*. He points out that this expression is interesting in a number of ways: it is "a stretch of lexical organisation that is not coextensive with the grammatical unit 'word'" (164); it is semi-fixed rather than completely invariant; selecting it also means co-selecting from other systems in the grammar; the range of variation is bound up with choices at other points in the lexicogrammar, for instance in polarity (positive/negative); it involves what Halliday calls **grammatical**

---

[9] It should be noted here that Tucker works within the 'Cardiff grammar' variant of SFG, rather than the 'Sydney grammar' formulated by Halliday and his colleagues. The two approaches have a great deal in common, but also display some important differences (for discussion see Fawcett; Butler, *Structure* Parts 1 and 2).

metaphor, in that it is not the "congruent" form for expression of the particular meaning conveyed; and it involves collocational sets of lexical items (*faintest*, *slightest*, *foggiest*, etc.).

The first problem is the nature of the process involved. On the surface, the expression has a relational process (*have*), but there is clear semantic parallelism with *I don't know*, which is a mental process of cognition. The two classifications have different implications for the grammar of an example such as *I haven't the faintest idea where she is*: in the mental process analysis, we have a process consisting of the material *haven't the faintest idea* (parallel to *(not) know*), with *I* as the clause participant labelled "Cognizant" and *where she is* as "Phenomenon"; with the surface relational clause analysis, the process is *haven't*, *I* is the so-called "Carrier" and *the faintest idea* "Possessed," but such clauses do not normally have a position for the part of the expression realised as *where she is*. Tucker therefore opts for the mental process analysis, treating *the faintest idea* syntactically as a "main verb completing complement," which is also the category used for the particles of phrasal verbs[10].

The fixed and semi-fixed elements in *I haven't the faintest idea* are modelled through the mechanism of preselection of choices within the grammar, operationalised as the allocation of 100% probability to particular choices in the generation of the clause. For instance, in order to rule out **I have the faintest idea*, the choice of a negative rather than a positive clause, in the system of polarity, is set to 100%. At the appropriate points in the selection of systemic features, the verb *have* is preselected, the possibilities for the head of the NP (or, as systemicists call it, nominal group) *the faintest idea* are restricted to a small set of nouns also including *notion* and *clue*, and the choice of modifier for this noun is restricted to a second small set including *foggiest*, *slightest* and perhaps one or two more adjectives. Tucker ("Grammarians") gives full details of the mechanisms involved in each case.

In more recent work, Tucker has explored certain aspects of his proposals in more detail and applied them to other types of semi-fixed expression. In Tucker ("Getting") the issue of classification in terms of basic process type, together with the consequences of the available options, is addressed in relation to the expression *I can't get my head around it*. Tucker ("Between") concentrates on demonstrating that "the full range of phraseological expres-sions and their variants can be modelled systemically and functionally, without recourse to the undesired treatment of these phenomena at a separate level of description" (974), using *you've got hold of the wrong end of the stick* and *my lips are sealed* as his main examples. In Tucker ("Sorry") the emphasis is on formulaic aspects of speech act realisation, exemplified from apologies involving *sorry*, and again demonstrating the ability of the standard mechanisms of SFG to account for the variations encountered in a corpus.

Of particular interest is the attempt, in Tucker ("Systemic"), to account for collocation in general, rather than only semi-fixed expressions, in terms of the normal

---

[10] The current Cardiff grammar no longer uses this term, replacing it by Main Verb Extension.

apparatus of SFG. Tucker takes as an example the discussion of the noun *gaze* and its collocates in Hunston (*Corpora* 69ff). His strategy is to see collocation in terms of the probabilistic narrowing down of options for elements within the functional structure of the clause, and in this respect it is very like what is done in collostructional analysis[11]. According to Matthiessen and Martin's concept of "nuclear relations" within the clause, each clausal or phrasal unit sets up a set of relationships among its elements. For instance, the Subject, which is by default nominal, and the Complement(s), by default nominal or adjectival, represent participants in the process which is realised by the main verbal element, and there may also be adjuncts which represent the circumstances under which the process occurs. These elements are then candidates for housing items which frequently co-occur. In the case of the noun *gaze*, estimation of collocational strength by means of the t-score shows that the high frequency collocates include possessives (*his*, *her*, *my*). This, Tucker observes, is a reflection of the fact that the NP (nominal group) whose head is *gaze* is semantically related, in terms of Halliday's concept of grammatical metaphor, to a clause with *gaze* as the main verb, realising a process which in this case normally takes a human Subject/Agent. A further frequent collocate is *under*, and concordances show that this occurs in structures such as *under the gaze of a handsome young curate*, where the possessive relationship is expressed by means of a prepositional structure with *of*. Estimation of collocational relationships using the Mutual Information (MI) score, which tends to emphasise less frequent, but tightly bound collocates, reveals that two such items are *avert* and *averts*, giving a structure *avert* + possessive + *gaze* which is semantically related, again through grammatical metaphor, to *look away*, *turn* + possessive + *gaze/eyes/face away*. Once again, we can model these relationships through preselection: selection of the delicate transitivity options leading to the lexical item *avert* will limit the Complement to a small range of options realised through the lexical items *gaze*, *face*, *eyes*, together with a probabilistic preference for a possessive determiner. Further MI collocates include *unblinking*, *unseeing*, *unfocused*, *baleful*, *unwavering*, *watchful*, which are modifiers of the head noun: once again, the corpus data can help us to restrict the lexical classes of modifier in a probabilistic fashion.

Let us now look briefly at how Tucker's proposals might handle our three exemplificatory sequences. In generating COME *a cropper* and its variants, the SFG approach would presumably start with an already fairly delicate subdivision of material (doing/happening) processes leading to the lexically-realised area of failing, and then provide further subdivisions concerned with the failure being disastrous, with yet more delicate options showing the possibilities for variation, as sketched in Figure 1, with realisation rules in Table 1. The functional relationship between COME and *a cropper* can be handled, in the Cardiff grammar, by means of the element Main Verb Extension (see footnote 5 above).

---

[11] A very similar approach is also taken in Butler ("Matter"), in relation to the verbs GIVE and TAKE, though the investigation is also pursued beyond the limits of the arguments of the verbs, to examine other aspects of collocation.

material process / - - - → failing → disastrously → disastrous nature explicit → superlative / extent pre-determiner / default

disastrous nature implicit
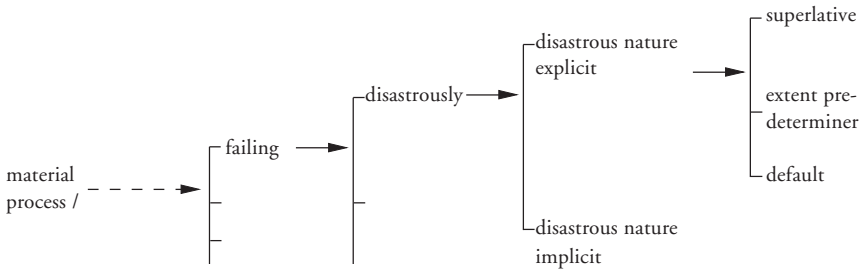
Figure 1: Tentative proposal for options leading to variants of COME *a cropper*.

TABLE 2: REALISATIONS FOR FEATURES IN FIGURE 1.	
SYSTEMIC FEATURE	REALISATION
disastrous nature explicit/superlative	COME *the most* + adj showing seriousness + *cropper*
disastrous nature explicit/extent predeterminer	COME *such a cropper*
disastrous nature explicit/default	COME *a/an* + adj showing seriousness + *cropper*
disastrous nature implicit	COME *a cropper*

The generation of structure for expressions such as SEE *with the naked eye* would start with the selection of a mental process, narrowed down to one of perception, and preselection would determine the probabilistically stated range of options within what the Cardiff grammar calls "qualities of Situation" (as opposed to the "qualities of Thing" which act to modify nominally-realised entities). In particular, there would be a range of such qualities relating to unaided perceiving, and an appropriate arrangement of interconnected systemic options would allow the selection of a main verb such as *see*, *discern*, *perceive* to predetermine a prepositional structure with *with*, while the selection of a quality-of-Thing related to perception, such as *visible*, would predetermine a prepositional structure with *to*. The complement of the preposition would have its determiner set to high probability for *the*, with possessive determiners as options of lower probability, and the head noun set to *eye*.

How, then, does the SFG approach fare overall? Its paradigmatically based nature is attractive in that it allows us to model the choices available to the speaker, and the concept of delicacy of choice makes possible the progressive subdivision of these choices to reflect very detailed meanings, with preselection providing a mechanism for restricting the final choice of lexical sets of individual lexical items. However, underneath this apparent strength lies what many grammarians would see as a weakness: what, we may ask, is the justification for positing particular subdivisions of choice? Proposals such as that in Figure 1 seem *ad hoc*, tailored to the requirements of what we want to generate, without any independent justification. It may be that this is inevita-

ble if we want to model such delicate choices, and Tucker ("Motivating") has pointed out that it is probably futile to look for "reactances" within the grammar in order to distinguish between similar lexical items. He also shows an awareness of the problems when he remarks that "at this level of delicacy lexicogrammatical description enters into uncharted territory, extending well beyond the range of broad grammatical phenomena that can lend their names to feature labelling" (Tucker, "Between" 958).

A further problem is that Tucker's approach to collocation takes us back to the situation we encountered with constructionist approaches in general and Culicover and Jackendoff's model, namely that co-occurrence ends up subsumed under structural relations between elements with fixed boundaries, as evidenced by the treatment of *gaze* discussed earlier. It is therefore difficult to see how Tucker would deal with semantic prosodies which, as we have seen, extend over stretches of language which are not always easy to delimit structurally. Tucker ("Between" 963) mentions, for example, Stubbs' (*Words* 45) demonstration that the verb *cause* tends to associate with words indicating unpleasant things such as *damage*, *death*, *disease*. But again, the discussion is confined to cases where the collocational relationship can easily be subsumed under a structural one: the nouns with unpleasant connotations are generally found as heads of the Complement of *cause*. With multiword expressions such as those centred around *naked eye* or *bare hands*, the situation is more complex. It will be interesting to see if further work within the Cardiff grammar framework will be able to resolve this issue.

7. TOWARDS A UNIFIED ACCOUNT:
RE-ASSESSING THE BASIS OF FORMULAIC LANGUAGE

We cannot, I think, escape the conclusion that although each of the approaches discussed here goes some considerable way towards accounting for the properties of idiomatic multiword expressions, all of them suffer from one crucial disadvantage, namely that they have not yet shown that they can provide a mechanism through which semantic prosodies that are not contained within fixed constituents can be accommodated. For this, we need to revert to the concept of collocation as a separate level of lexical syntagmatic constraint, which only sometimes maps isomorphically on to grammatically well-defined structures. How important this is in the long run will depend on whether the more diffuse realisations of semantic prosody turn out to be a frequent and systematic part of how we communicate, as is suggested by Sinclair's work, or just a fairly marginal phenomenon.

We have seen that Sinclair's claim is that semi-preconstructed strings of words are stored and selected as single items. We have also seen that the same basic idea underlies Wray's model of formulaic language. Wray's model of language acquisition operates on the principle of "needs only analysis," according to which language acquirers operate with the largest possible unit, until such time as the input reveals the potential of parts of the unit to be recombinable (Wray 130-132, 138). Some sequences will remain unanalysed even in the adult. This idea is also consonant with the proposals of usage-based grammars, such as Cognitive Grammar and some kinds

of constructionist model[12] which postulate that the language user's grammar sediments out of very large numbers of individually experienced language events, from which generalisations are progressively made. For functionally-minded linguists, these proposals make a great deal of sense, in that one of the central tenets of functionalism is that language acquisition is based on the linguistic input and on a set of cognitive capacities and dispositions which act on it (the "constructivist" approach, as opposed to the "nativist," Universal Grammar approach of the Chomskyan school).

There is, however, another way to look at formulaic language, which although appearing to take the opposite view to Sinclair and Wray, can, I think, actually be seen as compatible with their work. One of the most striking characteristics of formulaic sequences, illustrated not only in this brief presentation but throughout the literature on this area, is just how few such sequences are truly fixed: expressions of the type *by and large* are very much the exception rather than the rule. Variability is endemic to formulaic language, but it is restricted, controlled variability, and one of our tasks as linguists is to tease out the constraints. This is important, because it means that at least for the many language users whose productions find their way into corpora such as the Bank of English and the BNC, most formulaic sequences do have an internal structure which can be accessed and exploited if the communicative need arises (note that this formulation accords with the Needs Only Principle). If we are to take account of these variations, as well as of the default pattern, we must recognise that most formulaic sequences are indeed made up of components, which can often be modified.

But if this is the case, how do formulaic sequences differ from non-formulaic strings? The answer, surely, is that they realise strong **associations** between particular components, in terms of collocation and colligation, which may operate at a very specific level (i.e. between specific words, whether lexical or grammatical in function) or at a more general level (i.e. with a semantic or syntactic class of items).

In order to examine associations between specific lexical words (**collocations**), we shall use three indicators of collocational strength. The z-score is a measure of how often two items collocate within a given distance (in this case, as in many studies, a distance of 5 words on either side of the node word has been used), as compared with how often they would be expected to co-occur merely on the basis of their overall frequencies in the corpus. The Mutual Information (MI) score likewise uses observed and expected co-occurrence frequencies to compute a measure of association. Both z and MI give too much weight to rare words, and the Log Likelihood (LL) statistics corrects this bias, and is the measure of choice in many studies.[13] Table 3 shows z, MI and LL scores for some pairs of words we have used in previous parts of our discussion, as calculated by WordSmith Tools.[14]

---

[12] See Bybee and Hopper, *Frequency*; also the introduction to Barlow and Kemmer and the papers in that collection.

[13] See for example those in the excellent advanced resource book for corpus linguistics by McEnery, Xiao and Tono.

[14] See <http://www.lexically.net/wordsmith>.

NODE	COLLOCATE	z	MI	LL
come	cropper	17.21	7.76	91525.84
came	cropper	25.14	4.43	63951.66
naked	eye	84.28	9.18	5885.67
bare	hands	21.06	6.75	14466.85

TABLE 3: COLLOCATIONAL STRENGTH FOR SOME COMBINATIONS OF WORD FORMS IN THE BNC.

Any z value over 3.27 is significant at the p >= 0.001 level, and any value of LL over 10.83 is also significant at this level. It has been suggested that a level of 3 or more for MI indicates important collocation (Hunston, *Corpora* 71). So we know that *cropper* is statistically a highly significant collocate of both *come* and *came*, and similarly *eye* is a very significant collocate of *naked*, and *hands* of *bare*.

We have also shown three further kinds of association in these expressions, backing up the large amount of already existing work on the idiom principle. Firstly, there are clear instances of **colligation**, i.e. relationships with grammatical words or categories: *come* and *cropper* associate with the indefinite article (except in certain well-defined syntactic contexts), *naked eye* with the definite article, *bare hands* with possessives; both *naked eye* and *bare hands* associate with prepositions in front of the determiner, especially *with* (in both cases) and *to* (in the case of *naked eye*). Secondly a combination of lexical words may have a **semantic preference** for a particular semantic class of items: *naked eye* goes with words indicating visibility, *bare hands* with words indicating force. Thirdly, we have **semantic prosodies**: *naked eye* and *bare hands* very often have some indicator, in the textual environment, of difficulty. All these properties can be handled in terms of associations between items, whether specific or more general.

Another way of putting this is that individual words, and combinations of words, are **primed** for occurrence in particular environments: this is the basis of Hoey's theory of **lexical priming**. In fact, Hoey demonstrates not only that words and word combinations are associated with each other and with particular semantic areas, but also that they may be primed for occurrence in particular textual positions, such as the beginning or end of a sentence or paragraph.

As I mentioned earlier, I would want to argue (and so would Hoey —pers. comm.) that this "bottom-up" view, in which words associate in specifiable ways and may even take particular positions in the text, is perfectly compatible with the top-down view espoused by Wray. The association between items in adult language means that the child acquiring a language will come across strings such as [kʌməkɹɔpə], [kəiməkɹɔpə], [wɪðɪzbɛəkhændz], and so on, and if these are sufficiently frequent they may become entrenched as single units, at least until such time as the child comes across examples where parts of these strings are combined in other ways, e.g. [kəiməkjudʒkɹɔpə] or [[wɪðmaɪbɛəhændz], at which point the original units may

be analysed into components, though still only to the extent justified by the new data. For some speakers, some strings may never get reanalysed, even into adulthood, because they are so frequent and examples of recombination so rare. But this is exactly what is to be expected on the basis of the well-documented relationship between frequency and the entrenchment of items as units.[15]

In order to see the principle of association in action, let us return to the use of *naked eye*. Corpus analysis has shown clearly that this expression is, statistically speaking, most likely to be used in a syntagmatic discourse context which contains the following:

– reference to the concept of visibility
– reference to unaided vision
– indications of the difficulty of seeing

These principles are clearly operative in examples such as the following:

(8)   Keen-sighted people can distinguish them both with the naked eye. I am not sure that I can do so, but with even times 7 binoculars they are clear enough. (BNC EAW 1241-1242)

The choice of *naked eye* brings with it a further association —notice that it is a probabilistic association rather than an absolute one, but one with very high probability— the presence of the definite article *the* in front of *naked eye*. The precise way in which *the naked eye* will be used depends on whether the speaker wants to express the process of seeing, or the quality of visibility. In (8), the speaker chooses the first option, selecting the verb *distinguish*. This, in turn, leads to another association in the form of the embedding of *naked eye* in a prepositional phrase which has *with* as its preposition: neither *to* nor agentive *by* will fit here. The (again probabilistic) association with an indication of difficulty is fulfilled through the use of *keen-sighted* (in implicit comparison with having normal or poor eyesight) and *with even 7 times binoculars*, a comparison with a more adequate way of viewing the stars.

Importantly, however, these are not the only kinds of association which are operative in the construction of the speaker's utterance. For instance, *distinguish* normally requires an object, here *them both*. Furthermore, the constituent order rules, combined with the topic-focus structure required to convey the speaker's assessment of the informational importance of constituents, determine the order in which *distinguish* and the elements associated with it occur: in this case Subject-Aux-Main Verb-Object-Instrumental Adjunct. Here, of course, we are talking about the syntax of English, including that associated with particular lexical items such as *distinguish* (or the classes of which they are members).

———————

[15]   For discussion from a functional-cognitive linguistic perspective, see, for example, Bybee and Hopper, *Frequency* and Bybee, and from a psycholinguistic perspective, Ellis.

Such an account in terms of association would not necessarily entail the abandonment of the kinds of theoretical proposal discussed in sections 4-7: rather, we would need to reformulate their claims in terms of the systematic syntagmatic association of particular (types of) entity at particular levels of description, as well as mechanisms for the simultaneous satisfaction of constraints at the different levels. For instance, semantic structures can be seen as constellations composed of elements of particular semantic types which regularly associate with each other: indeed, structures involving, for example, an Agent, a semantic predicate and a Patient are clusters of precisely this type. Syntactic structures, such as "NP Aux V NP PP" in English, can similarly be seen as associations of syntactically defined elements. Morphological structures are composed of strongly associated morphemes in generally fixed arrangements, while phonological structures are made up of phonemes in particular association patterns, such as word-initial /str/ in English but not Spanish, or word-initial /mr/ in Russian but not in English. This is not, of course, saying anything in the least revolutionary: on the contrary, syntagmatic structure has been, as already been pointed out, the major organising principle of grammars for a long time. What has not, however, been so prevalent is the concept of the elements in such structures attracting or repelling one another in what I have called association patterns, sometimes absolute, but sometimes probabilistic[16]. It is this concept which allows us to bring in collocational relationships as just one more kind of association, which must be combined with associations at other levels if a natural-sounding utterance is to be formulated.

Further exploration of these tentative suggestions must await future research. I hope to have shown, however, that there is reason to hope that we can resolve the tensions between the complex and subtle patterning revealed by corpus analysis, on the one hand, and the more cut-and-dried patterns enshrined in grammars, on the other.

WORKS CITED

Bank of English. <http://www.titania.bham.ac.uk>.

Barlow, Michael, and Suzanne Kemmer, eds. *Usage Based Models of Language*. Stanford: CSLI, 2000.

British National Corpus. World Edition. <http://www.natcorp.ox.ac.uk>.

Butler, Christopher S. "Corpus Studies and Functional Linguistic Theories." *Functions of Language* 11.2 (2004): 147-186.

——. "A Matter of *GIVE* and *TAKE*: Corpus Linguistics and the Predicate Frame." *Revista Canaria de Estudios Ingleses* 42 (2001): 55-78.

---

[16] However, see Bybee and Hopper (*Frequency* 14) for the claim that "the kind of constituency normally studied by syntacticians also has its source in language use and frequency of co-occurrence."

——. *Structure and Function: A Guide to Three Major Structural-Functional Theories. Part 1: Approaches to the Simplex Clause*. Amsterdam: John Benjamins, 2003.

——. *Structure and Function: A Guide to Three Major Structural-Functional Theories. Part 2: From Clause to Discourse and Beyond*. Amsterdam: John Benjamins, 2003.

Bybee, Joan. "From Usage to Grammar: The Mind's Response to Repetition." *Language* 82.4 (2006): 711-733.

Bybee, Joan and Paul Hopper, eds. *Frequency and the Emergence of Linguistic Structure*. Amsterdam: John Benjamins, 2001.

——. "Introduction to Frequency and the Emergence of Linguistic Structure." *Frequency and the Emergence of Linguistic Structure*. Ed. J. Bybee and P. Hopper. Amsterdam: John Benjamins, 2001. 1-24.

Chomsky, Noam. *Aspects of the Theory of Syntax*. Cambridge: MIT P, 1965.

Collins COBUILD English Language Dictionary. London: Harper Collins, 1987.

Cowie, Anthony P. ed. *Phraseology*. Oxford: Oxford UP, 1998.

Croft, William. *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford UP, 2001.

Croft, William, and D. Alan Cruse. *Cognitive Linguistics*. Cambridge UP, 2004.

Culicover, Peter W. *Syntactic Nuts*. Oxford: Oxford UP, 1999.

Culicover, Peter W., and Ray Jackendoff. *Simpler Syntax*. Oxford: Oxford UP, 2005.

Ellis, Nick. "Frequency Effects in Language Processing: A Review with Implications for Theories of Implicit and Explicit Language Acquisition." *Studies in Second Language Acquisition* 24 (2002): 143-188.

Fawcett, Robin P. *A Theory of Syntax for Systemic Functional Linguistics*. Amsterdam: John Benjamins, 2000.

Fillmore, Charles J., Paul Kay, and Mary Catherine O'Connor. "Regularity and Idiomaticity in Grammatical Constructions: The Case of *Let Alone*." *Language* 64.3: 501-538, 1988.

Firth, John R. *Papers in Linguistics: 1934-1951*. Oxford: Oxford UP, 1957.

Gibbs, Raymond W., Jr. "Idioms and Formulaic Language." *The Oxford Handbook of Cognitive Linguistics*. Ed. D. Geeraerts and H. Cuyckens. Oxford: Oxford UP, 2007. 697-725.

Goldberg, Adele E. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford UP, 2006.

——. *Constructions: A Construction Grammar approach to Argument Structure*. Chicago: U of Chicago P, 1995.

Gonzálvez-García, Francisco and Christopher S. Butler "Mapping Functional-cognitive Space." *Annual Review of Cognitive Linguistics* 4 (2006): 39-96.

Gries, Stefan Th. and Anatol Stefanowitsch. "Extending Collostructional Analysis: A Corpus-based Perspective on 'Alternations'." *International Journal of Corpus Linguistics* 9.1 (2004): 97-129.

Halliday, Michael A.K. "Categories of the Theory of Grammar." *Word* 17.3 (1961): 241-292.

——. "Lexis as a Linguistic Level." *In Memory of J. R. Firth*. Ed. C.E. Bazell, J.C. Catford and M.A.K. Halliday. London: Longman, 1966. 148-162.

——. "Some Notes on 'Deep' Grammar." *Journal of Linguistics* 2.1 (1966): 57-67.

HOEY, Michael. *Lexical Priming: A New Theory of Words and Language*. London: Routledge, 2005.

HUNSTON, Susan. *Corpora in Applied Linguistics*. Cambridge: Cambridge UP, 2002.

——. "Semantic Prosody Revisited." *International Journal of Corpus Linguistics* 12.2 (2007): 249-268.

JACKENDOFF, Ray. *Foundations of Language: Brain, Meaning, Grammar, Evolution*. Oxford: Oxford UP, 2002.

KAY, Paul, and Charles J. FILLMORE. "Grammatical Constructions and Linguistic Generalizations: The *What's X Doing Y?* Construction." *Language* 75.1 (1999): 1-33.

LAKOFF, George. *Women, Fire, and Dangerous Things*. Chicago: U of Chicago P, 1987.

LANGACKER, Ronald W. *Foundations of Cognitive Grammar, Vol. I: Theoretical Prerequisites*. Stanford: Stanford UP, 1987.

MARTIN, James R. *English Text: System and Structure*. Amsterdam: John Benjamins, 1992.

MATTHIESSEN, Christian M.I.M. 1992. "Interpreting the Textual Metafunction." *Advances in Systemic Linguistics: Recent Theory and Practice*. Ed. M. Davies and L. Ravelli. London: Pinter. 37-82.

McENERY, Tony, Richard XIAO, and Yukio TONO. *Corpus-Based Language Studies: An Advanced Resource Book*. Abingdon: Routledge, 2006.

MOON, Rosamund. *Fixed Expressions and Idioms in English: A Corpus-Based Approach.* Oxford: Clarendon, 1998.

NUNBERG, Geoffrey, Ivan A. SAG, and Thomas WASOW. "Idioms." *Language* 70 (1994): 491-538.

PARTINGTON, Alan. "'Utterly Content in Each Other's Company': Semantic Prosody and Semantic Preference." *International Journal of Corpus Linguistics* 9.1 (2004): 131-156.

SINCLAIR, John M. *Corpus, Concordance, Collocation.* Oxford: Oxford UP, 1991.

——. "The Search for Units of Meaning." *Textus* 9.1 (1996): 75-106. Reprinted in Sinclair, 2004,. 24-48.

——. *Trust the Text: Language, Corpus and Discourse*. London: Routledge, 2004.

STEFANOWITSCH, Anatol, and Stefan Th. GRIES. "Collostructions: Investigating the Interaction of Words and Constructions." *International Journal of Corpus Linguistics* 8.2 (2003): 209-243.

STUBBS, Michael. "Collocations and Semantic Profiles: On the Cause of the Trouble with Quantitative Studies." *Functions of Language* 2.1 (1995): 23-55.

——. *Words and Phrases: Corpus Studies of Lexical Semantics*. Oxford: Blackwell, 2001.

TAYLOR, John R. *Cognitive Grammar*. Oxford: Oxford UP, 2002.

TUCKER, Gordon H. "Exposure, Expectations and Probabilities: Implications for Language Learning." *Advances in Language and Education*. Ed. A. McCabe, M. O'Donnell, and R. Whittaker. London: Continuum, 2007. 239-253.

——. "Extending the Lexicogrammar: Towards a More Comprehensive Account of Extraclausal, Partially Clausal and Non-Clausal Expressions in Spoken Discourse." *Language Sciences* 27 (2005): 679-709.

——. "'Getting Our Heads around It': Semantic and Syntactic Tension in the Transitivity Analysis of Metaphorically-derived Multi-word Verbs." *Studi Italiani di Linguistica Teorica e Applicata* 30.2 (2001): 303-313.

——. "So Grammarians Haven't the Faintest Idea: Reconciling Lexis-oriented and Grammar-oriented Approaches to Language." *Functional Descriptions: Theory in Practice*. Ed. R. Hasan, C. Cloran, and D.G. Butt. Amsterdam: John Benjamins, 1996. 145-178.

——. "Between Lexis and Grammar: Towards a Systemic Functional Approach to Phraseology." *Continuing Discourse on Language: A Functional Perspective*. Vol. 2. Ed. C. Matthiessen, R. Hasan and J. Webster. London: Equinox, 2007. 954-977.

——. "Motivating 'Lexical' Systems in a Systemic Functional Lexicogrammar." Plenary Lecture Given at the 19th European Systemic Functional Linguistics Conference and Workshop. 23-25 July 2007. Saarbrücken, Germany.

——. "'Sorry to Muddy the Waters': Accounting for Speech Act Formulae and Formulaic Variation in a Systemic Functional Model of Language." *Functional Perspectives on Grammar and Discourse: In Honour of Angela Downing*. Ed. C.S. Butler, R. Hidalgo Downing, and J. Lavid. Amsterdam: John Benjamins, 2007. 395-418.

——. "Systemic In*corpora*tion: On the Relationship Between Corpus and Systemic Functional Grammar." *System and Corpus: Exploring Connections*. Ed. G. Thompson and S. Hunston. London: Equinox, 2006. 81-102.

WRAY, Alison. *Formulaic Language and the Lexicon*. Cambridge: Cambridge UP, 2001.

CHRISTOPHER S. BUTLER

THE MORPHOLOGY-SEMANTICS INTERFACE IN WORD FORMATION*

Francisco J. Cortés Rodríguez
Eulalia Sosa Acevedo
Universidad de La Laguna

ABSTRACT

The main purpose of this paper is to expand the proposal for lexical decomposition presented in Mairal and Ruiz de Mendoza (this volume) as to cover word-formation processes. In doing so, Lieber's conditions for a theory of lexical semantic representations is considered in detail as well as their role in the design of an adequate framework for a proper treatment of the processes that motivate semantic composition in word formation. In line with the Lexical Constructional Model, the central claim of this paper is that both free and bound morphemes are lexical predicates and, therefore, both are to be defined in terms of the same kind of semantic representation. Much like word lexical templates, affixal lexical templates are thus enriched by incorporating central aspects of Pustejovsky's Qualia Theory.

KEY WORDS: Lexical semantic decomposition, The Lexical Constructional Model, Qualia Theory, derivational morphology, compounding.

RESUMEN

El propósito principal de este artículo es extender la propuesta acerca de la descomposición léxica, presentada por Mairal and Ruiz de Mendoza (en este volumen), al estudio de los procesos de formación de palabras. Para ello, se estudian en detalle las condiciones que Lieber establece con respecto a la configuración de una teoría de representación léxica semántica y se evalúa su papel en el diseño de un marco adecuado para el tratamiento de la composición semántica en la formación de palabras. En consonancia con el Modelo Léxico Construccional, el argumento central de este artículo es que tanto los morfemas libres como los morfemas trabados constituyen predicados y, por tanto, ambos deben definirse según un mismo tipo de representación semántica. Así, al igual que las plantillas léxicas de palabras, las plantillas léxicas afijales incorporan aspectos centrales de la Teoría de Qualia de Pustejovsky.

PALABRAS CLAVE: descomposición léxica semántica, el Modelo Léxico Construccional, Teoría de Qualia, morfología derivacional, composición.

1. INTRODUCTION

The precise nature of the relationship between lexical representations and syntactic structures has provided an impetus for many of the recent studies under-

taken by grammarians. The exploration of this relationship is in fact a by-product of the design of most explanatory grammatical models, irrespective of their position on the formal-functional scale. Furthermore, the rapid increase in alternative views on the locus of the lexicon and the boundaries between lexis and grammar has provoked an even greater interest in lexical representations and their relationship to syntax. In keeping with this interest, the work of Mairal and Ruiz de Mendoza (this volume) and other contributions (Ruiz de Mendoza and Mairal, "Levels," "High-level"; Mairal and Ruiz de Mendoza, "Internal," "Levels"; Cortés, *English*, Cortés and Mairal, in preparation) constitute a solid proposal for the representation of meaning within a functional-constructional theory.

Most grammatical models tend to focus their interest in the semantic representation of clauses, leaving aside the question of how to account for the semantic representation of other grammatical structures such as complex and derived words. This paper aims to broaden the scope of the proposal for lexical decomposition as described in Mairal and Ruiz de Mendoza (this volume) by extending it to the realm of word formation. In doing so, not only free lexical units (i.e. words) but bound lexical morphemes are to be endowed with a semantic representation. Section 2 provides some examples of lexical templates for affixal units.

Such a proposal involves the view that the semantic representation of a complex word conjoins two semantic structures, those of the base word and the affix (in the case of derivational processes) or those of the two lexemes that form part of a compound. The mechanisms underlying the integration of both types of structures will resemble the syntagmatic (i.e. generative) processes propounded for phrasal and clausal structures by Pustejovsky (*Generative*, *Syntagmatic*). Such mechanisms will be addressed in Section 3.

2. THE SEMANTIC REPRESENTATION
OF LEXICAL MORPHEMES

We concur with Lieber (2) that in the history of generative grammar (and this term must be understood in a wide sense as a synonym of 'explicit models of grammar', including both formalist and functionalist proposals) the semantics of words has been the main focus while little attention has been paid to the lexical semantics of word formation. Though there may have been a plethora of reasons for this —some of which are mentioned in Lieber—, it is important to consider seriously the consequences of such a scarce interest in this aspect of word formation. In our view, the neglect of the semantics of word formation after the structuralist tradition has led to an unsatisfactory set of explanations of the morphological

processes involved in lexical creation. Contrary to the standard position, we claim that only after the processes of semantic composition underlying the creation of a complex word are accounted for, it will be possible to develop the architecture of a morphological theory.

Although it is undeniable that a word-formation product is the outcome of a number of operations at different levels of grammatical description (the title of Kastovsky's 1977 paper *Word-formation, or: At the crossroads of morphology, syntax, semantics and the lexicon* is specially adequate in this regard), the main leitmotif for lexical derivation and compounding is the creation of a new semantic structure that takes the shape of a lexical unit. Therefore, word formation is in essence a lexicological phenomenon and a proper treatment of word formation must be based on a solid theory of semantic representation.

In the quest for such a theory Lieber (4) establishes certain conditions. First, the framework for lexical semantic representations must be decompositional and the primitives for description must be of the right 'granularity'. Furthermore, they must allow us to concentrate on lexical semantic properties, not only on those manifested in syntactic structures beyond word level. Such a descriptive framework must be cross-categorial and, finally, it must allow us to describe the meanings of complex words in the same terms we describe the meaning of simplex lexemes. Based on these requirements, Lieber assesses different frameworks such as those propounded in the work of Szymanek, Jackendoff, Pustejovsky (*Generative*) and Wierzbicka, each of which lacks some of the conditions mentioned. Thus, Pustejovsky's Generative Lexicon is decompositional but no explicit commitment is made as to the nature and number of defining components in the system. Nothing is said about whether these are primitives and whether they form a closed set. On the other hand, Wierzbicka's primitives do not conform to the right 'grain size': her word-sized chunks (Lieber 7) do not seem adequate to account for word-formation semantics. Likewise, Jackendoff's system seems insufficient from a cross-categorial perspective.

This kind of argumentation has led Lieber to develop her own proposal, according to which semantic representations consist of two elements, the Semantic/Grammatical Skeleton and the Semantic/Pragmatic Body, which roughly correspond to the distinction Rappaport and Levin ("Types," "Building") draw between event structure templates and constants (or 'roots' as labelled in Levin and Rappaport). The Skeleton includes those semantic features that are syntactically relevant —typically encoded by means of a formal set of primitives— whereas the Body comprises, much like Pustejovsky's Qualia Structures, nondecompositional, encyclopaedic semantic information. The Grammatical Skeleton is described as an extension of Jackendoff's Lexical Conceptual Structures. Actually, some new primitives like the binary features [± material] and [± dynamic] are added to Jackendoff's proposal (Lieber 22-35). These two features enable Lieber to posit a division between two major lexical categories: on the one hand, *substances/things/essences* (roughly equivalent to Nouns, both concrete or [+material] and abstract or [-material]) and on the other hand, *situations* (including Events or [+dynamic] situations, and [−dynamic] situations or States). A third feature is IEPS, i.e. [±I(nferable) E(ventual)

P(osition) or S(tate)], which marks the addition of a path component of meaning and allows a threefold distinction within [+dynamic] situations: (a) simple activities (e.g. *eat, kiss, listen,* etc.) which are neutral with regard to [IEPS], (b) unaccusative or inchoative [+dynamic, +IEPS] situations, which have a direct *path* component of meaning (e.g. *descend, grow, forget,* etc.), and (c) [+dynamic, -IEPS] or Manner of Change Situations with a random *path* (e.g. *walk, amble, vary,* etc.).

The most important claim behind this proposal is that this system of features facilitates the semantic representation of derivational affixes. If derivational affixes create lexical units that extend the simplex lexicon, and the elements of this lexicon are grouped into (sub)classes defined by such features as the ones mentioned, they are also to be part of the semantic structure of derivational affixes, and they can be grouped paradigmatically in terms of the semantic subclasses to which the derived formations will belong. Thus, *-er, -ee, -ant/-ent,* and *-ist* form a class of concrete processual nominalizing affixes in English, whose common skeleton is (Lieber 37):

(1)   [+material, dynamic ([ ], <base>)]

The differences among the affixes within the same paradigm are accounted for by variations in the syntactic subcategorization requirements for their bases and on the semantic specifications on their arguments. Thus, *-ee* is distinguished from the other affixes in requiring its argument to be sentient and weakly volitional (underlined in 2 below) while *-ist* imposes a strong requirement of volitionality on its argument (cf. 5 below). The differences among the above affixes are captured by the following entries (Lieber 62):

(2)   *–ee*
       Syntactic subcategorization: attaches to V, N
       Skeleton: [+material, dynamic ([$_{sentient, nonvolitional}$], <base>)]

(3)   *–er*
       Syntactic subcategorization: attaches to V, N
       Skeleton: [+material, dynamic ([ ], <base>)]

(4)   *–ant/–ent*
       Syntactic subcategorization: attaches to V
       Skeleton: [+material, dynamic ([ ], <base>)]

(5)   *–ist*
       Syntactic subcategorization: attaches to N, A
       Skeleton: [+material, dynamic ([$_{volitional}$], <base>)]

Both this proposal and the motivations underlying it merit several comments. It has already been mentioned above that we advocate for a lexical semantic treatment of word-formation patterns, and for one that treats affixation and compounding in a parallel with simplex lexemes. In our view, therefore, the lexicon comprises lexical morphemes of two types, free lexical morphemes (i.e. words) and

bound lexical morphemes (i.e. derivational affixes). Both free and bound morphemes will be semantically represented by means of their corresponding lexical template. Both are also grouped into lexical classes defined by their similarity of meaning.

The conception of word-formation morphemes as lexical predicates stems from the proposal put forward originally by Martín Mingorance (Marín Rubiales 62-81), in which the affixal lexicon constitutes the base component for the generation of morphologically complex words. This conception of the lexicon has since then been refined, its latest version being part of the Lexical Constructional Model (LCM) as described in Ruiz de Mendoza and Mairal ("Levels," "High-level"), Mairal and Ruiz de Mendoza ("Internal," "Levels," also this volume), Cortés (English) and Cortés and Mairal (in preparation).

One interesting point of consensus between Lieber's proposal and Mairal and Ruiz de Mendoza (this volume) is the appeal to a very similar kind of rationale to advocate for a more detailed and robust system of lexical representation. Thus, in overt similarity with Lieber's Skeleton/Body distinction, the structure of lexical templates, as proposed by Mairal and Ruiz de Mendoza, includes an event structure representation and a fully-fledged description of the semantic parameters that will differentiate one lexical unit from the other members within the same paradigmatic subclass. However, one difference with regard to Lieber's framework is that lexical templates provide the event structure description in terms of the aspectual distinctions established in Role and Reference Grammar (RRG; Van Valin and LaPolla; Van Valin). Furthermore, a crucial difference comes between the so-called Body in Lieber's lexical representations and the Semantic Module of the LCM.

One of the main concerns of the LCM has been to devise a system for lexical representation that covers all aspects of meaning construction, which must include not only syntactically relevant information, but also other semantic, pragmatic and discourse features. The development of such a system has gone through several phases, described in Sections 3 and 4 of Mairal and Ruiz de Mendoza's paper in this volume. The last revised version of this system (Cortés and Mairal, "Constructing") involves the extension of RRG's Logical Structures by integrating Pustejovsky's (*Generative*) Qualia Theory together with the set of Lexical Functions from the Explanatory and Combinatorial Lexicology (Mel'cuk; Mel'cuk, Clas, and Polguère; Mel'cuk and Wanner; Alonso Ramos) and Primitives from Wierzbicka's Natural Semantic Metalanguage (Goddard and Wierzbicka). We believe that despite their complexity, lexical templates are fully-fledged repositories of the semantic features associated to a lexical unit, either a simplex lexeme or an affix, a view that is still pending in other systems of lexical representation, including Lieber's. By way of example, we repeat below the representation of the verb *realize* as described in Mairal and Ruiz de Mendoza (this volume):

(6) **realize:**
    EVENTSTR: **know'** (x, y)

    QUALIASTR: $\begin{bmatrix} Q_A: \text{LOCin (}\textbf{body\_part: mind}, \textbf{see'} (x, y)) \\ Q_T: \text{Culm } \textbf{know'} (x, y \text{ <ALL>}) \end{bmatrix}$

Realize is a verb of cognition that involves reaching knowledge or understanding (as is represented in the Formal quale {Culm **know'** (x,y)}). The cognizer gains knowledge by envisaging a mental scenario, something which involves considering its mind as a location (Mairal and Faber). Therefore, the Agentive quale encodes such an event and the mind is conceptualized as an abstract body-part, which means it is in a partitive, metonymic relation to *body*.

The above excursus on LCM's lexical representations allows us to demonstrate that this model is not only one of the most solid frameworks in providing a thorough explanation of the semantics of simplex lexemes, but also that it is an even more adequate proposal than Lieber's to account for the meaning of word-formation processes and derivational affixes. Let us consider how the semantic content of the nominalizing affixes *-er, -ee, -ant/-ent,* and *-ist* is represented in our proposal (Cortés "Derivational"):

(7) ϕ^i_N: [LT (...x^i..., [ϕ_{BASE} :Lexical Template])], x= Macrorole

The structure in (7) represents the 'event structure' of the derivational class of concrete nominalizing affixes, or concrete processual *substances/things/essences* in Lieber's (36) terminology. We propose to label this derivational class as 'Macrorole Nominalizations' since they encompass both Actor and Undergoer Nominalizations. Actor nominalizations include derived instruments, agents, experiencers, locations, etc. and Undergoer formations are prototypically formed by means of *-ee*. The two corresponding templates are:

(8) ϕ^i_N: [LT (x^i..., [ϕ_{BASE}: Lexical Template])], x = Actor
(9) ϕ^i_N: [LT (...x^i, [$\phi_{BASE\,:}$ Lexical Template])], x = Undergoer

The label "Actor nominalizations" explains the wide scope of this type of derivational processes. As explained in Cortés and Pérez, the semantics of the template cannot be associated to a specific semantic function such as 'agent'. Even though the most prototypical formations correspond to agent nominals, like *writer, runner, violinist*, etc, there are many other formations where the notion of 'agenthood' is absent (cf. formations like *believer*, *owner, lover*, to mention just a few). The term Actor indicates that all the formations are nominalizations of the macrorole Actor, as defined within RRG[1]. This, in turn, justifies the superscript **i** which co-indexes the lexical variable for the derived word (ϕ_N) with the participant that would receive that macrorole function. That is, they mark the nominals as oriented towards one entity (**x**^{i}) involved in the state

FRANCISCO J. CORTÉS RODRÍGUEZ AND EULALIA SOSA ACEVEDO

---

[1] "Macroroles are generalizations across the argument-types found with particular verbs which have significant grammatical consequences; it is they, rather than specific arguments in logical structure, that grammatical rules refer primarily" (Van Valin and LaPolla 139). RRG distinguishes two macroroles: the Actor or generalized agent-type role, and the Undergoer or generalized patient-type role. It is important to emphasize that the term Actor is compatible with non-volitional entities such as in *The key opened the door* where *key* is the actor (Van Valin and LaPolla 141).

of affairs depicted by the base word. Let us recall that the variable 'LT' expresses the fact that the event where this entity participates can be of any kind, a state (**pred'**), an activity (**do'**), or any other logical structure, and, consequently, the semantic function of the nominalized entity is not restricted to Agent. Actually it may take a wide range of values. The following representation is to be understood as a subspecification of the Actor Template, and corresponds to the traditionally labeled Agent nominals, which in RRG terms should be described as effector nominalizations:

(10) ϕ^i_N: [**do'** $(x^i, [\phi_{BASE}])$] , x = Actor. E.g. *driver, runner, smoker*.

As mentioned before, this structure expresses the semantic content of the most prototypical nominalizations within the class: the derived words corresponding to this construction describe the Effector involved in the event expressed by the semantics of the base word. Now, there are two co-indexing possibilities expressed in the above representation depending on whether the formation is deverbal (ϕ_V) or not ($\phi_{[-V]}$). In the case of deverbal effector nouns co-indexation is usually quite straightforward: the verbal bases typically encode an event that is dynamic, and therefore the meaning of effectorhood derives from the semantic function of its first argument. This is the case of *hunter*[2]:

(11)

$$[X\text{-}er]_N: [\ (x^i, [hunt_V]), x = Actor$$

$$hunt_V: \text{EVENTSTR:} [\mathbf{do'}\ (x, e_1)]$$

$$\text{OUTPUT} \rightarrow hunter^i_N: \text{ARGSTR: x: } \mathbf{animate}$$
$$\text{QUALIASTR: } \{...Q_A: e_1\ [\mathbf{do'}\ (x^i, [hunt\text{'}(x,y)])]\}$$

The semantic structure of the nominal *believer* in (12) illustrates the fact that this type of derived Actor nominals do not exclusively refer to agent arguments. Let us recall that the Actor macrorole is assigned to the rightmost argument in a Logical Structure with two arguments, irrespective of the type of event encoded (Van Valin 60-67). Thus:

(12)

$$[X\text{-}er]_N: [(x^i, [(believe_V)])], x = Actor$$

$$believe_V: \text{EVENTSTR: } e_1 [\mathbf{pred'}(x,y)]$$

$$\text{OUTPUT} \rightarrow believer^i_N: \text{ARGSTR: x: } \mathbf{human}$$
$$\text{QUALIASTR: } \{...Q_A: e_1[believe\text{'}(x^i,y)]\}$$

---

[2] In order to simplify the description, we only provide a partial description of the qualia structure of the bases. As can be seen, the information in the quale is often redundant as

The semantic interpretation of denominal Actor lexemes likewise arises from co-indexation with one argument in one of the events depicted in the qualia structure of the base noun, as is the case of *violinist,* where semantic composition is based on the event encoded as the Agent quale of *violin:*

(13)

$$[\text{X-}ist]_N: [(x^i, [violin_N])], x = \text{Actor}$$

$$violin_N: \text{ARGSTR: } y: \textbf{phys\_object}$$
$$\text{QUALIASTR: } \{...Q_A: e_1[\textbf{do'} (x, [play'(x, y)])]\}$$

$$\text{OUTPUT} \rightarrow violinist^i_N: \text{ARGSTR: } x: \textbf{human}$$
$$\text{QUALIASTR: } \{...Q_A: e_1[\textbf{do'} (x^i, [play'(x^i,y)])]\}$$

One interesting effect of co-indexation within this class concerns the derivation of instrument nominals. Consider the representation given in (14). Semantic composition is sensitive to the Telic quale of the base Q_T: BECOME*dry'*(y) (i.e. drying involves an object (y) becoming dry). But there is one additional restriction: the event in the Agentive quale (**Oper** x, z <Instr>) is foregrounded, thus 'shadowing' the event associated to the first argument in the semantic structure of the base (i.e. e_1 in EVENTSTR: $[\textbf{do'} (x, e_1)]_{E1}$: what effector x does). In these cases, foregrounding also motivates that the semantically empty Lexical Function **Oper** inherits the semantic specification from the event structure, whereby 'x operates on instrument z'. **Oper** describes a manipulation event whose exact nature will be determined by the type of object involved.[3] This explains the variation in terms of co-indexation between instruments (as happens in the case of *dryer*) and other actor nominals:

(14)

$$[\text{X-}er]_N: [\text{LT} (x^i, [dry_V])]$$

$$dry_V: \text{EVENTSTR: } [\textbf{do'} (x, e_1)]_{E1} \text{ CAUSE} e_2$$

$$\text{QUALIASTR: } \quad Q_A: e_1[\textbf{ Oper } x, z <\text{Instr}>]$$
$$Q_T: \text{BECOME}dry'(y)])...$$
$$\text{HEAD: } e_1$$

$$\text{OUTPUT} \rightarrow dryer^i_N: \text{ARGSTR: } z: \textbf{phys\_object}$$
$$\text{QUALIASTR: } \{...Q_A: e_1[\textbf{do'} (z^i, \text{CAUSE} [\text{BECOME}dry'(z^i,y)])]\}$$

_____

it tends to identify itself with the eventive description of logical structures, unless some specification is added.

[3] As described in Alonso RAMOS and MAIRAL and RUIZ DE MENDOZA (this volume), if a stone is used to break a glass, then **Oper** will stand for, say, *throw.* If (z) is to be a hammer, the value of **Oper** is most probably *hit*.

Complex nominals with *-ee* are the most conspicuous examples of Undergoer formations. As mentioned before, Lieber (62) and Booij and Lieber isolate the semantics of this suffix within the general group of concrete processual formations by specifying two subcategorization restrictions on its co-indexed argument: a strong condition of sentience and a weaker condition of nonvolitionality. Stating such conditions is not necessary in our proposal insofar as the lexical template for these formations already restricts co-indexation to the Undergoer macrorole.[4] Hence, the semantic compositional structure of a noun like *employee* would be as follows:

(15)

$$[X\text{-}ee]_N: [(...x^i, [employ_V]), x = \text{Undergoer}$$

$$employ_V: \text{EVENTSTR: } e_1 [\, \mathbf{do'} \, (y, x^i)]$$

OUTPUT ➔ $employee^i_N$: ARGSTR: {x: **animate**, y: **animate**}
QUALIASTR: {...Q_A: e_1 [**do'** (y, [$employ'(y,x^i)$])]}

The only difference between this complex noun and the parallel Actor nominal *employer* lies in the co-indexation. The conventions for macrorole assignment as described in RRG (Van Valin 61) are captured in the following hierarchy:

ACTOR   UNDERGOER

Arg of DO	1st arg. of **do'** (x,...	1st arg. of **pred'** (x,y)	2nd arg. of **pred'** (x,y)	Arg. of state **pred'** (x)

[where ⟶ indicates increasing markedness of realization of argument as macrorole]

Figure 1: Actor-Undergoer Hierarchy

The Actor-Undergoer Hierarchy states that, given the Logical Structure of a predicate with two arguments, the leftmost one will be the Actor and that the rightmost argument will be the Undergoer. This is reflected by co-indexation with the (x) argument in (11) to (15).

Even an apparently much more debated case like *escapee* is accounted for in the model without having to appeal to special semantic conditions or interpretations of the kind proposed by Barker (719), which involve a violation of some of

---

[4] It is worth mentioning that Undergoers are described as the 'logical objects' in semantic structures and, therefore, it is not uncommon that they refer to nonvolitional and sentient entities. In fact, these are some of the contributing properties motivating many of Dowty's Proto-patients, which are also generalized semantic roles like RRG's macrofunctions.

the subcategorization conditions imposed by the affix as described by Lieber: the base verb *escape* involves two arguments, one volitional and the other nonsentient, neither of them being consistent with *-ee*'s requirements. This leads Lieber to necessarily accept a violation of the Principle of Co-indexation as well as Barker's particular explanation of the formation: *escapee* will be referred to the first argument of the base verb (i.e. the effector of *escape*) because, even tough it is in control of initiating the action, the consequences of the event are beyond its control.

A more plausible explanation stems from a proper understanding of the semantics of the base verb, which provides far richer information than its argument structure. *Escape* involves a complex scenario composed of two subevents linked causally. Its (skeletal) logical structure representation is the following:

(16) [**do'** $(x, \emptyset)$] CAUSE [BECOME NOT **be-in'** (y, x)]
e.g. *A scam artist escaped from jail*

This structure involves one entity (e.g. *a scam artist*) carrying out some unspecified activity which is the cause of its not being anymore in a certain location (e.g. *jail*). Note that the same argument (*a scam artist*) appears twice, first as effector argument and, second, as a theme participant in the caused locational relation, which makes it indistinctively a good candidate for Actor or Undergoer status. However, a more detailed description of the semantic structure of the base verb (in line with Mairal and Ruiz de Mendoza's proposal in this volume) leads us to specify the qualia structure characterization and the relation between the subevents in the event structure of *escape*, which provides a detailed explanation of how such an argument is to be considered an Undergoer rather than an Actor and, consequently, a good candidate for co-indexation with the suffix *-ee*.

(17) $escape_V$

$$
\text{EVENTSTR} = \begin{bmatrix} E_1 = e_1\colon \textbf{activity} \\ E_2 = e_2\colon \textbf{state} \\ \text{RESTR} = <_\alpha \\ \text{HEAD} = e_2 \end{bmatrix}
$$

$$
\text{ARGSTR} = \begin{bmatrix} [\text{ARG}1 = & \textbf{x: animate\_ind} \\ & \text{FORMAL} = \textbf{phys\_obj}] \\ [\text{ARG}2 = & \textbf{y: artifact : building} \\ & \text{CONST} = \textbf{z} \\ & \text{FORMAL} = \textbf{phys\_obj}] \end{bmatrix}
$$

$$
\text{QUALIASTR:} \begin{bmatrix} \dots Q_A\colon e_1[\textbf{do'} (x, \emptyset)] \\ Q_T\colon e_2\colon [\text{BECOME NOT be-}\textbf{in'} (y, x)]\dots \end{bmatrix}
$$

Two interesting features emerge from this representation: the causing and the caused subevents in the logical structure representation of the verb correspond with the agentive and the Telic qualia characterization respectively. As Pustejovsky (*Generative*, 101-104) points out, when event structures are complex, individual qualia compete

for projection by virtue of mechanisms such as 'foregrounding' or 'focalising' of a single quale of the verbal semantic representation. These mechanisms account for diathesis phenomena such as the causative/inchoative alternation in different types of verbs, as is the case of pure change of state verbs like *break* (Cortés "Inchoative").

We have already seen in some previous cases how co-indexation is also sensitive to qualia structure. With regard to *escapee*, co-indexation is applied once the caused subevent has been 'headed' or 'foregrounded'. In other words, qualia also compete for projection in morphologically complex structures and, in this case, the telic quale $[Q_T: e_2: [\text{BECOME NOT be-}\textbf{in'} (y, x)]$ is the one affected by this mechanism. Thus, Macrorole assignment (i.e. co-indexation in a morphological process) is unambiguous: locational structures of the kind depicted in the Telic quale for *escape* are macrorole intransitive by definition, and since this kind of structures do not include an activity operator **do'** the only macrorole that can be assigned to the structure is that of Undergoer, which by default will be the theme argument (Van Valin 63).

This explanation has some important advantages: headedness and co-indexation reflect the prominence of the features referring to 'affectedness', associated to the theme semantic function of the (x) argument in the structure of *escape*. Such a prominence leaves in the background the other more 'agentive' semantic functions of the same argument which are associated to its being also a causing entity. Another interesting factor revealed by this explanation is the complex interaction that exists between the semantic structures of the primary lexicon and those of the affixal lexicon in the processes of semantic composition that motivate a complex word.

In our proposal, the semantics of the affix *-ee* does not need to establish special restrictions on any argument. Following the format proposed in some previous works (Cortés and Pérez; Sosa, *Análisis*, "Locative"), the lexical entry for this affix is:

(18) ϕ^i_N: $[(...x^i, [\phi_{\text{verbBASE}} [\text{Lexical template} (...x^i)]])]$, x = Undergoer

The formula in (18) expresses the fact that all *-ee* formations are nominals whose denotation is an Undergoer argument from one of the events captured in the Lexical Template of the base verb. The superscript **i** explicitly signals that such an argument is co-indexed with the derived word itself. The representation of the semantic composition of the noun *escapee* is therefore expressed as follows:

(19)
$$[\text{X-}ee]_N: [(...x^i..., [escape_V]), \text{x = Undergoer}]$$

$$escape_V$$
$$\text{EVENTSTR} = \begin{bmatrix} E_1 = e_1: \textbf{activity} \\ E_2 = e_2: \textbf{state} \\ \text{RESTR} = <_\alpha \\ \text{HEAD} = e_2 \end{bmatrix}$$

$$\begin{bmatrix} \text{QUALIASTR} = ...Q_T: e_2: \\ [\text{BECOME NOT} \\ \text{be-}\textbf{in'} (y, x^i)]...\} \end{bmatrix}$$

3. MEANING CONSTRUCTION IN WORD FORMATION

The discussion addressed in the previous section presupposes the existence of certain generative mechanisms for meaning construction in word-formation processes. Such semantic mechanisms include at least co-indexation (especially in the case of derivational processes, but also in compounding) and qualia specification and co-composition (in compounding).

Let us consider firstly how qualia specification can account for the different types of semantic relations that hold between the members of a compound. As Johnston and Busa specify, semantic composition in Noun+Noun compounding involves a modification of a head noun by another modifying noun. The different possibilities of semantic interpretation in a compound are determined by the qualia structures of the nouns involved in the process: co-indexation will affect an argument of one of the events encoded in some of the qualia of the head noun. In other words, the semantics of the modifying noun is a specification or 'subtyping' of one quale in the head noun. In order to illustrate this we will repeat Johnston and Busa's description of some specific cases.

One of their examples (Johnston and Busa 80) is the formation *bread knife* in which the modifying noun relates to the purpose entailed by the head noun. This means that co-indexation will take place in the Telic quale of *knife* which encodes the inherent purpose of this kind of instrument, i.e. cutting, by means of a predicate $[\textbf{do'} (x, [\textit{cut'} (x,y)])]$. In (20) below we present the (simplified) semantic structure of *bread knife*:

(20) $\text{bread}^i \text{ knife}_N$
    TYPESTR = (x: **artifact-tool**)

    ...
    QUALIA =

$$
\begin{bmatrix}
Q_F\text{: } (x) \\
Q_C\text{: } \textbf{blade, handle, ...} \\
Q_T\text{: } e_2 \, [[\textbf{do'} (x, [\textit{cut'} (x, y^i)])]] \\
Q_A\text{: } e_1 \, [\textbf{Oper} (z, x)]
\end{bmatrix}
$$

Co-indexation expresses the function of the modifier noun *bread*, which is to be the affected argument in the telic event, i.e. in the action of cutting.

Compare this with the structure of another root compound, *lemon juice* (Johnston and Busa 82):

(21) $\text{lemon}^i \text{ juice}_N$
    TYPESTR = (x: **liquid**)

    ...
    QUALIA =

$$
\begin{bmatrix}
Q_F\text{: } (x) \\
... \\
Q_A\text{: } e_1 [[\textbf{do'} (y, [\textbf{squeeze\_act} (y, x^i)])]]
\end{bmatrix}
$$

The semantic interpretation in (21) is based on co-indexation with one argument of the Agentive quale: the modifier noun (*lemon*) has a subtyping func-

tion of the second argument in the predicate [**squeeze_act** (y, x^i)] which describes the origin or bringing about of the entity represented by the head *juice* (Pustejovsky, *Generative* 106-122). In other formations like *cardboard box* or *silver ring* the modifier specifies a subpart of the head or the material of which it is composed. That is, co-indexation will take place between the modifier and one argument of the Constitutive quale.

The analyses of *bread knife* and *lemon juice* also show that the incorporation of qualia theory as part of the lexical templates permits to restrict the interpretation of compounds to a great extent. Lieber (53) remarks that little can be predicted of the final meaning of a compound except its referential properties and the semantic property of headedness of one of its components. The rest is 'free', i.e. in her view, the final determinants for lexicalization are context and encyclopaedic knowledge. We believe that, even tough she is partially right, qualia specification in compounding (the potential 'modes of predication' of a lexical unit) restrict heavily the lexicalization possibilities of a newly coined form. It seems that, in Lieber's model, the boundaries for interpretation are limited by the Skeleton (i.e. Pustejovsky's event structure). Qualia structure, however, captures (among other features) the components of Lieber's `Body' and, therefore, semantic interpretation is more constrained in our proposal.

Bahuvrihi compounds of the type *pickpocket, redskin* or *paleface* are semantically composed by the same generative mechanisms as root compounds. In *paleface* the modifying noun is co-indexed with the Constitutive quale of *face*, also realizing a subtyping function. Therefore, the internal semantic configuration of *bahuvrihi* compounds and root compounds is essentially the same. The only difference stems from the final denotational value of the *bahuvrihi* as a whole: it involves a kind of metonymic reconstruction through type coercion (as described in Pustejosvky *Generative*, Ch. 7 and *Syntagmatic*) and this usually affects the Constitutive quale of the head noun, since it expresses the component parts of the referent of the noun[5].

A bit more complex is the process of semantic composition of cases in which a modifying noun denotes an event, as in *destruction weapons* or *hunting rifle*. Johnston and Busa (83-85) explain that these cases involve a generative mechanism of co-composition of the qualia structures of the head and the modifier nouns (Pustejovsky 122-127). In *hunting rifle*, co-composition produces a complex Telic quale with 'sub-qualia'. The Telic quale of the head noun *rifle* which is [**do'** $(x,$ [**shoot'** $(y, z)])$] will be integrated as an agent 'subquale' within the Telic quale of the compound. The modifier *hunting* provides a telic 'subquale' (the event denoted by the predicate **hunt**) within the Telic quale. The overall structure of the compound is represented in (22):

---

[5] For a very similar description of the internal semantic constituency of exocentric compounds and the metonymic motivation for its semantic interpretation see Booij.

(22) *hunting rifle*^i_N
TYPESTR = (x: **weapon**)

$$\begin{bmatrix} \text{QUALIA} = Q_F\text{: (x)} \\ \qquad \qquad ... \\ \qquad \qquad Q_T\text{:} \quad \begin{bmatrix} \text{SUBQ}_T\ e_2\ [[\textbf{do'}\ (x,\ [\mathit{hunt'}\ (y,\ z)])]] \\ \text{SUBQ}_A\ e_1\ [[\textbf{do'}\ (x,\ [\mathit{shoot'}\ (y,\ x^i)])]] \end{bmatrix} \\ \qquad \qquad ... \end{bmatrix}$$

The different types of complex words that have been analyzed show one fundamental feature of all word-formation processes: co-indexation must always occur between the head word and some element in the overall semantic interpretation of the complex lexeme. In the case of the affixal nominals described in Section 2, co-indexation is one of the features of the lexical template corresponding to the affixes. This also holds in the case of derived verbs in, for instance, causative affixal formations. The general lexical template for this derivational class is expressed in (23) (Cortés, "Derivational"):

(23)φ_V: **do'**(x, Ø) CAUSE [Lexical Template (...φ_{BASE} [Lexical Template]...)]

The formula in (23) encodes a complex semantic structure in which there is causal bond between two subevents, the induced one corresponding to a state of affair in which the base word (φ_{BASE}) is involved or affected more or less directly. That is, as a subclass of verbalizations, the function of causative affixes is to build up a predicational structure around the lexical template of a potential argument. A verb like *enthrone* (e.g. *The Virgin enthroned with Child and Saints*) is the output of a causative locative template in which the base noun *throne* is enmeshed in a semantic scenario as a locus for the placement of some other entity (e.g. *The Virgin*). Thus, the derived formation takes the base noun as a pillar around which to build up an event. The locative meaning is determined by the semantic characterization of the noun and it is co-indexation with one argument in the event encoded in one of the base word's qualia characterization that would impose a definite interpretation of the template. Depending on this factor, the canonical template will yield different causative interpretations, among which are the following:

(24)   Causative Locative ('to cause (N) to be at/in/on...(N)'): [φ_V: **do'**(x, Ø) CAUSE [BE-LOC (y, z)]] E.g. *encage, enthrone, perfume$_v$, jail$_v$, land$_v$, gasify*.[6]

---

[6] KASTOVSKY ("Derivation," 99-100) proposes a similar explanation for the derivation of the different types of causative derived verbs in English. The main difference in his proposal lies in the structure of the second subevent which he describes in all cases as a location ([[AGENT]] CAUSE THEME (T) BECOME [NOT] BE IN LOCATION (L)) and in the fact that he considers all other possible meanings (State and Status, as he labels them) as metaphorical extensions of the original since, in his view, it does not seem unlikely that the causative locative semantic structure has "a

(25) Causative mutative ('to cause to become ADJ': φ_V: **do'**$(x, \emptyset)$ CAUSE [BE-COME **pred'**(y)] E.g. *solidify, purify, narrow$_v$. smooth$_v$, legalize*.

(26) Causative adscriptive ('to cause to become/be (like) N') φ_V: **do'**$(x, \emptyset)$ CAUSE [BECOME/BE (**like'**)(y, z)] E.g. *arch$_v$, heap$_v$*.[7]

In relation to (24), a vast group of denominal formations share a causative-locative interpretation motivated by the semantic characterization of the bases. Their qualia characterization provides the contextual feature that triggers this reading: these nouns typically have the function of containers, involving a locative relation with respect to another entity, as expressed in the Formal quale for *encage*. On some occasions, the base noun is the locandum/theme argument as indicated, for instance, by the Telic quale in the case of *varnish*.[8] The corresponding semantic structures to both types are given in (27) and (28) respectively[9].

(27) *encage$_v$*
$[$*en*- $\varphi_N{}^i$ $]_v$: **do'**$(z, \emptyset)$ CAUSE $[e_2 = [$BECOMEbe-**in'**$(cage^i{}_N, y)])$
$|$
TYPESTR = (x: **artifact-lcp**)

QUALIASTR= $...\begin{bmatrix} Q_F: \textbf{container'} \ (x^i, y) \\ Q_A: e_1[\textbf{do'}(z, \emptyset)] \\ Q_T: e_2: [\text{BECOMEbe-}\textbf{in'}(\ x^i, y)] \\ ... \end{bmatrix}$

(28) *varnish$_v$*
$[$ $\phi_N{}^i$ $]_v$: **do'**$(z, \emptyset)$ CAUSE $[e_2 = [$BECOME be-**on'**$(x, varnish^i{}_N)])$
$|$
TYPESTR = (x: **liquid**)

QUALIASTR= $\begin{bmatrix} ...Q_A: e_1[\textbf{do'}(z, \emptyset)] \\ Q_T: e_2: [\text{BECOME be-}\textbf{on'}(\ x, y^i)] \end{bmatrix}$

---

universal cognitive foundation [...] reflecting the basic human activity of moving objects around in space" KASTOVSKY ("Derivation" 99-100). Given that no proof is provided of the centrality of the locative interpretation, we prefer to maintain an open variable 'Lexical Template' in the basic lexical template and to treat locative structures, as well as any other specific values of the complex lexemes, as the effect of co-indexation.

[7] See Wunderlich for a very similar semantic representation of denominal causatives with the notational conventions of Lexical Decompositional Grammar.

[8] Note that this is also effective in the class of locative prefixations, and marks the difference between locative formations like 'forefather' or 'forerunner' where the base noun encodes a theme entity that is located with regard to some unexpressed location (in time or space), whereas in formations like 'forenoon' the base encodes the location around which a locandum is constructed morphologically. For a detailed analysis of locative prefixation see SOSA (*Análisis*, "Locative").

[9] For a detailed description of the semantics of (25) and (26) see CORTÉS ("Derivational").

4. CONCLUSION

The motivation for this paper has stemmed from two different proposals: on the one hand, the insights by Lieber with regard to the centrality of a solid theory of lexical representation for a proper understanding of the semantic composition processes that underlie all word-formation phenomena; on the other hand, the interest in extending the proposal by Mairal and Ruiz de Mendoza ("Internal," "Levels," and also this volume) on the macro- and microstructure of the lexicon, i.e. lexical organization and representation. With regard to this second aspect, Mairal and Ruiz de Mendoza provide a comprehensive system of lexical decomposition by drawing on contributions from different sources, which yields a very rich lexical structure, namely their lexical templates.

Our purpose has also been twofold: (i) to show that lexical templates are an even more solid methodological proposal of lexical representation than Lieber's, especially because it integrates Pustejovsky's (*Generative*) qualia theory. Qualia structure and the generative mechanisms associated to them have paved the way to find explanations for several of the more vexing problems of lexical morphology; (ii) to extend the proposal of lexical organization by Mairal and Ruiz de Mendoza to the word-internal domain, which is also an essential part of core grammar. These aims have lead us to offer the analysis of the semantic make-up of different types of word-formation processes, but still there is dire need for more detailed and intensive studies on several derivational and compounding patterns.

WORKS CITED

ALONSO RAMOS, Margarita. "Colocaciones y contorno en la definición lexicográfica." *Lingüística Española Actual* 24.1 (2002): 63-96.

BARKER, Chris. "Episodic *-ee* in English: A Thematic Role Constraint on New Word Formation." *Language* 74 (1998): 695-727.

BOOIJ, Geert. "Compounding in Dutch." *Rivista di Linguistica* 4.1 (1992): 37-60.

BOOIJ, Geert and Rochelle LIEBER. "On the Paradigmatic Nature of Affixal Semantics in English and Dutch." *Linguistics* 42 (2004). 327-357.

CORTÉS RODRÍGUEZ, Francisco José. "Derivational Morphology in Role and Reference Grammar: A New Proposal." *RESLA: Revista Española de Lingüística Aplicada* 19 (2006): 41-66.

——. "The English Construction." Diss. Universidad de La Laguna, 2007.

——. "The Inchoative Construction: Semantic Representation and Unification Constraints." *Deconstructing Constructions*. Ed. Christopher S. Butler and Javier Martín Arista. Amsterdam: John Benjamins. [Forthcoming]

——. "Negative Affixation within the Lexical Grammar Model." *RÆL: Revista Electrónica de Lingüística Aplicada* 5 (2006): 27-56.

CORTÉS RODRÍGUEZ, Francisco José and Ricardo MAIRAL USÓN. "Constructing Meaning in Role and Reference Grammar." [Forthcoming]

Cortés Rodríguez, Francisco J. and M. Jesús Pérez Quintero. "On the Syntax-Semantics Interface in Word-Formation: The Case of -er Nominalizations." *New Perspectives on Predicate Structure in Functional Grammar*. Eds. Ricardo Mairal Usón and María Jesús Pérez Quintero. Berlin: Mouton de Gruyter, 2002. 213-246.

Dowty, David. "Thematic Proto-roles and Argument Selection." *Language* 67.3 (1991): 547-619.

Goddard, Cliff, and Anna Wierzbicka, eds. *Meaning and Universal Grammar*. Amsterdam: John Benjamins, 2002.

Jackendoff, Ray. *Semantic Structures*. Cambridge: MIT P, 1990.

Johnston, Michael and Federica Busa. "Qualia Structure and the Compositional Interpretation of Compounds." *Proceedings of the ACL SIGLEX Workshop on Breadth and Depth of Semantic Lexicons*. Santa Cruz: UC Santa Cruz 1996. 77-88.

Kastovsky, Dieter. "Word-formation, or: At the Crossroads of Morphology, Syntax, Semantics and the Lexicon." *Folia Lingvistica* 10 (1977): 1-33.

Kastovsky, D. "The Derivation of Ornative, Locative, Ablative, Privative and Reversative Verbs in English: A Historical Sketch." *English Historical Syntax and Morphology*. Ed. Teresa Fanego, María José López-Couso and Javier Pérez-Guerra. Amsterdam: John Benjamins, 2002. 99-110.

Levin, Beth, and Malka Rappaport Hovav. *Argument Realization, Research Surveys in Linguistics Series*. Cambridge: Cambridge UP, 2005.

Lieber, Rochelle. *Morphology and Lexical Semantics*. Cambridge: Cambridge UP, 2004.

Mairal Usón, Ricardo, and Pamela Faber. "Lexical Templates within a Functional Cognitive Theory of Meaning." *Annual Review of Cognitive Linguistics* 5 (2007): 137-172.

Mairal Usón, Ricardo, and Francisco José Ruiz de Mendoza Ibáñez. "Internal and External Constraints in Meaning Construction: The Lexicon-Grammar Continuum." *Estudios de Filología Inglesa: Homenaje a la Dra. Asunción Alba Pelayo*. Madrid: UNED. [Forthcoming]

——. "Levels of Description and Explanation in Meaning Construction." *Deconstructing Constructions*. Ed. Christopher S. Butler and Javier Martín Arista. Amsterdam: John Benjamins. [Forthcoming]

Marín Rubiales, Amalia, ed. *Leocadio Martín Mingorance: el Modelo Lexemático Funcional*. Granada: Editorial Universidad de Granada, 1998.

Mel'cuk, Igor and Leo Wanner. "Lexical Functions and Lexical Inheritance for Emotion Lexemes in German." *Recent Trends in Meaning-Text Theory.* Ed. Leo Wanner. Amsterdam: John Benjamins, 1996. 209-227.

Mel'cuk, Igor. "Semantic Primitives from the Viewpoint of the Meaning-Text Linguistic Theory." *Quaderni di Semantica* 10.1 (1989): 65-102

Mel'cuk, Igor, André Clas, and Alain Polguere. *Introduction à la lexicologie explicative et combinatoire*. Louvain-la-Neuve: Duculot, 1995.

Pustejovsky, James. *The Generative Lexicon*. Cambridge: MIT P, 1995.

——. "Syntagmatic Processes." *Handbook of Lexicology and Lexicography.* Berlin: Walter de Gruyter, 2000. May 14, 2008. <Http://www.cs.brandeis.edu/~jamesp/articles/syntagmatic-processes.pdf>.

Rappaport Hovav, Malka and Beth Levin. "Two Types of Derived Accomplishments." *Proceedings of the First LFG Conference*. Ed. Miriam Butt and Tracy H. King. Grenoble: RANK Xerox, 1996. 375-388.

——. "Building Verb Meanings." *The Projection of Arguments: Lexical and Compositional Factors*. Ed. Miriam Butt and Wilhem Geuder. Stanford: CSLI, 1998. 97-134.

Ruiz de Mendoza Ibáñez, Francisco José, and Ricardo Mairal Usón. "High-Level Metaphor and Metonymy in Meaning Construction." *Aspects of Meaning Construction*. Ed. Günter Radden, Klaus-Michael Köpcke, Thomas Berg, and Peter Siemund. Amsterdam: John Benjamins, 2007. 33-51.

——. "Levels of Semantic Representation: Where Lexicon and Grammar Meet." *Interlingüística*, 17 (2007): 26-47.

Sosa Acevedo, Eulalia. *Análisis funcional cognitivo de los procedimientos de prefijación locativa en inglés.* La Laguna: Servicio de Publicaciones de la Universidad de La Laguna, 2001.

——. "Locative Prepositional Predicates in English: Pragmatic, Semantic and Cognitive Motivations." *Estudios Ingleses de la Universidad Complutense* 13 (2005): 23-48.

Szymanek, Bogdan. *Categories and Categorization in Morphology*. Lulbin: Catholic UP, 1988.

Van Valin, Robert D. Jr. *The Syntax-Semantics-Pragmatics Interface: An Introduction to Role and Reference Grammar*. Cambridge: Cambridge UP, 2005.

Van Valin, Robert D. Jr., and Randy Lapolla. *Syntax, Structure, Meaning and Function*. Cambridge: Cambridge UP, 1997.

Wierzbicka, Anna. *Semantics: Primes and Universals*. Oxford: Oxford UP, 1996.

Wunderlich, Dieter. "Semantic Issues in Morphology." Lecture delivered at *Sinn & Bedeutung 1999*. *Gesellschft für Semantik*, 1999. <Http://www.phil-fak.uni-duesseldorf.de/asw/SuB99/abstracts/Wunderlich.html>.

TOWARDS A CONSTRUCTIONIST, USAGE-BASED REAPPRAISAL OF INTERPERSONAL MANIPULATION: EVIDENCE FROM SECONDARY PREDICATION IN ENGLISH AND SPANISH[1]

Francisco Gonzálvez García
Universidad de Almería

ABSTRACT

This paper argues for a constructionist analysis à la Goldberg (*Constructions*, *Work*, "Nature") of the most distinctive semantico-pragmatic hallmarks of secondary predication after verbs of causation, volition and preference in English and Spanish. Specifically, it is demonstrated that the commonalities and idiosyncratic particulars of these configurations can be felicitously captured taking into account: (i) the degree of felicity of the control exerted by the main clause subject (the Agonist) and the entity/person in the object slot (the Antagonist), broadly construed, as well as the (ii) the dynamic interaction of the semantico-pragmatic properties of the entity/person in the object slot with those of the object-related predicative phrase (XPCOMP).

KEY WORDS: Usage-based, constructionist, secondary predication, manipulation, force dynamics.

RESUMEN

Este artículo defiende un análisis construccionista, basado en datos reales extraídos de corpora, de los rasgos semántico-pragmáticos más destacados de la predicación secundaria con verbos causativos, de volición y de preferencia en inglés y español. Se afirma que las regularidades e idiosincrasias de estas configuraciones pueden explicarse satisfactoriamente prestando especial atención a: (i) el grado de efectividad del control ejercido por el sujeto de la cláusula principal (Agonista) y la entidad/persona codificada en el objeto directo (Antagonista), concebido en sentido lato, y a (ii) la interacción dinámica de las propiedades semántico-pragmáticas de la entidad/persona designada por el objeto directo y las de la frase predicativa orientada hacia el objeto (XPCOMP).

PALABRAS CLAVE: uso lingüístico, construccionista, predicación secundaria, manipulación, dinámica de fuerza.

1. INTRODUCTION

The primary goal of this paper is to argue the case for a bottom-up, corpus driven, usage-based constructionist analysis à la Goldberg (*Constructions*, *Work*,

"Nature") of the most distinctive semantico-pragmatic hallmarks of secondary predication (Aarts; Demonte and Masullo; inter alios) after verbs of causation (e.g. "order," "ordenar" 'order'), volition (e.g. "want," "querer," 'want') and preference (e.g. "prefer," "preferir" 'prefer') in English and Spanish, as in (1)-(2) below.[2] Most of the data used throughout in this paper comes by and large from the original edition of the *British National Corpus* (BNC henceforth). To a lesser extent, English data has been reproduced here from other corpora, such as the *Great Britain Component of the International Corpus of English* (ICE-GB henceforth), the *Brown Corpus* (of Edited American English) and the Lancaster-Oslo/Bergen Corpus of British English (LOB henceforth). As for Spanish, the corpus data has been extracted from the *Corpus de Referencia del Español Actual* (CREA henceforth).

(1)   (a) We want him **back there** or we want him **dead** (Brown, N07:189)
      (b) I like it **crunchy**! (BNC, KP6 65)

(2)   (a) *Quer-emos   a   Ángel   libre*
      want-PRS.1PL   OBJ   Angel   free
      (CREA, 1985, El País, 02/02/1985: 3.000 personas marcharon en silencio
      contra el secuestro del industrial)
      'We want Angel free'
      (b) [*Daniel*] [...] *me   prefier-e   musti-a,*
          Daniel   1SG.ACC   prefer-PRS.3SG   sad-F.SG
      acobard-ad-a, enferm-a
      dishearten-PTCP-F.SG sick-F.SG
      (CREA, 1996, Fernando G. Delgado, La mirada del otro, Novela)
      "Daniel prefers me sad, disheartened, sick"

At a higher degree of delicacy, this paper aims to shed some light on the commonalities and idiosyncratic particulars among the configurations in (1)-(2) and those after verbs of cognition and calling/saying, as exemplified in (3)-(4) below respectively:

(3)   (a) I consider her a model of feminine beauty and virtue (BNC H8A 441)
      (b) They called me a Frankenstein [...] (BNC CH0 1835)

(4) (a) [...] *[E]ncuentr-o maravillos-a-s susintervencion-es, son*
find-PRS.1SGwonderful-F-PLPOSS.2SGintervention-PL be.PRS.3PL
extraordinari-a-s
extraordinary-F-PL
(CREA, 1983, Carlos Fisas, Historias de la Historia)
'[...] I find your interventions wonderful, they are extraordinary'
(b) *Y   en África   me   llam-an   el   huracán*
And in Africa   1SG.ACC   call-PRS.3PL   DEF.M.SG   hurricane
saharaui
Saharawi
　　(CREA, 1990, Oral, Sara y Punto, 04/11/90, Tve-2)
　　'And in Africa they call me the Saharawi hurricane'

Configurations of the type in (1)-(4) above have been argued to be instances of a family of object-related depictives in English and Spanish (Gonzálvez-García, "Family"). While a number of interesting robust generalizations can be detected among all four configurations, this paper is also concerned with otherwise puzzling acceptability differences with verbs of causation/volition/preference of the type illustrated in (5)-(6) below:

(5) (a) I want him **dead**
    (b) *I want him **a dead man**
    (c) You are a dead man

(6) (a) *Quer-emos a Ángel **libre***
       want-PRS.1PL   OBJ   Angel   free
       'We want Ángel free'
    (b) **Quer-emos*   a   Ángel   **un**   **hombre**   **libre**
       want-PRS.1PL   OBJ   Angel   INDF.M.SG   man   free
       *'We want Angel a free man'
    (c) *Ángel   es   un   hombre   libre*
       Angel   be.PRS.3SG   INDF.M.SG   man   free

The structure of this paper is as follows. Section 2 outlines the methodological preliminaries underlying the selection and filtering of the data on which this paper is based, especially in relation to the usage-based model invoked here. Section 3 offers a selected cursory review of some relevant proposals made in both the formalist and functionalist camp regarding the configurations under scrutiny here and goes on to conclude that a constructionist, usage-based account of the type invoked in Cognitive Construction Grammar (Goldberg, *Work*, "Nature") can successfully accommodate, at least from the standpoint of encoding, the restrictions impinging on the element in the object slot and the object-related obligatory predicative phrase (XPCOMP henceforth). Section 4 presents an overview of the constructionist analysis of depictive secondary predication (or, alternatively, the *subjective-transitive* construction) in English and Spanish. Section 5 presents a microscopic view of the 'manipulative' and 'generic' instances of the *subjective-transitive* construction. Evidence is provided for the fact that the semantico-pragmatic hallmarks of the configurations in (1)-(2) above

can only be captured at a constructionist level, rather than by looking at the XPCOMP alone. Specifically, it is argued that the interpretive latitude of these configurations can be felicitously captured under a constructionist account, with special focus on: (i) the degree of felicity of the control exerted by the main clause subject (the Agonist) and the entity/person in the object slot (the Antagonist), broadly construed, as well as (ii) the dynamic, though nonetheless motivated, interaction of the semantico-pragmatic properties of the entity/person in the object slot with those of the XPCOMP. Section 6 summarizes the main findings in relation to earlier discussion and proposes some avenues for future research to maximize the explanatory adequacy of a constructionist analysis of the type entertained here.

2. SOME METHODOLOGICAL PRELIMINARIES

The term "secondary predication" is used here in a theory-neutral fashion to refer to a type of object-related predicative phrase displaying a high degree of syntactico-semantic obligatoriness, as shown among other things by the fact that its omission invariably yields a (more or less) dramatic meaning change or an ungrammatical result. Thus, consider (7a)-(7b):

(7) (a) I want him **dead** -/-> I want him
     (b) *Daniel me*   *prefier-e*   ***musti-a*** -/-> *Daniel*   *me*
          Daniel 1SG.ACC   prefer-PRS.3SG   sad-F.SG   Daniel   1SG.ACC
          prefier-e
          prefer-PRS.3SG
          "Daniel prefers me sad" -/-> "Daniel prefers me"

Moreover, the XPCOMPs reproduced in bold in (1)-(2) and (7) belong to the depictive subtype (or, more exactly, a depictive attribute in Halliday's terminology), since they characterize the NP in the object slot in relation to the process denoted by the verb, "but as a concomitant, not a result, of the process" (Halliday 63).

In line with the usage-based stance taken in the cognitively-influenced Goldbergian strand of Construction Grammar (CxG henceforth), the methodo-logical focus here is on the use of authentic data extracted from corpora routinely supplemented with data gained from introspection by native speakers (Goldberg, *Work*, "Nature"; Boas, *Constructional*; Bybee; Bybee and Eddington; inter alios). Thus, searches were conducted in the spoken component of the original version of the BNC. Additional examples from the ICE-GB and the LOB and Brown corpora have been supplied where necessary so as to make the sampling representative of British and American English. In the case of Spanish, searches were conducted in the CREA in all text categories and modes in both corpora within the variety of Castilian Spanish.[3] This restriction was imposed for practical reasons, viz. to guar-

See the *Real Academia Española* website in the bibliographical section.

FRANCISCO GONZÁLVEZ GARCÍA

antee a quantitative parity in the raw amount of data extracted. Thus, in the case of English, our searches yielded a total of 567 tokens, while in Spanish a number of 224 instances were attested. In order to ensure maximum precision and recall Gries, Hampe and Schönefeld (13), the raw tokens were manually coded, and only those featuring instances of secondary predication of the type illustrated in (3)-(4) were computed for analysis (see Tables 1-3). Examples from other sources have also been used, most notably, from the literature on the topic (see especially section 4) as well as lyrics (as in example (36)), but have not been computed for statistical analysis. In agreement with the premises of the bottom-up usage-based approach invoked here, invented examples have been kept to a minimum.

At this stage, a brief digression is in order regarding the extraction of the examples reproduced in (37) below. Given that the data component of the original edition of the BNC was insufficient to make finer-grained claims regarding the productivity of this configuration, searches were conducted in the case of this configuration in the entire corpus.

Moreover, all the examples reproduced in this paper, whether taken from the English corpora mentioned above or CREA, were previously rated as (a) acceptable, (b) marginally acceptable or (c) unacceptable by a group of 30 educated British and American native speakers aged between 20 and 50 and by a group of Spanish university students aged between 21 and 22 at the University of Almería, Spain, respectively.

It should be emphasized that, in this paper, the term "usage-based" is taken to imply the acceptance of a number of premises (Gonzálvez-García and Butler 82-83), the most relevant being, for our concerns here, the following: (i) redundant generalizations concerning (highly) frequent item-specific patterns/expressions are allowed, even if these are fully compositional, and (ii) extensive use should be made of data from naturally occurring data in the investigation of language use.

Moreover, a brief justification is in order regarding the contrastive nature of this paper and the choice of English and Spanish as the languages under scrutiny in particular. With respect to the former issue, a contrastive analysis is quite appealing for the elaboration of pedagogical grammars or teaching materials. Thus, I concur with Taylor's observation that "[A] pedagogical grammar will need to be inherently contrastive, focusing on what is idiosyncratic in the target language vis-à-vis the learner's native language" (52). Although the configurations illustrated in (1)-(2) above have been analyzed in some detail in English (see the references in section 3 below; Aarts and Aarts) and Spanish (Demonte and Masullo; Gonzálvez-García, "Reconstructing"; inter alios), to the best of our knowledge, no systematic contrastive analysis of these configurations based on naturally-occurring data has been undertaken thus far. Moreover, the configurations in (1)-(2) above can be argued to exhibit a number of prima facie perplexing semantico-pragmatic restrictions which are of paramount importance for constructionist approaches in general and the Goldbergian strand in particular (Goldberg, *Constructions* 223-224; *Work* 38). Last but not least, the constructionist analysis presented here, I would contend, lends further credence to the viability of Contrastive CxG (Boas, *Constructional*, "frame-semantic"), especially for the elaboration of contrastive (e.g. Eng-

lish-Spanish) dictionaries and endorses its invaluable potential for pedagogical grammars, given that there is considerable empirical evidence that language learners make use of constructions (Gries and Wulff; Langacker, *Relevance*; Taylor; Valenzuela and Rojo; inter alios).

3. WHY DO WE NEED A CONSTRUCTIONIST *REAPPRAISAL* OF INTERPERSONAL MANIPULATION?

This section is concerned with a necessarily brief discussion of a number of proposals made in the formalist and functionalist camp regarding the selection of the XPCOMP. For ease of exposition, I will restrict my discussion to configurations of the type exemplified in (1)-(2) above.[4]

3.1. STOWELL'S (*ORIGINS*, "SUBJECTS") LOCAL THEORY OF SUBCATEGORIZATION

Within the Chomskyan framework of Principles and Parameters (Chomsky), Stowell (*Origins*, "Subjects") argues for a purely categorical account of the selection of the XPCOMP in secondary predication (or "small clauses" in his terminology). According to Stowell, "consider" and "expect" may not select PPs and APs, respectively, as XPCOMPs in this construction. In support of this claim, Stowell provides the following examples:

(8) (a) I consider him **honest**
     (b) *I consider that sailor **off my ship** by midnight

(9) (a) I expect that sailor **off my ship by midnight**
     (b) *I expect him **honest**
          (Stowell, *Origins* 259) [bold emphasis added to the original]

In the case of "expect," counterexamples to Stowell's formulation can be found in the light of naturally-occurring data (or data provided by informants). Thus consider (10):

(10) (a) People here expect further city raids **aimed at them with inevitable civilian casualties** (ICE-GB, S2B-005-95)
     (b) I'm going out to buy a packet of cigarettes and by the time I get back, I expect my meal **well-cooked** (Example created by Neil McLaren and approved by native informants)

---

[4] See GONZÁLVEZ-GARCÍA, "Modality," for further details.

3.2. KITAGAWA'S SEMANTIC APPROACH TO PREDICATE SELECTION

Still within a Government and Binding-oriented framework, Kitagawa (111-112) argues against Stowell that the above-noted restrictions on predicate selection cannot be aptly explained in purely categorial (i.e. syntactic) terms. Rather, Kitagawa claims that the restrictions in question are semantic in nature. In his own words: "[*c*]*onsider* selects a complement expressing 'state of affairs' but not a complement expressing 'change of state'." *Expect*, on the other hand, has exactly the opposite selectional properties. In other words, the complement to *expect* expresses that something will change into (or turn out to be in such and such state)" (Kitagawa 212). In support of this claim, he provides the grammaticality contrasts reproduced in (11)-(12) below:

(11) (a) * The doctor considers that patient **dead** tomorrow
     (b) Unfortunately, our pilot considers that island **off the route**

(12) (a) *I expect that island **off the route**[5]
     (b) I expect that man **dead** by tomorrow
                    (Kitagawa 212) [bold emphasis added to the original]

It is interesting to note that Kitagawa observes that a sentence like (12b) above is typical of "mafia talk." However, no attempt is made to account for how such a feature can be related to the semantic distinction between a current and a changeable state of affairs, respectively.

3.3. POLLARD AND SAG'S ACCOUNT OF SYNTACTIC SUBCATEGORIZATION AND SEMANTIC SELECTION

Pollard and Sag's account of the configurations under discussion here differs from those of Stowell and Kitagawa in arguing for the need to achieve a compromise between a purely structural account, on the one hand, and a purely semantic one, on the other (105). In addition, Pollard and Sag invoke a much more dynamic view of the issue in so far as they acknowledge that the acceptability of a given configuration depends to a large extent on whether it can be felicitously contextualized or not (see footnote 5). However, these authors are hard-pressed to acknowledge that there are limitations as to what contextualization can do to amel-

---

[5] In this respect, it must be noted that POLLARD and SAG (103) rightly note that the sentence in question becomes acceptable in the following context: "Suppose, for instance, that the manager of a cruise ship company suddenly discovers a coup d'état is about to take place on an island that is currently on the route of the company's premier cruise ship." In this context, these authors claim, "she might then with complete felicity say to her assistant: *I expect that island off the route by tomorrow*" (emphasis in original).

iorate a putatively unacceptable result. Thus, for instance, the sentences reproduced in (13) below invariably yield an unacceptable result regardless of the particular context in which they are uttered.

(13) (a) * We expect Kim **a doctor** (by the end of the year)
      (b) * We expect that island **a safe place** (after the revolution)
      (c) * We expect him **a dead man** (by tomorrow)
                    Pollard and Sag 104) [bold emphasis added to the original]

Regarding the non-acceptability of examples like the ones in (13) above, Pollard and Sag venture the following working hypothesis: "Perhaps the unacceptability of *I expect Kim a success* is due to the same kind of semantic factors that affect *I expect that island off the route*. To make good on this explanation, one would need to develop a precise account of how the denotations of predicative NPs are systematically different from those of other predicative expressions, and how this semantic difference renders predicative NPs inconsistent with the semantics of *expect*." (Pollard and Sag 104) —Emphasis in original. I will have more to say about the far-reaching implications of this programmatic claim in the final part of this section.

3.4. BORKIN'S SYNTACTICO-SEMANTIC APPROACH

In her discussion of verbs of volition and expectation, Borkin (53) contends that examples of the type reproduced in (14a)-(14b) below are likely to be used to convey an order, in contrast to their non-finite counterparts with "to be," which would convey a wish and a future prediction, respectively:

(14) (a) I **want** this man **dead** by noon
      (b) I **expect** this man **dead** by noon
                    (Borkin 53) [bold emphasis added to the original]

To our mind, a problem with Borkin's account is that the above generalization is somewhat less than accurate when grammar is inspected at higher level of resolution. Thus, it is true that not all predicates encoding volition/causation, etc. convey a sharp order in the secondary predication environment (or with "to be" deleted, in her terminology). Thus, for instance, this is not true for verbs of volition, wish or preference (e.g. "wish," "like," "prefer," etc.), where there is either a softening of the imperative colouring or almost no imperative force at all, at least from a conventional point of view. Thus, consider (15) below:

(15) (a) I like my meat **well done**
      (b) I prefer my tea **cold**
                (Examples created by Neil McLaren and approved by native informants,
                    bold emphasis added to the original)

The implications of this criticism will become more evident in the remainder of this paper. I will contend that the configurations exemplified in (14) and

(15) can be considered two different, though nonetheless connected, sub-constructions within the family of object-related depictives in English and Spanish, namely, the *manipulative subjective-transitive* construction and the *generic subjective-transitive* construction, respectively.

In the context of the discussion of the degree of semantic motivation of syntax presumably invoked by practitioners of the different strands of CxG, Hudson *et al.* use the minimal pair reproduced in (16) below as evidence that "want," unlike "wish," may select an "ed"-participle as XPCOMP.

> (16) I **want/*wish** the fire **lit**
> (Hudson *et al.* 443) [bold emphasis added to the original]

More interestingly for our purposes here, they draw the following conclusion from the observation of acceptability contrasts of the type exemplified in (16) above:

> The general conclusion that we draw is that syntax has some degree of autonomy in relation to semantics, although in the vast majority of cases the two are in step. The minority of mismatches are sufficient to show that we are capable of learning purely syntactic facts, unaided by semantics (or even in spite of semantics), and of storing these facts in competence. (Hudson et al. 445)

However, in the light of naturally-occurring data, it is simply somewhat inaccurate on descriptive grounds to claim that "wish" cannot be followed by a passive participle. Thus consider (17):

> (17) (a) What was the matter they wished **discussed**?
> (Van Ek 179) [bold emphasis added to the original]
> (b) Alianor wished the words **unspoken as soon as uttered** (BNC CCD 2406)

Regarding the conclusions at which Hudson *et al.* arrive regarding the fact that CxG (Langacker, "Universals" 465) claims that grammar is wholly semantically-motivated, it must be emphasized that this holds true for Cognitive Grammar, but certainly not for the entire family of CxG(s). Thus, for instance, Goldberg (*Constructions*) acknowledges that grammar involves a number of idiosyncratic facts which must therefore be learned. In much the same vein, Tomasello (xii) rightly points out that "the functional approach does not mean that all structures in language are determined by function in the sense that they are iconically related to their meanings, as many generative grammarians misconstrue the claim (e.g. Newmeyer 1991)."

From the brief critical examination of a number of semantic and structural proposals regarding the selection of the XPCOMP in secondary predication outlined in the preceding pages, a number of observations can be seen to emerge that

need to concern us here: (i) the acceptability or non-acceptability of a given configuration can be argued to be sensitive to (social, physical, and linguistic) contextual factors, and (ii) the distribution and semantico-pragmatic import of the configurations in (1)-(4) above cannot be aptly accounted for on both descriptive and explanatory grounds in terms of the semantic and/or structural properties of the XPCOMP alone. Rather, the interpretation of these configurations can be best captured at a constructional level, that is, by looking at the dynamic, though nonetheless motivated, interaction of the meaning and form properties of the overall constructional meaning, on the one hand, with those of the integrating components of the construction on the other. This is the question to which we turn in the next section.

4. A CONSTRUCTIONIST ANALYSIS OF SECONDARY PREDICATION: THE *SUBJECTIVE-TRANSITIVE* CONSTRUCTION AS A FAMILY OF CONSTRUCTIONS

Secondary predication (NP V NP XPCOMP) configurations are analyzed as instances of the *subjective-transitive* construction, whose general skeletal meaning can be glossed as follows (Gonzálvez-García, "Reconstructing," "Passives," "Saved," "Family"):

X (NP$_1$) EXPRESSES A HIGH DEGREE OF DIRECT, PERSONAL COMMITMENT TOWARDS Y (NP$_2$ XPCOMP)

Before proceeding further, a number of important clarifications need to be made. The first one concerns the sense in which the term "construction" is used in this paper. According to Goldberg (*Work*, 3), constructions are taken to be "conventionalized pairings of form and function," with no idiosyncrasy requirement attached (Goldberg, "Nature" 205). Thus, in agreement with the usage-based model, (highly) frequent configurations will be considered in this paper to be constructions even if these are fully compositional and can thus be predicted from a corresponding higher-level construction at a given level of specificity (Goldberg, *Work* 214-215; Bybee and Eddington 328).

The second one has to do with the sense in which the term "subjective" should be understood in this paper.[6] In the case of interpersonal manipulation, one facet of subjectivity needs to concern us here, namely, what De Smet and Verstraete (387) refer to as "interpersonal subjectivity," that is, "the enactment of speaker's position with regard to its content," and, more exactly, its relation to force dynamics (Talmy).

---

[6] See GONZÁLVEZ-GARCÍA, "Reconstructing," "Passives," "Saved," and Family" for a discussion of the implications of subjectivity for this construction.

Third, when the labels "secondary predication," or, alternatively, "*subjective-transitive* construction," are invoked in this paper, these should not be taken to detract from Croft's (*Radical*, "Lexical") observation that much of argument structure is construction-specific and language-specific. The labels are shorthand for expository convenience. Our position in this respect is in agreement with Goldberg (*Work*, 226), who opts for retaining "the more traditional emphasis on trying to capture and motivate generalizations, imperfect though we recognize them to be." With this general scenario in mind, the *subjective-transitive* construction can be seen, at a higher level of delicacy, as a family involving at least four sub-constructions, which are the result of the modulation of the lexical semantics of the matrix verb with the overall constructional meaning. These are, in actual fact, the basis of what Croft ("Lexical," 56-59) calls "verb-class-specific constructions," or Boas (*Constructional*, "Determining"), "mini-constructions," that is, form-meaning pairings representing an individual sense of a verb. Consider (18) below:

(18) a. [[Sʙᴊ Consider/Considerar.verb Oʙᴊ XPcomp]] [personal, direct, fully-committed evaluation]
b. [[Sʙᴊ Call/llamar.verb Oʙᴊ XPcomp]] [personal, direct, fully-committed verbalization]
c. [[Sʙᴊ Want/Querer.verb Oʙᴊ XPcomp]] [strong, direct/indirect, target-oriented manipulation]
d. [[Sʙᴊ Like/Gustar.verb Oʙᴊ XPcomp]] [direct, personal, general preference]

Due to space constraints, this paper will be exclusively concerned with instances of the (18c) and (18c) sub-constructions above, namely, referred to in sections 4.1-4.2 under the labels of the *manipulative subjective-transitive* and *generic subjective-transitive* constructions, respectively.

4.1. The *manipulative subjective-transitive* construction

This (sub-)construction is attested with verbs of causation and volition, such as e.g. "want," "require," "need," in English, and "querer" ('want'), "necesitar" ('need'), etc. in Spanish. This sense conveys an intended, target-oriented, direct/indirect, categorical (i.e. strong) manipulation of the state of affairs/event encoded in the NP XPCOMP string. Thus, consider (19a)-(19b) below:

(19) (a) [...] I want him back here (BNC, KP5 1933) (#but I will understand if he decides not to return here) -/-> I want him to be back here (but I will understand if he decides not to return here)

(b) *Nosotros*	*lo*	*quer-emos*	*todo*	*at-ado*	*y*	*bien*	*at-ado*
1ᴘʟ	3sɢ.ᴀᴄᴄ	want-ᴘʀs.1ᴘʟ	all	tie-ᴘᴛᴄᴘ	and	well	tie-ᴘᴛᴄᴘ
(#*pero*	*no pas-a*	*nada*	*si*	*al*	*final algo*		
But	ɴᴇɢ	nothing	if	to.	end something		
	happen-ᴘʀs.3sɢ			ᴅᴇꜰ.ᴍ.sɢ			

no	*qued-a*	*bien at-ado*	*del*	*todo) -/->*
NEG	stay-PRS.3SG	well tie-PTCP	of.DEF.M.SG	everything

Nosotros	*queremos*	*que*	*todo*	*qued-e*	*bien*
1PL	want-PRS. PL	COMP[that]	everything	stay-PRS.SUBJV.3SG	well
at-ado	*(#pero entendemos*	*que*		*pued-a*	
tie-PTCP	but understand-PRS.1PL	COMP[that]		can-PRS.SUBJV.3SG	
hab-er	*algun-o-s*	*fallo-s*	*de*	*última hora)*	
exist-INF	some-M-PL	mistake-PL	of	last hour	

(CREA, El mundo, 17/10/1994: Comienza la huelga de hambre de la plataforma del 0,7%)

'We want everything tied and well tied (#but it is OK if something is not tied at all in the end') -/-> 'We want everything to be tied and well tied (but we understand that something may eventually go wrong in the last minute)'

4.2. THE *GENERIC SUBJECTIVE-TRANSITIVE* CONSTRUCTION

This (sub-)construction obtains with verbs of liking and preference, such as e.g. "wish," "like," "prefer" in English, and "gustar" ("like"), "desear" ("wish"), "preferir" ("prefer"), in Spanish. Configurations of this kind convey the expression of a general preference on the part of the subject/speaker in direct terms. In other words, they express how exactly somebody prefers something or somebody. No directive force is necessarily implied here —at least from a conventional standpoint— although these configurations can be conversationally interpreted as such given an adequate supporting context. Thus, for instance, the sentence reproduced in (20) below can, on a particular occasion, be uttered by, for example, dissatisfied customers as a hint to the waiter that s/he should serve them food and wine more in line with their personal preference.

(20) [...]

El	*vino*	*nos*	*gust-a*	*blanco*	*y*
DEF.M.SG	wine	1PL.DAT	like-PRS.3SG	white	and
en	*su*	*punto, [y]*	*la*	*carne*	*poco*	*hech-a*
in	3SG.POSS	point	and DEF.F.SG	meat	little	do.PTCP-F.SG

(CREA, Javier Pérez de Silva, Pedro Jiménez Hervás, La televisión contada con sencillez)

'We like the wine white and cool and the meat rare'

An important corollary emerging from a close inspection of the acceptability differences reproduced in (19) —or (20) for the matter— is that the secondary predication encodings impose a different construal from that of their non-finite counterparts in English or their finite counterparts in Spanish. This difference of construal has been aptly characterized by Givón in terms of "strong manipulation" and "weak manipulation," respectively.

In the remainder of this paper, I will take a closer look at the last two types of sub-constructions with a view to demonstrating that a Goldbergian-type of con-

struction can adequately capture, at least from the point of view of encoding, the main restrictions impinging on the entity/person in the object slot and the XPCOMP.

5. A MICROSCOPIC VIEW OF "MANIPULATIVE" AND "GENERIC" INSTANCES OF THE *SUBJECTIVE-TRANSITIVE* CONSTRUCTION

As was already advanced in the preliminary characterization of the *subjective-transitive* construction outlined in the previous section, the notion of force dynamics, as put forward in Talmy is of pivotal importance to understand the semantico-pragmatic import of these configurations. This is so, among other reasons because force dynamics "pertains to the linguistic representation of force interactions and causal relations occurring between certain entities within the structured situation" (Talmy 12). It must be emphasized that although force dynamics is originally envisaged by Talmy as falling within the realm of physical force in general and in particular as a generalization over causatives (Talmy 409-470), as noted by De Mulder (295), the schematic system of force dynamics has also been applied through metaphorical transfers to the domains of internal psychological relationships and social relations. In what follows, I will be basically concerned with the implications of force dynamics in the social domain and, more precisely, in the psychophysical and interpersonal domains.[7]

5.1. THE SEMANTICO-PRAGMATIC PROFILE OF THE XPCOMP

A robust generalization emerging from the otherwise acceptability differences exemplified in (21)-(23) below runs as follows: the more controllable by the subject/speaker the property/state of affairs/condition encoded in the XPCOMP, the more felicitous the state of affairs/event to be encoded will be in this configuration. Thus, consider:

(21) (a) She wanted me*(to be) a medical doctor (ICE-GB Corpus, S1B-071-20)
(b)*Ella me   quier-e   médico   quier-e   que
She 1SG.ACC want-PRS.3SG doctor   want-PRS.3SG COMP[that]
sea   médico
be.PRS.SUBJV.1SG   doctor
* 'She wants me a medical doctor' / 'She wants me to be a medical doctor'

(22) (a) I want you *(to be) able to justify your marks (BNC JND)

(b) *_Te_   _quier-o_   _capaz_   _de_ _justific-ar_   _tus_   _nota-s/_
2SG.ACC   want-PRS.1SG   capable of justify-INF   2PL.POSS mark-PL

Quiero   _que_   _sea-s_   _capaz_   _de_ _justificar_
want-PRS.1SG   COMP[THAT]   be.PRS.SUBJV-2SG   capable of   justify-INF

tus   _nota-s_
2PL.POSS mark-PL

*'I want you able to justify your marks'/ 'I want you to be able to justify your marks'

Thus, while one may want to express a wish that one's son become a doctor, hence the felicity of the combination with a non-finite clause and a finite clause in English and Spanish, respectively, one cannot felicitously manipulate someone into being a doctor.[8] The same rationale applies to the state of affairs "being able to justify one's marks," as in (22) above. Further compelling evidence for this claim stems from the Spanish minimal pair reproduced in (23) below:

(23) (a) *_María quier-e_   _el_   _resultado_   **_fals-o_**
María want-PRS.3SG   DEF.M.SG   result   false-M.SG
(Bosque 205) [bold emphasis added to the original]
* 'María wants the result false'

(b) _María quier-e_   _el_   _resultado_   **_falsific-ad-o_**
María want-PRS.3SG   DEF.M.SG   result   falsify-PTCP-M.SG
'María wants the result falsified'

An important provisional generalization emerging from the data analyzed so far is that 'true' NPs (i.e. those which are not functionally equivalent to APs or AdvPs) are systematically unacceptable as XPCOMPs in English, while characterizing NPs are marginally acceptable with some verbs in Spanish. This restriction can be motivated semantically as follows: properties, conditions, states and locations, as encoded in APs, PPs, AdvPs, -_ed_ participles and gerunds, fit in nicely with the strong manipulation flavour of the construction. By contrast, those NPs truth-functionally encoding an entity/person rather than a state, clash with the constructional semantics of the construction, given that one cannot manipulate an entity or person into an entity/person. This restriction is not only applicable to the family of depictives, but to resultatives as well. Thus consider the acceptability differences reproduced in (24) below:[9]

---

[8] It should be emphasized that when society comes into the picture, in addition to the Agonist and the Antagonist, society can be in turn Agonist or Antagonist (e.g. depending on the dad's or son's point of view). For a more thorough discussion of the issue, the reader is referred to Johnson, inter alios.

[9] For a comprehensive discussion of the salient properties of resultatives from a constructionist standpoint, the reader is referred to Boas (Constructional, "Determining"), Goldberg and Jackendoff, and Iawata, inter alios.

(24) (a) John beat him **black and blue**
(b)John kicked him **into the street**
(c)*They tied him **a prisoner**
      (Guéron and Hoekstra 100) [bold emphasis added to the original]
(d) He painted the walls **a pale shade of blue** -> He painted the walls **light blue**

While it is indeed crucial to take into account the inherent semantico-pragmatic properties of the XPCOMP, it is my contention that in order to account for the restrictions on the type of XPCOMP that can felicitously occur in this construction, one needs to take into consideration the dynamic interaction of the meaning and form properties of the XPCOMP (and the other construction's constituents) on the one hand, and the overall constructional meaning on the other. By way of illustration, consider the examples reproduced in (25)-(28) below:

(25) I like them **paperbacks** they're not too big is it? (BNC KB2 1582)

(26) [...] do you want it **colour** mate or **black and white**? (BNC KC6 1046)

(27) [Al] *Archiduque* *Felipe* *le* *gust-an* *la-s*
DAT.DEF.M.SG Archduke Felipe 3SG.DAT like-PRS.3PL DEF.F-PL
infanta-s **honest-a-s,** **trabajador-a-s** **de su** **pueblo**
infanta-PL honest-F-PL hard.working-F-PL of 3SG.POSS people
y *madre-s* *sumis-a-s* *y* *amantísim-a-s*
and mother-PL obedient-F-PL and excellent.lover-F-PL
(CREA, 1982, Manuel Martínez Mendiero, Juana del amor hermoso)
'The Archduke Felipe likes his infantas honest, devoted to their people, obedient mothers and excellent lovers'

(28) [...] *la* *novela* *conviert-e* *el* *último* *exilio* *de* *Goytisolo*
DEF.F.SG novel turn-PRS.3SG DEF.M.SG last exile of Goytisolo
en *un-a* *reivindicación de Onan,* *o de* *Kessel Schwartz, que*
into INDF-F.SG vindication of Onan or of Kessel Schwartz REL
lo *quier-e* **un** **esperpento anal**
3SG.ACC want-PRS.3SG INDF.M.SG absurdity anal
'The novel turns the last exile of Goytisolo into a vindication by Onan or by Kessel Schwartz, who wants it to be an anal absurdity'
(CREA, 1977, El País, 16/09/1977: Juan sin tierra)

The examples reproduced above appear to contradict, prima facie, the claim substantiated in the previous pages that NPs are systematically barred in the XPCOMP position in the configurations under scrutiny here. However, a number of interesting considerations emerge in the light of the examples reproduced in (25)-(28) above. In the case of the English examples, the XPCOMPs are NPs from a formal point of view, but they function on semantico-pragmatic grounds like adjectives. In fact, it seems that the speaker uttering "paperbacks" in (25) is using it as meaning something like "small, handy." Example (25) is even more evident because "colour" is coordinated with APs such as "black and white." Thus, in the case

of (25)-(26) above, despite their formal appearance, the XPCOMPs function as APs and encode properties which can be controlled by the main clause subject/speaker, who can felicitously decide which format of book to purchase or whether s/he wants his photos colour or black and white.

The Spanish examples add a further twist to the picture presented so far, since they must be interpreted against a specific socio-cultural background which is in the final event responsible for determining the felicity of the selection of the XPCOMP. Thus, (27) makes reference to the time of reign of Felipe II, and at this time kings had the authority to determine the way their daughters should be raised and educated. It is important to note that the properties encoded in the XPCOMP here are construed by the subject/speaker as stage-level properties rather than inherent, permanent properties. In other words, the sentence conveys the way the king wants his daughter raised and educated. Example (28), by contrast, features an XPCOMP conveying a permanent rather than transient or stage-level property. However, it is the socio-cultural context that makes it possible for this sentence to be acceptable. Authors are in authority to give vent to their creative impulse and turn their work into a particular by-product, in this case, as the subject/speaker defines it, "an anal absurdity" (see also example (39f) below for a similar case). By contrast, parents cannot, under normal circumstances, in the present-day scenario, turn their sons and daughters into doctors, teachers, etc. (cf. example (21) above).

However, it must be emphasized that taking the socio-cultural dimension of force dynamics seriously calls for a broad construal of lexical semantics in which there is room for a wide range of factors. To return to the by now familiar example of parents and children, consider, by way of illustration, the acceptability contrasts reproduced in (29)-(31) below:

(29) *Tod-o-s   lo-s   padre-s   que   sient-en   la   carencia de*
     all-M-PL   DEF-M.PL parent-M.PL REL   feel-PRS.3SG DEF.F lack   of
     un   hij-o   y decid-en   adopt-ar   uno   lo
     INDF.M.SG   son-M.SG and decide-PRS.3PL adopt-INF one   3SG.ACC
     quier-en   recién   nacid-o,   san-o,   guap-o   y
     want-PRS.3PL recent.born-PTCP.M.SG healthy-M.SG   cute-M.SG and
     onrosad-o
     rosy- M.SG
     "All those parents who feel the lack of a son and decide to adopt one, want
     him newly born, healthy, cute and with rosy cheeks"
     (CREA, 1988, Informe Semanal, 11/06/88, TVE 1)

(30) *#Queremos   a   nuestro   hij-o   extrovertid-o, suspicaz,   médico*
     want-PRS.1PL OBJ   1PL.POSS son-M   open-M   perspicuous-M doctor
     "We want our son *(to be) open, perspicuous a doctor"

(31 *Queremos   a   nuestro   hij-o   libre de   enfermedad-es genética-s*
     want-PRS.1PL OBJ   1PL.POSS son-M   free   from   disease-PL   genetic-PL
     "We want our son free from any genetic disease"

Let us suppose the case of a couple who want to have children. If we are talking about biological children, then a sentence like (30) is hardly felicitous since, there is no way in which, under normal circumstances, parents can establish a priori the properties or characteristics that the child should actually have. A radically different picture emerges if the property at stake is, for instance, whether the child should be free from any genetic disease. In those countries such as the United States of America or the United Kingdom, where the manipulation of embryos is deemed legal for therapeutic purposes, a sentence like (31) could then be considered felicitous. Finally, if we are talking about an adopted child rather than a biological child, then parents have more freedom to decide, at least in principle, the characteristics of the child they would like to adopt. This is why a sentence like (29) would thus be acceptable given the adoption kind of supporting context. This is indeed a very complex issue, but I hope that this brief discussion can be seen to point to the need of adopting a constructional, rather than local, view of these constructions in which the semantico-pragmatic facets of sentences are understood to be sensitive to a broad range of socio-cultural factors.

An additional important semantico-pragmatic hallmark of configurations of this kind which cannot be properly understood without invoking a socio-cultural perspective has to do with the fact that the property/state encoded in the XPCOMP must have some positive or negative import for the manipulator. In other words, the XPCOMP must be goal-directed.

(32)   Bosses/#Students/#Teachers want employees weak

(33)   My mother/#The mayor of the city/#George Bush does not want our house in a mess

As the examples above show, a situation in which employees are weak is likely to be more advantageous for bosses than for students or teachers, among other reasons because there are in principle no socio-economic relations between the parties in question. By the same token, one's mother, especially in European countries such as Spain or Italy, is more likely to be concerned about keeping one's house clean and tidy than governmental authorities from the same country or even less from other countries.

To round off this section, I hope to have argued the case for the need to look beyond the inherent meaning and/or form properties of the XPCOMP alone and adopt a constructionist perspective which acknowledges the existence of a dynamic interplay between the inherent meaning and form properties of the construction's constituents, on the one hand, and the constructional meaning, on the other. In the course of the exposition, force dynamics has been shown to be a crucial factor, whether understood from a psychophysical perspective (cf. examples (1)-(2) above), or, more crucially, from a socio-cultural one (cf. examples (29)-(32) above).

A robust generalization emerging from the examination of the semantico-pragmatic profile of the entity/person yielding a felicitous result in the object slot in this environment can be stated as follows: The more definite the entity/person to be encoded in the object slot, the more felicitous it will be in the *subjective-transitive* construction, in keeping with its "target" status. This explains, for instance, why expletives and dummy elements are systematically not acceptable in English in this construction:

(34)   We want #there/???somebody/EVERYBODY/him back

(35)   I don't want there *(to be) any question of you being late (BNC G0N 713)

Moreover, English, unlike Spanish, allows the entity/person in the object slot (the controllee) to be inclusive of the entity/person in the subject slot (the controller) in this environment:

(36)   (a)   I want us together again (Janet Jackson, lyric)

(b)	*Nos	quier-o	juntos	de	nuevo
	1PL.ACC	want-PRS.1SG	together	of	new

'I want us together again'

(c)	Quiero	que	est-emos	juntos	de	nuevo
	want-PRS.1SG	COMP[that]	be-PRS.SUBJV.1PL	together	of	new

'I want us to be together again'

5.3. FREQUENCY MATTERS

However, under the usage-based approach invoked here, frequency is considered to be of paramount importance in a number of interesting respects.[10] First, highly frequent expressions will be treated as constructions, even if they are fully compositional. In this respect, two important qualifications need to be made abundantly clear. In the case of Spanish, the examination of the data collected from the corpora and other sources (e.g. examples in the literature) has not allowed us to posit an inventory of frequent combinations in the two sub-constructions under scrutiny here. A different picture emerges in the case of English, where there is some empirical evidence that the "money back" sequence is particularly frequent with "want" and, to a lesser extent, with other verbs of causation and volition such as "ask," "expect," "claim," "demand," and even more polite combinations of the type "would like."

---

[10] See further Bybee and Hopper; Bybee; Bybee and Eddington; inter alios.

(37) (a) I want my money back: that's all (BNC FP7 1115)
(b) Take it back to the shop that you bought it from and ask for your money back (BNC C8N 1142)
(c) I'm expecting thirty quid back (LOB L10:31)
(d) Yes, we would like our money back (BNC H9Y 1035)

Our search of the string "money back" in the entire BNC yielded 333 tokens. 20 of these tokens were instances of secondary predication with "want" as main verb. Interestingly enough, 11 of these 20 tokens were found with an "I" subject. Given the low frequency of the construction in general, a fact probably due to politeness factors, the conclusion can be warranted that "X WANT(S) ONE'S MONEY BACK" qualifies as a construction in English in its own right within the *manipulative subjective-transitive* construction.

In what follows, an inventory of representative examples of each morphosyntactic realization of the XPCOMP in the constructions under examination here in English and Spanish is provided in (38) and (39) below:

(38) (a) Oh put that back on Aaron Put that back on Aaron cos I might need that to send it back He's always taking labels off I need that **back** on there Put it back on You gonna stick it back for me? (BNC KD1) **2(AdvP)**
(b) [...] I don't want him **upset** in the morning cos I wanna go out and have a nice even kneel then (BNC KBG 515) **(AP)**
(c) Ah this is no good, I want this job **done** erm in four hours (BNC FY9 629) **(Ed-Participle)**
(d) [...] We really want all the bad things **at the bottom**, don't we? (BNC KBW 9806) **(PP)**
(e) I didn't want that lady **thinking** you were untidy (BNC KD0 1007) **(-*ING* Participle)**
(f) I like them **paperbacks** they're not too big is it? (BNC KB2 1582) **(NP)**

(39) (a) *El   PNV habl-a   de derrota militar, pero quier-e   a*
DEF.M.SG PNV talk-PRS.3SG of defeat military but want-PRS.3SG OBJ
*Batasuna **en la política** [...]*
Batasuna in DEF.F.SG politics
(CREA, 2004, ABC, 03/11/2004: Nacional) **(PP)**
'The Basque Nationalist Party (PNV) talks of military defeat, but wants Batasuna into politics'
(b) *Te   necesit-o   **a mi   lado***
2SG.ACC need-PRS.1SG   to 1SG.POSS side
'I need you by my side'
(CREA, 1987, José María Gironella, Los hombres lloran solos) **(AdvP)**
(c) [...] *Ellos nos   quiere-n   **hermos-a-s y   alegres** y*
3PL 1PL.ACC want-PRS.3PL pretty-F-PL and   jolly-PL and
nos   llama-n   frívol-a-s
1PL.ACC call-PRS.3PL   frivolous-F-PL
'They (men) want us pretty and jolly and they call us frivolous'
(CREA, 2002, Carmen Alborch. Malas. Rivalidad y complicidad entre mujeres) **(AP)**

(d) *Quer-emos   pan,   quer-emos   vino,   quer-emos   a   Fraga*
want-PRS.1PL bread want-PRS.1PL wine want-PRS.1PL OBJ Fraga
colg-ado de un pino!
hang-PTCP of INDF pine.tree
(CREA, 1977, Triunfo, 18/07/1977: "No quiero arrepentirme después de lo que pudo haber sido y no fue") (**Past Participle**)
'We want bread, we want wine, we want Fraga hanging from a pine tree!'

(e) *A   mí   me   gust-an   los hombre-s   bien*
to 1SG.DAT 1SG.DAT like-PRS.3PL DEF.M.PL man-PL well
*afeit-ado-s y **marc-ando paquete*** [...]
shave- PTCP.M.PL and mark-GER bulge
(CREA, Juan Marsé, 2000, Rabos de lagartija, Novela) (**Gerund**)
'I like men well-shaved and showing a bulge'

(f) *No   es,   pues,   la   actitud   barroca   la   que*
NEG be-PRS.3SG therefore DEF.F.SG attitude baroque DEF.F.SG REL
puebl-a   la-s   página-s   de   est-a   narración   que
populate-PRS.3SG DEF-F.PL page-PL of PROX-F.SG narration REL
*se   quier-e   **farsa**,* [...]
PASS want-PRS.3SG farce
(CREA, 1996, El Mundo, 20/04/1996: Crítica de libro. "La libertad," de Ignacio Vidal-Folch) (**NP**)
'It is not, therefore, the baroque attitude that populates the pages of this narration that is meant to be a farce'

The distributional facts in general and their frequency of occurrence in relation to the morphosyntactic realization of the XPCOMP with each of the verbs in the two (sub-)constructions are captured in Table 1, for English, and Tables 2-3, for Spanish:

TABLE 1. DISTRIBUTION OF VERBS OF VOLITION, LIKING AND PREFERENCE IN THE SECONDARY PREDICATION ENVIRONMENT IN THE BNC (BASED ON DATA FROM SPOKEN ENGLISH ONLY)							
VERB	ACTIVE VOICE						TOTAL
	AP	PP	AdvP	-Ed Part.	Gerund	NP	
WANT	33 (6.79%)	64 (11.26%)	135 (27.77%)	181 (37.24%)	72 (14.81%)	1 (0.20%)	486 (85.71%)
LIKE	13 (43.33%)	5 (16.66%)	2 (6.66%)	6 (20%)	2 (6.66%)	2 (6.66%)	30 (5.29%)
WISH	—	—	—	—	—	—	—
PREFER	—	2 (66.66%)	1 (3.33%)	—	—	—	3 (5.29%)
NEED	3 (6.25%)	13 (27.08%)	21 (43.75%)	6 (12.5%)	5 (12.5%)	—	48 (8.46%)
TOTAL	49 (8.46%)	84 (100%)	158 (100%)	193 (100%)	79 (100%)	4 (100%)	567 (100%)

TABLE 2. DISTRIBUTION OF VERBS OF VOLITION, LIKING AND PREFERENCE
IN THE ACTIVE VOICE IN THE CREA.

VERB	ACTIVE VOICE						
	AP	PP	AdvP	EdP	Gerund	NP	Total
QUERER 'want'	19 (21.9%)	24 (29.2%)	18 (21.9%)	9 (10.9%)	1 (1.2%)	1 (33.3%)	72 (34.6%)
GUSTAR 'like'	31 (43.05%)	10 (13.8%)	4 (5.5%)	24 (33.3%)	2 (2.7%)	2 (66.6%)	73 (35%)
DESEAR 'wish'	3 (37.5%)	3 (37.5%)	1 (12.5%)	—	—	—	7 (3.3%)
NECESITAR 'need'	3 (10.7%)	5 (17.8%)	16 (57.1%)	—	1 (3.5%)	—	25 (12%)
PREFERIR 'prefer'	35 (64.8%)	8 (14.8%)	2 (3.7%)	6 (11.1%)			51 (24.5%)
TOTAL	91 (100%)	50 (100%)	41 (100%)	39 (100%)	4 (100%)	3 (100%)	208 (100%)

TABLE 3. DISTRIBUTION OF VERBS OF VOLITION, LIKING
AND PREFERENCE IN THE PASSIVE VOICE IN THE CREA

VERB	ACTIVE VOICE						
	AP	PP	AdvP	EdP	Gerund	NP	Total
QUERER 'want'	11 (84.61%)	—	—	—	—	1 (50%)	12 (60%)
GUSTAR 'like'	—	—	—	—	—	—	0
DESEAR 'wish'	—	—	—	1 (25%)	—	—	1 (5%)
NECESITAR 'need'	1 (7.69%)	2 (100%)	—	—	—	—	3 (15%)
PREFERIR 'prefer'	1 (7.69%)	—	—	2 (75%)	—	1 (50%)	4 (20%)
TOTAL	13 (100%)	2 (100%)	0 (0%)	3 (100%)	0 (0%)	2 (100%)	20 (100%)

Despite the fact that, leaving aside the "X WANT(S) ONE'S MONEY BACK" construction in English, no particularly frequent combinations have been attested in our data, the statistical data presented above can be provisionally summarized and illustrated from an impressionistic way in a four-fold continuum, as in (I)-(IV), ranking from most to least frequent:

(I) SOMEBODY WANTS SOMETHING IN A GIVEN STATE/CONDITION

(40) (a) I want it **bright** (BNC KDB 1728)
    (b) [...] *quier-o*   *un*   *sombrero de paja, lo*   *quier-o*
         want-PRS.1SG   INDF.M.SG   hat   of straw   ACC.3SG   want-PRS.1SG
buen-o   *y*   *bonit-o*
good-M.SG   and   beautiful-M.SG
(CREA, 1993, Lorenzo Díaz, La radio en España (1923-1993), Medios de Comunicación, Alianza Editorial, S. A. (Madrid), 1993)
'I'd like a straw hat, I'd like a good and nice one'

(II) SOMEBODY WANTS SOMETHING SOMEWHERE

(41) (a) I want it **in its place** (BNC 434)
    (b) *El*   *posible*   *cambio*   *del*   *mercadillo*   *no*
       DEF.M.SG   possible   change   of.DEF.M.SG   street.market   NEG
gust-a   *a*   *tod-o-s*   *los*   *afect-ad-o-s.*
like-PRS.3SG   OBJ   all-M-PL   DEF.M.PL   affect-PTCP-M-PL
Industriales   *del*   *Nevero y*   *vecin-o-s*
Industriales   of.DEF.M.SG   Nevero[NAME]   and   neighbour-M-PL
de   *San*   *Fernando*   *no*   *lo*   *quier-en* **tan**   **cerca**
of   San   Fernando[NAME]   NEG   ACC.3SG   want-PRS.3PL   so   near
(CREA, 2004, Prensa, El Periódico Extremadura, 06/05/2004: Traslado de la venta ambulante de los domingos. España. Negocios. Editorial Extremadura, S. A. (Cáceres). 2004)
'The likely change of emplacement of the street market does not please those affected. Industriales del Nevero and the neighbours of San Fernando do not want it in the vicinity'

(III) SOMEBODY WANTS SOMEBODY IN A GIVEN STATE/CONDITION

(42) (a) I want him **dead, dead, DEAD!** (BNC HTU 695)
    (b) *Te*   *quier-o*   ***preocupad-o,***   *porque sólo así ser-ás*
       2SG.ACC   want-PRS.1SG   worry-PTCP-M.SG   because only so   be-FUT.2SG
vencedor
winner
(CREA, 1986, Terenci Moix, No digas que fue un sueño, España, Novela, Planeta, Barcelona, 1993)
'I want you concerned about it, because only then will you be the winner'

(IV) SOMEBODY WANTS SOMEBODY SOMEWHERE

(43) (a) I want you **out of this house!** (BNC FPK 252)
    (b) *Te*   *quier-o*   **fuera**   **de**   **mi**   **vida**
       2SG.ACC   want-PRS.1SG   out   of   POSS.1SG   life
'I want you out of my life'

6. CLOSING REMARKS AND OUTLOOK

In this paper, I hope to have argued the case for a bottom-up, corpus-based, constructionist account of instances of secondary predication involving verbs of causation, volition, wish and preference in English and Spanish. The overarching claim substantiated in the preceding pages supports the superiority, on both descriptive and explanatory level, of a constructionist, rather than local, account of the semantico-pragmatic hallmarks of these configurations as well as a number of otherwise puzzling restrictions impinging on the entity/person in the object slot and the XPCOMP. Specifically, force dynamics, whether in the psychophysical or in the socio-cultural realms, has been argued to play a crucial role in determining the degree of felicity of the configurations under scrutiny here.

However, the proposal presented here has been quite modest: the generalizations emerging from the preceding pages have been drawn on data from decoding. However, as pointed out by Boas ("Determining," "Resolving"), encoding is as important as decoding. In the case of the constructions under examination here, experimental evidence of all sorts (e.g. sentence completion tasks, reading experiments, etc.) is necessary to further refine the sketchy picture of the constructions which has been provided here.

Another important avenue for future research concerns exploring the discourse-functional properties of these constructions from an interpersonal level. For ease of exposition, most of the examples reproduced in this paper do not go beyond the domain of the single sentence. However, it was suggested earlier that interpersonal factors in general and politeness in particular may be a crucial determinant of the distribution and semantico-pragmatic import of these configurations. Thus, although the instances of the manipulative *subjective-transitive* construction convey a sharp order (or "strong manipulation" in Givón's terminology), a number of alternative and more polite strategies exist in the secondary predication in English and Spanish. Thus, consider (44) and (45) below:

(44) I am 82, and would like to see this argument **settled** before I pitch stumps on the Green Field (BNC CU1 64)

(45) [...] *me   gust-aría   ver-lo   **propuest-o**   **también***
     DAT.1SG like-COND.3SG see.INF-ACC.3SG propose.PTCP-M.SG too
     para   la   Región   del   Biobío, *que   represent-o   en*
     for   DEF.F.SG region   of.DEF.M.SG Biobío, REL represent-PRS.1SG in
     el   *Senado*
     DEF.M.SG Senate
     'I'd like to see this proposed for the region of Biobío, too, which I represent in the Senate'
     (CREA, Chile, Oral, Sesión 30, en martes 16 de Enero 1996, 09.FORMALIDAD=alta, AUDIENCIA=interlocutor, CANAL=cara a cara, Senado de Chile (http://www.senado.cl))

At a higher level of delicacy, it might be interesting to explore the interactions of these configurations with, for example, negation and voice. Thus, for instance, the data extracted from the corpora in English and Spanish reveals that "want" and "querer" ('want') are very often found with negative polarity. Moreover, Spanish "querer" ('want') allows for passive configurations, unlike its English counterpart. Even more crucially, it would be illuminating to come to grips with the main illocutionary forces conventionally or conversationally associated with these configurations.[11]

Throughout this paper, our emphasis on force dynamics has been on the socio-cultural realms and, to a lesser extent, on the psychophysical realm. However, as suggested in Gonzálvez-García ("Family"), the constructionist account provided here can be maximized by examining the relations among constructions. A case in point is the caused-motion construction. Thus, consider (46)-(47) below:

(46) (a) [...] She so thought/*believed herself **into the mind of the murderer and victim**, that she communed with spirits (BNC G1W 1423, material in italics added)

(47 *Luis* [...] *hizo*   *tod-a*   *un-a*   *apología de la-s*   *virtud-es*
Luis   do.INDFPRET.3SG all-F.SG INDF-F.SG apology of DEF.F.PL virtue-PL
del   *periodismo de élite,*   *del*   *que*   *se*
of.DEF.M.SG journalism of elite   of.DEF.M.SG REL   REFL.3SG
cre-ía / [# *pens-aba*]   *en   la indiscutible*
believe-IMPPRET.3SG/think-IMPPRET.3SG in   DEF.F.SG   unquestionable
vanguardia
avant.garde
(CREA, 1991, Javier García Sánchez, La historia más triste, España, Novela, Anagrama (Barcelona), 1991, material in square brackets added)
'Luis made a full-blown defence of the virtues of an elite journalism, of which he considered himself to be beyond any question in the avant garde'

In this respect, it may be worthwile exploring why the caused-motion construction is only felicitous with "think" but not with other verbs of cognition selecting similar complementation strategies. In the case of Spanish, although the caused-motion construction appears to be highly restricted with verbs of cognition, one may still find unacceptability contrasts of the type illustrated in (47) above.

Perhaps in order to shed some light on the otherwise puzzling acceptability differences exemplified in (46)-(47), one might need to reconsider the issue of the division of labour between lexical semantics and constructional semantics. This issue is especially relevant in the context of the present volume. Thus, for instance, Boas (*Constructional*, "Determining," "Resolving") contends that the Goldbergian-type of construction may be sufficient to explain decoding facts but not encoding

---

[11] See Ruiz de Mendoza and Baicchi, and references therein.

facts. In this respect, he suggests building into the model the notion of mini-constructions, which supply the detailed semantic, pragmatic and syntactic information required to, say, predict which exemplars may or may not fuse with a given construction. Much in line with Boas' proposal to assign a more crucial role to verbal semantics in the production and interpretation of constructions is the Lexical Constructional Model (LCM henceforth), the most detailed version of which can be found in Ruiz de Mendoza Ibáñez and Mairal Usón ("Levels"). This model is explicitly advertised as bridging the gap between a "moderate functional model" such as Role and Reference Grammar (Van Valin) and the non-monotonic, cognitively-influenced Goldbergian strand of CxG (Goldberg, *Constructions*, *Work*, "Nature"). In this connection, it is worth emphasizing that the LCM, unlike CxG and RRG, places added emphasis on the lexicon, hierarchically organized into semantic classes, to provide robust generalizations regarding the fusion of verbs with constructions. To what extent the proposals made by Boas and the LCM can maximize the explanatory power of Goldbergian-type constructions only time and, in particular, outside evidence (e.g., in the form of corpus studies, computer modelling or psychological experiments) will tell.

WORKS CITED

Aarts, Bas. "Secondary Predicates in English." *The Verb in Contemporary English. Theory and Description*. Ed. Bas Aarts and Charles F. Meyer. Cambridge: Cambridge UP, 1995. 75-101.

Arts, Jan and Flor Aarts. "*Find* and *Want*: A Corpus-based Study in Verb Complementation." *The Verb in Contemporary English: Theory and Description*. Ed. Bas Aarts and Charles F. Meyer. Cambridge: Cambridge UP, 1995. 159-182.

Boas, Hans. C. *A Constructional Approach to Resultatives*. Stanford: CSLI, 2003.

——. "Determining the Productivity of Resultative Constructions: A Reply to Goldberg & Jackendoff." *Language* 81 (2005): 448-464.

——. "A Frame-semantic Approach to Identifying Syntactically Relevant Elements of Meaning." *Contrastive Studies and Valency: Studies in Honor of Hans Ulrich Boas*. Ed. Petra C. Steiner, Hans C. Boas and Stefan Schierholz. Frankfurt: Peter Lang, 2006. 119-149.

——. "Resolving Form-Meaning Discrepancies in Construction Grammar." *Constructional Reorganization*. Ed. Leino Jaakko. Amsterdam: John Benjamins, 2008. 11-36.

Borkin, Ann. "*To Be* or Not *to Be*." *Regional Meeting of the Chicago Linguistic Society* 9 (1973): 44-56.

Bosque, Ignacio, ed. *Indicativo y subjuntivo*. Madrid: Taurus, 1990.

Bybee, Joan. "From Usage to Grammar: The Mind's Response to Repetition." *Language* 82.4 (2006): 711-733.

Bybee, Joan and David Eddington. "A Usage-Based Approach to Spanish Verbs of 'Becoming'." *Language* 82.2 (2006): 323-355.

Bybee, Joan and Paul. J. Hopper, eds. *Frequency and the Emergence of Linguistic Structure*. Amsterdam: John Benjamins, 2001.

CHOMSKY, Noam. *Lectures on Government and Binding*. Dordrecht: Foris, 1981.

CROFT, William. "Lexical Rules vs. Constructions: A False Dichotomy." *Motivation in Language: Studies in Honour of Günter Radden*. Ed. Hubert Cuyckens, Thomas Berg, René Dirven and Klaus-Uwe Panther. Amsterdam: John Benjamins, 2003. 49-68.

——.*Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford UP, 2001.

DEMONTE, Violeta and Pascual José MASULLO. "La predicación: los complementos predicativos." *Gramática descriptiva de la lengua española. Vol. 2: las construcciones sintácticas fundamentales. Relaciones temporales, aspectuales y modales*. Ed.. Ignacio Bosque and Violeta Demonte. Madrid: Espasa Calpe, 1999. 2461-2523.

DE MULDER, Walter. "Force Dynamics." *The Oxford Handbook of Cognitive Linguistics*. Ed. Dirk Geeraerts and Herbert Cuyckens. Oxford: Oxford UP, 2007. 294-317.

DE SMET, Hendrik and Jean-Christophe VERSTRAETE. "Coming to Terms with Subjectivity." *Cognitive Linguistics* 17.3 (2006): 365-392.

GIVÓN, T. "The Binding Hierarchy and the Typology of Complements." *Studies in Language* 4 (1980): 333-377.

GOLDBERG, Adele. E. *Constructions: A Construction Approach to Argument Structure*. Chicago: U of Chicago P, 1995.

——. *Constructions at Work: The Nature of Generalization in Language*. New York: Oxford UP. 2006.

——. "The Nature of Generalization in Language." *Cognitive Linguistics*. (Forthcoming)

GOLDBERG, Adele. E. and Ray JACKENDOFF "The Resultative as a Family of Constructions." *Language* 80 (2004): 532-568.

GONZÁLVEZ-GARCÍA, Francisco. "The Family of Object-related Depictives in English and Spanish: Towards a Usage-based, Constructionist Analysis." *Language Sciences* (2008). March 18 2008. <http://www.science-direct.com>.

——. "A Modality View of Predicate Selection in Small Clauses." *Texas Linguistic Forum* 38 (1997): 111-119.

——. "Passives without Actives: Evidence from Verbless Complement Clauses in English and Spanish." *Constructions* 1-5 (2006). Accessed February 5 2007. <http://www.constructions-online.de/articles/specvol1>.

——. "Reconstructing Object Complements in English and Spanish." *Gramática de construcciones: contrastes entre el inglés y el español*. Ed. Montserrat Martínez Vázquez. Huelva: Grupo de Gramática Contrastiva, 2003. 17-58.

——. "'Saved by the Reflexive': Evidence from Coercion via Reflexives in Verbless Complement Clauses in English and Spanish." *Annual Review of Cognitive Linguistics* 5 (2007): 193-238.

GONZÁLVEZ-GARCÍA, Francisco and Christopher S. BUTLER. "Mapping Functional-cognitive Space." *Annual Review of Cognitive Linguistics* 4 (2006): 39-96.

GRIES, Stefan Th. and Stefanie WULFF. "Do Foreign Language Learners Also Have Constructions? Evidence from Priming, Sorting, and Corpora." *Annual Review of Cognitive Linguistics* 3 (2005): 182-200.

GRIES, Stefan Th., Beate HAMPE and Doris SCHÖNEFELD. "Converging Evidence II: More on the Association of Verbs and Constructions." *Experimental and Empirical Methods in the Study of Conceptual Structure, Discourse, and Language*. Ed. John Newman and Sally Rice. Stanford: CSLI, 2005. 1-15.

Guéron, J. and T. Hoekstra, "The Temporal Interpretation of Predication." *Small Clauses*, *Syntax and Semantics*. Vol. 28. Ed. Anna Cardinaletti, and Maria Teresa Guasti. New York: Academic, 1995. 77-107.

Halliday, Michael A.K. "Notes on Transitivity and Theme in English." *Journal of Linguistics* 3 (1967): 37-81.

Hudson, Richard, Andrew Rosta, Jasper Holmes, and Nikolas Gisborne. "Synonyms and Syntax." *Journal of Linguistics* 32 (1996): 439-446.

Iawata, Seizi. "Argument Resultatives and Adjunct Resultatives in a Lexical Constructional Account: The Case of Resultatives with Adjectival Result Phrases." *Language Sciences* 28 (2006): 449-496.

International Corpus of English (ICE). June 25, 2006. <http://www.ucl.ac.uk/english-usage/ice>.

Johnson, Mark. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: U of Chicago P, 1987.

Kitagawa, Yoshihisa. "Small but Clausal." *Proceedings of the 21st Regional Meeting of the Chicago Linguistic Society*. 1985. 210-220.

Langacker, Ronald W. "The Relevance of Cognitive Grammar for Language Pedagogy." *Cognitive Approaches to Pedagogical Grammar: Volume in Honour of René Dirven*. Ed. Sabine De Knop and Teun De Rycker. Berlin: Mouton de Gruyter. 2008. 7-35.

——. "Universals of Construal." *Berkeley Linguistics Society* (*BLS*) 19 (1993): 447-463.

Pollard, Carl and Ivan A. SAG. *Head-Driven Phrase Structure Grammar*. Chicago: U of Chicago P / CSLI, 1994.

Real Academia Española: Banco de datos (CREA) online. *Corpus de referencia del español actual*. February-July 2006. <http://www.rae.es>.

Ruiz de Mendoza Ibáñez, Francisco José and Annalisa Baicchi. "Illocutionary Constructions: Cognitive Motivation and Linguistic Realization." *Series A: General and Theoretical Papers* 668. Essen: LAUD, 2006.

Ruiz de Mendoza Ibáñez, Francisco José and Ricardo Mairal Usón. "Levels of Description and Constraining Factors in Meaning Construction: An Introduction to the Lexical Constructional Model." *Folia Linguistica*. [Forthcoming].

Talmy, Leonard. *Toward a Cognitive Semantics, Vol. 1: Concept Structuring Systems*. Cambridge: MIT P, 2000.

Tomasello, Michael. "Introduction: A Cognitive-Functional Perspective on Language Structure." *The New Psychology of Language: Cognitive and Functional Approaches to Language Structure*. Vol. 1. Ed. Michael Tomasello. Mahwah: Erlbaum, 1998. vii-xxiii.

Stowell, Timothy. *Origins of Phrase Structure*. Cambridge: MIT P, 1981.

——. "Subjects across Categories." *The Linguistic Review* 2 (1983): 285-312.

Taylor, J.R. "Some Pedagogical Implications of Cognitive Linguistics." *Cognitive Approaches to Pedagogical Grammar: Volume in Honour of René Dirven*. Ed. Sabine De Knop and Teun De Rycker. Berlin: Mouton de Gruyter, 2008. 36-64.

Valenzuela, Javier. and Ana Rojo. "What Can Language Learners Tell Us About Constructions? *Cognitive Approaches to Pedagogical Grammar: Volume in Honour of René Dirven*. Ed. Sabine De Knop and Teun De Rycker. Berlin: Mouton de Gruyter, 2008. 197-229.

VAN EK, Jan A. *Four Complementary Structures of Predication in Contemporary British English: An Inventory.* Groningen: Wolters, 1966.

VAN VALIN, Robert D. Jr. *Exploring the Syntax-Semantics Interface.* Cambridge: Cambridge UP, 2005.

NEW CHALLENGES FOR LEXICAL REPRESENTATION WITHIN THE LEXICAL-CONSTRUCTIONAL MODEL (LCM)*

Ricardo Mairal Usón
UNED, Madrid
Francisco José Ruiz de Mendoza Ibáñez
Universidad de La Rioja

ABSTRACT

Within the context of the Lexical Constructional Model, this paper focuses on the notion of lexical template and argues for a more enriched and compact version of this system of lexical representation by integrating Pustejovsky's *qualia* structures. After providing a sort of a historical context that situates the origins of the notion of lexical template from the pioneering work of Van Valin and Wilkins to the more recent notion of lexical template (cf. Mairal and Cortés; Mairal and Faber, "Lexical"; Ruiz de Mendoza and Mairal, "Challenging," "Constructing"), the new formalism is discussed within the framework of the following lexical classes: change of state verbs; contact-by-impact verbs; consumption verbs and cognition verbs.

KEY WORDS: Lexical templates, logical structures, lexical classes, operators, primitives, qualia.

RESUMEN

En el marco del Modelo Léxico-Construccional, este trabajo se centra en la noción de plantilla léxica y tiene como objetivo potenciar un sistema de representación léxica más rico y consistente a través de la incorporación de las estructuras de *qualia* ideadas por Pustejovsky. Tras introducir en la primera parte de este artículo el contexto en el que surge la noción de plantilla léxica, desde los primeros trabajos de Van Valin and Wilkins hasta la versión más reciente de esta noción (cf. Mairal y Cortés; Mairal y Faber, "Lexical"; Ruiz de Mendoza y Mairal, "Challenging," "Constructing"), se aplica el nuevo sistema de representación propuesto con respecto a cuatro clases léxicas verbales: verbos de cambio de estado, verbos de contacto-por-impacto, verbos de consumición y verbos de cognición.

PALABRAS CLAVE: plantillas léxicas, estructuras lógicas, clases léxicas, operadores, primitivos, *qualia*.

1. INTRODUCTION

As has been extensively described in Ruiz de Mendoza and Mairal ("Constructing," "Description," "Levels") and Mairal and Ruiz de Mendoza ("Internal," "Levels"), the Lexical Constructional Model (LCM) provides a comprehensive de-

scription of the full inventory of parameters involved in meaning construction, including those that go beyond so-called core grammar (e.g. traditional implicature, illocutionary force, and discourse coherence). One of the most attractive implications of developing a fully-fledged linguistic model based on a firm and sound semantic grounding is its potential application in the field of natural language ontologies and artificial intelligence systems (Mairal and Periñán).[1]

If we want to build a lexicon that meets the requirements of an intelligent search engine, we will need to enrich lexical entries with very robust semantic and pragmatic information, an area where most linguistic models have but tiptoed. Creating such rich lexical entries is not an easy enterprise. Most models either formulate representations that —even if formally impeccable— have a very limited scope (by capturing only those aspects of the meaning of a word that are grammatically relevant) or else provide more ambitious representations that include encyclopedic information but lack a rigorous formal metalanguage. In this connection, the LCM, which aspires to cover all dimensions of meaning construction, aims to develop a lexical formalism that is formally elegant (and as a consequence, can be part of a meaning-syntax linking algorithm) and at the same time is sensitive to the sort of pragmatic, semantic and discourse information that is too pervasive to be captured in a formalism. Moreover, the resulting lexical representation should also serve as input for the elaboration of the syntactic apparatus of the model, an aspect of the model that is still in progress. In this regard, a compact and sound lexical formalism that combines the set of grammatically, semantically and pragmatically relevant features of a predicate into one single representation is in fact a major achievement for the specification of syntactic configurations.

In this context, the present paper focuses on one specific aspect of the LCM, the notion of lexical template and its more recent design in terms of Pustejovsky's *qualia*, a proposal that provides a nice format prior to the elaboration of the syntax. Section 2 briefly spells out the more relevant fundamentals of the LCM. Section 3

[1] The underlying rationale for this kind of account is in full harmony with the most recent research in the area of the semantic web. The aim of providing web pages with meaning has resulted in the birth of what is called the semantic web and the development of a new computational language, i.e. *Ontology Web Language* (OWL), which is a more ambitious semantic description and analysis than found in the previous *Hypertext Markup Language* (HTML). Technical details aside, OWL is primarily based on semantic tags that can allow the machine to understand the meaning of a web page. Moreover, this type of language, if correctly executed, improves the type of web searches in both monolingual and multilingual environments in such a way that the user can retrieve the exact information that is being searched for, thereby avoiding the reception of massive amounts of information with only a marginal relation to the intended search (Aguado, Montiel Ponsoda, and Ramos; Montiel-Ponsoda, Aguado, and Gómez; Montiel-Ponsoda *et al.*; Periñán-Pascual and Arcas-Túnez, "Cognitive," "Microconceptual," "Modelling," "Reusing").

concentrates on lexical representation and provides the historical context that situ-ates the origins of the notion of lexical template from the pioneering work of Van Valin and Wilkins to the more recent notion of lexical template (Mairal and Cortés; Mairal and Faber, "Lexical"; Ruiz de Mendoza and Mairal, "Challenging," "Constructing"). Then, section 4 presents the new formalism and discusses the format of the following lexical classes: change of state verbs (4.1.), contact-by-impact verbs (4.2.), consumption verbs (4.3) and cognition verbs (4.4). Finally, section 5 in-cludes some concluding remarks.

2. LEVELS OF DESCRIPTION IN MEANING CONSTRUCTION

As advanced above, the LCM is intended to be operational at all levels of linguistic description, including pragmatics and discourse. Hence, a four-level cata-logue of construction types —including configurations that would be regarded by other theorists as a matter of pragmatics and discourse— is postulated as part of the semantic component of the model:

Level 1: constructions producing core grammar characterizations.
Level 2: constructions accounting for heavily conventionalized situation-based low-level meaning implications.
Level 3: constructions that account for conventionalized illocutionary meaning (situation-based high-level implications).
Level 4: constructions based on very schematic discourse structures.

The LCM has a central module, the *level 1* or *argument module,* consisting of elements of syntactically relevant semantic interpretation based on the princi-pled interaction between lexical and constructional templates. As discussed in sec-tion 3, a *lexical template* is a low-level (i.e. non-generic) semantic representation of the syntactically relevant content of a predicate; a *constructional template* is a high-level (i.e. generic or abstract) semantic representation of syntactically relevant mean-ing elements derived from multiple lower-level representations. Constructional tem-plates make partial use of the same metalanguage as lexical templates since constructions capture structure that is common to a number of lexical items, as is the case of the caused-motion construction, which contains structure from multi-ple caused-motion predicates:

[**do′** (x, y)] CAUSE [BECOME *NOT **be-LOC′** (y, z)]

Additionally, the LCM has other more peripheral analytical tiers that con-tain collections of conventionalized constructions or, alternatively, low or high-level situational cognitive models that can be accessed inferentially. Thus, the LCM features a *level 2* or *implicational module* that accounts for aspects of linguistic com-munication that have traditionally been handled in connection with implicature theory. There is a *level 3* or *illocutionary module* dealing with traditional illocutionary

force. Finally, a *level 4* or *discourse module* addresses the discourse aspects of the LCM, with particular emphasis on cohesion and coherence phenomena. Each level is either subsumed into a higher-level constructional configuration or acts as a cue for the activation of relevant conceptual structure that yields an implicit meaning derivation.

These four different layers are interrelated by two cognitive processes: *subsumption* and *cueing*. For example, at the argument-structure level of grammar constructional templates "coerce" lexical templates, a process that is called *lexical-constructional subsumption*, which is in turn regulated by two kinds of constraints on coercion: *internal* and *external*. The former arise from the semantic properties of the lexical and constructional templates, while the latter result from the possibility or impossibility of performing high-level metaphoric and metonymic operations on the lexical items involved in the *lexical-constructional subsumption* process. Internal constraints specify the conditions under which a lexical template may modify its internal configuration. For example, the *lexical class constraint* explains why 'break' verbs may take part in the causative/inchoative alternation (cf. *The child broke the window* and *The window broke*), while 'destroy' verbs may not. The reason is that 'destroy' verbs belong to the lexical class of 'existence' verbs, while 'break' verbs are verbs of 'change of state'.

As an example of external constraint, consider the conversion of 'laugh (at)', an activity predicate, into a causative accomplishment predicate when taking part in the caused-motion construction: *They laughed him out of the room*. This is possible because of the correlation between two kinds of actor and two kinds of object. In the case of causative accomplishments, the actor and object are an *effector* and an *effectee* respectively. The effector is an actor whose action has a direct impact and subsequent effects on the object or effectee. With activities, the actor is a mere 'doer' of the action experienced by the object. This observation suggests an analysis of the subcategorial conversion process experienced by 'laugh' in terms of source and target domain correspondences (EXPERIENTIAL ACTION IS EFFECTUAL ACTION), of the kind proposed in Cognitive Linguistics (Lakoff).

At the pragmatic and discourse levels, *subsumption* takes the form of parametrization processes of the variable elements of non-argument constructions, which differ from level-1 constructions in that they are essentially *idiomatic* in nature, i.e. they consist of a combination of fixed and variable elements. A case in point is the level-2 *What's X Doing Y?* configuration (first studied in detail by Kay and Fillmore), which conveys the idea that the state of affairs denoted by the non-interrogative content of the sentence is either incongruent or bothers the speaker (e.g. *What's the child doing in the swimming pool?*). The construction has fixed elements that cannot be changed without altering its meaning implications (e.g. verb tense, cf. *What will the child do in the swimming pool?*) and variable elements that can be parametrized in a constrained way. For example, the X variable in the level-3 requestive *Can You X?* construction must contain a predicate that expresses the addressee's control of the state of affairs (cf. *Can you close the window?* vs. *Can you see the window?*). In a similar way, the level-4 construction *Just Because X Doesn't Mean Y* (e.g. *Just because we live in Berkeley doesn't mean we're left wing radicals*) is

used to indicate that the content of Y does not necessarily follow from X (cf. Holmes and Hudson).

Finally, *cueing* or *cued inferencing* is a form of constraining non-explicit meaning on the basis of lexical and constructional clues. It takes place at all levels of meaning construction as an alternative to subsumption. Thus, at the level of core grammar, it accounts for inferences obtained by making contextual adjustments on the meaning of some predicates (e.g. *He drinks [alcohol]*; *She's ready [for the party]*). At other levels it accounts for meaning implications based on potential conceptual connections between propositions (the case of discourse), or on metonymic activations or high-level (for illocution), and low-level (for implicature) situational models or scenarios. For example, the discourse connection between *It can't sound good; it's not digital*, which is one of conclusion-evidence, differs from the connection between *It doesn't sound good; it's not digital*, which is simply of cause-effect. The difference lies in the use of *can't* indicating (i.e. cueing) a deduced impossibility in the case of the conclusion-evidence pattern.

From this brief description two methodological issues are in order here: the question of the ubiquity of cognitive processes and the existence of continua between linguistic phenomena. In relation to the first issue, one of the relevant methodological features of the LCM is what has been termed the *equipollent hypothesis*, whereby all levels of linguistic description and explanation are postulated to make use of the same or at least comparable cognitive processes (Ruiz de Mendoza). For example, as commented above, cognitive processes such as generalization or parametrization as well as inferential activity, or *cued inferencing*, not only operate at a discourse and pragmatic level but are also influential in the argument structure level of grammar. The same can be said of idiomaticity which is an active process that not only refers to the lexicon but also functions constructionally at all levels of description. In previous work (Ruiz de Mendoza and Mairal, "High-level") metaphor and metonymy have been likewise found to be present not only at the lexical level of description, but also at the level of pragmatic implications, illocutionary meaning, and even syntactic alternations (Ruiz de Mendoza; Ruiz de Mendoza and Pérez).

In relation to the possible existence of continua between linguistic categories, which is a central claim of Cognitive Linguistics (Langacker, *Cognitive, Foundations, Grammar*), the LCM takes no special stance on this issue. While it recognizes that such continua exist, the LCM regards them as epiphenomena arising from the intrinsic nature of the categories in question. The LCM focuses on the representational adequacy of each level in the model and on the principles that constrain interaction between representations from different levels. Thus, the model has lexical templates, which partially resemble constructional templates and interact with the latter in predictable ways. The output of this interaction is a level-1 representation that can be made part of higher-level representations by realizing their non-idiomatic (i.e. variable) components. For example, *Can you clean the kitchen, please?* has 'clean the kitchen' as a level-1 component that realizes the Y variable in the level-3 idiomatic configuration *Can You X, please?* This process is fully predictable on the basis of constraining factors such as coercion of the level-3 on the level-1 configuration (*Can You X, please?* is incompatible with level-1 out-

puts denoting states and non-active accomplishments, as in *Can you be tall, please?*, *Can you own the car, please?*). There is no special reason to give pride of place to the lexicon-grammar continuum in this meaning construction account: content-carrying lexical items are represented in the form of lexical templates that are related to other such items through various kinds of relations, among which lexical-class ascription figures prominently. Argument constructions, like lexical templates, are the result of abstracting conceptual material away from lexical items. Caused-motion, for example, is the result of finding structure that predicates like *push*, *pull*, *shove*, and others have in common: in all of them there is force causing an object to change from one location to another. Obviously, there is no such thing as a continuum from these predicates to the caused-motion construction, but simply an abstraction operation that allows us to create a higher-level construct that may be useful as a meaning construction factor. This is clearly evidenced by the coerced uses of the construction with verbs that do not match the construction in terms of their basic meaning structure (e.g. *laugh*, *listen*) so long as it is possible to find a licensing factor (in this case the high-level metaphor from effectual action to other forms of goal-oriented action).

In much the same way, it is unnecessary to postulate a pragmatics-semantics continuum. What we have is the possibility of constructing meaning representations that go beyond the argument level on the basis of inferential activity or on the basis of constructional interaction, or by combining both processes. Thus, we may have inferential activity based on the linguistic expression providing partial access to low-level situational models (traditional implicature), or to high-level situational models (traditional illocutionary force), or to discourse coherence patterns. Alternatively, we can often derive comparable meaning implications by grammatical means on the basis of levels 2, 3, and 4 constructional realization. A person can ask for a glass of water by saying *I'm thirsty* or *Can you give me some water, please?* The reasons to use one way or another are a matter of communication strategies, but what matters is that we have two alternative ways, with slightly different meaning effects, and there is no need to postulate a continuum from one to the other.

3. LEXICAL REPRESENTATION IN THE LCM: NEW CHALLENGES

The LCM uses lexical templates for the lexical representation of relational predicates. As discussed in Mairal and Ruiz de Mendoza ("Levels"), this notion is an alternative form of lexical representation that integrates relevant elements from both decompositional and frame-based proposals. Lexical templates are thus a development of the logical structures (LS) postulated in Role and Reference Grammar (RRG) (cf. Van Valin; Van Valin and LaPolla).

Let us firstly contextualize this proposal within the context of RRG and then spell out the specific details of the internal anatomy of a lexical template as well as the more recent proposal that suggests a reorientation of the notational device in terms of Pustejovsky's *qualia* structures.

3.1. Towards a finer semantic decomposition in the primary lexicon

RRG uses a decompositional system for representing the semantic and argument structure of verbs and other predicates (their *Logical Structure*, LS). The verb class adscription system is based on the *Aktionsart* distinctions proposed in Vendler, and the decompositional system is a variant of the one proposed in Dowty. Verb classes are divided into *states, activities, achievements, semelfactives,* and *accomplishments,* together with their corresponding causatives. Here is a representation of each verb class with their corresponding formalism (cf. Van Valin 45):

Verb Class	Logical Structure	Example	Instantiation of LS
State	**predicate'** (x) or (x,y)	see	**see'** (x,y)
Activity	**do'** (x, [**predicate'** (x) or (x,y)]	run	**do'** (x,[**run'** (x)])
Achievement	INGR **predicate'** (x) or (x,y), *or* INGR **do'** (x, [**predicate'** (x) or (x,y)])	pop (burst into tears)	INGR **popped'** (x)
Semelfactive	SEML **predicate'** (x) or (x,y) SEML **do'** (x, [**predicate'** (x) or (x,y)])	glimpse, cough	SEML **see'** (x,y)
Accomplishment	BECOME **predicate'** (x) or (x,y), *or* BECOME **do'** (x, [**predicate'** (x) or (x,y)]	receive	BECOME **have'** (x,y)
Active accomplishment	**do'** (x, [**predicate₁'** (x, (y))] and BECOME **predicate₂'** (z,x) or (y)	drink	**do'** (x,[**drink'** (x,y)]) and BECOME **consumed'** (y)
Causative accomplishment	α CAUSES ß where α, ß are LS of any type	kill	[**do'** (x, Ø)] CAUSE [BECOME [**dead'** (y)]]

RRG maintains that states and activities are primitives and thus form part of the logical representation of the rest of predicates; by way of example, an accomplishment is either a state or activity predicate modified by the telic operator BECOME. However, in Van Valin and Wilkins, and Van Valin and LaPolla we find the explicit claim that state and activity atomic predicates need further semantic decomposition and thus provide a first approach for the predicate *remember* and speech act verbs respectively. Here is the format of these two first representations:

remember (Van Valin and Wilkins 511)
BECOME think.again (x) about something.be.in.mind.from.before (y)

Speech act verbs (Van Valin and La Polla 117)
do' (x, [express(α).to(β).in.language.(γ)' (x,y)])

In these representations, event structures are enriched by the addition of a number of internal variables marked in Greek letters. These internal variables spell

out the exact semantic parameters that are operative within a lexical class and are bound to an *external or argument variable* pertaining to the eventive or logical structure of the item in question.

Further work on this area was extended to some other lexical classes: manner of cutting verbs, *break* verbs, consumption, *contact-by-impact,* cognition verbs, to name just a few (Mairal; Mairal and Faber, "Functional," "Lexical"; Ruiz de Mendoza and Mairal, "Challenging," "Levels"). Here is a sampled representation of some of these predicates:

> *Contact-by-impact* verbs
> [[**do'** (w, [**use.tool.**(α)**.in.**(β)**.manner.for.**(δ)' (w, x)] CAUSE [**do'** (x, [**move.toward'** (x, y) and INGR **be.in.contact.with'** (y, x)], α = x.

> Consumption verbs
> **do'** (x, [CAUSE.BECOME.**be-in'**.([**have.as.part'**.(x, **mouth**)], α)**.in.**(β). **Manner'**] (x,y)) and BECOME **consumed'** (y) α = y

> Causative change of state verbs
> [[**do'** (x, [**use'** (x, y)] *CAUSE* [**do'** (y, Ø)] CAUSE [BECOME/INGR **pred'** (z)]]

These representations follow the same format such that the corresponding logical structure is enriched by a set of internal variables that express the relevant semantic parameters in a predicate meaning definition: for example, in the case of contact-by-impact verbs instrument (**use.tool.**(α)), manner (**in.**(β)**.manner**) and purpose (**for.**(δ̀)) are the semantic parameters that permeate the lexical encoding of this class in English.

We still understand that these logical structures can be built on the basis of a universal semantic metalanguage or a set of indefinables. Doing so allows the analyst to avoid the problem of having to regard as undefinable predicates which can be further semantically decomposed, for example, defining the predicate *redden* in terms of BECOME **red'**, or *popped* in terms of INGR **popped'**, or activity predicates like *sing* or *drink* in terms of **do'** (x,[**drink'**(x)]) or **do'** (x,[**sing'**(x)]). The innovation here with respect to the original RRG proposal resides in finding a systematic procedure to identify the correct prime together with a uniform framework for decomposing semantically every predicate until we arrive at the undefinable elements.

With this in mind, we introduced a new formalism that draws insights from Wierzbicka's Natural Semantic Metalanguage (NSM) (Goddard and Wierzbicka), Mel'cuk's Text-Meaning Theory (MTT) (Mel'cuk; Mel'cuk, Clas, and Polguère; Mel'cuk and Wanner), and the Functional-Lexematic Model (FLM) (Martín Mingorance, "Functional," "Lexical"; Faber and Mairal, *Constructing*).[2]

RICARDO MAIRAL USÓN AND FRANCISCO J. RUIZ DE MENDOZA

[2] For a full description of the exact details of lexical templates based on a universal semantic metalanguage, we refer the reader to Mairal and Faber ("Functional," "Lexical") and the references and works posted on the LEXICOM webpage <www.lexicom.es>.

3.2. LEXICAL TEMPLATES

Despite the fact that the representations above involved more elaborate semantic decompositions, these first lexical templates were still not systematic enough in their use of activity and state primitives. Primitives such as *manner*, *tool* and *use* appear in these representations, but again no explanation is given of how they have been obtained. Moreover, we noted that the resulting representations turned out to be too unwieldy and lacked transparency and elegance in the expression.

Consequently, we decided to simplify the system by postulating two different modules both of which were based on a universal abstract semantic metalanguage. The resulting templates have two parts: (i) the semantic module, and (ii) the logical representation or *Aktionsart* module, each of which is encoded differently. Here is the basic representational format for a lexical template:

predicate: [SEMANTIC MODULE<lexical functions>] [AKTIONSART MODULE <semantic primes>]

The rightmost hand part of the representation includes the inventory of logical structures as developed in RRG with the proviso that the predicates used as part of the meaning definition are putatively candidates for semantic primes, or else, these cannot be further decomposed.

The semantic and pragmatic properties of the semantic module, as shown in the leftmost hand part of the representation, are formalized by making use of lexical functions such as those used in Mel'cuk's Explanatory and Combinatorial Lexicology (ELC) (Mel'cuk; Mel'cuk, Clas, and Polguère; Mel'cuk and Wanner; Alonso Ramos).[3] These lexical functions have also been shown to have a universal status (Mel'cuk), something which is in keeping with our aim of providing typologically valid representations. Unlike what is the case in Mel'cuk's work and the complete literature on the *Explanatory Combinatorial Dictionary*, in our approach, lexical functions are essentially paradigmatic and capture those pragmatic and semantic parameters that are idiosyncratic to the meaning of a word, which allows us to distinguish one word off from others within the same lexical hierarchy. For example, if we want to account for the semantic differences between *mandar* ('command'), *ordenar* ('order'), *decretar* ('decree'),

---

[3] According to Mel'cuk, Clas, and Polguère (126-127), a lexical function (LF) is written as: $\mathbf{f}(x) = y$, where f represents the function, x, the argument, and y, the value expressed by the function when applied to a given argument. The meaning associated with an LF is abstract and general and can produce a relatively high number of values; e.g. **Magn** expresses intensification and can be applied to different lexical units thus yielding a high set of values:

Magn	(Engl. smoker)	=	heavy
Magn	(Engl. bachelor)	=	confirmed
Magn	(Sp. error)	=	craso
Magn	(Sp. llorar)	=	llorar como una Magdalena

preceptuar ('set up a precept'), *preinscribir* ('preregister'), from the lexical domain of speech acts, or *cautivar* ('captivate'), *arrebatar* ('seize'), *arrobar* ('entrance'), *embelesar* ('enrapture'), *extasiar* ('send into an ecstasy'), *hechizar* ('bewitch'), from the domain of feeling in Spanish, we would certainly need some mechanism that allows us to discriminate and encode those meaning elements that differentiate one predicate from others. Then, we have devised a semantic module that consists of a number of internal variables, i.e. world knowledge elements of semantic structure, which relate in very specific ways to the external variables that account for those arguments that have a grammatical impact. Now, let us consider the following examples:

> *fathom*: [MAGNOBSTR and CULM$_{1,2[all]}$] **know'** (x, y)
> x = 1; y = 2

This predicate is a hyponym of *understand* and inherits all the properties from its superordinate, that is, it designates a state structure with a primitive predicate **know'** modified by two arguments (x,y). As an additional distinguishing parameter this predicate encodes two lexical functions that express the culmination of the process of knowing something [CULM$_{1,2[all]}$] and the great difficulty involved in this process [MAGNOBSTR]. If we move on to the domain of Speech Act verbs, a predicate like *command,* as a hyponym of *order*, inherits all its properties and adds its own specificity which lies in the political/military context:

> *command*:

> <MAGN$_{1[PERM]23}$, LOC$^{soc\uparrow}_{(1)}$ (PLACE_TYPE: political/military)> [**do'** (x, [**say'** (x,y)])] CAUSE [**do'** (y,z)]

The subscripts ($_{1, 2, 3}$) codify the speaker, auditory percept, and the addressee, respectively. MAGN specifies that the action is intensified to a very high degree, thus making it more forceful, and PERM, applied to the first argument, indicates that the speaker has power over the addressee and is licensed to ask him/her to do things. As for the *aktionsart* module, this verb designates a causative accomplishment structure that is induced by an activity such that *x* says something to *y* and this causes *y* to do *z*.

In sum, lexical templates provide enhanced semantic representation and consequently allow us to account for those properties which go beyond those aspects of the meaning of a word that are grammatically relevant. However, we believe that the formalism can be improved if we manage to find a system where both external and internal variables are easily integrated with a view to accounting for syntactic projection. In connection with this, we claim that lexical templates can be enriched by unifying internal and external variables within a system that allows the expression of both.

4. LEXICAL TEMPLATES REVISITED

One of the possible applications of the lexical architecture of the LCM is to build a knowledge base that allows us to retrieve contextual and pragmatic infor-

mation by means of a set of inferencing mechanisms. This goal requires some adaptations of the notational devices described in the previous section, which have a clear lexicological orientation, to make them compatible with computational needs. Simplifying a bit, this initial computational move involves reconverting our lexicon into a knowledge base linked to an ontology and to make the connections between the external and the internal variables more explicit. Recent research has evidenced the insufficient explanatory coverage shown by the inventory of lexical functions to account for the full gamut of semantic parameters that operate in the lexicon. In an attempt to simplify the formalism in order to avoid the sometimes *ad hoc* adscription of a lexical function to a semantic parameter, Mairal and Cortés have recently initiated a reconversion of the inventory of lexical functions by incorporating features from Pustejovsky's generative lexicon and more in particular to the set of *qualia*, which we reproduce here for convenience (Pustejovsky 76; 85-86):[4]

- CONSTITUTIVE (Q_C): the relation between an object and its constituent parts
    i. material
    ii. weight
    iii. parts and component elements

- FORMAL (Q_F): that which distinguishes it within a larger domain
    i. orientation
    ii. magnitude
    iii. shape
    iv. dimensionality
    v. color
    vi. position

- TELIC (Q_T): its purpose and function
    i. purpose that an agent has in performing an act
    ii. built-in function or aim which specifies certain activities

- AGENTIVE (Q_A): factors involved in its origin or 'bringing it about'
    i. creator
    ii. artifact
    iii. natural kind
    iv. causal chain

---

    [4] Pustejvosky's (Ch. 5) generative lexicon includes four levels of representation: (i) argument structure; (ii) event structure; (iii) *qualia* structure and (iv) lexical inheritance structure, together with a complete set of generative devices (e.g. type coercion, selective binding, co-composition) that connect up the four levels. In the present paper, we focus on how *qualia* configurations serve the same purpose as the lexical functions in the semantic module. Unfortunately work on the notion of *qualia* structures has, to the best of our knowledge, been discontinued. We believe that the inventory of such configurations, as it stands, is far from exhaustive and a fined-grained description would certainly be welcome.

The following are examples of lexical representations based on this system (Pustejovsky, *Generative* 82, 101), although we have slightly changed some of Pustejovsky's notational devices and have adapted them to a system that is closer to ours:

book

ARGSTR =   [ARG1 = **x: information**]
                    [ARG2 = **y: phys_obj**]

QUALIA =   **information·phys_obj_lcp**
                    FORMAL = **hold (y,x)**
                    TELIC = **read (e,w,x·y)**
                    AGENT = **write (e', v, x·y)**

This representation specifies that the nominal predicate *book* belongs to the lexical conceptual paradigm (***lc***) of physical objects and accounts for the telic and agentive interpretations that make reference to the dotted arguments (*x* and *y*), which are in turn featured as 'information' and 'physical object'. Now, consider a more complex representation:

build

EVENTSTR =   [E_1 = e_1: **process**
                       E_2 = e_2: **state**
                       RESTR = < $_\alpha$
                       HEAD = e_1

ARGSTR =   [ARG1 =   **x: animate_ind**
                                 FORMAL = **phys_obj**]
                    [ARG2 =   **y: artifact**
                                 CONST **= z**
                                 FORMAL =**phys_obj**]
                    [D-ARG =   **z: material**
                                 FORMAL = mass]

QUALIA =   **create-lcp**
                    FORMAL = *exist* (e_2, **y**)
                    AGENTIVE = *buid_act* (e_1, **x, z**)

This representation specifies the event, argument and *qualia* structures of the predicate *build*. The event structure indicates that the verb *build* is an accomplishment verb that involves a process and a result state ordered by the relation "exhaustive ordered part of," < $_\alpha$. The initial event has been headed, which means that the action that brings about the state is fore-grounded. In relation to the argument structure, there are two true arguments (i.e. those that are syntactically realized) and a default argument (parameters that are relevant for the *qualia* but are not syntactically realized). In the *qualia* structure, the lexical conceptual paradigm is also noted, i.e. *build* is a creation verb, as well as the two processes involved: the agentive, involving both argument 1 and the default argument, which is related to

the object by the constitutive relation of argument 2. The formal role indicates the final result state (Pustejovsky 63; 71-73; 82).

Both representations include an event structure description —which, details aside, coincides to a large extent with the *Aktionsart* module— and a *qualia* structure, whose function is to specify the specific semantic properties of each of the arguments involved in the event. Interestingly enough, a brief mention to the lexical class is also included, which happens to be one of the hallmarks in our approach.

An added advantage in adopting this new formalism is that the two modules —the semantic and the eventive— are closely intertwined and the resulting lexical templates are an eloquent proof of it, as shown in the next section. This has interesting consequences in the semantics-to-syntax mapping possibilities of a predicate since, as pointed out in Pustejovsky (101-104), individual *qualia* compete for projection, and there are mechanisms such as foregrounding or 'focalizing' a single *quale* of the verbal semantic representation. To illustrate this, consider the lexical template for the causative change of state verb *break*:

> **break:**
> EVENTSTR: **do'** (x, Ø) CAUSE [BECOME/ INGR *broken'* (y)]
> QUALIASTR: {Q_F: *broken'* (**y**)
> Q_A: **do'**(**x**, *break_act*)}

Change-of-.state verbs typically involve an initial activity followed by a resulting state. These two phases in the causative structure map onto the agentive and the formal *qualia* respectively.[5] Depending on which *quale* is fore-grounded ('headed' in Pustejovsky's terminology) the verb can be constructed in a transitive (causative) or an intransitive (anticausative) structure. Foregrounding is in fact the effect of the cognitive operations that act as external constraints in our model.

Let us see how we can reconvert the lexical templates for change of state, contact-by-impact, consumption and cognition verbs by using *qualia*, lexical functions and event structures (Mairal and Cortés).

4.1. CHANGE OF STATE VERBS

> EVENTSTR: $[$**do'** (x, e_1)$]_{E1}$ CAUSE [BECOME/INGR **pred'**(y)$]_{E2}$
> QUALIASTR: {Q_F: MANNER **pred'** (y)
> Q_A: e_1: **Oper** x, z <Instr>}

As mentioned before, change-of-state verbs (e.g. *break, smash*) are causative telic predicates; their event structure involves an activity and a final resulting state

---

⁵ As can be seen, the information in the *quale* is often redundant as it tends to identify itself with the eventive description of logical structures, unless some specification is added.

modified by a telic operator (BECOME or INGR). Each of these subevents maps onto one *quale*: the state predicate is part of the formal *qualia* characterization of all change of state verbs. In fact, the semantic specificities of each predicate within the class will derive from the specific ontological values that the semantic function MANNER will receive. Thus, *smash*, *break* and *shatter* are semantically distinct as they encode different aspects of the 'affectedness' effect on the patient argument (y).[6] The causing activity event maps onto the agentive *quale* as it expresses what is carried out by the effector argument (x) in order to make the resulting state come about. In this regard, the agent *quale* in the template includes a subevent (e_1) that depicts the use of an implement (z) by the effector (x); the formalized expression of the manipulation subevent is: **Oper** x, z <Instr>. The lexical function **Oper** is described by Alonso Ramos as a semantically empty verb that will have different values depending on its arguments. In other words, the specific nature of the object (z) that will be used as instrument will provide the exact content to the manipulation event; if a stone is used to break a glass, then **Oper** will stand for, say, *throw.* If (z) is to be a hammer, the value of **Oper** is most probably *hit*.

4.2. *CONTACT-BY-IMPACT* VERBS

We can now easily reformulate the lexical template proposed for this verb class in section 3.1 in the following terms:

EVENTSTR: $[\textbf{do}' \ (x, e_1 < {}^\textbf{O}e_2)]_{E1}$ CAUSE $[\text{INGR } \textbf{touching}' \ (z, y)]]_{E2}$

QUALIASTR: {Q_F: MANNER: MagnE1
            Q_A: e_1: **Oper** x, y <Instr>
                e_2: **move$^{\text{ad'}}$** (z, y)
            Q_T: $\dot{E}_2$}

The case of verbs of contact-by-impact is also very interesting. Because of the effects of hitting in the extralinguistic world, it is only natural to presuppose that 'hit' verbs lexicalize a change of state that affects the entity receiving the impact. In fact, their semantics encodes causative structures with a final locative component. However, 'hit' verbs are in essence verbs of contact and as such they integrate as a final subevent in their logical structure a stative contiguous —and not a result— location event. The relation of contiguous location that holds between a location argument (z) and a theme (y) is encoded by means of Wierzbicka's prime **touching**'.

The *qualia* structure of these predicates is also very complex. The formal *quale* specifies the nature of the causing event; i.e. it is bound to the activity subevent and modifies it by one specific value of the MANNER operator. The intensifier lexical function 'Magn' ('very' 'intense') restricts the semantics of this class to those states

_____

[6] The other parameter that triggers semantic differences within the members of the class is duration: change of state verbs are either punctual (e.g. *shatter*) or durative (e.g. *break*).

of affairs where contact takes place by means of an impact. This semantic parameter sets the lexical class of 'hit' verbs apart form other semantically related predicates such as the class of 'stroke' verbs or contact-by-motion verbs like *join, link, unite*, etc. The Agent Quale combines to subevents e_1 and e_2: in bringing about the contact event the effector (x) may use an implement (y) (the manipulation subevent e_1) so that it will displace itself towards the entity (z) that eventually will receive the impact. Such a motion subevent is encoded by another prime **move** modified by Melcuk's lexical function **ad** ('towards'). The temporal sequence between both subevents is encoded in the template by means of the relation $e_1 < \mathbf{o}e_2$. It expresses the partial sequential overlap between the manipulation and the displacement of the instrument (y). Either of the two subevents may be foregrounded or 'headed' for its projection onto syntax. When e_1 is given more prominence (i.e. is headed) 'hit' verbs will allow its insertion in an instrument-as-subject construction. When, on the other hand, the event headed is e_2 the verbs will appear in a conative structure. The Telic Quale corresponds to the caused location subevent in the event structure characterization.

4.3. CONSUMPTION VERBS

Consumption verbs like *eat, drink, imbibe, gulp,* etc. are activities and therefore are not telic. Nevertheless, consumption verbs display an interesting behavior as regards telicity: they can become telic predicates if their second argument is referential; i.e. if it has a discourse referent, as in *Mario is drinking a can of beer*. Compare it with *Mario drinks beer daily* in which *beer* does not refer to a specific participant, but rather serves to characterize the nature of the action. The referential nature of the second argument causes a shift in the aspectual characterization of consumption verbs and renders them telic. RRG treats them as active accomplishments. Their semantic representation would be:

EVENTSTR: $[\mathbf{do'} (x, e_1)]_{E1}$ and $[INGR \; NOT \; \mathbf{exist'} (y)]_{E2}$, E1 < E2
QUALIASTR: $\{Q_F\!: \text{MANNER E1}$
$Q_A\!: e_1\!: \mathbf{do'} (x, [\mathbf{CAUSE.BECOME.LOC^{in}} '.(\mathbf{part\_of}'x, y)])$
$Q_T\!: E2\}$

The event structure encodes an activity and a subsequent achievement existential subevent. Again, the nature of the initial activity is specified in the agentive *quale*: consumption verbs involve a causal chain in terms of which the consumer-effector (x) places the affected entity (y) within a part of its body. Recall that there is also a formal *quale* that specifies the different manners of consuming something. The relation between this causal complex of events and the final telic state is encoded as an underspecified relation E1<E2. This relation involves firstly the existence of an ordered sequence between both events (in fact the symbol and is to be read as 'and then') and, secondly, either of the two events must be headed (i.e. foregrounded) for the semantics-to-syntax mapping. That is, underspecification involves

verbal polysemy (Pustejovsky 73-74). Headless event structures can have two possible interpretations. In the specific case of consumption verbs, if the activity event (i.e. the event encoded in the Agent *quale*) is headed (*E1 < E2), the non-telic interpretation will be selected for syntactic projection. If headedness falls upon the second subevent (the Telic *quale*, E1<*E2) the verb must be interpreted as an active accomplishment and its syntactic behavior will vary in accordance with this feature.

4.4. COGNITION VERBS

We are going to focus on the lexical subdomain that expresses knowledge acquisition. If we look back at the representation for the predicate *fathom* above, we could rewrite the semantic module in the template as follows:

> fathom:
> EVENTSTR: **know'** (x, y)
> QUALIASTR: {Q_F: MANNER : MagnObstr **think'** (x, y)
> Q_T: Culm **know'** (x,y <ALL>)}

This new format is expressed in terms of two *qualia*: the *formal* and the *telic*. The formal *quale* describes the great difficulty involved in carrying out the process of thinking, i.e. it includes the semantic attributes by means of which *fathom* is semantically distinguished within the larger set of cognition predicates in English. The telic, as encoded in Q_T: Culm **know'** (x,y), specifies the culmination of the process of acquisition of knowledge, that is, the final process of understanding something.

Another interesting example from the cognition domain is the template for *realize*:

> **realize**:
> EVENTSTR: **know'** (x, y)
> QUALIASTR: { Q_A: LOCin (**body_part: mind**, **see'** (x, y))
> Q_T: Culm **know'** (x,y <ALL>)}

Realize is also a verb that involves 'understanding' (as encoded in the formal *quale* {Culm **know'** (x,y)}). Furthermore, the cognizer achieves understanding by seeing the mental percept in its mind conceptualized as a location (Mairal and Faber, "Lexical"). The mind is represented as an abstract body-part, which means it is in a partitive relation to *body.* The whole perception subevent is encoded as an agentive *quale* as it is the kind of action carried out in order to obtain knowledge.

5. CONCLUSIONS

Within the context of the LCM, this paper argues for a more enriched and compact version of the notion of lexical templates by integrating Pustejovsky's *qualia* structures. It has been noticed that it is not always easy to find a lexical function

that gives expression to some of the semantic and pragmatic parameters that are operative within a lexical class. Moreover, within a lexical template, internal and external variables do not always communicate with one another as they should. Then, in our attempt at developing the syntax of the model, together with a first computational version of it, we have noted that it would be desirable to develop a system of lexical representation such that the two modules in the new formalism — the semantic and the eventive — are closely interrelated and therefore the relation between internal and external variables is easily accounted for. Several cases from different lexical domains have been discussed in this respect. We finally sustain that a complementary advantage is the greater power of this new lexical formalism for syntactic projection.

WORKS CITED

AGUADO DE CEA, Guadalupe, Elena MONTIEL PONSODA and José Ángel RAMOS GARGANTILLA. "Multilingualidad en una aplicación basada en el conocimiento." *Revista de procesamiento de lenguaje natural* 38 (Abril 2007): 77-97.

ALONSO RAMOS, Margarita. "Colocaciones y contorno en la definición lexicográfica." *Lingüística Española Actual* 24.1 (2002): 63-96.

CORTÉS RODRÍGUEZ, Francisco José. "The English Constructicon." Diss. Universidad de La Laguna, 2007.

DOWTY, David R. *Word Meaning and Montague Grammar*. Dordrecht: Foris, 1979.

FABER, Pamela and Ricardo MAIRAL. *Constructing a Lexicon of English Verbs*. Berlin: Mouton de Gruyter, 1999.

GODDARD, Cliff and Anna WIERZBICKA, eds. *Meaning and Universal Grammar*. Amsterdam: John Benjamins, 2002.

GOLDBERG, Adele. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford UP, 2005.

GONZÁLVEZ-GARCÍA, Francisco and Christopher S. BUTLER. "Mapping Functional-Cognitive Space." *Annual Review of Cognitive Linguistics* 5 (2006): 39-96.

HOLMES, Jasper and Richard HUDSON. "Just Because X Doesn't Mean Y." Paper delivered at the Linguistics Association of Great Britain, Spring Meeting. University College London, 2000.

KAY, Paul and Charles J. FILLMORE. "Grammatical Constructions and Linguistic Generalizations: The 'What's X doing Y' Construction." *Language* 75 (1999): 1-33.

LAKOFF, George. "The Contemporary Theory of Metaphor." *Metaphor and Thought*. Ed. Andrew Ortony. Cambridge: Cambridge UP, 1993. 202-251.

LANGACKER, Ronald W. *Cognitive Grammar: A Basic Introduction*. Oxford: Oxford UP, 2008.

——. *Foundations of Cognitive Grammar: Volume 1: Theoretical Prerequisites*. Stanford: Stanford UP, 1987.

——. *Grammar and Conceptualization*. Berlin: Mouton de Gruyter, 1999.

LEVIN, Beth, and Malka RAPPAPORT HOVAV. *Argument Realization, Research Surveys in Linguistics Series*. Cambridge: Cambridge UP, 2005.

Mairal Usón, Ricardo. "Reconsidering Lexical Representations in Role and Reference Grammar." *Proceedings of the XXVII International AEDEAN Conference*. CD-ROM. Salamanca: Universidad de Salamanca, 2004.

Mairal Usón, Ricardo, and Francisco José Cortés Rodríguez "Revising Semantic Representation in Role and Reference Grammar." [Forthcoming].

Mairal Usón, Ricardo, and Pamela Faber. "Functional Grammar and Lexical Templates." *New Perspectives on Argument Structure in Functional Grammar*. Ed. Ricardo Mairal Usón and María J. Pérez Quintero. Berlin: Mouton de Gruyter, 2002. 41-98.

——. "Lexical Templates within a Functional Cognitive Theory of Meaning." *Annual Review of Cognitive Linguistics* 5 (2007): 137-172.

Mairal Usón, Ricardo, and Carlos Periñán-Pascual. "First Steps towards the Computational Implementation of the LCM." [Forthcoming].

Mairal Usón, Ricardo, and Francisco José Ruiz de Mendoza Ibáñez. "Internal and External Constraints in Meaning Construction: The Lexicon-Grammar Continuum." *Estudios de Filología Inglesa: Homenaje a la Dra. Asunción Alba Pelayo*. Madrid: UNED, 2008. [Forthcoming].

——. "Levels of Description and Explanation in Meaning Construction." *Deconstructing Constructions*. Ed. Christopher S. Butler and Javier Martín Arista. Amsterdam: John Benjamins. [Forthcoming].

Martín Mingorance, Leocadio. "Functional Grammar and Lexematics." *Meaning and Lexicography*. Ed. Jerzy Tomaszczyk and Barbara Lewandowska-Tomaszczyk. Amsterdam: John Benjamins, 1990. 227-253.

——. "Lexical Logic and Structural semantics: Methodological Underpinnings in the Structuring of a Lexical Database for Natural Language Processing." *Panorama der Lexikalischen Semantik*. Ed. Ulrich Hoinkes. Tübingen: Gunter Narr, 1995. 461-474.

Mel'cuk, Igor. "Semantic Primitives from the Viewpoint of the Meaning-Text Linguistic Theory." *Quaderni di Semantica* 10-1 (1989): 65-102

Mel'cuk, Igor, André Clas, and Alain Polguere. *Introduction à la lexicologie explicative et combinatoire*. Louvain-la-Neuve: Duculot, 1995.

Mel'cuk, Igor, and Leo Wanner. "Lexical Functions and Lexical Inheritance for Emotion Lexemes in German." *Recent Trends in Meaning-Text Theory*. Ed. Leo Wanner. Amsterdam: John Benjamins, 1996. 209-227.

Michaelis, Laura. "Word Meaning, Sentence Meaning, and Syntactic Meaning." *Cognitive Approaches to Lexical Semantics*. Ed. Hubert Cuykens, René Dirven and John R. Taylor. Berlin: Mouton de Gruyter, 2003. 93-122.

Montiel Ponsoda, Elena, Guadalupe Aguado de Cea, and Asunción Gómez Pérez. "Localizing Ontologies in OWL." *Workshop at the 6th International Web Conference: From Text to Knowledge*. November, 2007. Busan Korea, 13-22.

Montiel Ponsoda, Elena, Guadalupe Aguado de Cea, M. Carmen Suárez Figueroa, Raúl Palma, Asunción Gómez Pérez, and Win Peters "LexOMV: An OMV Extension to Capture Multilinguality." *Workshop at the 6th International Web Conference. From Text to knowledge*. November, 2007. Busan Korea. 118-127.

Periñán-Pascual, Carlos, and Francisco Arcas-Túnez. "Cognitive Modules of an NLP Knowledge Base for Language Understanding," *Procesamiento del Lenguaje Natural* 39 (2007): 197-204.

——. "Microconceptual-knowledge Spreading in FunGramKB." *Proceedings on the 9th IASTED International Conference on Artificial Intelligence and Soft Computing.* Anaheim: ACTA, 2005. 239-244.

——. "Modelling OLIF Frame with EAGLES/ISLE Specifications: An Interlingual Approach." *Procesamiento del Lenguaje Natural* 40 (2008): 9-16.

——. "Reusing Computer-Oriented Lexica as Foreign-Language Electronic Dictionaries." *Anglogermánica Online* 4 (2006): 69-93.

Pustejovsky, James. *The Generative Lexicon.* Cambridge: MIT P, 1995.

Ruiz de Mendoza Ibáñez, Francisco José. "High Level Cognitive Models: In Search of a Unified Framework for Inferential and Grammatical Behavior." *Perspectives on Metonymy.* Ed. Krzysztof Kosecki. Frankfurt Main: Peter Lang, 2007. 11-30.

Ruiz de Mendoza Ibáñez, Francisco José, and Ricardo Mairal Usón. "Challenging Systems of Lexical Representation." *Journal of English Studies* 4 (2008). [Forthcoming].

——. "Constructing Meaning: A Brief Overview of the Lexical Constructional Model." *Converging and Diverging Tendencies in Cognitive Linguistic*s. Ed. Mario Brdar Amsterdam: John Benjamins, 2009. Forthcoming.

——. "High-Level Metaphor and Metonymy in Meaning Construction." *Aspects of Meaning Construction.* Eds. Günter Radden, Klaus-Michael Köpcke, Thomas Berg, and Peter Siemund. Amsterdam/Philadelphia: John Benjamins, 2007. 33-51.

——. "Levels of Description and Constraining Factors in Meaning Construction: An Introduction to the Lexical Constructional Model." *Folia Linguistica* 42 (2008). [Forthcoming].

——. "Levels of Semantic Representation: Where Lexicon and Grammar Meet." *Interlingüística* 17 (2007): 26-47.

Ruiz de Mendoza Ibáñez, Francisco José, and Sandra Peña Cervel, eds. *Cognitive Linguistics: Internal Dynamics and Interdisciplinary Interaction.* Berlin: Mouton de Gruyter, 2005.

Ruiz de Mendoza Ibáñez, Francisco José and Lorena Pérez Hernández. "Metonymy and the Grammar: Motivation, Constraints, and Interaction." *Language and Communication* 21 (2001): 321-357.

Van Valin, Robert D. Jr. "Lexical Representation, Co-composition, and Linking Syntax and Semantics." SUNY at Buffalo, 2004. < http://linguistics.buffalo.edu/people/faculty/vanvalin/rrg.html>.

——. *The Syntax-Semantics-Pragmatics Interface: An Introduction to Role and Reference Grammar.* Cambridge: Cambridge UP, 2005.

Van Valin, Robert D. Jr., and Randy Lapolla. *Syntax, Structure, Meaning and Function.* Cambridge: Cambridge UP, 1997.

Van Valin, Robert D. Jr., and David P. Wilkins. "Predicting Syntactic Structure from Semantic Representations: *Remember* in English and Its Equivalents in Mparntwe Arrernte." *Advances in Role in Reference Grammar.* Ed. Robert D. Van Valin Jr. Amsterdam: John Benjamins, 1993. 499-534.

Vendler, Zeno. *Linguistics in Philosophy.* Ithaca: Cornell UP, 1967.

INTERVIEW

GENDER WITHOUT BORDERS:
AN INTERVIEW WITH C.S. LAKSHMI (AMBAI)

Antonia Navarro Tejero
Universidad de Córdoba

C.S. Lakshmi (Ambai) was born in 1944 in Tamil Nadu. She is a distinguished fiction writer in Tamil, and her works are characterized by her passionate espousal of the cause of women, humor, a lucid and profound style, and a touch of realism. Most of her stories are about relationships and they contain brilliant observations about contemporary life. Exploration of space, silence, coming to terms with one's body or sexuality, and the importance of communication are some of the recurring themes in her works. She holds a Ph.D. from Jawaharlal Nehru University, and she is presently the Director of Sound & Picture Archives for Research on Women (SPARROW), a trust set up in Mumbai to build a national archives for women with print, oral history and pictorial material. She is the author of *Sirakukal muriyum*, *Vittin mulaiyil oru camaiyalarai* and *Kaattil oru maan* and two translated collections entitled *A Purple Sea*, *In a Forest, A Deer.* She has also published some research works entitled *The Face behind the Mask: Women in Tamil Literature, Singer and the Song: Conversations with Musicians, Mirrors and Gestures: Conversations with Dancers.* She also writes non-fiction and has edited a book on the city of Chennai: *The Unhurried City: Writings on Chennai.* As a young girl she won some popular literary awards instituted by the magazines *Kannan* and *Kalaimagal*. Later in her career she won the Ilakkiya Chinthanai award for a short story entitled *Amma oru kolai seithaal* and the Katha Award for a short story entitled *Kaattil oru maan*. Recently her book *In a Forest, A Deer* won the Hutch-Crossword Award and she has also won the Vilakku Award for the year 2006 instituted by a group of Tamil literary enthusiasts in the U.S. for her contribution to Tamil literature.

ANT: Why Ambai when writing in Tamil and Lakshmi when writing in English?

CSL: I write fiction in Tamil and non-fiction in English. As a creative writer I like to use the pen name Ambai. Non-creative writing I prefer to do it in my real name.

ANT: What does Ambai mean?

CSL: Ambai actually means Devi which is goddess Parvathi. When I was in my early teens there was a popular writer called Devan who wrote a novelette

Parvathiyin Sangalpam (*Parvathi's Vow*) where a woman spurned and insulted by her husband takes a vow to become somebody and starts writing with the pen name Ambai. She becomes very famous and not realising that she is the wife he spurned, her husband comes to meet her and she rejects him. As a young girl I liked her guts and began writing with the pen name Ambai. But later I retained the pen name because of its *Mahabharatha* connections. Ambai is the woman who becomes a man called Sikandi in *Mahabharatha* and takes revenge on Bhishma who she feels ruined her life. I liked the androgynous quality of Ambai and liked the idea of a borderless gender.

ANT: Much literature has been discussed around the topic of English Indian fiction. What is your position towards English language, do you also have an ambivalent feeling of love and hate?
CSL: It is not a question of love and hate. It is just that I don't think in English. I do love the language but I love so many other Indian languages and where languages abroad are concerned, I really love the sound of Spanish. I have a diploma in Spanish and Portuguese. And I like these languages too.

ANT: Does your Tamil reader differ from your English one in any way?
CSL: I certainly think so. The Tamil readers pay attention to my language nuances also. The English readers miss that entire part.

ANT: Sexuality seems to be a taboo topic in India. However, you, along with some other Indian women writers, explore this topic. Did censorship affect you at all?
CSL: Sexuality is strangely a taboo topic only in the modern period. Our ancient Tamil literature has a special place for love and desire. It is also a part of our oral history. Colonial education brought in some Victorian values with regard to sexuality. But this taboo is there only in terms of literary expression. In conversations and discussions among women sexuality is easily talked about. When I began to explore this topic I did not realise I was defying anything for I was doing it for my own sake as much as for the sake of writing about it. The censorship happened not in terms of open discussion of what I wrote but more in terms of a total rejection of what I wrote. My first short story collection did not get reviewed for about ten years! Also no recognition in terms of awards came my way. There was also harassment at a personal level by some male writers and for several years what they imagined to be my lifestyle and my personality got lampooned. I was left quite alone to face it. I responded by stonewalling all their comments.

ANT: How did literary recognition finally happen?
CSL: It came many years later for a story. And that is about the only award I have received in Tamil Nadu itself. The other awards have been for my translations. The recent Vilakku award is from a Tamil group in the U.S. Since I write in Tamil literary journals there are many who have not even heard of me in Tamil Nadu. And many of the senior male writers publicly say that they have not read me. So literary recognition in that sense has not really happened.

ANT: How did the idea of founding SPARROW come to you? Is it a deserved tribute to other women artists who suffered the same censorship as you did?

CSL: The idea of founding SPARROW rose from my work as a researcher on women and culture. Women artists form only one part of it. SPARROW is much more than an archive of women artists. It is an archive to document women's lives and history and this includes women from various walks of life, not just artists. SPARROW was founded to document the lives and works of women who have not found their way into history textbooks and who are not part of the public memory of past hisory as well as contemporary history.

ANT: The rewriting of History from a feminist perspective made an enormous impact on Women's Studies. How did SPARROW contribute to that project in the 90s?

CSL: From 1997 onwards SPARROW has been doing various projects and programmes to raise awareness regarding the history of women by holding workshops for students, through publications, through Summer workshops for students from abroad, through film workshops, film festivals and producing its own documentaries. Whether these have immediately impacted Women's Studies one can't say. But those in Women's Studies do know about SPARROW's work. And SPARROW is a member of the Indian Association of Women's Studies.

ANT: How is SPARROW working now?

CSL: It is working fine except that we need a permanent space and an endowment grant that will allow us to be less anxious about the future.

ANT: Where does the organization get the funds from?

CSL: From 1997 to 2007 we were funded by HIVOS, a humanistic group from Holland. Currently our infrastructural expenses are funded by Sir Dorabji Tata Trust, a trust in Mumbai. This will get over in 2008. So we are still struggling to be rooted as an institution and funding is a major challenge for organizations like ours. It is like a sword hanging above our heads, for girls we train become insecure every time a funding period ends and very often we lose senior staff in the process. It is an uphill task to say the least.

ANT: Do you consider your organization and writings feminist?

CSL: My writings can be considered feminist but my organization is trying to archive material on women, one can say, with a feminist perspective. But we collect all kinds of material and some of them need not necessarily be feminist but can be material which can be used for research on women with a feminist perspective.

ANT: Can you name a few foundings that helped to challenge the canonical history of India?

CSL: In our oral history project when we interview women who have participated in the freedom movement or even ordinary women we have found that many women are making history all the time. This completely changes the way we

see women in the family and in the history of the nation. Some rosy images of the Indian family also crumble at times and at times we find that rules and norms get broken in a family by women in a determined manner. Our approach to women's expression, scholarship and action can undergo a radical change when we look at them in the context from which they have arisen.

ANT: As a Tamil author, does feminism make any sense in your community?

CSL: Do you think feminism is a western prerogative? We have women's journals in Tamil which are feminist and feminism is a topic we have been discussing for a long time now. I think you have no idea what the Tamils are. We have women's organizations which have been having theoretical discussions about feminism for many years.

ANT: Could you then tell us more about the history of Tamil feminism?

CSL: I will not call it Tamil feminism exactly for many women would not use that term. I don't think we would like to restrict feminism into certain cultural or community specificities. I think feminists have existed in the Tamil land even before the term feminism was in use. For example, one of our ancient poets Avvaiyar, was a single woman and a bard who wandered around singing poems. A very modern image that is. But such a person was not unusual even in earlier times although she may not have specified that she would like to opt out of marriage and motherhood and so on for certain theoretical reasons. But such choices seem to have existed. Coming to modern times, in the late nineteenth century and early twentieth century there have been women educationists and professionals who have struck a different path. Many women who spoke about women's rights and women's equality participated in the Self-Respect Movement whose leader was E.V. Ramasamy Naiker or Thanthai Periyar, as he was known. In the thirties and forties when women came into national politics women's right to education and equal rights for women were commonly voiced concerns. Poet Bharathi, called the revolutionary poet, wrote about women and men being equal. It is true that the term feminist was suspect during the national movement for it had connotations which threatened even some well-known women leaders. But even when in the late seventies Penn Urimai Iyakkam, an organization, was started in Chennai and they began by blackening obscene posters, demanding rights and running a tabloid, the term "penniyavathi" (feminist) was respected but also sneered at sometimes. "Penniyavatham" (feminism) is a commonly used term in many NGOs run for women and is also part of the popular vocabulary. It is viewed in many different ways but it has become a part of the every day language of the people.

MISCELLANY

ANALYSING A TYPE OF COLLOCATION: *MAKE* COMPLEX PREDICATES IN NINETEENTH-CENTURY SCIENCE AND FICTION[1]

Inés Lareo
Universidade da Coruña

ABSTRACT

The aim of this paper is to analyse the behaviour of a type of collocation formed by a verb plus noun in 19th-century texts. The study will be focused on the verb *make* when functioning as a collocative or light verb. In order to check if the register or text-type determines in some way the use of these collocations, the corpus used will have two separate parts. The scientific subcorpus will include extracts of the *Coruña Corpus of English Scientific Writing*, and the 19th-century fiction section will be compiled with literary texts taken from the *Chadwyck-Healey Collection*. As the *Chadwyck-Healey Collection* is not a corpus but a database, excerpts of some of the novels included there have been selected to compile an appropriate counterpart.

KEY WORDS: Collocation, complex predicate, light verb, scientific discourse, corpus linguistics, historical linguistics, *make*.

RESUMEN

El propósito de este trabajo es analizar el comportamiento de un tipo de colocación formada con el verbo *make* más un nombre en textos del siglo XIX. El estudio se centrará en el verbo *make* cuando funcione como colocativo o verbo *light*. Para comprobar si el registro o tipo de texto condiciona de alguna manera el uso de estas colocaciones, el corpus utilizado tendrá dos partes diferenciadas. El subcorpus científico incluirá textos que formarán parte del *Coruña Corpus of English Scientific Writing* y el subcorpus de ficción se compilará con textos literarios extraídos de la *Chadwyck-Healey Collection.* Como la *Chadwyck-Healey Collection* no es un corpus en sí mismo sino una base de datos, se han seleccionado fragmentos de algunas de sus novelas para compilar un subcorpus de ficción adecuado.

PALABRAS CLAVE: colocación, predicado complejo, verbo *light*, discurso científico, lingüística de corpus, lingüística histórica, *make*.

1. INTRODUCTION

The aim of this pilot-study is to analyse one type of collocation formed by the verb *make* plus a noun in 19th-century texts. Following the research line opened

in Lareo (2008) on 19th-century collocations in general and Lareo and Esteve-Ramos on 18th-century complex predicates, I will focus my attention on the latter type for the sake of a future comparison.

In order to confirm the assumption that register conditions the use of these collocations and explore how it affects them, extracts from two different corpora were selected for this study: the *Coruña Corpus of English Scientific Writing* (*CC*) for scientific texts and samples of the *Chadwyck-Healey Collection* for 19th-century fiction. As the *CC* is an ongoing project no general conclusions can be offered. However, the partial results showed here can be of great interest for a future comparison.

The concept of *register* here is in accordance with Lee's definition (Lee 46): "Register is used when we view a text as language: the instantiation of a conventionalized, functional configuration of language tied to certain broad societal situations, that is, variety according to use." It is in this sense that this study will be dealing with the 19th-century scientific and literary registers. These two registers are different enough to be compared, the former representing the language used by scientists who address a specialised audience (using normally specific[2] or technical vocabulary).

Although the term 'collocation' covers a wide range of structures, this paper focuses on one type of collocation only: the verb *make*, as collocative/collocate or light verb, in combination with nouns which semantically resemble what is expressed by an etymologically related verb, or, as Cattell (Cattell 43) calls them, *complex predicates*. Examples (1) and (2) illustrate these cases:

(1)   He **made**, accordingly, numerous **observations** upon its position, which, although rude, compared with the present standard of accuracy... (Olmsted 1841).

(2)   [...] but the **calculations** must be **made** by the tedious processes of multiplication and division (Day 1815).

Selecting the verb *make* for comparison between scientific and fiction texts was a decision based not only on Biber *et al.'s* statement (Biber *et al.* 1028) about the extensive use of phrases with the verbs *have*, *make*, and *take* in written registers, mentioning academic prose in particular; but also on the results obtained from previous corpus-based studies of the collocational aspects of verbs by Claridge, Hiltunen, Kytö and Matsumoto in which *make* has the highest frequency, as displayed in Table 1.

[2] This term is used by Sager, Dungworth and McDonald (SAGER, DUNGWORTH and MCDONALD 182) to cover English for Special Purposes (ESP) as well as the English of Science and Technology (EST).

Period	ME	eModE		
Authors	Matsumoto	Kytö	Hiltunen	Claridge[a]
Dates	1100-1500	1500-1710	1580-1680	1640-1740
Corpus	*ME* and *OE* dictionaries, Malory, Chaucer	*Helsinki Corpus*	40 dramatic[b] works, 14 poems, 6 prose	*Lampeter Corpus*
Words		551,000	1,100,000	1,772,102
Tokens	1,950	2,056	1,851	1,579
Types	990	675	625	250
Verb classification by number of types	*Maken* *Taken* *Hauen* *Don* *Yeven*	*Make* *Have* *Give* *Take* *Do*	*Make* *Have* *Give* *Take* *Do*	*Make* *Give* *Take* *Have* *Do*
Verb classification by number of tokens		*Make* *Have* *Give* *Take* *Do*	*Have* *Take* *Give* *Make* *Do*	*Make* *Take* *Give* *Have* *Do*

TABLE 1: RESULTS OF PREVIOUS STUDIES.

[a] Only groups I and II of Claridge's "verbo-nominal combinations" in which the verbs *make, have, take, do* and *give* are involved in a collocation were taken into account for the totals. These two groups differ only in the compulsory use of an object that must be attached to the nominal part with the help of a preposition. Claridge includes, as members of group I, "simple verb-noun units" such as *take a walk, make a resolution, do harm*, whereas group II is formed by "verb-noun-preposition units" such as *make use of, take care of, give account of* (CLARIDGE 40, 69-81).

[b] The material consists of twenty plays by Shakespeare and the *Sonnets,* eleven texts by Marlowe, eight by Middleton, five editions of Webster's works, three plays by Johnson, two by Marston, two texts by Sidney and single items by Behn, Cowley, Donne, Dryden, Marvell, Milton, Spenser and Udall (HILTUNEN 135).

The structure of this paper is as follows. Section 2 is devoted to the composition of the corpus used for this study. As the scientific texts selected belong to the *CC*, the criteria used for its compilation and the end product are described in this section. Some details about the fiction texts are also given. Section 3 focuses on the selection criteria, methodology and presentation of overall data. Finally, the last section offers a data analysis in the following manner: in 4.1 the number of types and tokens is evaluated, and conclusions are arrived at as to their different usage in both registers (science and fiction); furthermore, aspects such as their supposed colloquial character are reconsidered; in 4.2 the morphological processes affecting the nouns extracted from the corpus are exposed; and, finally, in 4.3, some concluding observations are made concerning the comparison between related verbs and complex predicate frequencies.

2. COMPOSITION OF THE CORPUS

The corpus under survey, formed of science and fiction texts, has two balanced blocks, one devoted to science and the other to fiction. For each of these blocks, samples of comparable dates totalling 100,000 words were included. The scientific block is equally divided among the disciplines chosen, that is, 50,000 words for Mathematics and 50,000 for Astronomy. Altogether, the corpus searched here contains 200,000 words (see Table 2). Taking into account Biber's statement (Biber 249) about the adequate length of samples included in a corpus, I consider that this corpus achieves enough representativeness.

The scientific texts relating to the Mathematics and Astronomy disciplines are included in the *CC*. The *CC* is a collection of English scientific texts published between 1650 and 1900 that is being compiled by the Research Group for Multidimensional Corpus-based Studies in English (MuStE) at A Coruña University (Spain). The decisions made by the team to structure and organise the corpus have involved both theoretical and practical considerations (see Lareo; Lareo and Esteve-Ramos; Moskowich and Crespo).

The Modern English section, what has been compiled up to now, is comprised of texts written in English by English-speaking authors. The option of including only one text per author was preferred, when possible, in order to increase the representativeness of idiolectal variants, thus following some of the compilation principles used in the *Lampeter Corpus of Early Modern English Tracts*. Although some preferences, such as the exclusion of translations and the selection of first editions —when available— have made the search more difficult, they were followed to strengthen the *CC's* representativeness and accuracy for the period under survey. The aim of our team is to examine and explore the corpus possibilities for analysis in the morphological, syntactic and semantic fields. In this sense, this paper is a pilot-study, investigating *make* complex predicates in this sub-corpus.

The fiction corpus also contains 100,000 words, taken from works of four male authors published at approximately the same time as the scientific counterparts (the list of texts surveyed and details are included in Table 2 and Appendix 1). The decision to analyse only texts written by men was made due to the results obtained in a previous study about collocations in Late Modern English using a fiction corpus also compiled from the *Chadwyck-Healey Collection*. In that study (Lareo 2006) the corpus had two balanced blocks of texts, those written only by men and the others by women writers. The results of that analysis of the use of collocations for a fiction corpus revealed a difference in frequency for gender. Consequently, only works written by male authors were included for this analysis to avoid any distortion in the results.

SCIENCE ASTRONOMY			MATHEMATICS			FICTION FICTION		
Date	Author	Words	Date	Author	Words	Date	Author	Words
1809	Ewing	9,596	1811	Barlow	8,099			
1811	Brewster	5,062	1815	Day	13,084	1814	Scott	25,000
1841	Olmsted	8,980	1842	O'Brien	8,900	1840	Thackeray	25,000
1860	Mitchel	9,853	1863	Townsend	9,729	1860	Collins	25,000
1893	Searle	7,916	1893	Byerly	10,188	1892	Doyle	25,000
1895	Lowell	8,593						
Words		50,000	Words		50,000	Words		100,000

TABLE 2: CORPUS DETAILS.

3. SELECTION AND PROCESSING OF DATA

Since the sample frames are restricted to the 19th-century, the *make* complex predicates studied would be expected to fulfil the requirements of that time for being considered complex predicates. To this end the *OED ver.3* (about this version see Simpson, Weiner and Durkin) was used as core information. Thus, the examples in my corpora for which the *OED* does not offer any proof of the existence of an etymologically and semantically related verb, still in use at that time, were excluded from this research (see examples (3)-(5)). These principles are meant to help obtain a representative set of data and thereby a reliable picture of the use of these collocations by the scientists and men of literature of the period under scrutiny. In addition, such a set of data enables the comparison between the frequency of the complex predicates and related verbs.

(3)   [...] many rays are refracted into the shadow, especially those of a red colour, which have the greatest momentum, and **make** their **way** through it, while others are turned off in other directions (Ewing 1809).

(4)   In case the **effort** were now **made** to predict a solar eclipse (Mitchel 1860).

(5)   "I think that this typewritten letter is from you, in which you **made** an **appointment** with me for six o'clock?" (Doyle 1892).

These and similar collocations were excluded because they failed to meet the selection requirement. The study is focused on collocations that have a related and 'interchangeable' verb still in use in the period studied. As Cattell, Dirven, Dixon Gläser and Stein have pointed out, it does not imply that they can always be interchanged due to the specific grammatical and semantic possibilities each one of them offers.

Table 3 displays the information on the use of the verbs related to examples (3) and (5) included in the *OED*. The last column shows that these verbs were in use only until the 18th-century. The second column, likewise, shows that the supposedly related verb for example (4) does not have the same meaning as the complex predicate.

TABLE 3: OED INFORMATION.			
VERB	MEANING	FIRST EVIDENCE	LAST EVIDENCE
Way *v*: 1. *intr.*	To go, journey, proceed	1596	1708
Effort *v:* 1.	To strengthen, fortify	1662	1662
Appoint *v:* 3. *trans*	To make an appointment for a meeting with (a person)	1528	1797

All occurrences of the verb *make* were counted in both corpora to later separate the examples in which this verb functions as part of a complex predicate. It is not possible to mechanically search for this type of construction; therefore, the examples —although located by the *Text Search* program version 2.4 (see Alcott)— are the result of my readings.

The data set out below show that this function of *make* is more often found in science than in fiction (see Table 4). This seems to contradict the widespread opinion regarding the colloquial character of these analytical phrases held, for instance, by Curme, Dirven, Dixon, Hiltunen, Poutsma and Wierzbicka. On the contrary, they seem to corroborate the point of view of authors such as Gledhill, Kytö, Lareo (2008), Nickel (Nickel 2), Stein (Stein 8, 26) and Wotjak (Wotjak 267), concerning their increasingly frequent use in all types of texts, including scientific ones. Also, Koike (Koike 197) in her work about collocations in Present Spanish points out that collocations can be used within different registers (formal, informal, speech, writing, etc.). In her opinion, the selected collocative (in this case the verb that precedes the noun) could have certain stylistic implications. Nevertheless, the Spanish common or general verbs, such as *hacer*, *dar*, *tomar*, etc., that function as the English verbs *make*, *have*, *take*, *do* and *give* are considered by the author to be part of the neutral linguistic level, or devoid of stylistic implications (see also Alonso 104). That is, the production of collocations with general collocative verbs such as the one I deal with in this paper —*make*— is not restricted to any kind of register, style, or linguistic production. For instance, in collocations such as those of examples (6) and (7) the choice of the verbs *give* and *do* represents the neutral level. Nevertheless, the verbs of examples (8) and (9) —two further samples of the verbal possibilities these collocations offer— imply a change of style. In this case, the second option implies a change from the neutral to the colloquial level.

(6)   *to give a kiss on one's mouth*
(7)   *to do a paper on ...*
(8)   *to plant a kiss on one's mouth*
(9)   *to whip up a paper on ...*

The data shown in Table 4 are organised in the following way: the first two columns are devoted to each section of the corpora compiled (science and fiction). The science column shows the results obtained in both sections of the corpus (Astronomy and Mathematics). Finally, each section includes the date in which the text was published, the number of tokens found (#), the number of words taken from each text (words) and the normalised figures per 1,000 words (NF).

TABLE 4: PERCENTAGES OF MAKE COMPLEX PREDICATES IN EACH TEXT								
SCIENCE ASTRONOMY			MATHEMATICS			FICTION FICTION		
Date	# / words	NF	Date	# / words	NF	Date	# / words	NF
1809	5 / 9,596	0.52	1811	3 / 8,099	0.37			
1811	2 / 5,052	0.39	1815	18 / 13,084	1.37	1814	15 / 25,000	0.60
1841	10 / 8,980	1.11	1842	8 / 8,900	0.89	1840	26 / 25,000	1.04
1860	12 / 9,853	1.21	1863	0 / 9,729	0	1860	17 / 25,000	0.68
1893	20 / 7,926	2.52	1893	1 / 10,188	0.09	1892	16 / 25,000	0.64
1895	6 / 8,593	0.69						
Total	55 / 50,000	1.10	Total	30 / 50,000	0.60			
Total	85 / 100,000				0.85	Total	74 / 100,000	0.74

4. ANALYSIS OF RESULTS

4.1. TYPES VERSUS TOKENS

Applying the same criteria as the ones followed in previous studies on this topic, the results obtained have been divided into two different categories: types and tokens. On the one hand, the label *type* is used for the coaparition of the verb *make* and a noun counting only the different complex predicate but not the examples found. On the other hand, the label *token* refers to the total amount of examples extracted from the corpus. For instance *make+advance*, *make+change*, *make+apology*, etc. are three different types of complex predicates but the corresponding number of tokens is 10 (3, 2 and 6) as displayed in Table 5.

The data provided above show that the tokens or the total occurrences for science outnumber those for fiction. This result does not seem to corroborate either

Renský's view of a 'comparable' use of this type of analytical phrases between scientific registers and others, or the aforementioned widespread opinion of the colloquial character of these collocations. However, the analysis of the science corpus in itself shows a striking difference between the disciplines tested. Whereas in the Astronomy block the use of *make* complex predicates reaches 55 tokens (NF 1.1), the number of tokens in the Mathematics block decreases considerably to almost half this figure, with only 30 tokens (NF 0.6%). Consequently, there seems to be a relation between the discipline surveyed and the use of complex predicates. This idea seems also to be shared by Gledhill (Gledhill 205) in relation to the research article. He declares that "the research article genre does not have a single monolitic style, with entirely predictable features. The sheer variety of graphic presentation from one research specialism to another is a useful reminder of the complexity and heterogeneous nature of scientific discourse." Nevertheless, as the aim of this paper is to compare science and fiction, the science corpus has been taken as a whole for this purpose.

Using complex predicates instead of the related verb seems to have been connected with the use of high-frequency nouns in the 19th-century. Bailey (Bailey 229) affirms that it was not until the end of that century when "using nouns instead of available verbs, at least sometimes, was socially threatening." He explains that using nouns, for instance in phrases such as *have a look* instead of the verb *to look*, was a sign of the modern. But in the case of science, nominalizations were not only a sign of the modern but also a way to express and experience science. This idea is perfectly articulated by Halliday and Martin:

> The prototypical meaning of a noun is an object; when **stable**, **behave**, **occur**, **develop**, **use**, are regrammaticized as **stability**, **behaviour**, **occurrence**, **development**, **utility** they take on the semantic flavour of objects, on the model of the abstract objects of a technical taxonomy like **radiation**, **equation** and **mass**. Isolated instances of this would by themselves have little significance; but when it happens on massive scale the effect is to reconstrue the nature of experience as a whole. [...] the elaborated register of scientific knowledge reconstrues reality as an edifice of things. It holds reality still, to be kept under observation and experimented with; and in so doing, interprets it not as changing with time [...] but as persisting —or rather, persistence— through time, which is the mode of being of a noun. (Halliday and Martin 15).

This property of scientific discourse, evidenced again by Halliday, is directly related to the nouns involved in complex predicates because, although being presented as objects, they are, in fact, processes. However, as nouns, they have a morphological relation to the verb. From this point of view and to open new directions for my analysis for the following point (4.2), the nouns of our complex predicates have been classified according to the process undergone either by the related verb or by the noun itself. Nouns were separated into isomorphic ones (conversion), when the *OED* offers an homographic and related verb, and non-isomorphic ones (derivation), when a suffix is needed. In Table 5 types and tokens found in both corpora are displayed.

The notation added to some nouns such as *proposal1.2b* or *proposal1.3a* identifies different senses specified in the *OED* (*s.v. proposal n.*):

> ***proposal****1.2b*: spec. *An offer of marriage.*
> ***proposal****1.3a*: *The action, or usually (now always) an act, of proposing something to be done; an offer to do something; a scheme or plan of action proposed.*

This notation refers to the windows used by the Cd-version of the dictionary to display the information. Number 1 identifies the first noun in the 'list of words' window and the number and letter after the period are taken from the senses included in the right window.

TABLE 5: CORPORA RESULTS.							
SCIENCE				FICTION			
Isomorphic (conversion)		Non-isomorphic (derivation)		Isomorphic (conversion)		Non-isomorphic (derivation)	
Type	#	Type	#	Type	#	Type	#
advance	3	Addition	4	advance	1	acknowledgment	1
change	2	Alteration	1	appeal	1	apology	6
chart	1	Appearance	3	attack	1	appearance	2
Loop	1	Application	1	attempt	7	arrangement	2
Map	1	Calculation	7	bow	3	avowal	1
mark	2	Computation	3	campaign	1	confession	2
photograph	2	Comparison	1	copy	1	discovery	1
progress	1	Contribution	3	doubt	1	drawing	1
promise	1	Development	1	escape	2	entrance	1
record	1	Discovery	6	excuse	1	impression	2
remark	4	Division	1	fight	2	inquiry	3
research	1	Examination	2	joke	1	mystery	1
scale	1	Explanation	1	love	5	objection	1
Use	4	Investigation	1	mistake	1	oration	1
		Movement	2	note	1	proposal.2b	1
		Observation	8	peace	1	proposal.3a	1
		Prediction	1	progress	3	proposition	1
		Revolution	2	reply	2	selection	1
		simplification	1	salute	1	statement.2a	1
		Solution	1	signal	2		
		Substitution	2	speech	4		
		Subtraction	3	study	1		
		Suggestion	1	visit	1		
		Supposition	1				
		statement.1a	1		1		
		statement.2a	1		2		

Partial conclusions can be reached from these data. Both corpora made similar use of *make* complex predicate types (40 in science and 42 in fiction). This tendency is broken with regard to tokens (as it is displayed in the last row of Table 4, 85 were found in science and 74 in fiction). A possible explanation of this result could be the aim of scientific discourse to make things clearer. In order to explain important concepts and to hold the reader's attention, the authors studied write nouns and sometimes repeat them within the same text; it is then that, despite the supposed colloquial character of these collocations, the instances in science outnumber the ones in fiction. The normalised figures per 1,000 words (0.85 in science and 0.74 in fiction) also imply a tendency of these samples of scientific discourse toward repetition. The use of repetition of scientific writings, observed by Moskowich and Sager *et al.* (Sager, Dungworth and McDonald 238), may reveal a more didactic style of the samples searched. The language is only used as a vehicle to convey information, being the aim of these writings to focus the attention of the reader on the topic and not on the language itself. On the other hand, the higher number of tokens in science confirms Halliday's opinion that nominalization in scientific writing is important for picking up the preceding argument and presenting the objectified form as something to be taken for granted (Halliday 98).

4.2. The nouns and their morphological processes

As the samples included in Table 5 reveal, the morphological processes adopted by these nouns —conversion and derivation— yielded different results depending on register (these data are displayed in Table 6). In science most tokens of the nouns involved in complex predicates are derivatives (70.6% vs 29.4%), whereas in fiction the difference is not as striking (40.5% vs 59.4%). The comparison of these results shows that while scientific texts select derivative nouns to form complex predicates, fiction prefers isomorphic ones. This result coincides with the abundance of derivation observed by Sánchez in his study about derivation and compounding in Modern English scientific writing. On the contrary, Hiltunen (Hiltunen 151), in the fiction corpus-based study (see note 4) he carried out on what he calls 'verbal phrases', pointed out that the nouns that collocate with this verb were mainly derivatives in the EModE period. But his observations do not coincide with Kytö's (Kytö 174) for the same period and with the *Helsinki Corpus*. She concludes that the nouns recorded in her study were predominantly isomorphic, as is the case in the fiction samples. Conversely, in the science corpus derivation is by far more common for both types and tokens (63.4% and 70.6%). The occurrence of derivation in scientific writing is explained by Halliday and Martin (Halliday and Martin 12) as a resource of the genre established by Greek scientists and later transferred by calquing into Latin. Evidently, English, as the scientific language par excellence, has inherited this feature.

The suffix most frequently found in this corpus is *–ion* (see Table 5), as in Hiltunen's study. This was expected since this suffix is added to form abstract nouns to designate a process (Sager, Dungworth and McDonald 276), precisely one of the tasks developed by the nouns involved in complex predicates.

TABLE 6: MORPHOLOGICAL PROCESS RESULTS								
SCIENCE (types 40; tokens 85)				FICTION(types 42; tokens 74)				
	Conversion	%	Derivation	%	Conversion	%	Derivation	%
TYPES	14	35	26	63.4	23	54.7	19	45.2
TOKENS	25	29.4	60	70.6	44	59.4	30	40.5

4.3. VERB VERSUS COMPLEX PREDICATE

That scientific texts typically exhibit an exceptionally high proportion of nouns in relation to verbs due to scientists' greater emphasis on ideas and not actions has been pointed out by authors such as Crespo and Moskowich, Halliday, Huddleston, Moskowich and Crespo, and Sager, Dungworth and McDonald. In this line, I have focused my attention on complex predicates, constructions in which nouns are involved. But even though the use of these collocations in scientific writing has been verified in this paper, the last step will be to compare the use of complex predicates and the "corresponding" verbs. Nickel's (Nickel 2) statement about the "marked tendency in modern English, scientific as well as colloquial, to use complex verbal structures in place of simple verbs" has also driven me to do a new search. Consequently, all semantically and etymologically related verbs were examined to observe the tendency followed by these texts. Examples such as (10-13) were studied. For instance, examples (10) and (12) contain two occurrences of some verbs related to the complex predicates included in (11) and (13). To be precise, the collocation displayed in (11) was found only twice in the science corpus, whereas the verb in (10) was used seventeen times. Likewise, the common collocation in (13) was found only four times, whereas the corresponding verb appeared ten times.

(10) **When they are** substituted **in equation** [...] **it will hold good at the** [...] points of the unit sphere [...] (Byerly 1893).

(11) **Making** the first **substitution**, we find [...] not Legender's Equation but a somewhat more general form. (Byerly 1893).

(12) In the first place we may **remark** that the sign here, as well as elsewhere, always signifies actual equality; (O'Brien 1842).

(13) It will be necessary to **make** a few preliminary **remarks** on the nature of an ordinary series of the form [...] (O'Brien 1842).

In contrast to Nickel's opinion, the findings of my search show a striking difference in the use of collocation and related verbs for both genres. Whereas in the 100,000 word science corpus 85 tokens of complex predicates (NF 0.85) to

563 occurrences of the corresponding verbs were found (NF 5.63), in the 100,000 word fiction corpus the figures are not so disparate (74 (NF 0.74) to 223 (NF 2.23)). This result is explainable taking into account the aim and features of scientific writings, namely, to describe how the results were achieved using a language more concise and precise than the language of fiction. In this sense, the advantages collocations offer —allowing for more flexibility in the strict word order of English and for more syntactic possibilities— seem not to be as necessary for scientific register. Thus, although more occurrences of *make* complex predicates were found in science, showing that this is also a linguistic device of 19th-century scientific English, the data obtained from this last search show scientists' preference for verbs.

Finally, I intended to examine whether the old rivalry between *make* and *do* arising in late Old English (Akimoto and Brinton) continues to this period. To this end, the nouns involved in *make* complex predicates were the focus of a minute study, where a search was conducted for possible combinations of those nouns with the light verb *do*. Although this duality was still observable in 19th-century fiction (Lareo 2006), the coexistence of both verbs with the same noun in scientific writing is not confirmed by my data, supporting in this way the results of previous studies.

5. CONCLUSION

This study of *make* complex predicates using a balanced corpus of science and fiction samples in the Modern English period has shown an evident use of these periphrastic constructions for the period, surprisingly greater for science than for fiction. Therefore, in view of the evidence, I agree with Kytö (Kytö 178), who has observed a frequent use of, in her case, composite predicates in informal as well as in formal writing. The fact that in this research the number of tokens found in scientific writing is higher than that found in fiction, the latter being supposedly more informal, provides support for this claim. Claridge (Claridge 197) has also obtained results that support the same view. She thinks that composite predicates, "or the majority of them, might be part of a stylistically rather neutral level of the language," as seems to be the case for scientific writing.

My results for the morphological process followed by the nouns involved in these complex predicates sustain Sager *et al's.* opinion (Sager, Dungworth and McDonald 276) concerning the use of conversion in scientific writing. They point out that "conversion is less productive in scientific English because of the high proportion of terms derived from Latin and Greek word elements with identifiable noun endings which are therefore not suitable for conversion."

Finally, the survey of the use of related verbs instead of complex predicates has shown that although 19th-century scientists employed this type of collocation, they did not prefer complex predicates to simple related verbs. This is also the result for the fiction corpus data, but the difference is not as striking. The result obtained on the scientific texts search could be explained taking into account that most of them show a didactic style. In those cases the writings are very strong on demonstrating or making the argument evident by reasoning or practical proof, explain-

ing clearly every step taken to solve a problem. The use of verbs in this type of writings conveys a more authoritative or reliable character.

I would like to recall the suggestion made in the first part of this paper about the new directions for further investigation opened by the research done on the science corpus. The different results found in the science corpus suggest that a study based on a wider range of disciplines like the ones now being compiled in the *Coruña Corpus of English Scientific Writing* (History, Life Sciences, Philosophy and Physics) could produce different results with regard to *make* complex predicates. Moreover, not only discipline, but also the metadata about the authors (their origin, education, sex) and about the texts (text-type, number of editions, etc.) that will be added to the *CC* could produce interesting results regarding the use of this type of collocation in English scientific writing.

APPENDIX

Fiction

Collins, Wilkie. *The Woman in White*. London: Sampsonlow, 1860.

Doyle, Sir Arthur C. *The Adventures of Sherlock Holmes*. New York: Harper, 1892.

Scott, Sir Walter. *Waverley*. Edinburg: Robert Cadell, 1814.

Thackeray, William M. *Catherine*. London: James Fraser, 1840.

Science

Mathematics

Barlow, Peter. *An Elementary Investigation of the Theory of Numbers, with Its Application to the Indeterminate and Diophantine Analysis, the Analytical and Geometrical Division of the Circle, and Several Other Curious Algebraical and Arithmetical Problems*. London: Johnson, 1811. 7-51.

Byerly, William E. *An Elementary Treatise on Fourier's Series and Spherical, Cylindrical, and Ellipsoidal Harmonics with Applications to Problems in Mathematical Physics*. Boston: Ginn, 1893. 144-216.

Day, Jeremiah. *A Treatise of Plane Trigonometry: To Which Is Prefixed, a Summary View of the Nature and Use of Logarithms. Being the Second Part of a Course of Mathematics, Adapted to the Method of Instruction in the American Colleges*. New Haven: Howe, 1815. 1-61.

O'Brien, Rev. Matthew. *An Elementary Treatise on the Differential Calculus, in Which the Method of Limits Exclusively Made Use Of*. Cambridge: Deighton, 1842. 77-126.

Townsend, Rev. Richard. *Chapters on the Modern Geometry of the Point, Line, and Circle: Being the Substance of Lectures Delivered in the University of Dublin to the Candidates for Honors of the First Year in Arts.* Dublin: Hodges, 1863. 144-175.

Astronomy

BREWSTER, Sir David. *Ferguson's Astronomy Explained upon Sir Isaac Newton's Principles: With Notes and Supplementary Chapters.* Philadelphia: A. Small, 1811. 265-284.

EWING, John. *A Plain Elementary and Practical System of Natural Experimental Philosophy: Including Astronomy and Chronology.* Philadelphia: Hopkins, 1809. 492-523.

LOWELL, Percival. "Mars III: Canals." *The Atlantic Monthly* 76 (July 1895): 106-109.

MITCHEL, O.M. *Popular Astronomy: A Concise Elementary Treatise on the Sun, Planets, Satellites and Comets.* New York: Blakeman, 1860. 15-69.

OLMSTED, Denison. *Letters on Astronomy: Addressed to a Lady in Which the Elements of the Science Are Familiarly Explained in Connexion with Its Literary History.* New York: Harper, 1841.

Searle, Rev. George M. "Recent Discoveries in Astronomy." *Catholic World* 57.338 (May 1893): 164-181.

WORKS CITED

AKIMOTO, Minoji. "Collocations and Idioms in Late Modern English." *Collocational and Idiomatic Aspects of Composite Predicates in the History of English.* Ed. L. Brinton and M. Akimoto. Amsterdam: John Benjamins, 1999. 207-238.

AKIMOTO, Minoji and Laurel J. BRINTON. "The Origin of the Composite Predicates in Old English." *Collocational and Idiomatic Aspects of Composite Predicates in the History of English.* Ed. L. Brinton and M. Akimoto. Amsterdam/ Philadelphia: John Benjamins, 1999. 21-58.

ALCOTT, Glenn. *Super Text Search.* 11 April, 2003. <http://www.galcott.com>.

ALONSO RAMOS, Margarita. *Las colocaciones con verbo de apoyo.* Madrid: Visor, 2004.

BAILEY, Richard W. *Nineteenth-century English.* Ann Arbor: Michigan UP, 1999.

BIBER, Douglas. "Representativeness in Corpus Design." *Literary and Linguistic Computing* 8.4 (1993): 243-257.

BIBER, Douglas, Stig JOHANSSON, Geoffrey LEECH, Susan CONRAD and Edward FINEGAN, eds. *Longman Grammar of Spoken and Written English.* London: Longman, 2000.

CATTELL, Ray. *Composite Predicates in English.* Sydney: Academic, 1984.

CLARIDGE, Claudia. *Multiword Verbs in Early Modern English: A Corpus-based Study.* Amsterdam: Rodopi, 2000.

CRESPO, Begoña and Isabel MOSKOWICH. "Latin Forms in Vernacular Scientific Writing: Code-switching or Borrowing?" *Selected Proceedings of the 2005 Symposium on New Approaches in English Historical Lexis (HEL-LEX).* Ed. R.W. McConchie et al. Somerville: Cascadilla, 2006. 51-59.

CURME, George O. *English Grammar.* New York: Barnes and Noble, 1947.

DIRVEN, René, ed. *A User's Grammar of English: Word, Sentence, Text, Interaction.* Frankfurt am Main: Peter Lang, 1989.

Dixon, Robert M.W. *A New Approach to English Grammar on Semantic Principles*. Oxford: Clarendon, 1992.

Gläser, Rosemarie. *Phraseologie der englischen Sprache*. Leipzig: VEB., 1986.

Gledhill, Christopher. *Collocations in Scientific Writing*. Tübingen: Narr, 2000.

Halliday, M.A.K. "The Construction of Knowledge and Value in the Grammar of Scientific Discourse: Charles Darwin's *The Origin of the Species*." *Writing Science: Literacy and Discursive Power*. Ed. M.A.K. Halliday and J.R. Martin. Pittsburgh: Pittsburgh UP, 1993. 86-105.

——."On the Language of Physical Science." *Writing Science: Literacy and Discursive Power*. Ed. M.A.K. Halliday and J.R. Martin. Pittsburgh: Pittsburgh UP, 1993. 54-68.

Halliday, M.A.K. and J.R. Martin, eds. *Writing Science: Literacy and Discursive Power.* Pittsburgh: Pittsburgh UP, 1993.

Hiltunen, Risto. "Verbal Phrases and Phrasal Verbs in Early Modern English." *Collocational and Idiomatic Aspects of Composite Predicates in the History of English*. Ed. L. Brinton and M. Akimoto. Amsterdam: John Benjamins, 1999. 133-166.

Huddleston, Rogert D. *The Sentence in Written English: A Syntactic Study Based on an Analysis of Scientific Texts*. Cambridge: Cambridge UP, 1971.

Koike, Kazumi. *Colocaciones léxicas en el español actual: estudio formal y léxico-semántico.* Alcalá de Henares: Universidad de Alcalá, 2001.

Kytö, Merja. "Collocational and Idiomatic Aspects of Verbs in Early Modern English." *Collocational and Idiomatic Aspects of Composite Predicates in the History of English*. Ed. L. Brinton and M. Akimoto. Amsterdam: Benjamins, 1999. 67-206.

Lareo, Inés. *Colocaciones verbo-nombre en inglés moderno tardío: algunos aspectos de su comportamiento y evolución.* Diss. Universidade da Coruña. 2006.

——."*Make*-Collocations in Nineteenth-Century Scientific English." *Studia Neophilologica* 80 (2008): 3-18.

Lareo, Inés and María José Esteve-Ramos. "18th-entury Scientific Writing: A Study of *Make* Complex Predicates in the *Coruña Corpus*." *ICAME Journal* 32 (2008): 69-96.

Lee, David. "Genres, Registers, Text Types, Domains, and Styles: Clarifying the Concepts and Navigating a Path through the BNC Jungle." *Language Learning and Technology* 5.3 (2001): 37-72.

Matsumoto, Meiko. "Composite Predicates in Middle English." *Collocational and Idiomatic Aspects of Composite Predicates in the History of English*. Ed. L. Brinton and M. Akimoto. Amsterdam: John Benjamins, 1999. 59-96.

Moskowich, Isabel. "'To Lerne Sciences Touching Nombres and Propociouns': The Proportion of Affixation in Early Scientific Writing." *English Studies* 89.1 (2008): 39-52.

Moskowich, Isabel and Begoña Crespo. "Presenting the Coruña Corpus: A Collection of Samples for the Historical Study of English Scientific Writing." "*Of Varying Language and Opposing Creed": New Insights into Late Modern English.* Ed. J. Pérez Guerra, J. L. Bueno Alonso, D. González Álvarez and E. Rama Martínez, Bern: Peter Lang, 2007. 341-357.

Nickel, Gerard. "Complex Verbal Structures in English." *IRAL* 6.1 (1968): 1-21.

Oxford English Dictionary (*OED*). CD-ROM. Oxford: Oxford UP, 2002.

Poutsma, H. *A Grammar of Late Modern English. Part I: The Sentence. First Half 1928. Part II: The Parts of Speech. Section IA 1914; IB 1916; II 1926*. Groninger: Noordhoff, 1914-26.

RENSKÝ, Miroslav. "English Verbo-nominal Phrases." *Travaux Linguistiques de Prague* 1 (1964): 289-299.

SAGER, Juan, C., David DUNGWORTH and Peter F. McDONALD. *English Special Languages: Principles and Practice in Science and Technology.* Wiesbaden: Brandstetter, 1986.

SÁNCHEZ RIVEIRO, Víctor. "Derivation and Compounding in ModE: Some Morphological Issues of Scientific Writing during the 18th century." Paper presented at the *ICEHL* 14. Bergamo. 2006.

SIMPSON, John, Edmund WEINER and Philip DURKIN. "The Oxford English Dictionary Today." *Transactions of the Philological Society* 102.3 (2004): 335-381.

STEIN, Gabriele. "The Phrasal Verb Type 'To Have a Look' in Modern English." *International Review of Applied Linguistics in Language Teaching* 29 (1991): 1-29.

WIERZBICKA, Anna. *The Semantics of Grammar.* Amsterdam: John Benjamins, 1988.

WOTJAK, Gerd. "Reflexiones acerca de construcciones verbo-nominales funcionales." *Estudios de fraseología y fraseografía del español actual.* Ed. G, Wotjak. Madrid: Iberoamericana, 1998. 257-279.

ABERRATIONS, INSTABILITIES AND MYTHOCLASM
IN THE TALES OF FLANNERY O'CONNOR[1]

Marita Nadal
Universidad de Zaragoza

ABSTRACT

Taking as a point of departure concepts introduced by contemporary critics of the South, such as "Southern aberrations," "Southern self-fashioning," "instabilities," and "mythoclasm," this paper analyses Flannery O'Connor's tales and their peculiar role within the history of Southern writing. The author argues that despite O'Connor's alleged conservatism, her tales undermine traditional categories related to the South and anticipate later tendencies. Thus, although O'Connor's fiction incorporates the most distinctive elements of traditional Southern literature —humor, the grotesque, violence, religion, race and racism— and some of her views may evoke the white and male aesthetic of the Fugitives/Agrarians, the iconoclastic treatment of these elements prefigures the revisionist impulse of present-day Southern writing, suggesting the turn of Southern literature to parody and postsouthernness.

KEY WORDS: Southern writing, tradition, myth, mythoclasm, aberrance, instability, religion, violence, class, race, parody, simulation.

RESUMEN

Tomando como punto de partida conceptos utilizados por críticos de la literatura y cultura del Sur de los EEUU, tales como "Southern aberrations," "Southern self-fashioning," "instabilities" y "mythoclasm," este artículo analiza los cuentos de Flannery O'Connor y su peculiar papel en la historia de la literatura sureña. La autora señala que pese al supuesto conservadurismo de O'Connor, sus relatos subvierten las categorías tradicionales asociadas al Sur y anticipan tendencias surgidas posteriormente. Aunque la ficción de O'Connor incluye los elementos más representativos de la literatura sureña tradicional —el humor, lo grotesco, la violencia, la religión, la raza y el racismo— y algunos de sus rasgos pueden evocar la estética masculina y blanca de los Fugitives/Agrarians, el tratamiento iconoclasta de estos elementos es precursor del impulso revisionista y desmitificador de los escritores sureños contemporáneos, y anuncia el giro de la literatura del Sur hacia la parodia y la identidad postsureña.

PALABRAS CLAVE: escritura sureña norteamericana, tradición, mito, "mitoclasma", aberración, inestabilidad, religión, violencia, clase, raza, parodia, simulaciones.

In "The South of the Mind," Southern critic Diane Roberts points out that white Americans, faced with the loss of their social and political hegemony, have

singled out the 1880's, World War II, and the 1950's as times of special virtue. Significantly, in those years there was a "top-down power structure, a decorum in which gender and race roles [were] obviously and concretely assigned." The South, she argues, remains the champion in its determination to glamorize the past, even if that past has implied exploitation and abuse (368). However, these characteristics do not apply to Flannery O'Connor, a Georgian writer of the 1950's, who neither glamorizes the past nor reflects any social harmony in her treatment of her contemporary Southern characters. In fact, her fiction undermines traditional categories related to the South and anticipates later tendencies, as will be discussed.

Richard Gray argues that "all Southern writing is aberrant," and some writers, like O'Connor, "have had aberrance as its fundamental subject and strategy" (407). In fact, part of her aberrance consists in her two-fold divergence from both Southern and non-Southern writing. No doubt O'Connor's fiction could be taken as a peculiar example of what Gray calls "Southern self-fashioning" (xiii), which in her case implies both the rejection or distortion of traditional clichés and the foregrounding of elements usually discarded. Gray pays attention to the instabilities frequently found in Southern writing: in his view, they are typical of a culture that "perceives itself as marginalized" (x). Similarly, Susan Castillo points out that "the grotesque/gothic is an aesthetic based on instability," so "the reconciliation of possibilities [...] is a contingent and fleeting one at best" (488). Together with Gray's, this reflection —which Castillo inserts at the beginning of her essay "Flannery O'Connor"— is an appropriate starting point for the present analysis: as we shall see, O'Connor's tales offer diverse examples of such instabilities; her handling of them, though, proves to be rather more complex than what generalizations about the grotesque —used and abused to describe O'Connor's fiction— appear to suggest.

Whereas traditionally the South "has been notorious for mythologizing itself," as Applewhite writes (Crowther 65), in "Writing in the South Now" Matthew Guinn notes that "'declaring war' on community and myth" has become "one of the defining approaches to postmodern Southern writing." In his view, contemporary Southern literature coheres around two approaches: a revival of literary naturalism, and also "an iconoclastic spirit" —what he calls "mythoclasm"— which "seeks to undermine the South's received notions of community and tradition." In short, the defining trends in contemporary Southern fiction are "the effort to break from tradition" and the "revisionist spirit" that usually accompanies this impulse (571-74). Significantly, these features, which are central in present-day writers such as Harry Crews and Cormac MacCarthy, are anticipated in O'Connor's work, even if in a different way. In this regard, the remark made by Fred Hobson—a prestigious critic of the South— is quite relevant: "many Southern writers now operate not under the shadow of Faulkner but under that of O'Connor and Welty" (73).

In order to analyse these characteristics, I will focus on a selection of O'Connor's tales which, in my view, convey the sense of mythoclasm —the dismantling of Southern clichés— and in a sense the critical, revisionist spirit that Guinn discusses. A powerful tale that incorporates these elements is "A Good Man Is Hard to Find" (1953), which opens her first collection of stories and also gives title to the volume. In it, a family of six members, grandmother included, leaves Atlanta for a short trip in Florida, but they never reach their destination. On their way, they meet the Misfit, a dangerous criminal escaped from the Federal Pen, who kills them one by one. Only the cat, taken by the grandmother without her son's knowledge, and partly responsible for the accident, survives the killing. Apart from its ethical focus on the final dialogue between the grandmother and the Misfit, who becomes the agent of grace through which the former experiences her epiphany, the story explores a variety of Southern conventions in a comic but critical light.

Thus, the members of this family have nothing to do with our image of a traditional Southern family: the children's mother, whose looks and behaviour suggest a negligible or even stupid character, is not even appropriate to stand for the parody of the Southern Belle or Lady; similarly, Bailey, the father, boring and weak, has nothing to do with the Southern gentleman. The children seem more dynamic and witty, but they are certainly impolite, impudent and quarrelsome. Only the grandmother, through her clothes, conventional good manners, and her idealization of the past, looks like a would-be Southern lady: she is the only character in the story that represents the traditional South and the nostalgia for it, which O'Connor undermines. Significantly, the old woman proves to be selfish, hypocritical and vain. In turn, the children convey the idea of mythoclasm that the very plot of the story foregrounds. In his insolent style, the boy remarks: "Tennessee is just a hillbilly dumping ground [...] and Georgia is a lousy state too" (119), statements that only the grandmother censures.

In an indirect way, the narrative discloses that it is precisely the desire to return to the past —in part an unreal past— that provokes the car accident, and in consequence, the encounter with the Misfit: we should recall that the grandmother suggests visiting an old plantation and its house, provided with a secret panel which does not exist and which she fabricates to attract the children's attention. Her answer to the grandson's question about the whereabouts of another plantation is worth quoting: "Gone with the Wind," she says, an evocative phrase which goes beyond the connotations of its popular intertext[2] and highlights O'Connor's iconoclastic impulse. Significantly, the historical and mythic past evoked is unrecoverable, but its literary and cinematographic reflections persist and can proliferate endlessly. The grandmother's use of this witty quotation points to O'Connor's early awareness of the South's growing fascination with images of itself, a tendency associated

---

[2] As Helen Taylor (28) argues, Margaret Mitchell's novel *Gone with the Wind* (1936)— made into a successful film by David O. Selznick in 1939— is probably the most popular work of art of the twentieth century and an international symbol of American Southernness.

with the postmodern condition and which present-day Southern culture epito-
mizes, as some critics of the South have pointed out (cf. among others, Kreyling
1998). Taking as a point of reference Baudrillard's *Simulations* (1983), Scott Romine
argues in "Where Is Southern Literature" that the South will never cease to exist,
since it will keep reinventing itself: "the identitarian South may inflect representa-
tion long after the material South has retired into memory" (42). As we shall see,
O'Connor continues to explore this issue in "A Late Encounter with the Enemy," a
tale that, interestingly, was published in the same year as "A Good Man..."

   In this tale, O'Connor parodies Southern overemphasis on ancestry and good
manners through the grandmother's words to the Misfit: in order to save her life, she
resorts to clichés such as "You wouldn't shoot a lady, would you?" or "I know you're
a good man. You don't look a bit like you have common blood. I know you must
come from nice people" (127). As could be expected, the lady's politeness and her
flattering remarks prove both ridiculous and useless in such tragic circumstances. It
is worth pointing out that this passage of the story foregrounds two distinctive and
persistent Southern features, religion and violence, which O'Connor tackles in a
really "aberrant" manner: the formulaic and superficial religious attitude of the grand-
mother contrasts with the fundamentalist-nihilist one of the Misfit, who despite (or
because of) his radical Christian concerns, ends up killing the five members of the
family. John Lowe's view of the postmodern South endorses O'Connor's unsenti-
mental and unglamorous depiction of it in "A Good Man...": "the South still seems
haunted by the gothic ghosts of its past, and religion's sway is as strong as ever,
despite the development of a new southern hedonism" (1996: 4). Curiously, Lowe's
reflection ties in with O'Connor's insightful words about the same subject: "in the
South the general conception of man is still, in the main, theological. [...] while the
South is hardly Christ-centered, it is most certainly Christ-haunted" (Fitzgerald 44).

   Although O'Connor asserts that in her tales violence has a religious aim —it
prepares her characters "to accept their moment of grace"— and that in this story we
"should be on the lookout for such things as the action of grace in the grandmother's
soul, and not for the dead bodies" (Fitzgerald 112-13), it can't be denied that an
apocalyptic plot like that of "A Good Man..." and a serial killer like the Misfit have
more to do with the features of present-day fiction and film than with traditional
Southern writing or a moralistic kind of art. As Harold Bloom has recently remarked,
O'Connor "might have rejoiced at our discomfort with the authentic New Age of
Islamic fundamentalist terror. As our lives perforce turn more grotesque, her fiction
is likely to seem even more relevant" (575). Finally, it is worth noting that the grand-
mother's dialogue with the Misfit not only conveys religious and metaphysical is-
sues, but also exemplifies in a tragicomic way the Southern penchant for talking: the
frantic and repetitive discourse of the grandmother —no doubt intended to post-
pone or even escape death— results in the Misfit's sudden shots and in the comment
of Bobby Lee (one of the latter's subordinates), which, ironically, seems to suggest
that her punishment was deserved: "She was a talker, wasn't she?" (133).

   Although O'Connor's stories are mainly concerned with the present, there is
one tale that focuses on two of the topics obliquely raised in "A Good Man...": "A Late
Encounter with the Enemy" (1953). This story casts a backward glance at the "defin-

ing moment" of Southern history —the Civil War— and foregrounds the spread of replicas and simulations in contemporary culture.[3] The narrative conveys the message that many Southerners have a distorted and idealized image of the Civil War and its significance. Ironically, the protagonist, a one-hundred-and-four-year-old man who fought in that war, does not remember the war at all. As the narrator remarks, "[t]he past and the future were the same thing to him, one forgotten and the other not remembered" (139). Although he "had probably been a foot soldier" (135), and his name was George Poker Sash, publicly "[h]e was introduced as General Tennessee Flintrock Sash of the Confederacy" while confidentially the grandaughter explained that "he had only been a major" (137), variations which, though in a comic vein, emphasize the appropriation and manipulation of history.

Curiously, the only thing that this General recalls with clarity and delight is the Atlanta première of a Civil War film (most likely *Gone with the Wind*) twelve years before at which he was dressed up in the general's uniform for the first time, surrounded by "beautiful guls" (136) from California and exhibited on stage as a relic from the past. Since then, his granddaughter has continued these exhibitions, displaying the General at the Capitol City Museum on Confederate Memorial Day, or taking him to old plantation houses "to lend atmosphere to the scene" during the spring season (139). While the grandfather seems satisfied with this newly acquired identity, which places him at the centre of "parades with floats full of Miss Americas and Miss Daytona Beaches and Miss Queen Cotton Products" (134), the grand-daughter intends to preserve him as a symbol of "the old traditions" —"Dignity! Honor! Courage!"— and of her superiority over "all the upstarts who had turned the world on its head and unsettled the ways of decent living" (135). Obviously, such inversion of roles duplicates the aberrance implicit in this approach to the past, which culminates in a fittingly grotesque dénouement when the General, dressed up in a replica of the Confederacy uniform, dies discreetly onstage during the granddaughter's college graduation ceremony. The story ends with the old man, now a corpse, in the wheelchair carried by his great-great nephew, waiting "in the long line at the Coca-Cola machine" (144). As the narrative suggests, the historical past has been forgotten (by the General), manipulated (by the grandaughter), or ignored (by his careless great-great nephew), and it is only accessible through the distorting images of popular culture and contemporary simulacra, which have come to replace the real significance of a lost war. Interestingly, the youngest member of the family is more

---

[3] In "Distmantling the Monolith," Barbara Ladd highlights the persistent, distorting and determining influence of the Civil War in the history of the South and on the nationalistic ideology of Southerners: "Most would argue that the Civil War was (and still is) the defining moment for the South as a discrete entity; that the South prior to the Civil War is the South only to the extent that it is developing the economy, the politics, and the ideology that would lead to secession and the Civil War; that the South following the Civil War is the South to the extent that the Civil War determines its economies, its politics, and its ideology; that the South today is and the South in the future will continue to be the South to the extent that the Civil War remains a defining event in its history and continues (however obliquely) to shape its economy, its politics, and its ideology" (53-54).

interested in Coca-Cola —probably the most powerful symbol of contemporary Southern economic success— than in the mythic grandeur and glory of the Old South, of which his ancestor is only a simulation.

In a grotesque but relevant fashion, "Good Country People" (1955) undermines traditional clichés related to the South and portrays a variety of aberrant characters and situations. The protagonist, a pretentious thirty-two-year-old woman with a wooden leg and a Ph.D. in Philosophy, insists on her nihilism and decides to have her beautiful name of Joy changed to Hulga "on the basis of its ugly sound" (275) and in order to shock her mother as well. But despite her nihilism, and in accordance with Southern tradition, she still believes in the goodness of country people, as her simple mother does. Therefore, when a Bible salesman visits them, Hulga decides to seduce him in order to demonstrate her superiority, taking for granted that he is "just good country people" (290). As the dénouement discloses, the Bible salesman proves to be a cheat and a fraud: after stealing Hulga's glasses and wooden leg, he leaves her stranded —literally disabled— and psychologically raped. And contrary to Hulga's assumptions, his suitcase does not contain bibles, but whiskey, prophylactics, and a pack of cards.

Thus, the tale is iconoclastic in all senses: its plot questions not only the goodness of strangers, as the tale's title highlights, but specially the traditional religiousness of the South, a region popularly known as "the Bible-belt." Both Hulga and the Bible seller are atheists, and although Hulga's mother does not seem to be one, she lies to the salesman when she tells him that she keeps her Bible by her bedside. "This was not the truth. It was in the attic somewhere" (278), the narrator explains. In this ironic and critical fashion, O'Connor foreshadows the declining relevance of the Bible in the South, something that for Jack Butler "has been the single most important change in southern culture." "[W]e're losing our *own* myth," he concludes (37).

On the other hand, the character of Hulga can be taken as a parodic reversal of the prototypical Southern Belle: she does not represent beauty, but ugliness; not femininity, but deliberate masculine looks. And what is more, she lacks the spiritual values associated with Southern white women: innocence, purity, and religious beliefs. Ironically, what Hulga and the other characters in the story symbolize is prejudice and pride, Southern features as well, but here portrayed in a negative light. In fact, these tales undermine a variety of Southern traditional values. We could quote, for instance, the words of a patriotic Southerner, James Henry Hammond, who in 1845 referred to the South as a land "whose men are proverbially brave, intellectual and hospitable, and whose women are unaffectedly chaste, devoted to domestic life, and happy in it" (Roberts 366). Needless to say, many of O'Connor's characters are good examples of the opposite. We could point out that the travelling salesman as freak is a recurrent figure in the history of Southern humour, as Richard Gray notes; what is iconoclastic, in my view, is O'Connor's handling of it: her choice of a Bible seller as embodiment of atheism, fetishism and perversion.[4]

---

[4] Gray mentions this recurrent type in his discussion of Hickum Looney (407-08), a character in Harry Crews's novel *The Mulching of America* (1995).

Somehow or other, all the characters in this tale could be taken as different instances of aberration: we may recall Mrs. Freeman, Hulga's mother's employee, an intriguing character who prefigures the crookedness of the Bible salesman: like him, she is fascinated by Hulga's wooden leg, has "a special fondness for the details of secret infections, hidden deformities, assaults upon children" and is particularly attracted by "lingering or incurable" diseases (275). Interestingly, Mrs. Hopewell (Hulga's mother) liked telling people "that Mrs. Freeman was a *lady* and that she was never ashamed to take her anywhere or introduce her to anybody they might meet" (272). As the narrator explains, the reason for keeping the Freemans employed "was that they were not trash. They were good country people" (272). No doubt, these statements foreground and revise the traditional importance of class in the South and the overemphasis on manners, which recalls the grandmother's classist pretensions and her flattering words to the Misfit in "A Good Man..."

In contrast to Hulga, Mrs. Freeman's daughters evoke contemporary, working-class versions of the Belle, since, as Humphries has noted (127-28), there are variants corresponding to different socioeconomic levels. Whereas Hulga is masculine and intellectual, Glynese and Carramae —Glycerin and Caramel in Hulga's words— epitomize physicality and stereotypical femininity. As the narrator puts it: "Glynese, a redhead, was eighteen and had many admirers; Carramae, a blonde, was only fifteen but already married and pregnant. She could not keep anything on her stomach. Every morning Mrs. Freeman told Mrs. Hopewell how many times she had vomited since the last report" (272). Whether these recurrent distortions point to (self) hatred of the female body (Reesman 47), O'Connor's assumption of a mysoginist aesthetic (Prown 2001), or a decidedly iconoclastic impulse, O'Connor's characters deviate from traditional portrayals, and appear to us aberrant but realistic.

Like "A Good Man...," "Good Country People" pokes fun at the Southern emphasis on talking and storytelling through the silly conversations between Mrs. Freeman and Mrs. Hopewell, whose clichés, however, make reference to the peculiarities of these eccentric characters. We may recall phrases like "Everybody is different" or "It takes all kinds to make the world," which form part of Hulga's daily diet (273). On the other hand, the characteristics of the Hopewell household are noteworthy: while traditionally the South was the region of close-knit and extended families,[5] O'Connor portrays a longtime divorced woman whose only relative is a daughter who despises her mother, and who, if not for her heart condition, "would be far from these red hills and good country people" (276).

"The Life You Save May Be Your Own" (1953) narrates a situation that resembles that of "Good Country People" in several ways. Here, apart from insist-

---

5 In "Recent and Contemporary Women Writers in the South," Sharon Monteith quotes from Mary Lee Settle's *Choices* (1995), in which a character remarks: "A Southerner without a family is like a loose marble." However, as Monteith adds, "in contemporary Southern fiction the emphasis is on alternative 'family' units" (540).

ing on male and female hypocrisy, O'Connor undermines Southern features such as honour, hospitality and respectability. We find again a travelling stranger, who like the Bible salesman, proves to be a corrupt hypocrite, and a widow who, like Hulga, tries to take advantage of the apparently inoffensive visitor. The widow arranges his marriage to her retarded daughter, because she is "ravenous for a son-in-law" (150) and needs a handyman for her run-down place. It is no wonder, then, that the stranger, Mr. Shiflet, should abandon the bride some hours after the wedding, taking with him the widow's car he had been so interested in repairing. Rather than idealize the South, this story emphasizes its less glorious and darker aspects. Significantly, the literary tradition that the narrative brings to mind is that of Mark Twain's *Huckleberry Finn* (1884), in which the humorous style and picaresque episodes do not diminish the intensity of Twain's critical view or the sordidness, hypocrisy and materialism of the South portrayed.

When exploring the topic of family ties, and contrary to assumptions about the harmony or at least close-knit nature of Southern families, O'Connor's tales foreground the conflicts between its members, their isolation, or even the violence that guides their relationships. Apart from cases like those mentioned before, which describe the tensions between a widowed mother and a grown-up daughter or son, "A View of the Woods" (1957) revises this Southern cliché with particular incisiveness.[6] The tale describes the literally aberrant relationships between the members of a rural family, which the narrator introduces as a pack of idiots. The exceptions to this mental condition are the grandfather and his nine-year-old granddaughter, Mary Fortune, who is regularly beaten by her father just because she is smart and the grandfather's favourite. The conflict originates in the grandfather's determination to sell his land by lots, in the name of progress, though by doing so he also wants to spite his resident son-in-law, Pitts. Although Mary Fortune does not oppose the grandfather's plan, she objects to the selling of the lot in front of their house because, as she tells him, that lawn is the place where they all play, the lot where her daddy grazes his calves, and above all, because they "won't be able to see the woods across the road" (342). Finally, this radical disagreement results in a violent fight that ends with the grandfather killing the girl, followed by his death from a heart attack.

This excess of domestic violence could be analysed in the light of O'Connor's religious objectives: her obsessive desire to awake readers into Christian grace by means of extreme situations and shocking characters. In her own interpretation of the tale, the woods "are a Christ symbol" (Fitzgerald 189-190). However, this reading does not cancel the relevance of her critical view of the South in which patriarchal abuse, violence, vindictive spirit, destructive pride, lack of education and culture have been endemic factors that have contributed to perpetuating its traditional

---

[6] Just as "Good Country People" epitomizes the tensions between a widowed mother and a grown-up daughter, "The Enduring Chill," "The Comforts of Home" and "Everything That Rises Must Converge" explore the dramatic relationships between widowed mother and adult son.

marginality. Even if O'Connor conceived this tale allegorically, as "a little morality play" (Fitzgerald 186), the variety of issues raised by the plot transcends her religious intentions. For example, just as Mary Fortune's objections to the urbanization of the landscape anticipate worldwide ecological concerns, the desire to preserve a rural environment may bring to mind the conservative ideology of the Fugitives/Agrarians as expressed in *I'll Take My Stand* (1930): as is well known, in this declaration of principles, the authors strongly defend the agrarian basis of the South and its culture, opposing the advance of industrialization and "progress." No doubt, this ambivalence exemplifies the instabilities conveyed by O'Connor's fiction, which are usually more complex than those traditionally explored in Southern writing or the aesthetics of the grotesque.

Race has been and still is a central issue in Southern society and culture. O'Connor's tales, written in a period of transition between segregation and civil rights, offer a realistic and unsentimental portrayal of blacks that is poles apart from the black stereotypes traditionally found in Southern writing. The plot of "Everything That Rises Must Converge" (1961), for instance, focuses on the clash between the old and the new South through the uneasy relationship between a widow and her grown-up son. While the mother recalls with nostalgia her childhood on the family's decayed plantation, her hypocritical and ungrateful son, Julian, refuses to admit the obvious advantages of that privileged style of life as compared to their present reduced economic status and is determined to "teach [his mother] a lesson" (414).

Ironically, and as usual in O'Connor's stories, the arrogant character will not teach a lesson to anybody, but will learn one himself. In this case, it is the hat that the mother hesitates about wearing that sets the learning in motion. She is thinking about returning the hat because she finds it too expensive, but her son insists on her keeping it, though he thinks it is "hideous" and "atrocious" (405, 406). On the bus downtown, mother and son mingle with black people and show their different attitudes —in both cases ridiculous— to the new norms against segregation. Whereas Julian tries to start a conversation with a black man only to shock his mother, she adopts a condescending attitude toward a little black boy, "because she thought little Negroes were on the whole cuter than little white children" (415). In turn, Julian discovers with delight that the little boy's mother's hat is identical to his mother's: "He could not believe that Fate had thrust upon his mother such a lesson" (416). However, the greatest lesson takes place when, off the bus, Julian's mother tries to give the little black boy a penny: in reply, the black woman strikes her a blow that leaves her sitting on the sidewalk. Her fall, followed by Julian's humiliating and reprimanding words, results in her death.

While Julian reminds her mother that "the old world is gone. The old manners are obsolete and your graciousness is not worth a damn" (419), she dies asking for "Home," and for Grandpa and Caroline, her nurse, "to come get me" (420). Significantly, both the plot of the tale and the protagonists' final words revise the concerns of traditional Southern writing (home, the family, the pervasiveness of the past) that were immortalized in famous literary phrases such as Thomas Wolfe's "You can't go home again" or William Faulkner's "The past is never dead. It's not even

past."[7] However, O'Connor sounds less solemn and more radical than her literary ancestors in her view of the South. Thus, "Everything That Rises..." critiques the Southern obsession with the past, undermines the nostalgia for it, and portrays the dangerous consequences of this self-destructive attitude. In many aspects —good manners, ladylike behaviour, racist traces, a222nd nostalgia for the past— Julian's mother is a replica of the grandmother in "A Good Man...."[8] Although the narrative focuses on the white characters —Julian's evil and guilt and his mother's obsolete racism and classism— the portrayal of a lower or lower-middle class black woman as a victimizer of an elderly white woman —a would-be lady whose grandfather had been a former governor of the state— is a clear example of O'Connor's iconoclasm.

Somehow, the tale's title encapsulates the instabilities of the plot, which as noted in the previous story, go beyond O'Connor's religious intentions: while the convergence/coincidence of hats was supposed to suggest the rise of blacks in American society in the light of Jesuit Teilhard de Chardin's concept of the Omega Point —according to which humankind evolves towards a supreme consciousness that finds its convergence in Christ— the dénouement of the tale foregrounds hostility and divergence.[9] Kreyling, who has recently analysed this tale against the background of the cold-war period, remarks: "By the end of the story, the writing is on the wall: Do not rock the boat; neither progress nor improvement is attainable in the human sphere; only the deluded try. [...]. The clear theme is that, in the sphere of American race relations at least, nothing but animosity rises and the convergence of human interests is the last item on anyone's agenda" ("Good" 14, 16).

In a different way, "The Artificial Nigger" (1955)—O'Connor's favourite tale— also exemplifies the instabilities inherent in O'Connor's fiction. In contrast to the previous story, the tone is not of rage, but of sympathy and understanding: all the characters, black and white, are depicted with benevolence and even tenderness. The tale, which can be read as a religious parable, narrates a series of humorous anecdotes with realism and irony. Thus, the plot describes the adventures of a back-country grandfather, Mr. Head, and his insolent ten-year-old grandson Nelson on their one-day trip to Atlanta, where they quarrel, get lost, and show their fear of and fascination with blacks. Surprisingly, they are at last reconciled by way of an artificial nigger, an ornamental statue they dis-

---

[7] Cf. Thomas Wolfe's posthumous novel *You Can't Go Home Again* (1940), *Look Homeward, Angel* (1929) and William Faulkner's *Requiem for a Nun* (1951).

[8] In his portrait of the South, Hal Crowther observes: "most Southern literature has been rooted in such a profound, clinging, pervasive nostalgia that it's hard for us to imagine what could have been written without it" (65). Nostalgia is a function "not only of culture, but of aging," he adds, a characteristic which both the grandmother and Julian's mother clearly reflect.

[9] Significantly, the title of the tale (which gave title to O'Connor's second collection of stories) is a quotation from Teilhard de Chardin's explanation of the Omega Point: "Remain true to yourselves, but move ever upward toward greater consciousness and greater love! At the summit you will find yourselves united with all those who, from every direction, have made the same ascent. *For everything that rises must converge*" (111).

cover in a white neighbourhood, which in O'Connor's words represents "the working of grace" (Fitzgerald 115).

Although she explains in a letter that through this figure she wanted to suggest "the redemptive quality of the Negro's suffering for us all" (Fitzgerald 78), her treatment of this effigy and of black characters in general has raised more controversy than she probably intended. Thus, some critics not only have pointed out the racism of the tale's white characters, but also have objected to the othering and objectification of the black ones —both a source of fear and an instrument of redemption— and to the cultural conservatism of O'Connor, supposedly a "closet racist," who had a "distaste for Negroes" and a "propensity for repeating racist jokes" (Wood 90, 94). In contrast, other critics —some of them African-American— have approached the tale in a positive light, admiring the way in which O'Connor handles the plot and solves the dénouement. For instance, Toni Morrison derides "powerful literary critics in the United States" for seeing "no connection between God's grace and Africanist 'othering' in Flannery O'Connor," and highlights the strategies employed in order to expose "Mr. Head's triumphantly racist views in that brilliant story" (13-14, 68). In turn, Alice Walker values O'Connor's narrative detachment and the fact that the narrators of her stories have no access to the black characters' minds. Walker concludes that "*essential* O'Connor is not about race at all, which is why it is so refreshing, coming, as it does, out of such a *racial* culture" (Walker's emphasis, 53).

In any case, it is the title of the story —and the recurrent use of the word "nigger"— that best conveys the instabilities of the plot: it is worth recalling that the first editor of the tale, John Crowe Ransom, foreseeing adverse criticism, suggested changing the title, but O'Connor categorically refused. Interestingly, her decision to keep it unaltered has contributed to intensifying the ongoing debate about this text. The controversy provoked is too complex to be resolved in a few lines: nevertheless, it seems clear that even if we take for granted O'Connor's social conservatism, neither her unbending stand against Ransom —an influential member of the Fugitive/Agrarian movement— nor the story's plot suggest a conformist attitude or a traditional kind of text; on the contrary, it is O'Connor's complex narrative technique—which deftly combines touches of situation-comedy, allegorical elements, a controversial symbol, a religious epiphany and an equivocal narrative voice— as well as the title, that originate the "instabilities" and ambiguities associated with the interpretation and historical reception of this tale.[10]

---

[10] For further commentary on race and "The Artificial Nigger," cf. Sarah Gordon's "Communities; The Historic, the Orthodox, the Intimate," *Flannery O'Connor: The Obedient Imagination* (2000) and Katherine Hemple Prown's "The Dixie Limited," *Revising Flannery O'Connor: Southern Literary Culture and the Problem of Female Authorship* (2001). Cf. also Joyce Carol Oates's brief discussion of "The Artificial Nigger" in her volume of essays *Where I've Been, and Where I'm Going* (1999). Apart from highlighting the brilliance of the text, Oates refers to the racial issue in a footnote. In her view, the word "nigger" "would appear to have been a usage common to [O'Connor], as to her fellow Caucasian Georgians." However, with the passing of time, this word "has become so

Thus, in different ways, O'Connor's tales anticipate characteristic features of present-day Southern writing, suggesting also what Kreyling calls "[t]he turn of southern literature into parody and postsouthernness" (*Inventing* 148). Despite O'Connor's alleged conservatism, her stories provide varied and recurrent instances of mythoclasm and transgressiveness, and as a whole constitute a unique example of Southern aberration and "self-fashioning." Thus, although her tales include the most typical elements of Southern narrative —humour, sense of place, the past, violence, religion, race— her iconoclastic treatment of them defies categorization and complicates the instabilities traditionally associated with Southern culture and the grotesque. Her break from tradition and revisionist impulse have proved to be a point of reference for later Southern writers, so that, even if we have ceased to believe in the reality of the South—forever vanishing, always in the making— we can conclude that O'Connor's prophetic genius succeeded in fashioning her own.

WORKS CITED

BLOOM, Harold. *Genius: A Mosaic of One Hundred Exemplary Creative Minds*. London: Fourth Estate, 2002.

BUTLER, Jack. "Still Southern After All These Years." *The Future of Southern Letters*. Ed. Jefferson Humphries and J. Lowe. New York: Oxford UP, 1996. 33-40.

CASTILLO, Susan. "Flannery O'Connor." *A Companion to the Literature and Culture of the American South*. Ed. Richard Gray and Owen Robinson. Malden: Blackwell. 2004. 486-501.

CROWTHER, Hal. *Cathedrals of Kudzu: A Personal Landscape of the South*. Baton Rouge: Louisiana State UP, 2000.

FITZGERALD, Sally and Robert eds. *Mystery and Manners: Occasional Prose*. New York: Farrar, Straus & Giroux, 1970.

FITZGERALD, Sally, ed. *Letters of Flannery O'Connor. The Habit of Being.* New York: Farrar, Straus and Giroux, 1979.

GORDON, Sarah. *Flannery O'Connor: The Obedient Imagination*. Athens: U of Georgia P, 2000.

GRAY, Richard. *Southern Aberrations: Writers of the American South and the Problems of Regionalism*. Baton Rouge: Louisiana State UP, 2000.

GUINN, Matthew. "Writing in the South Now." *A Companion to the Literature and Culture of the American South*. Ed. Richard Gray and Owen Robinson. Malden: Blackwell, 2004.

---

highly charged with political significance that any work of art containing it, especially by a white Southerner, is unwittingly abrasive, even provocative." Oates concludes the note with the significant information that there is at least "one distinguished American university in which a large-enrollment literature class petitioned successfully to have "The Artificial Nigger" removed from its syllabus as a racist text" (343).

Hobson, Fred. "Of Canons and Cultural Wars: Southern Literature and Literary Scholarship after Midcentury." *The Future of Southern Letters*. Ed. Jefferson Humphries and J. Lowe. New York: Oxford UP, 1996. 72-86.

Humphries, Jefferson. "The Discourse of Southerness: Or How We Can Know There Will Be Such a Thing as the South and Southern Literary Culture in the Twenty-first Century." *The Future of Southern Letters*. Ed. Jefferson Humphries and John Lowe. Oxford: Oxford UP, 1996. 119-33.

Kreyling, Michael. *Inventing Southern Literature*. Jackson: UP of Mississippi, 1998.

——. "A Good Monk Is Hard to Find: Thomas Merton, Flannery O'Connor, the American Catholic Writer, and the Cold War." *Flannery O'Connor's Radical Reality*. Ed. Jan Nordby Gretlund and Karl-Heinz Westarp. Columbia: U of South Carolina P, 2006. 1-17.

Ladd, Barbara. "Dismantling the Monolith: Southern Places. Past, Present, and Future." *South to a New Place: Region, Literature, Culture*. Ed. Suzanne W. Jones and Sharon Monteith. Baton Rouge: Louisiana State UP, 2002. 44-57.

Lowe, John. "Introduction." *The Future of Southern Letters*. Ed. Jefferson Humphries and J. Lowe. New York: Oxford UP, 1996. 3-19.

Monteith, Sharon."Recent and Contemporary Women Writers in the South." *A Companion to the Literature and Culture of the American South*. Ed. Richard Gray and Owen Robinson. Malden: Blackwell, 2004. 536-51.

Morrison, Toni. *Playing in the Dark: Whiteness and the Literary Imagination*. London: Picador, 1993.

Oates, Joyce Carol. "Workings of Grace: Flannery O'Connor's 'The Artificial Nigger'." *Where I've Been, and Where I'm Going: Essays, Reviews, and Prose*. New York: Plume, 1999. 339-343.

O'Connor, Flannery. *The Complete Stories*. London: Faber and Faber, 1990.

Prown, Katherine Hemple. *Revising Flannery O'Connor: Southern Literary Culture and the Problem of Female Authorship*. Charlottesville: UP of Virginia, 2001.

Reesman, Jeanne Campbell. "Women, Language, and the Grotesque in Flannery O'Connor and Eudora Welty." *Flannery O'Connor: New Perspectives*. Ed. Sura P. Rath and Mary Neff Shaw. Athens, Georgia: U of Georgia P, 1996. 38-56.

Roberts, Diane. "The South of the Mind." *South to a New Place: Region, Literature, Culture*. Ed. Suzanne W. Jones and Sharon Monteith. Baton Rouge: Louisiana State UP, 2002. 363-73.

Romine, Scott. "Where Is Southern Literature? The Practice of Place in a Postsouthern Age." *South to a New Place: Region, Literature, Culture*. Ed. Suzanne W. Jones and Sharon Monteith. Baton Rouge: Louisiana State UP, 2002. 23-43.

Taylor, Helen. *Circling Dixie: Contemporary Southern Culture through a Transatlantic Lens*. New Brunswick: Rutgers UP, 2001.

Walker, Alice. "Beyond the Peacock: The Reconstruction of Flannery O'Connor." *In Search of Our Mothers' Gardens*. London: Women's, 1984. 42-59.

Whitt, Margaret Early. *Understanding Flannery O'Connor*. Columbia: U of South Carolina P, 1997.

Wood, Ralph C. "Where Is the Voice Coming From? Flannery O'Connor on Race." *Flannery O'Connor Bulletin* 22 (1994): 90-118.

REVIEWS

JOYCEAGAINSAWAKE. Santiago J. HENRÍQUEZ JIMÉNEZ and Carmen MARTÍN SANTANA, eds. *Estudios joyceanos en Gran Canaria: Joyce "In His Palms."* Madrid: Huerga y Fierro, 2007. 252 pp.

Among other activities, the internationally-recognized Spanish James Joyce Society holds annual conferences all around Spain and this time the turn was for Las Palmas de Gran Canaria, where the 17th Conference was organized from April 19 to 22, 2006.[1] The result of that Conference is the present volume titled *Estudios Joyceanos en Gran Canaria: Joyce "In His Palms,"*—or "Las Palmas giving Joyce a wink"[2] bringing together nineteen contributions selected for publication. The essays are arranged alphabetically as in a kind of patchwork which brings to mind the words of B. Benstock: "In thousand of instances the magic of words germinates in Joyce's poetic prose, often as much more than the sum of the parts. At times they are woven into the fabric as 'signatures' or impressed as pieces in the mosaic. On occasion Joyce the Artist and Artificer dismembers a key word for diagnostic investigation, explaining his craft as he simultaneously weaves his magic" (xvi).

Although it is not a simple task to summarise in these few lines the thematic richness, criti-cism, perspectives, and purposes of the wide range of topics and motifs which cover the scholarly papers included in the present volume, we will observe the following: a) Joyce's biography is in the foreground of at least eight essays. His silence and cunning exile, his rebellion personal and artistic —against the social, political, religious and cultural environment of Ireland are presented as essential to understand his aesthetics. Very illustrative to this respect is this passage at the end of *A Portrait*: "Welcome, O life! I go to encounter for the millionth time the reality of experience and to forge in the smithy of my soul the uncreated conscience of my race" (228); b) all Joyce's main works are mentioned, however *Ulysses* as a whole, as well as some of its episodes, is studied or compared more frequently; c) many essays critically present people, theories, facts, writers and works as elements which deeply influenced Joyce's works, and there are essays which show Joyce's influence on authors from all over the world; d) the essays provide different approaches to Joyce's world: from academic research studies to personal meditations; from psychoanalytic to metaphorical interpretations; from socio-linguistic to symbolic readings; from microanalysis of motifs to wider perspectives; genetic, bibliographical, comparative and translation studies can also be found, as well as studies around and beyond Joyce, in which Ireland and Spain are present; and e) it can be said unsurprisingly that some of the essays show the *pathos* of the Joycean poetics where the form mimics in some way the content.

To close this brief introduction I must affirm that the apparently heterogeneous material of the essays is intertwined with Joyce's aesthet-

---

[1] The James Joyce Society has celebrated two more conferences since this one, in Seville (2007) and Vigo (2008).

[2] ... "(his)palm(s)" is mentioned in *A Portrait*, as well as in *Ulysses* and *Finnegans*, with an abundance of connotations.

MANUEL A. HERNÁNDEZ HERNÁNDEZ / REVIEWS **195**

ics, confronting basic issues: Ireland, Catholicism, self, roots, subject matter, tradition, and language, searching for "an undiscover'd country from whose bourne no traveller returns, but from the crucible of which all art emanates" (Benstock xvii). We hope that this and what has been said up to this point can be seen in the reflections on each essay in the volume.

In the first essay, "El lenguaje de la frustración y el deseo en *Ulysses* de James Joyce," and after a brief introduction describing the old academic battles of the influence of the psychoanalytic theories on Joyce's works, José Miguel Alonso Giraldes starts his study of frustration and desire in *Ulysses* and specifically in "Proteus," "Circe," and "Nausicaa," with the help of substantial quotes from Hill, Restuccia, Henke, Henderson and others. Frustration is presented as originating from the death of his mother in the case of Stephen —a biographical fact in the case of Joyce that is considered to be very important to understand Joyce's worksand by the quest for a mother in the case of Bloom. Alonso cites masturbation as the main symptom of sexual frustration in Bloom and also in Stephen. The character Molly and her monologue occupy an essential part of his study, offering an up-to-date discussion about Molly's phallocracy as the counterpart to Bloom, the womanly man. A lot of fun with Joyce!

In "La literatura irlandesa en España," Antonio Raúl de Toro Santos, an influential scholar and researcher, offers us a journey back to the history of Ireland and Spain in the last years of the 19th century and the first years of the 20th century, establishing a parallelism between various Spanish and Irish writers up to our Civil War. In this account, we must emphasize the remarkable importance that it has for this essay its author's recent discovery of a copy of the translation of *Riders to the Sea* by Juan Ramón Jiménez and Zenobia Camprubí, which Lorca gave as a present to his friend Carlos Martínez-Barbeito. De Toro Santos rounds off the study by mentioning the importance of the translations and theatrical representations of various Spanish and Irish works and their mutual influence. This essay constitutes an indispensable tool for researchers in the field.

A valuable contribution in the comparative area is the study presented by Benigno del Río Molina, "Moneda y palabra: de Ezra Pound al "Néstor" de Joyce." As the author states in the title, he proposes a reading of the second episode of *Ulysses* from the perspective of Pound's Canto XLV, "Usury," with the backdrop of the economic instability and social discontent of the 1930s. With ease and good knowledge of the sources, del Río Molina provides essential keys to understand Joyce's episode. His suggestive arguments are organised in three parts and are well substantiated with quotes from Pound and Joyce and with appropriate references to authors such as García Márquez, Dante, and others and to works such as *The Iliad* and *The Odyssey*. The author sees in the conversations of the episode a shift from the lyrical world of the word to the material world of economic transactions. Once more Joyce is presented/represented as playing hide-and-seek. Mr. Deasy's words and prejudices are entirely mercantilist and even the rinderpest is a metaphor for usury. Finally del Río Molina claims that the main subject matter of "Néstor" is neither time nor history, but rather how knowledge is transmitted to future generations. Mr. Deasy ("disease") is a miser with his use of "gabbled verses," and feigned spirituality but Stephen (and Joyce) strongly reject this heritage. The end of the essay brings us, as in Joyce, to the beginning: "words, coins, cattle."

The following essay is "Patrón de comportamiento de la figura del sacerdote en la narración breve de S. O'Faolain," presented by Mla. Susana Domínguez Pena, in which the author comments on some aspects of O'Faolain's short stories. She highlights, in a quick look, the negative influence that, from the point of view of authors such as Joyce, G. Moore, and O'Faolain, priests and the Catholic Church exerted on Irish history and the life of its inhabitants. The themes of some of the latter's short stories, and even O'Faolain's personal life as a writer, clearly show the influence of Joyce's genius.

In "La lección de Dermot Bolger: releer *Ulyses* a los 90," José Manuel Estévez Saá, after a brief introduction explaining his personal discovery of Joyce's genius and how this fact led him to read and enjoy the volume *New Dubliners*, pub-

lished in 2005 to celebrate the one hundred years of Joyce's original *Dubliners*, he focuses on the story by Dermot Bolger (born in Dublin in 1959), "Martha's Street," published in that volume. With unusual easiness and clarity, Estévez Saá explains to the reader how Bolger draws the picture of the 91-year old Martha and how thanks to her discovery of *Ulysses* she found the meaning of her life in spite of her precarious health. This 'humanistic' reading of *Ulysses* in "Martha's Street" —the best story in *New Dubliners* the author contendsserves Estévez Saá to his purposes of discovering a story which could go unnoticed to many readers and to let pedagogy precede the articulation of his ideas in this surprising essay. In the end, Estévez Saá emphasizes Bolger's claim of the therapeutic value that reading could suppose 'for the reader' and recommends "Martha's Street" as an introduction to the reading of *Ulysses*. To finish, it must be said that in this essay, full of personal insights and skilful analysis of Joyce's world, the author not only portrays Martha's ontogenetic change but also echoes his own. Once more Joyce is in action.

The following essay is "El fantasma de Lucia en/y la obra de James Joyce," in which Margarita Estévez Saá invites us to reread Joyce's *Finnegans Wake* in the new light shed by Carol Loeb Shloss's research on the character of Lucia in *Lucia Joyce: To Dance in the Wake* (2004). In her book, Shloss moves away from what can be considered the official line of interpretation, represented mainly by Brenda Maddox and Richard Ellmann, which is that Lucia was mad. This author accuses them of having spread the version of a schizophrenic Lucia, without this having ever been clinically proved. Estévez Saá, in this critical review of Shloss's volume, shows expertise in the handling of the subject and proposes with Shloss new inspiring paths for the study of the Joycean world in *Finnegans Wake*, where as it is known, there is no more wideawake language, cutanddry grammar and goahead plot, since it is the book of the dark!

"Joyce y la alegoría del mundo como escenario." Among the manifold views that the Joycean universe inspires, Rafael García León chooses to discuss the influence on Joyce of this well-known topic of all literature: the world as a

stage. After briefly mentioning the presence of various classic playwrights in Joyce's works, he provides examples of direct Shakespearian sources in a qualified and clear exposition. In the main section of the study, García León refers to Joyce's appreciation of Ibsen's theatre and to Joyce as a frustrated playwright he only wrote one play*Exiles*, represented with controversial results. He assumes that Joyce's narrative achievements —and specifically "Circe" can only be understood in relation to his ideas about the theatre, ideas outlined during his youth. The article closes with a quotation from Calderón, and a confession of the author's passion for Joyce's genius, as is the case of some scholars who are deeply involved with the works of a literary giant.

From a very different perspective, and distilling subtlety and irony, Francisco García Tortosa, in "La hija del judío y los judíos en *Ulysses*," explores the subject of the Jews in this novel through the seventeenth episode, "Ithaca." In the first part of his fascinating analysis we learn, for example, that Bloom is not a Jew, that Stephen is not a Catholic, that Molly is "jewess looking," educated as a Catholic in Gibraltar and that Milly is not the Jew's daughter. It is, as the author states repeatedly, that ambiguity pervades the whole Joycean world. It is then not surprising to learn that although Hebraic allusions run through *Ulysses*, other materials from heterogeneous origins can also be found, as it is evident that Joyce wanted to connect the foundations of Ireland, his beloved country, to the pillars of the western civilization: Greece, Rome and Israel. García Tortosa devotes the second half of his essay to dissecting the origins of the ballad of "the Jew's daughter," with the same brilliant argumentation and lively style. Among many other interesting ideas, he argues that the inclusion of this ballad in "Ithaca" cannot be interpreted as a conscious reference to the ritual crimes of 1904 or to other historical facts in particular. Rather, what was in fact "determinant" for its inclusion was the weight of history going back to time immemorial in connection to the traditional tumultuous relationships of the Church and the Jews, which came in the end to form part of the complex mythical catalogue of the book.

In "Aspectos sociolingüísticos en los relatos de *Dubliners*," María Isabel González Cruz deals with the representation of the linguistic varieties and their role in the description of the characters in *Dubliners*. She starts to examine the importance of language in this book and highlights its verbal dexterity, the Irish musicality of expression and rhythm, the operation of language on both literal and symbolic levels, and its comic tone and irony. Abundant examples are provided of the representation of the peculiarities of the local talk, accents, expressions of other languages or linguistic varieties, the presence of slang, malapropisms, associations, connotations, and others. She also adds final remarks about the importance of the Irish in the book. The practical approach of this essay offers a very useful introduction to students with no prior knowledge of the issue.

As the title of the following essay indicates, "Vitalidad de la literatura irlandesa posterior al cuadrinomio Oscar Wilde, William Butler Yeats, James Joyce y Samuel Beckett," Santiago J. Henríquez Jiménez proposes a journey around and after Joyce. In fact, with outstanding knowledge of the theoretical sources, the author sketches the personal, political, social and religious struggles that they have in common in Ireland and how this is reflected in the aesthetical ideals of the period. To these four literary giants, the author adds another four Shaw, Moore, Synge and O'Caseyto complete the catalogue of the most influential writers in Irish literature. At the turn of the century and in the 1960s, we see the appearance of new authors and works launching the literary Ireland towards the future and nowadays there are many Irish creators —men and women— following in their wake with new ideas, new topics, and new reasons to develop a literature beyond the old confrontations, namely, two languages (English, Irish), two religions (Protestant, Catholic), two countries (Northern Ireland, the Irish Republic). This is a valuable survey that opens a vast field of research not only for young scholars but also for those who want to track Joyce in contemporary literature.

The essay by Rubén Jarazo Álvarez, "Un viaje a Irlanda en la literatura gallega: Lord Dunsany y Álvaro Cunqueiro," leads the reader to explore with the author the contexts in which the literary works were created: social, historical, economical, political and cultural backgrounds. He goes into this subject with fresh impetus and draws attention to the Celtic roots of Galicia, focusing then on the influence of the Anglo-Saxon literature on Álvaro Cunqueiro. Shakespeare, Donne, Dickens, O'Casey and Joyce are mentioned and, as the author points out, the famous writer from Mondoñedo borrows the most important myths and cultural landmarks of the Anglo-Saxon world and incorporates them into his poems, literary essays, narratives, plays, translations and to his important work in the field of journalism, and develops his own aesthetics with universal vocation. In this study, Jarazo Álvarez only deals with the influence on Álvaro Cunqueiro of Edward John Moreton Drax Plunkett —known as Lord Dunsanyan Irish author belonging to the movement of the Abbey Theatre. Towards the end, although in a rather short section, he mentions the sources of several direct references to the Irish writer in Cunqueiro's journalist works and, among other things, to the shared passion for the fantastic in literature. In spite of some minor loose ends, the theoretical foundations are well explained and the author has the opportunity of demonstrating his scholarly expertise.

The essay by Alberto Lázaro, "El misterio del primer *Ulysses* catalán: la odisea de Joan Francesc Vidal Jové," is the only one concerning translation in the volume. It is an intelligent and wonderful account of a discovery made by the author in la Sala de Investigadores del Archivo General de la Administración—the Researchers' Hall of the General Archive of the Administration: a Catalan translation of *Ulysses* made by Vidal Jové and dated in 1966 but that was never published. As the author states at the beginning, his purpose is both to shed light on the mystery surrounding the existence of this translation and to rescue the figure of Vidal Jové, a Catalan author and translator of numerous works. Among many other valuable reflections on the *Ulysses* translations and on the life of Vidal Jové, he takes a look at the often commented riddle of the "Aeolus" episode: *The Rose of Castille*. See the wheeze? Rows of cast steel.

Gee!," highlighting the present-day validity of the version provided by Vidal Jové.

Lidia María Monterio Ameneiro, in "'A bird on its wings over water': *Two Days in Aragon* de Molly Keane," makes a convincing close reading of the book by the Anglo-Irish writer, Molly Keane. The adventures and vicissitudes of a family describe the reality of the tensions taking place between The War of Independence and the Irish Civil War. They reflect the bloodstained relations between the Protestant Ireland, represented by the "Big House," and the Catholic Ireland, represented mainly by the frightening figure of the Irish rebel. For the interpretation of the characters, places, things and objects, the author turns to reliable sources and intelligent criticism.

In Maureen Mulligan's "Irish Music and the Musical Background to Joyce," once more the music motif in Joyce's life and works is revisited, particularly in the short story "The Dead" in *Dubliners*, and this is always welcome. As Mulligan well explains, the Irish songs and ballads accompanied Joyce in his voluntary exile when he was feeling homesick for Dublin. Annie Barnacle, Nora's mother, sang "The Lass of Aughrim" for him. Mulligan also mentions that Nora chose the shape of a harp for Joyce's funeral wreath. But most of the article is devoted to describing with examples from the book, the importance of music in "The Dead," where there are frequent allusions to known songs with symbolic meanings, performances on the piano, discussions, and ritual singing for celebrations. The author finishes her study pointing out the significance of the song "The Lass of Aughrim" to Gretta Conroy, whose hidden meaning is not revealed to her husband Gabriel until later. As we know, the song is played on the piano offstage in a memorable scene in which Gabriel the writer sees his wife as if in another world: "*Distant Music* he would call the picture if he were a painter" (*Dubliners* 210). The clear style of the text, along with the quality of the direct quotations from *Dubliners*, is inviting the reader to unravel the fabric of the book.

Another contribution in the comparative area is presented by Juan Ignacio Oliva in "Intertextualidades y ecos joyceanos en la escritura confesional angloindia," but this time explicit aesthetical principles are involved. As an expert in the field, Oliva places at the apex of the connections between Joyce's aesthetics and Postcolonial Anglo-Indian literature Joyce's defiant attitude and his artistic pose to watch the world "from a sort of detachment" - from the voluntary exile of his writings. Oliva skilfully explores the subject on two Anglo-Indian writers, and points out the multiple poetic elements present in Joyce's *A Portrait*, which exerted a great influence on works such as Amitt Chaudhuri's *A Strange and Sublime Address* and Shyam Selvadurai's *Funny Boy*. Many examples and valuable remarks are included in an extensive and detailed analysis which ends by proposing the postcolonial trends as essential intertextual patterns for the study of Joyce's works.

Sonia Petisco, in her article "El monólogo de Molly Bloom: Disolución del alma," presents an epiphanic re-reading of the celebrated Molly's monologue at the end of the episode 'Penelope.' Leopold Bloom arrives home after his odyssey on the 16th of June and his wife Molly vanishes into a night of insomnia. Mentally displaced from her home, she initiates a journey to her own exile in which the traditional puritanical values of civilization are rejected, in which love, sex, marriage, church and money are demythologized. She then seeks shelter in nature and in the great first love of her youth but she feels incapable of filling her deep void and at the end the weak "yes" to life is her only hope. The intense, uninterrupted and swift stream of words in the monologue expresses all this. Sonia Petisco's meditation is a tangible proof that after reading Joyce "neither literature nor life can ever be quite the same again," as Anthony Burgess (272) once said.

María Isabel Porcel García's "La influencia de Valery Larbaud en James Joyce" is a well documented essay written as an introduction to her own work in progress and part of a very suggestive research project in which she traces the genetic configuration of the literary DNA of *Finnegans Wake* with respect to the Spanish language. The famous French novelist and critic Valery Larbaud seems essential for this task since Joyce could have read the works by Spanish writers that the former had translated. It is well

known, for example, Larbaud's interest for Spain and Spanish writers, demonstrated through his frequent trips to Madrid, as well as through his translations and critical essays about Spanish authors such a Ramón Gómez de la Serna whom he met in Madrid in 1918. It is possible that Joyce used Larbaud's sources as referents for the vocabulary in *Finnegans Wake*.

The following essay by Jefferey Simons, with the expressive title: "The Literate Gusts of Aeolus," deals with the compositional evolution of this episode from *Ulysses*. After giving explanations to justify the choice of this episode for study and the point of view elected, the author goes deeply into the discussion using essential criticism and up-to-date bibliography. First, he refers to the composition of *Ulysses* as a whole and then to the opening of "Aeolus" in the 1922 edition in contrast with the episode's 1918 typescript. Second, he argues that the correlation between rhetorical or spoken and the literate or written is incomplete and misleading, and that the copious elements within the episode give evidence to the complex interweaving of orality and literacy. Finally, Simons finishes his brilliant essay pointing to the need for further research on the "literate orality" of *Ulysses* as a whole.

The essay "Biblical Echoes in *Chamber Music*," by María de la Cinta Zunino Garrido closes the volume. The author analyses the possible influence of the *Song of Songs* on James Joyce's *Chamber Music*. The author begins by explaining that the textual parallelisms between both works cannot be mere coincidences but motivated by Joyce's education, cultural background, and personal ideas on religion and politics. But the largest section of the essay is devoted to analysing in depth, and with the use of good critical sources, the motives, styles, imagery, and themes that both works share. Noteworthy instances from both works are closely compared and the presence of San Juan de la Cruz's "Cántico espiritual" in *Chamber Music* is also mentioned.

The reading of this volume conjures up those words from the beginning of *Finnengans Wake*: "riverrun, past Eve and Adam's, from swerve of shore to bend of bay, brings us by a commodius vicus of recirculation back to Howth Castle and Environs." To conclude then this review, it can be affirmed that one of the most valuable features of the volume is the multiplicity of visions and new research offered by well-known scholars on Joyce and Joyce's world. Joyceagainsawake. We can also say that, although there have been problems in the editing of some papers, the richness of the subjects, the critical thinking, the variety of contexts, and the in-depth analyses and references shown in most of the essays presented in this volume offer newcomers opportunities to come to know the life and works of the Irish genius and help old readers find new inspiration for future research. In Joyce there is always fun for everybody! although the door is only "ajar," as Ellmann puts it (4).

Manuel A. Hernández Hernández

WORKS CITED

Benstock, Bernard. *James Joyce: The Undiscovered Country*. Dublin: Gill and Macmillan, 1977.

Burgess, Anthony. *Re Joyce*. New York: Norton, 1968.

Ellmann, Richard. *James Joyce*. Oxford: Oxford UP, 1959.

Joyce, Joyce. *A Portrait*. London: Granada, 1977.

Scholes, Robert and Walton Litz, eds. *James Joyce: "Dubliners."* New York: Viking, 1969.

Shloss, Carol Loeb. *Lucia Joyce: To Dance in the Wake*. London: Bloomsbury, 2004.

NEW TRENDS IN ESP: CURRENT RE-
SEARCH AND TEACHING PRACTICES.
*English for Specific Purposes: Studies for Classroom
Development and Implementation*. Ed. Ana
Bocanegra Valle, María del Carmen Lario de
Oñate, and Elena López Torres. Cádiz: Servicio
de Publicaciones de la Universidad de Cádiz,
2008. 262 pp.

The book *English for Specific Purposes: Stud-
ies for Classroom Development and Implementa-
tion* has been recently published by the Univer-
sidad de Cádiz and it is composed of a collection
of articles which deal with various aspects re-
lated to current research and teaching practices
carried out in the field of English for Specific
Purposes (ESP) in an academic setting at the
Spanish University. The content of the volume
is varied, the selected articles cover central top-
ics in the teaching of ESP —writing, vocabu-
lary learning, use of corpora and multimedia,
etc.— in relation to different fields —Business
English, Legal English, Scientific and Technical
English... All the articles present studies con-
cerned with the application of research lines to
specific teaching situations.

The volume is structured in five sections,
each one devoted to a topic which is crucial in
ESP teaching contexts. The first section, "Set-
ting the Context," is composed of two articles
which deal respectively with two areas of great
relevance in ESP: Business English and Legal
English. The first article shows the evolution of
Business English textbooks from the early 1960s
until the present time. This work is quite inter-
esting since there is a great variety of teaching
material related to Business English in the mar-
ket. In the second, the author makes a contras-
tive analysis between the linguistic features of
Legal English and Legal Spanish and draws the
reader's attention to the fact that teaching Eng-
lish for Legal Purposes to Spanish students is
not just a matter of teaching language but also
of teaching different cultural patterns, since both
means of communication belong to different law
systems.

The second section, "Teaching Language:
Vocabulary," contains three articles which ex-
plore aspects related to teaching specific lexis,
one of the most widely debated subjects in ESP
teaching. In the first one, more theoretically-
oriented, a series of learning strategies in rela-
tion to specific vocabulary are proposed. The
second looks at one of the most central topics
in the study of scientific vocabulary: the com-
plex issue of teaching nominal compounds to
Spanish learners of L2 English. There is no doubt
that this issue is one of pedagogical relevance
for general English and even more for special-
ized English teaching situations. In fact, nomi-
nal compounds are very frequent in scientific
discourse and, at the same time, they tend to
constitute a problem for non-native students,
who usually fail to decode them properly due to
several reasons such as their inherent ambiguity
or their synthetic structure. The author ap-
proaches this topic from a practical perspective,
offering a pilot study carried out with Spanish
students which allows her to obtain results based
on real data. The third article deals with specific
vocabulary learning in the field of English for
Nursing. This is an issue of special relevance
nowadays if we take into account that British
Hospitals are currently increasing their demand
for nurses from Spain and other countries of the
EU. The author proposes a series of learning
strategies and activities and claims the need to
promote teaching in this field, as an answer to a
specific demand.

The third section, "Teaching Skills: Writ-
ing," consists of three articles which discuss
learning strategies in relation to writing specific
texts in several areas of ESP. The first article is
related to academic and professional contexts
in the field of Technical English and aims to
improve the writing competence of Engineer-
ing students and promote their autonomous
learning. The next two papers belong to the field
of Business English. The first one focuses on
genre analysis as a pedagogical tool and pro-
poses approaches, strategies and techniques
which can help students write effectively dif-
ferent types of documents (letters, reports, sales
leaflets...). The second is centered on the analysis
of a specific genre —the Annual Report— and
points out the advisability of introducing this
authentic material in any course related to the
teaching of English in business contexts, since

it can be exploited in many different ways due to its heterogeneity.

The fourth section, "Learning through Corpora," explores the use of specialized corpora for language learning in academic contexts. The strong relation existing nowadays between ESP and Corpus Linguistics becomes evident through the existence of specific-language-purpose corpora used in professional and academic settings. The two articles which compose this section show the advantages of using specific academic corpora in ESP teaching and learning. In the first article, based on a classroom experience with Information Technology students, the author points out the priming of lexis and the usefulness of electronic corpus resources, which allow students to have a dynamic access to lexical material related to their specific field of knowledge. The second deals with the use a Maritime Legislation Corpus as a tool for teaching and learning and points out the advantages of using it in the ESP classroom, since it allows a learning approach based on students' observation and interpretation of patterns of use, which leads to improving their reading comprehension and vocabulary acquisition as well as empowering their autonomy in learning. In addition, a proposal of activities specifically designed by the authors and addressed to students of Naval Architecture and Marine Engineering is presented for use in the classroom.

The fifth and last section, "Learning through ITs," deals with the application of new technologies to ESP teaching contexts. This is a subject that all the professionals working in the field of English Language Teaching (ELT) are nowadays concerned with, due to the dramatic change that has taken place since the last decade in relation to language teaching and learning as a consequence of the widespread use of Information and Communication Technologies (ITCs) and the Internet. Two articles are in-

cluded in this section. The first one is concerned with the use of internet as a huge learning language resource tool, since it offers the possibility of putting into practice alternative classroom materials and interactions and allows students to become independent learners. With an optimistic view in relation to the possibilities that this new tool offers to the future in the teaching of ESP, the author presents a set of resources and on-line activities in order to improve learners' receptive and productive language skills as an alternative to traditional learning methods. In the next article, the last one of this volume, the authors present a CD-ROM that they have designed for Social Work students, showing the contents and the process followed for its creation. The preparation of this material has been carried out within the framework of a Project supported by the ViceChancellorship of New Technologies at the Universidad de Granada. This kind of projects reflects the concern existing nowadays at Spanish universities in relation to improving and updating the teaching of foreign languages. The presentation of this CD-ROM can serve as a guide for professionals working in the various fields of ESP and encourage them to realize similar projects which lead to innovative teaching materials.

Taking into account that in the last decades English has become the *lingua franca* in academic and professional settings and that therefore the importance of ESP has grown as an answer to specific demands, publications of this kind are considered of great value in showing an up-to-date view of the situation of both current research and teaching practices in ESP at tertiary level. In this line, this book is designed to provide a source of reference for ESP teachers and researchers as well as for anyone interested in this field.

Natividad Fernández de Bobadilla Lara

BOLETÍN DE INTERCAMBIO

Deseamos intercambiar la revista .... por la revista .... cuyos datos se adjuntan.

DATOS

Razón social: ....

Persona responsable del intercambio: ....

Calle/Plaza: .... C.P.: ....

Ciudad: .... Provincia: ....

País: .... Tlf.: ....

Fax: .... E-mail: ....

BOLETÍN DE SUSCRIPCIÓN

1. Por favor suscríbame a .... desde el año .... núm. ...., inclusive.

2. Por favor deseo adquirir los volúmenes o números atrasados: ....
....

FORMAS DE PAGO

☐ Adjuntamos talón bancario a nombre de Servicio de Publicaciones. Universidad de La Laguna.
☐ Comprobante de haber enviado Giro Postal a nombre de Servicio de Publicaciones. Universidad de La Laguna.

Número suelto 14 euros.
Comunidad universitaria 10 euros.

GASTOS DE ENVÍO

0,82 € – Nacional
2,72 € – Internacional

DATOS PERSONALES

Nombre y apellidos o razón social: ....

N.I.F o C.I.F.: .... Calle/Plaza: ....

C.P.: .... Ciudad: ....

Provincia: .... País: ....

Tlf.: .... Fax: ....