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# The role of theory in pedagogical grammar: A Cognitive + Communicative approach

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#### **Abstract**

One of the most controversial areas of modern language teaching is that of pedagogical grammar. There is little consensus on what methodology should be applied in order to facilitate grammar acquisition; as a result, in classrooms throughout the world, grammar is taught in traditional ways which lack a solid theoretical underpinning. This is partly due to the fact that applied linguists have given insufficient attention to various facets of pedagogical grammar and to addressing certain key issues in grammar teaching. In this paper, key aspects of grammar-related theory are discussed; at the same time, a theoretical model of pedagogical grammar is presented – Cognitive+Communicative Grammar – which is based on insights from Cognitive Linguistics and Communicative language teaching and which provides a comprehensive framework on the basis of which the central tasks of pedagogical grammar – objective setting, rule formulation, exercises and activities design - can be addressed in a principled way.

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### 1. Introduction

In the past few decades modern language teaching in classrooms across Europe has undergone radical changes. At the core of these changes are, on the one hand, a fundamental rethinking of teaching methodology based on principles deriving from a Communicative Approach to language, learning and teaching, and, on the other, a move to embrace a learner-centred orientation to classroom practices. Whilst influences of these approaches can be widely observed in materials design and classroom teaching concerning the skills of reading, writing, speaking and listening, and to a certain extent in the teaching of vocabulary, it is my overwhelming experience of working with teachers and students in many countries that grammar tends to be taught in traditional ways which do not differ substantially from how teachers themselves learned grammar at school and university. It seems that grammar teaching is infrequently embedded in the overall framework of

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Communicative language teaching (CLT): 'communicative grammar' is a rare collocation in discussions of methodology.

One reason why grammar teaching has remained traditional is, without doubt, that applied linguists and methodologists have failed to deliver valid theories of grammar pedagogy which can be implemented in classroom teaching? Littlewood (2004, p. 502) bemoans the fact that '[s]ince the mid-1980s [...] an increasing amount of research in the field has moved away from the practical purposes that first initiated it (2LA) and many researchers now approach second language learning as a problem area in its own right'. This view is echoed by Long, who expresses the view that '[t]he scope of many SLA theories does not extend to the L2 classroom at all. (...) Most SLA theories, and most SLA theorists, are not primarily interested in language teaching, and in some cases not at all interested' (2000, pp. 4-5).

In this paper, a model of grammar will be presented and discussed – **Cognitive+Communicative Grammar** (C+CG) (Newby, 2003) – which attempts to create a bridge between theory and practice by providing a theoretical framework based on Communicative and Cognitive<sup>1</sup> views of language and of learning, the outcome of which are sets of principles which can be used in the design and evaluation of grammar pedagogy.

## 2. Pedagogical grammar

Pedagogical grammar (PG) will be defined as grammatical descriptions, materials and activities developed to facilitate the learning of a foreign language; it thus includes both grammatical description and methodology. In defining it in these terms PG is seen both as a set of tools - a pedagogical reference book, an FL coursebook, grammar exercises etc. - and as a process of facilitating learning through appropriate methodology in which both teachers and learners participate. Some of the main tasks of pedagogical grammar are the following:

- setting *grammatical objectives* for a syllabus, school textbook, lesson or teaching sequence;
- specifying *grammar rules* and making them available to learners by explanation, illustration, exemplification, discovery of rules by students themselves etc.;
- setting *learning aims* for specific exercise and activities that is to say, determining what role a particular exercise might play in enhancing learning;
- *methodology* devising and evaluating grammar exercises and activities to be given to students;
- *testing* grammatical competence and performance.

Each of these tasks brings with it its own set of challenges and indeed a minefield of theoretical controversies among applied linguists; for example, the setting of grammatical, as opposed to wider so-called 'communicative' objectives, teacher-given explanations of grammar rules, grammar-focused exercises have all had to run the gauntlet of applied linguist censure in recent years.

## 3. Theory and practice

Language teachers often believe that grammar represents one of the most 'theoretical' areas of their pedagogical activities, yet it would seem to me that the way in which it is described in pedagogical grammars and taught in many classrooms reveals a remarkable lack of theory, both of what grammar actually is and how it is acquired: it is easy to confuse the terms 'theoretical' with 'traditional'. For example, the time-honoured practice of teaching so-called indirect speech by requiring students to shift uncontextualised sentences from direct into indirect speech according to spurious 'shifting-rules' is a feature of many classrooms and pedagogical reference grammars alike, yet if put under the microscope of linguistic analysis, it soon becomes clear that this approach in no way reflects how indirect speech is used in communication and is little more than a form of artificial pedagogical mathematics<sup>2</sup>.

## 3.1. What kind of theories do grammar teachers need?

In order to design pedagogy it is necessary to drawn on three general areas of theory:

- a) a *theory of grammar* an understanding of what language is and how it functions as a communication system, to be used for: the specification of content and teaching objectives and formulation of pedagogical grammar rules; categories of syllabus design; basis for use-based methodology etc.
- b) a theory of learning/acquisition an understanding of acquisition processes and of the learner's cognitive, affective and functional needs.
- c) *methodology* a knowledge of a wide range of methods and classroom techniques and how, when and whether to apply them.

It should be stressed with regard to b) and c) that these are complementary and inseparable categories: methodology must always go hand-in-hand with theories of learning and exercises must be selected on the basis of their potential to optimise learning efficiency.

If grammar teaching is to receive the support of theoretical insights, they must come from all of these areas. Moreover, they need to be incorporated into a coherent and comprehensive didactic framework, which is what Cognitive+Communicative Grammar attempts to do.

#### 3.2. The theorists

As with much of science, theorising and research tend to be carried out within a scientific cultural capsule in which certain aspects of theory are given prominence. As far as grammar is concerned, we will find differences in issues discussed by linguists, by applied linguists and by methodologists and teachers – though there are of course areas of overlap. Moreover, these issues often revolve round certain opposing viewpoints: specific theories and approaches arise as a reaction to another. Within linguistics, of particular relevance are two opposing views of both language and language acquisition held, on the one hand, by *generative* theories of grammar and corresponding *innatist* or *nativist* theories of acquisition first proposed by Noam Chomsky; on the other, theories of language and acquisition which fall within the branch of linguistics known as **Cognitive Linguistics** (for example, Langacker, 1987, 1991). Croft and Cruse (2004, p. 1) list three 'major hypotheses as guiding the cognitive approach to language:

- language is not an autonomous cognitive faculty;
- grammar is conceptualization;
- knowledge of language emerges from language use."

It will be noted that these hypotheses stand in direct opposition to Chomskyan theories of language and language acquisition (1957, 1965 etc.). The rejection of an 'autonomous cognitive faculty' entails, in addition, the rejection of a Universal Grammar and of an innate Language Acquisition Device (LAD); the stress on conceptualization, or grammatical meaning, seeks to redress the balance of the general 'syntactocentric' (Jackendoff, 2002, p. 197) orientation of generative grammar, which takes as the starting point of analysis the sentence and which gives prominence to syntactic, as opposed to semantic, aspects of description; the third hypothesis, 'knowledge of language emerges from language use,' challenges the rather one-sided 'intake' view of L1 acquisition and stresses that children learn not only by processing adult language but by partaking in it. This hypothesis is strongly reminiscent of the general 'learning by using' principle, which underlies much of communicative methodology. As we shall shortly see, there are close parallels between Cognitive Linguistics and CLT.

Certain aspects of the tension between generative/innatist and Cognitive theories can also be seen in a prominent research area of applied linguistics: that of 'form-focused instruction' (FFI), defined by R. Ellis as 'any instructional activity, planned or incidental, that is used to draw the learner's attention to language forms' (2001, quoted in Fotos and Nassaji, 2007, p. 8). This approach arose, to some extent, as a reaction against those second-language acquisition theories and accompanying methods which reject explicit grammar teaching, one much-quoted proponent of which was Stephen Krashen (1981 etc.). Such 'natural acquisition' theories are based on the central premise that there are close similarities between first (L1) and second (L2) language acquisition. Birdsong (2004, p. 83) goes so far as to state that: 'In the most

general terms, L2A theory tackles the question of the resemblance of L2A to L1A.' In recent years, Cognitive linguists have recognised the fundamental fallacy of this view and have stressed the considerable differences in, for example, the cognitive apparatus and linguistic experiences between infants and, say, secondary school learners of a foreign language. Form-focused instruction recognises the contribution that explicit grammar teaching can, in principle, make to acquisition. However, the devil is in the detail, as the saying goes: explicit teaching takes many forms; we need to put both the nature of learning and the nature of teaching under the microscope if teaching is to give optimal support to learning processes.

# 3.3. Communicative and traditional grammar

Whilst applied linguists have engaged in discussions reloving around *whether* to teach grammar, the central issue of interest to teachers concerns, it seems to me, *how* to teach it; in particular, how 'traditional' ways of teaching grammar can be made 'more communicative'. By 'traditional' I mean grammar pedagogy which is typified by the following practices (see Newby 2013b):

- language is defined and grammatical objectives specified in terms of *grammatical* forms (rather than meanings);
- methodology is based on a *presentation-practice-production* (PPP) model;
- methodology is *teacher-centred* for example, the teacher presents and explains grammar to students;
- grammatical exercises are, to a very large extent, closed or heavily controlled transformation, fill-in-the-gap etc.;

Some of the shortcomings of a traditional approach are:

- it artificially separates grammar from other aspects of communication;
- it imposes a rather passive learning role on students;
- it places too much emphasis on explicit knowledge of rules and deductive learning;
- it favours certain learner types e.g. those who benefit from 'analytical' learning;
- exercises very often test grammar, rather than support learning;
- it does not provide adequate methodological support to create a bridge between knowing grammar and using grammar;
- it leads to low motivation among students to learn grammar since exercises tend to be boring and do not fulfil cognitive and affective needs.

So how does 'communicative grammar' differ? Hinkel and Fotos (2002, pp. 4-5) present a bizarre depiction of CLT as being devoid of grammatical content. They state that 'the communicative method [sic] of L2 teaching does not feature explicit grammar teaching or correcting learner errors.' Let us invite Henry Widdowson (1988, p. 154) to rebut this claim with more eloquence and authority than I dispose of:

It seems to be quite commonly supposed that what is commendable about the communicative approach to language teaching is that it does not, as a structural approach does, have to get learners to puzzle their heads with grammar. If we are looking for nonsense, this suggestion is a prime example. For if this were really the case, a communicative approach would have little or nothing to commend it.

Elsewhere (1990, p. 98), Widdowson points out that '[a] communicative approach, properly conceived, does not involve the rejection of grammar. On the contrary, it involves a recognition of its *central mediating role* in the use and learning of language.'

In order to define what communicative grammar means, we need to examine two integrated areas of theory on which Cognitive+Communicative Grammar is founded: a theory of language, illustrated by means of a **Communication Model**, and a theory of learning, illustrated by a **Cognitive Learning Model** (Newby, 2003). Aspects of these theories and models will be discussed in the following sections.

## 4. C+C view of language – grammatical objectives and rules

Two of the tasks of pedagogical grammar identified above are the specification of grammatical objectives and the formulation of grammar rules. A grammatical objective will be defined as a specific unit of grammar selected by the teacher, textbook or student to be taught and acquired in the course of a teaching sequence. A grammar rule will be defined in psycholinguistic terms as a regularity or generalisation stored in the minds of speakers and shared by a speech community which results in the encoding of a specific grammatical form. These generalisations relate both to grammatical meaning and to form. A rule in a pedagogical reference grammar or school textbook can be defined as metalanguage used to describe such regularities.

At first sight, specifying objectives and formulating rules would seem to constitute the least demanding of tasks; after all, there are numerous pedagogical grammars available which seek to fulfil these tasks. Thus, to define a grammatical objective we might simply take one of the headings to be found in these books – present perfect, indefinite article etc.; the corresponding rules can then be copied out and passed on to the learner. But before we do this, we need to think carefully about what it is that grammar books describe and thus what learners need to acquire: in other words, what actually is grammar?

In her analysis of pedagogical grammars, Chalker (1994, p. 31) points out that there tends to be a tacit assumption among many students, teachers and pedagogical grammarians that there exists what she calls a single, 'God's truth' view of grammar: i.e. 'traditional' ways of categorising and describing grammar, which focus on formal, rather than semantic, categories. If we are to see grammar as embedded in communication, and thus take a C+C approach to rule and objective specification, we shall need to approach grammar in quite different terms.

# 4.1. Grammar as a Communicative Event

Fundamental elements of a C+C view of language can best be illustrated by means of a 'Communication Model,' a diagrammatic representation of what is termed a 'communicative event', building on the 'speech event', specified by Hymes (1972, pp. 277-278). Following Richards, Platt, Weber (1985, p. 267), a communicative event will be defined as a 'particular instance when people exchange speech' or as a single unit of communication. The Cognitive linguist Langacker uses a similar term, 'usageevent', which he defines as '[a]n actual instance of language use, in all its complexity and specificity' (2008, p. 220). It is interesting to note that the 'action-oriented' approach of the Common European Framework (Council of Europe, 2001, p. 9) is based essentially on a communicative event model, though this may not be clearly apparent from its actual description of language competence: in fact, the term 'communicative event' occurs 11 times in the CEFR. This dynamic event-view is shared by cognitive linguists: Croft and Cruise (2004, p. 2) state that 'from a cognitive perspective, language is the real-time perception and production of a temporal sequence of discrete, structured symbolic units', one 'symbolic unit' of which is grammar. Figure 1 illustrates the main components of a communicative event.

Cognitive competence Cognitive competence [Schematic constructs] [Schematic constructs] Communicative competence Communicative competence [Grammatical competence] [Grammatical competence] Mental Mental ļ Processes and Strategies context context Functions Purpose Structuring Output Message Notions Perceptions & Forming PERFORMANCE Addresser Addressee Context: setting, channel genre, topic, key etc.

Figure 1: Model of a Communicative Event (adapted from Newby 2003, p. 259)3

(white areas = external context; light grey areas = categories of cognition; dark grey areas = categories of language)

The model attempts to reflect the process by which, when an utterance is encoded, speakers filter their thoughts about, and perceptions of, certain elements of the external world and construct an internal mental representation of them. What elements they refer to and how they perceive or conceptualise them will result in the

encoding of an utterance into lexical and grammatical forms. As will be seen from the categories identified in the model, language is seen both as a cognitive phenomenon (cognitive competence, mental context etc.) and as a communicative process, indicated by the left-to-right arrows and the specification of context. The theoretical rationale underlying the Communication Model provides the following definition of grammar: grammar is the process by which speakers encode their perceptions of entities, actions and properties, and the relations between them, into meaningful grammatical form. Three general insights, which are of particular significance for the design of grammar pedagogy, will be discussed.

One advantage of representing language as a communicative event is that it stresses the 'action-oriented,' 'real-time perception' nature of language. Grammar is seen both in terms of knowledge and of use; the communication model depicts not only **competence** but also **performance**. Recognising that grammar learning entails not only *knowledge acquisition* but *skill development* will have far-reaching consequences for activity design.

The second general insight is linked to the second of Croft and Cruse's hypotheses of Cognitive Linguistics quoted above that 'language is not an autonomous cognitive faculty'. This hypothesis points to one of the central tenets of Cognitive Linguistics – that language knowledge in general and grammatical knowledge in particular represent mental capacities which are not separate from other aspects of human cognition but are an integral part of them: language concepts and processes can thus be defined in terms of more general aspects of cognition such as perception, concept formation, memorisation etc.. Langacker's definition of a 'usage-event' includes the phrase 'language use in all its complexity and specificity'; the Communication Model allows us to explore the relations between grammar and, for example, schematic constructs4. One important implication of this view is that when learning grammar and doing grammar exercises, learners should be able to link grammatical knowledge with schematic knowledge and aspects of their own experience. It is interesting to note that an analysis of the categories described in the Common European Framework reveals that most of those found in the Model, both cognitive and communicative, are identified and discussed: 'All the categories used here are intended to characterise areas and types of competences internalised by a social agent, i.e. internal representations, mechanisms and capacities, the cognitive existence of which can be considered to account for observable behaviour and performance' (Council of Europe 2001, p. 14).

The third insight which emerges from the Communication Model concerns the centrality of language meaning in general and grammatical meaning in particular – a theoretical cornerstone of both the Communicative Approach and Cognitive Linguistics. Two of the principles of CLT cited by Richards & Rodgers (2001, p. 161) are that '[l]anguage is a system for the expression of meaning' and that '[t]he primary function of language is for interaction and communication.' In should be added that teaching grammatical meaning is not in itself new; explaining, say, the meanings or uses of tenses figures strongly in traditional pedagogy. What is different is, on the one

hand, the 'central mediating role in the use and learning of language' played by grammar (see Widdowson quote above), and, on the other, that a Cognitive approach will see grammatical meanings not as instances of grammatical forms but as a system in their own right. This view is not new to linguistics: several decades ago the functional grammarian, Halliday (1973, p. 6) stated that '[s]tructure no longer occupies the centre of the stage; it enters it because it is one form of the realization of meanings.' This meaning  $\rightarrow$  form orientation is illustrated by the left-to-right arrows of the Communication Model: grammatical forms result from a prior system of meanings. It is this system of meanings which is the focus of attention of Cognitive Linguistics.

The second hypothesis of CL identified by Croft and Cruse is 'grammar is **conceptualisation**'; terms such as 'conceptualisation,' 'concepts,' 'symbolic units' (see quotation above), as opposed to the more general term, 'meaning', serve to stress the view, shared in fact by generative grammarians, that 'linguistic theory is mentalistic, since it is concerned with discovering a *mental reality* underlying actual behavior' (Chomsky 1965, p. 4). There are, however, considerable differences between generativists and cognitivists concerning the *nature* of this mental reality. In recent years, Cognitive linguists have provided comprehensive descriptions of grammar which take conceptualisation systems as their starting point – for example, Langacker (2008) and Radden and Dirven (2009).

A final point to be made with regard to meaning concerns the tendency, not uncommon among applied linguists, to juxtapose 'grammar' with 'meaning' and/or 'communication'. This can be seen in Spada's definition of form-focused instruction: '[approaches] in which a form-focussed component has been included within second language instruction which is primarily meaning-based (i.e. where language is taught via content-based or "communicative instruction")' (1997, p. 73). Elsewhere she refers to FFI as 'to pedagogical events which occur within meaning-based approaches to L2 instruction' (ibid.). It will be seen from these definitions that grammar is contrasted with 'meaning-based' approaches, which leads to the very dichotomy that Communicative and Cognitive views of grammar are at pains to avoid: the separation of grammar and communication. Taylor (2008, p. 41) points out that 'such a dichotomy would appear to rest [...] on a highly impoverished understanding of what constitutes grammar'. Since C+C Grammar assigns a central role to grammatical meaning, it will distinguish not between grammar and meaning but between grammar meaning and message meaning - i.e. the meaning generated by all elements of an utterance, including grammar. 'I teach communicatively but I teach grammar too' is a comment I have heard from teachers on numerous occasions. We need to guard against a common scenario in classrooms: communicative methods + traditional grammar.

## 4.2. Notional Grammar

One category of language depicted in the Communication Model is that of 'notions'. This term can be seen as a synonym for meaning, either lexical or grammatical, but as with 'concept', it includes a cognitive element - that is to say, meanings stored in the mind of speakers. A Notion will be defined as a single semantico-grammatical concept, or a grammatical meaning, expressed by a speaker when s/he formulates a proposition and encodes it into form. Describing language and grammar through notional categories is by new means new: a notional specification of language can be found in documents such as the Council of Europe's Threshold Level (1977/1991) or Wilkins' Notional Grammar (1976). Interesting attempts to implement a notional approach to grammar could be found in the school textbook such as Meanings into Words (Doff et al. 1983) or in Leech and Svartvik's A Communicative Grammar of English (1975, 1994). For a brief period in the 1970s and 80s, textbooks would describe themselves as 'notional-functional' (see Newby 2013a), but soon the 'notional tag' was dropped; at the same time the interest of applied linguists in language description appeared to wane as the tidal wave of language acquisition research swept over them.

The category of grammatical Notions is an important one since it will serve both as a way of specifying grammatical objectives and formulating grammar rules. Examples of grammatical Notions which express a speaker's perception of future time can be found in figure 2.

Figure 2: Future Notions (see Newby 1989, pp. 93-99)

Notion		Form
[arranged activity]		I'm playing tennis tonight.
[expressing intention]	-	I'm going to use my new racket.
[interpreting signs]	-	It's going to be a tough match.
[making a prediction]	-	I' $ll$ probably $be$ back by six.
[spontaneous decisions]	-	I think I'll change my racket.

Clearly, specifying Notions cannot be carried out through a process of informed brainstorming but must be embedded in a theoretical framework, in this case what I refer to as **Notional Grammar** (NG) (see Newby 2003 2012 etc.). The dual aims of NG are to provide a specification of grammatical meaning, and corresponding forms, which fulfils the *theoretical criteria* of linguistic analysis, and to package its findings in *pedagogically accessible* form. Applying some kind of theoretical framework to notion-based description is particularly important with regard to pedagogical grammar rules. As Dirven (1990, p. 8) says, '[l]earners can be and are misled into all kinds of wrong generalisations [...] by the inaccurate rule formulations in their

textbooks.' It is difficult to find publications by pedagogical grammarians in which they explain the theoretical basis for arriving at the grammar rules they pass on to learners. Indeed, the impression often arises that certain reference grammars have been compiled by a mixture of brainstorming and copying from existing grammars. Two of the premises of Notional grammar are that: a) Notions represent the primary semantico-grammatical unit of encoding and decoding - human beings express and comprehend Notions; b) Notions are psycholinguistically real - they represent concepts stored in the 'mental grammaticon' of speakers and utilised in the process of grammaticalisation. What NG rules attempt to do is to encapsulate the generalisations stored in the minds of speakers by identifying the salient perceptional elements. Notional rules – for example, those found in my own reference grammar, Grammar for Communication - make use of simple and economic, speaker-oriented metalanguage of the type found in figure 2: If I want to express an intention, I use going to; if I want to refer to a recent activity, I use present perfect progressive, etc. Some of the criteria<sup>5</sup> applied in arriving at such rule specification are that rules must be:

- *valid* or true cannot be de-verified by examples; so-called 'exceptions' might show that the rule a grammarian gives is not correct (valid)
- *transparent* understandable by learners
- systematic for example, in the use of terminology
- economic not contain unnecessary information

As far as validity is concerned, since Notional Grammar lays claim to systematicity, it follows that its rules must explain data and data must confirm the rules. Examples of so-called rules relating to future time found in pedagogical grammars and textbooks which can be de-verified are: 'going to expresses certainty; will indicates the speaker is less certain'. Data which de-verifies this statement are the utterances: I am probably going to play football tonight but am not certain and I am sure I will win. A further de-verifiable rule is that 'going to refers to the near future (e.g. in the notion of 'interpreting signs' — see table 2)'. To de-verify this statement, compare the utterances: It's going to rain (near future in this case) and He is going to be very handsome when he grows up (same Notion but no near future). Applying criteria within a theoretical framework enables us not only to arrive at verifiable (true) rules but to eliminate 'noise'; i.e. grammarians describe possible interpretations of an individual utterance but not the grammatical generalisations stored in the minds of speakers<sup>6</sup>.

A Notional approach, if applied systematically – as I have done in my own school textbook (Heindler et al. 1993) – has considerable advantages, some of which are:

- It states explicitly, systematically and transparently what grammar means and encoded into form (grammar rules).
- It enables the setting of meaning-based objectives.
- It provides the teacher with an overview of all notions.

- It helps teachers to be clear about what exactly they are teaching pupils.
- It helps teachers to grade and select the Notions they wish to teach.

A further advantage of a Communicative/Notional approach is that it makes it possible for learners to express their grammatical competence in terms of the kind of 'I can' descriptors to be found in the *Common European Framework of Reference*:

- ✓ I can express an intention using 'going to'.
- ✓ I can talk about recent activities using the present perfect progressive (I have been watching TV.)
- ✓ I can talk about my experiences using the present perfect (I have been to Turkey three times).

## 5. C+C view of learning and pedagogical implementation

Most schools textbooks contain a considerable number of grammar exercises and certain grammar practice books are international best sellers. The question that then arises is how well do these books support students in achieving their grammar-related learning aims of acquiring grammatical competence and the skill of performance. In his ground-breaking book, Teaching Language as Communication, written in the early days of the Communicative approach, Widdowson stated (1978, p. 3ff.): 'we do not simply manifest the abstract system of the language, we at the same time realize it as meaningful communicative behaviour.' An examination of commercially available grammar practice books and school coursebooks - in use nearly 40 years later - will show that by far the most common type of grammar exercise is the single-sentence, 'fill-in-the-gap' format, with prompt words given in brackets. What such exercises require learners to do is to add discrete items of grammar to other people's – textbook author's, teacher's - pre-fabricated ideas. These exercises may test the student's declarative knowledge of rules but they do not provide for grammar rehearsal and thus fail to develop grammar fluency. It follows from this that is that teachers require a coherent pedagogy which supports both the development of the learner's grammatical/communicative competence and the skill of grammatical performance.

## 5.1. Learning and cognition

In a previous section, I stated that many applied linguists who follow a *Cognitive constructivist* view of learning believe that 'there is no autonomous, special-purpose "language acquisition device" that is responsible for language acquisition and language processing' (Littlemore 2009, p. 1). N. Ellis (2001, p. 36) puts it equally bluntly: 'constructivists deny any innate linguistic universals'. One problem with LAD-based theories is that they have very little to say about how the LAD actually works. Achard (2004, p. 179) points out that '[t]here is no critical reliance on specific constructs of the theory such as the parameter setting mechanism, for example, just a general mention of the Language Acquisition Device'. As N. Ellis (2001, p. 37) says, 'Constructivists are unhappy with nativist explanations (...) because the uniqueness

hypothesis has no process explanation.' He further adds, 'Without (...) a process explanation, innatist theories are left with a "and here a miracle occurs" step in the argumentation.' As far as teaching is concerned, without an LAD 'miracle' – which, for teachers, would take away the burden of bothering their heads with how to teach grammar - we need to turn to other theories of learning which will provide principles on which grammar methodology can be based.

In a C+C approach to learning, at the focus of attention are the **cognitive resources** that learners bring to a learning task and the **mental processes** that are activated when learning takes place. The significance of this line of enquiry is that if teachers and grammar material developers have some understanding of these processes, this will assist them in designing materials and methods which will activate **innate learning processes** and optimise and maximise the use of the learner's cognitive resources. In addition, a C+C theory-based pedagogy will incorporate insights arising from a Communicative view of language use to support the skill development, which is an essential part of grammar acquisition. 'Communicative' activities - role play, grammar games etc. - are important exercise types in the framework of communicative grammar; however, their effectiveness in supporting learning will be limited if such activities are not embedded in a coherent theory of learning.

# 5.2. C+C Learning Model

C+CG methodology is founded on a **Cognitive Learning Model**<sup>7</sup> (CLM), which integrates various aspects of cognition. Two cognition-related categories of the CLM will be discussed - *learning processes* and *learning stages*. In addition, the C+CG provides *principles* and *criteria* deriving both from communicative views of language and from insights from cognitive psychology for evaluating learning effectiveness.

## 5.2.1. Language learning processes and strategies

Cognitive learning processes will be defined as innate and largely unconscious processes by means of which the human mind perceives, categorises, conceptualises, stores and remembers (new) information. To gain an understanding of these processes, it is necessary to explore areas of cognition which lie in 'models in cognitive psychology, in particular models of memory, perception, attention and categorisation' (Croft and Cruise 2004, p. 3).

Cognitive processes can be subdivided into four categories: processes, processing preferences and strategies, plus a more general category of what will be termed the commitment filter. These terms will be defined as follows:

Language learning processing	Innate processes by means of which the human mind perceives, categorises, conceptualises and remembers new information.
Processing preferences (styles)	Individual ways of perceiving, conceptualising and memorising new information.

Learning strategies	Strategies and measures employed by learners in order to optimise or accelerate learning. These are mainly <i>intentional</i> and <i>conscious</i> .
Commitment filter	Elements of the learners' mindset, both <i>affective</i> and <i>cognitive</i> , which influences the degree to which they <i>engage</i> with language learning and pedagogical activities.

Of these categories it is that of learning processes which is central to the design of grammar activities. The kinds of processes we are concerned with are what are sometimes called cognitive - or construal - operations<sup>8</sup>. These include:

- *engaging* with new information i.e. releasing and activating mental resources
- *attending* to an item of grammar
- focusing on what is salient or noticeable about new grammar
- making a generalisation (i.e.) a rule about new grammar
- analogy comparing the new grammar with other L1 or L2 grammar
- testing out a rule by using grammar
- activating schematic knowledge to make sense of new grammar
- storing grammar concepts in long-term memory
- recalling concepts from long-term memory
- monitoring production

Having some idea of what happens in the minds of learners when they acquire new information will help considerably when analysing and designing grammar exercises and activities. It is one of the premises of C+C Grammar that the more actively and efficiently cognitive processes are employed, the more effective learning will be. It is therefore one of the tasks of the teacher to provide activities which cause students to activate mental processes and make optimal use of their cognitive resources.

## 5.2.2. Learning stages

One pillar of various learning theories is that '[l]earning a language entails a stagewise progression from initial awareness and active manipulation of information and learning processes to full automaticity in language use' (O'Malley and Chamot 1990: 217). Seeing learning in terms of stages is not new and can be found in various learning and teaching models, from the presentation-practice-production (PPP) of traditional grammar to the input-intake-output, proposed by Krashen (1981). However, unlike PPP, which is essentially a teaching-stage specification, the Cognitive Learning Stage Model of C+C Grammar is a model based on learning processes. Each stage can be seen in terms of a general *cognitive task*; i.e. it states what needs to be accomplished if learners are to reach a specific developmental stage in the overall learning process. These cognitive tasks relate to both grammatical competence and performance.

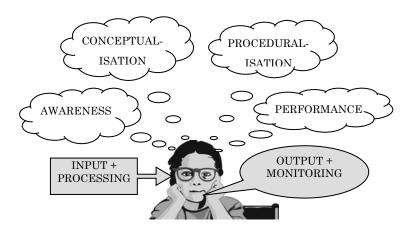


Figure 3: Cognitive Learning Stage Model

An explanation of each stage is as follows:

Input – materials provided by the teacher/textbook with new input + and how it is <i>processed by learners</i> using existing knowledge und schemata and cognitive processes			
	Awareness	pupils focus on and notice new grammar	
stages	Conceptualisation	pupils <i>internalise</i> a grammar rule by means of a grammar explanation or discovery activity, doing heavily guided exercises etc.	
Learning	Proceduralisation	pupils are able to <i>use</i> grammar <i>in loosely scaffolded exercises</i> to create their own utterances without a strong conscious focus on rules; the stage that links competence to performance	
	Performance	pupils are able to <i>use</i> grammar <i>in open contexts</i> ; focus on the overall message	
Outpu	Output – what students say or write and their <i>monitoring</i> of their own production		

A stage model has the following applications for the teacher:

- 1. We can *locate a specific exercise or activity within a particular learning stage* before we assign pupils a grammar activity, we should be clear about which learning stage or stages this activity supports.
- 2. It helps to *specify learning aims* at a particular learning stage discover a rule, testing knowledge of rule, gaining confidence in using grammar etc.: we can thus be clear about the contribution an exercise or activity we expect to make to learning.
- 3. Coherence: by means of learning stages we can analyse all the exercises in a teaching sequence or school textbook that deal with an area of grammar for example, a certain tense notion and find out if there are exercises that lead the learner from initial awareness through conceptualisation and proceduralisation to the stage of performance. (In fact, we shall find that this is often not the case: many textbooks and reference grammars provide few exercises which go beyond the conceptualisation stage.)

## 5.3. Criteria for evaluating grammar activities

Various researchers in the fields of cognitive psychology and neuroscience have identified factors that accelerate or optimise language learning. The C+C model provides specific parameters for analysing and assessing the effectiveness of grammar activities, taking into account the two general functions of grammar pedagogy: to support the acquisition of grammar rules (competence) and to provide rehearsal for communication (performance). I shall consider two categories: pedagogical principles, based on Cognitive views of learning, and communicative criteria, based on theories of language use. These categories have the following analytical tasks:

**Pedagogical Principles** – to what extent does a grammar activity support learning by activating and optimising learning processes?

Communicative Criteria – to what extent does a grammar activity support the development of both grammatical and communicative performance by simulating conditions of real-life language use?

Pedagogical Principles will determine whether an activity can be *validated* – i.e. it plays a useful role in learning; Communicative Criteria will determine whether an activity can be *authenticated* – i.e. it corresponds to communicative use. Validation and authentication can be seen from the learner's perspective: if learners validate an exercise, they (subconsciously) accept that what they are doing makes a good contribution to their learning; if learners authenticate an activity, they recognise that the way they are using language corresponds to some extent to how they are likely to use it in real life.

## 5.3.1. Pedagogical principles

Teachers and authors of grammar practice books seem to give little consideration to the quality of grammar exercises. Yet, as van Lier (1996, p. 59) says, 'we have to learn to distinguish between practice and malpractice.' The following list shows eight factors - gleaned from writings by various cognitive psychologists, neuroscientists and applied linguists - which are likely to lead to 'more entrenched' memory traces and better storage in long-term memory and which will thus optimise acquisition.

- 1. **Repetition/contact time**. Learners need *multiple contacts* with new language if it is to be retained (though the *quality of the contact* must also be considered see 'depth of processing' below.)
- 2. **Engagement**. Learners must *attend* to input and *engagement* must be maximised in activities.
- 3. **Meaning-driven processing**. Learners' memories will be enhanced if *language meaning*, and the *learner's own interpretation of meaning*, are at the heart of pedagogical activities.
- 4. **Associations**. Learners should be encouraged to associate new items with their existing *schematic constructs and language knowledge*.
- 5. **Depth of processing**. Learners should be given tasks which require *intense*, *deep*, *focused processing*.

- 6. **Multi-modal processing**. Learners should process language through a *variety of senses and processing modes*, including *affective*.
- 7. **Social/peer learning**: Learners must be given opportunities to *learn from each other*.
- 8. **Cognitive and affective needs**: Learners will commit themselves to activities more strongly and process information more deeply if *cognitive needs* (to solve problems, satisfy curiosity etc.) and *affective needs* (reduction of negative stress, fun, 'self-actualisation' etc.) are fulfilled.

#### 5.3.2. Communicative criteria

A Communicative approach to learning and teaching attempts to replicate the reallife conditions of language use and to apply them in the design of pedagogy. Communicative activities are essentially meaning-driven and goal orientated. Ortega (2007, p. 180) states the following: 'I draw on the assumption that meaningful use of the L2, and particularly the meaningful productive use afforded during communicative interactional practices, drives acquisition', thus providing support to a communicative view of practice. But what is 'communicative practice'?

Whether grammar activities can be labelled 'Communicative' can be determined according to certain criteria, listed below. It should be noted, however, that there is no simple binary distinction between 'communicative' and 'non-communicative' activities. It could be stated that the more of the communicative criteria which a grammar activity fulfils, the farther along the continuous cline towards '100% communicative' it might be located, (but see comments below on applying the criteria in exercise evaluation):

#### 1. Contextualisation.

Language used in an explanation, exercise or activity is *embedded in a clear* context, or the exercise *facilitates contextualisation* (imagining a context) by the student.

2. **Personalisation** (compare pedagogical principle no. 4)

When we produce language we represent information, ideas, knowledge etc. from our own personal perspective. Grammar activities need to take into account this 'personalisation' aspect of language and give pupils the opportunity to apply their own schematic constructs, and express their own ideas, from their own perspective in order to produce utterances.

3. **Complex encoding** (compare pedagogical principle no. 5)

Whenever human beings produce language, they are processing two general areas of cognition. On the one hand, they represent the world around them – what they see, think, remember, experience etc.; on the other hand, they map their perceptions of the world onto language. If pupils are to get to the Performance stage of the Cognitive Stage model, they must be given the opportunity as soon as possible to rehearse this complex encoding by creating their own utterances. Grammar exercises in which students merely fill in gaps require grammar processing but no complex encoding. Encoding can be made more complex if, in an

exercise, the student is required to supply both grammar and lexis; complexity increases if the student has to produce whole utterances.

## 4. Authenticity of process.

To produce language, learners apply *processes that human beings make use of when encoding utterances*. Fill-in-the-gap with words given in brackets or transforming direct into indirect speech are totally lacking in process authenticity, whereas paraphrasing an utterance is a more authentic process.

5. **Interaction** (oral activities) (compare pedagogical principle no. 7) Learners use the grammar item to *interact with other learners* in ways which require a response – for example, in an oral group work activity.

#### 6. Task-based.

In addition to producing correct utterances, students fulfil a *purposeful cognitive task* which will have some kind of outcome or end product.

It should be stressed that it is not intended that the pedagogical principles and communicative criteria be used as a *quantitative* checklist – it is not simply the case that the more principles adhered to, the better the grammar exercise. In particular, the respective learning stage of an activity must also be taken into account. For example, discovery activities used at the awareness/conceptualisation stage of learning may fulfil few of the criteria, but in this case this does not matter since the aim is to raise awareness and support the conceptualisation of grammar, not to rehearse its use. On the other hand, activities at the performance stage should fulfil most of the communicative criteria.

Clearly, the relationship between these factors and effective learning is somewhat speculative; the neuroscientist Goswami (2008, p. 394) points out that '[c]ognitive processes are difficult to study directly, because they are theoretical rather than observable. Even processes such as memory have to be inferred from behaviour.' Applying these principles and criteria must go hand-in-hand with the teacher's and student's perceptions of how well a particular exercise or method contributes to learning.

# 6. Conclusion

The need for a coherent pedagogical approach to grammar, which can be embedded into CLT, is stressed by Achard (2004, p. 165), who states that 'the integration of grammar in communicative models currently constitutes one of the hardest pedagogical challenges foreign-language teachers face.' The large number of publications which have emerged in recent years on the contribution that Cognitive Linguistics can make to pedagogy is indicative of a growing interest in addressing this challenge<sup>9</sup>. The potential for bridging the gap between Cognitive-Communicative theory and classroom practice is considerable. Concerning the role of Cognitive Linguistics, Broccias (2008, p. 67) has this to say:

There is a striking similarity between the development of (theoretical) cognitive linguistics (...) and the recent history of language teaching. Cognitive approaches to grammar are converging towards a

usage-based/network model of language (...), which contrasts with the decontextualised view of language (...) espoused by generative grammarians. Similarly, language teaching in general and the teaching of grammar in particular have moved from decontextualised drilling activities to more meaningful, communicative/context-based methods, i.e., a usage-based model of language teaching.

This similarity between theory and current practice is also expressed by Goswami (2008, p. 396): 'Many of the principles of learning uncovered by cognitive neuroscience might appear to support what teachers knew already. For example, aspects of pedagogy such as the value of multi-sensory teaching approaches or of creating safe and secure environments for learning are highly familiar.'

Yet, despite the optimistic tenor of these statements, an important element of pedagogy-related theory is missing: while cognitive theories of learning are knocking at the door of classroom practice, there is no noticeable model of language which locates grammar within human communication as a whole. In its comprehensive categorisation of communicative competence, the Common European Framework describes grammar in traditional terms. Keddle (2004, pp. 43–54) bemoans the fact that the CEF does not provide a 'measure of grammar-based progression': 'Overall there is not a consistent approach to grammar, or reference to commonly accepted concept areas such as the future, in the CEF' (2004, p. 49). It should be noted that this is in sharp contrast to a forerunner of the Common European Framework, The Threshold Level (1974/1991), which took a strongly notional approach to grammar description.

It is the overall aim of Cognitive+Communicative Grammar to weave Cognitive and Communicative principles of both language description and language learning into a coherent whole. The insights from this model can provide a basis to evaluate grammar activities – Johansen (2015) has made a comprehensive study of grammar exercises in Norwegian textbooks using pedagogical principles and communicative criteria. This model will also serve as a springboard to describing language – as in my own pedagogical reference grammar, *Grammar for Communication* (Newby 1989), and designing grammar activities – as in the accompanying exercise book, 'Exercises and Creative Activities' (Newby, 1992).

#### References

- Achard, M. (2004). Grammatical instruction in the natural approach: A cognitive grammar view. In M. Achard, & S. Niemeier (Eds.), *Cognitive linguistics, second language acquisition, and foreign language teaching* (pp. 166-194). Berlin: Walter de Gruyter.
- Achard, M., & Niemeier, S. (Eds.). (2004). Cognitive linguistics, second language acquisition, and foreign language teaching. Berlin: Walter de Gruyter.
- Birdsong, D. (2004). Second language acquisition and ultimate attainment. In A. Davies, & Elder (Eds.), *The handbook of applied linguistics* (pp. 501-523). Oxford: Blackwell Publishing.
- Broccias, C. (2008). Cognitive linguistic theories of grammar and grammar teaching. In S. De Knop, & T. De Rycker (Eds.), *Cognitive approaches to pedagogical grammar* (pp. 67-90). Berlin: Walter de Gruyter.

- Chalker, S. (1994). Pedagogical grammar: Principles and problems. In M. Bygate, A. Tonkyn, & E. Willimas (Eds.), *Grammar and the language teacher* (pp. 31-44). Hemel Hempstead: Prentice Hall.
- Chomsky, N. (1957). Syntactic structures. The Hague: Mouton.
- Chomsky, N. (1965). Aspects of the theory of syntax. Cambridge, MA: The MIT Press.
- Council of Europe. (2001). Common European framework of reference for languages: Learning, teaching, assessment. Strasbourg: Council of Europe, Modern Languages Division/Cambridge: Cambridge University Press.
- Croft, W., & Cruse, D. A. (2004). Cognitive linguistics. Cambridge: Cambridge University Press.
- De Knop, S., & De Rycker, T. (2008). (Eds.). Cognitive approaches to pedagogical grammar. Berlin: Walter de Gruyter.
- DeKeyser, R. M. (Ed.). (2007). Practice in a second language: Perspectives from applied linguistics and cognitive psychology. Cambridge: Cambridge University Press.
- Dirven, R. (1990). Pedagogical grammar. Language Teaching, 23(1), 1-18. http://doi.org/d98vb6
- Ellis, N. C. (2001). Memory for language. In P. Robinson (Ed.), Cognition and second language instruction (33-68). Cambridge: Cambridge University Press.
- Ellis, R. (2001). Introduction: Investigating form-focused instruction. *Language Learning*, 51. Supplement 1, 1-46.
- Ellis, R. (2002). The place of grammar instruction in second/foreign language curriculum. In E. Hinkel, & S. Fotos (Eds.) *New perspectives on grammar teaching in second language classrooms* (pp. 17-34). Manwah, NJ: Lawrence Erlbaum.
- Fotos, S., & Nassaji, H. (Eds.) (2007). Form-focused Instruction and teacher education: Studies in honour of Rod Ellis. Oxford: Oxford University Press.
- Goswami, U. (2008). Principle of learning, implications for teaching: A cognitive neuroscience perspective. *Journal of the Philosophy of Education*, 42(3-4), 381-399. http://doi.org/cspjqv
- Halliday, M.A.K. (1973). Explorations in the functions of language. London: Edward Arnold
- Heindler, D., Huber, R. Kuebel, G., Newby, D., Schuch, A., Sornig, K., & Wohofsky, H. (1993). *Your ticket to English.* Vienna: Österreichischer Bundesverlag.
- Hinkel, E., & Fotos, S. (Eds.). (2002). New perspectives on grammar teaching in second language classrooms. Manwah, NJ: Lawrence Erlbaum.
- Holme, R. (2009). Cognitive linguistics and language teaching. Basingstoke: Palgrave Macmillan.
- Hymes, D. (1972). On communicative competence. In J. B. Pride, & J. Holmes (Eds.), *Sociolinguistics. Selected readings* (pp. 269-293). Harmondsworth: Penguin Books.
- Jackendoff, R. (2002). Foundations of language. Oxford: Oxford University Press.
- Johansen, S. (2015). The mighty weight of tradition: An evaluation of grammar exercises in EFL textbooks. Unpublished Master Thesis, Bergen University, Norway.
- Keddle, J. (2004). The CEF and the secondary school syllabus. In K. Morrow (Ed.), *Insights* from the Common European Framework (pp. 43-54). Oxford: Oxford University Press.
- Krashen, S. D. (1981). Second language acquisition and second language learning. Oxford: Pergamon Press
- Langacker, R. W. (1987). Foundations of cognitive grammar, volume 1: Theoretical prerequsites. Stanford: Stanford University Press
- Langacker, R. W. (1991). Foundations of cognitive grammar, volume 2: Descriptive application. Stanford: Stanford University Press
- Langacker, R. W. (2008.) Cognitive grammar. A basic introduction. Oxford: Oxford University Press.

- Leech, G., & Svartvik, J. (1994). A communicative grammar of English (2nd ed.). London: Longman.
- Littlemore, J. (2009). Applying cognitive linguistics to second language learning and teaching. Basingstoke: Palgrave MacMillan.
- Littlewood, W. (2004). Second language learning theories. In A. Davies, & C. Elder (Eds.), *The handbook of applied linguistics* (pp. 501-524). Oxford: Blackwell Publishing
- Long, M. (2000). Acquisition and teaching. In M. Byram (Ed.), Routledge encyclopedia of language teaching and learning (pp. 4-5). London: Routledge
- Newby, D. (1989). Grammar for communication. Vienna: ÖBV.
- Newby, D. (1992). Grammar for communication: Exercises and creative activities. Vienna: ÖBV.
- Newby, D. (2003). A Cognitive+Communicative theory of pedagogical grammar. Unpublished Habilitationsschrift. Graz University, Austria.
- Newby, D. (2012). Cognitive+Communicative grammar in teacher education. In J. Huettner, B. Mehlmauer-Larcher, S. Reichl, & B. Schiftner (Eds.), *Bridging the gap: Theory and practice in EFL teacher education* (pp. 101-123). Clevedon: Multilingual Matters.
- Newby, D. (2013a). Notions and functions. In M. Byram, & A. Hu (Eds.), *Routledge encyclopedia of language teaching and learning* (pp. 516-518; revised 2nd edition). London: Routledge.
- Newby, D. (2013b). Pedagogical grammar. In M. Byram (Ed.), *Routledge encyclopedia of language teaching and learning* (pp. 524-526; revised 2nd edition). London: Routledge.
- Newby, D. (2014) Do grammar exercises help? Assessing the effectiveness of grammar pedagogy. In C. Haase, & N. Orlova (Eds.), *ELT: Harmony and diversity* (pp. 3-16). Newcastle: Cambridge Scholars Publishing.
- Newby, D. (2014). Harmonising the teaching and learning of grammar: A Cognitive+Communicative approach. Comano: Fondazione Lingue e Culture, Babylonia, 2/2014, 23-29.
- O'Malley, J. M., & Chamot, A. (1990). Learning strategies in second language acquisition. Cambridge: Cambridge University Press.
- Ortega, L. (2007). Meaningful L2 practice in foreign language classrooms: A cognitive-interactionist SLA perspective. In R. M. DeKeyser (Ed.), *Practice in second language*. *Perspectives from applied linguistics and cognitive psychology* (pp. 180-207). Cambridge: Cambridge University Press.
- Radden, G. and Dirven, R. (2007). *Cognitive English Grammar*. Amsterdam: John Benjamins Publishing Company.
- Richards, J., Platt, J., & Weber, H. (1985). Longman dictionary of applied linguistics. Harlow: Longman.
- Richards, J. C., & Rodgers, T. S. (2001). Approaches and methods in language learning. Cambridge: Cambridge University Press.
- Robinson, P., & Ellis, N. C. (Eds.). (2008). *Handbook of cognitive linguistics and second language acquisition*. New York: Routledge.
- Robinson, P. (2001). Cognition and second language instruction. Cambridge: Cambridge University Press.
- Skehan, P. (1998). A cognitive approach to language learning. Oxford: Oxford University Press
- Spada, N. (1997). Form-focussed instruction and second language acquisition: A review of classroom and laboratory research. *Language Teaching*, 30(2), 73-87. http://doi.org/fckcgh

Taylor, J. (2008). The relevance of Cognitive Grammar for language pedagogy. In S. De Knop, & T. De Rycker (Eds.), *Cognitive approaches to pedagogical grammar* (pp. 37-66). Berlin: Walter de Gruyter.

van Ek, J. A., Trim, J. L. M. (1991). *Threshold level 1990*. Strasbourg: Council of Europe Press. van Lier, L. (1996). *Interaction in the language curriculum*. London: Longman.

Widdowson, H. G. (1978). *Teaching language as communication*. Oxford: Oxford University Press.

Widdowson, H. G. (1988). Grammar, and nonsense, and learning. In W. E. Rutherford, & M. Sharwood-Smith (Eds.), *Grammar and second language teaching: A book of readings*. (pp. 146-155). Boston: Heinle & Heinle.

Widdowson, H.G. (1990). Aspects of language teaching. Oxford: Oxford University Press.

Wilkins, D. (1976). Notional syllabuses. Oxford: Oxford University Press.

### Notes

<sup>1</sup> Terms used to refer to specific aspects of the C+C model will be capitalised: Cognitive, Communicative, Notional etc. Terms which relate to aspects of the C+C model will be highlighted in bold script.

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<sup>&</sup>lt;sup>2</sup> A process, no-shifting, approach to 'reporting words and ideas' can be found in my own reference grammar, *Grammar for Communication*.

<sup>&</sup>lt;sup>3</sup> For a detailed discussion of other categories in the Communicative Event model see Newby 2012.

<sup>&</sup>lt;sup>4</sup> See discussion of 'grammatical frames' and 'scripts' in Newby (2012: 116).

<sup>&</sup>lt;sup>5</sup> Swan (1994, p. 45) also lists 'design criteria' for rule formulation.

<sup>&</sup>lt;sup>6</sup> A further example and more detailed account of de-validation can be found in Newby 2012.

 $<sup>^{7}</sup>$  The full model is described in detail in Newby 2003.

<sup>&</sup>lt;sup>8</sup> See also Croft and Cruse (2004: 46) and Holme (2009, 112)

<sup>&</sup>lt;sup>9</sup> Some examples are: Achard and Niemeier (eds.), 2004; De Knop and De Rycker, (eds.) 2008 (eds.); DeKeyser, (ed.), 2007; Holme, 2009; Littlemore, 2009; Robinson and N. Ellis (eds.), 2008; Robinson, 2001.