Addressing Language in Secondary Education
Advantages of A Scientific Approach to Grammar Teaching[*]

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Abstract
In the Spanish Secondary Education, first-language teaching is conceived of as a mixture of instrumental skills (writing and reading) and grammar. It is fair to say, though, that the connection between both domains has never been pursued in a harmonic, truly interdisciplinary, fashion. Instrumental techniques are typically associated to normative guidelines and communicative approaches, whereas grammar is seen as a set of mechanical exercises. Here we argue in favor of approaching grammar from a scientific point of view. This does not mean that secondary school students should necessarily become apprentice scientists, but rather that they should get used to describing and analyzing linguistic objects in the same way they are taught to describe and analyze other objects of the world in other courses. We further claim that this scientific take should have an impact on what concepts are taught and how they are trained. We briefly discuss some contemporary concepts that we think could be incorporated in Secondary education (as nothing but a sample of what could be done). We also argue that traditional grammatical exercises should be complemented with problem-raising strategies.

1. Introduction

A natural goal of any scientific discipline concerns its 'outreach': that is, its capacity to reach society so that it achieves a better understanding of the universe that surrounds us—including ourselves, as key part of such reality. This can be carried out through various initiatives, knowledge-transfer activities, and strategic domains, the latter including Education, through its different stages.

Although Linguistics as such can be said to go back to Pāṇini (400 years BC), its development as a modern discipline, within the so-called Cognitive Sciences, is rather recent. Only some sixty years. It took place when "linguists took it as a central premise

that the nature of language depends on its instantiation in the minds of speakers" (Jackendoff 2007:348).

This conceptual shift, which allowed us to connect the study of language with Psychology, Philosophy, Biology, or Mathematics, has its inception in Noam Chomsky's (1955 [1975]) *Logical Structure of Linguistic Theory* (and subsequent work), which set the stage for a novel approach to study language in which the basic contribution of human's genetic endowment is distinguished from the import of education and culture. In such a short period of time (again: approximately sixty years) important contributions have been made in the description of language variation, the formulation of grammatical principles, and the combination of traditional and new methodologies to collect, measure and analyze data (Isaac & Reiss 2013, D'Alessandro 2019, Chomsky et al. 2019, Norbert Hornstein's blog, and references therein).

However fruitful, this ambitious research agenda has not reached what constitutes the most sensible and natural place for ideas to grow and develop in a society: the world of Education. In fact, this approach is almost unknown (or simply unattended, or neglected) in most classrooms outside universities and research centers. If someone is asked in them what Linguistics is about, she may reply many things, but probably no answer will involve the study of the human mind. Possible answers will vary from writing skills to communication, going through translation, philosophy, literature, multilingualism, and other fields in which language is useful as an applied set of auxiliary notions, but not addressed as a scientific discipline by itself. If nothing else, this hides a very important dimension of language, which includes the inquiry into our very nature. Linguistics has become one of the few existing fields in which possible applications of its social, cultural and technological developments have ended up completely covering and hiding their original goals.

Such a state of affairs can only be a result of a combination of factors. One of them is to be attributed to some broader version of the *so-called* Linguistics Wars: the fact that different schools compete in order to find out the 'right' approach to language is. In a number of European countries, approaches to language were only carried within the field of Philology, in which the separation of literary and non-literary uses of language was —by definition— out of place. The only possible attitude towards texts was —and

still is nowadays— learning to understand them and to admire them, as well as strive to find out the cultural and aesthetic clues necessary to place them in their proper social context. Needless to say, all this is important, but it is also rather limited as a general approach towards the understanding of objects of research in the natural world.

A second problem comes from scholars, as we have ourselves too often ignored how the knowledge we treasure and work on has been made accessible to society. Wherever your field is, how would you react if almost nothing of what has been learnt in the last half a century has reached classrooms? Would you shrug your shoulders and keep going? Well, in a sense, that is what we have done. A final problem concerns the training of Secondary education teachers, which is largely philologically-oriented. In recent years, text books have emphasized the relevance of pragmatics, and a number of discourse notions and sociolinguistic concepts have been introduced in them. But texts are still considered more important than sentences in Secondary classrooms almost everywhere, and the use of language is always taken to be much more relevant than that of its internal structure.

In Bosque (1994, 2018a,b) and Bosque & Gallego (2016, 2018, to appear), the blueprints of a different 'plan' are shown. In a nutshell, we put forward two crucial proposals: one of them concerns the type of exercises (or activities) that —we believe— could be used in language classes; the other is concerned with the types of skills (often called 'competences' in the official documents) that students ought to master along the Secondary Educaton. To make a long story short, we suggest that teachers should change their attitude towards the study of language, and that competences should not only deal with "how to use our language" (where "our language" parallels "our car", "our oven" and "our record player"), but also how our natural inclination to understand things, naturally developed in scientific approaches to any object of research, may be applied to gain a better understanding of our own language.

Discussion is divided as follows: section 2 very briefly reflects on the existence of different and (apparently) confronted approaches to language; section 3 concentrates on the meaningful and regretful absence of "scientific attitude" when it comes to the study of language in Education; in sections 4 and 5 we suggest how that attitude can be introduced

by making use of certain type of exercises and terminology in the language class; finally, section 6 summarizes the main discussion of the paper.

2. The study of language: the blind men and the elephant

Language is a complex object, and such complexity reveals itself in the ways in which it can be approached. Language can be seen as…:

(1)   a. … a cultural object

        b. … an artistic object

        c. … a communication object

        d. … a formal-cognitive-biological object

Needless to say, all these approaches make sense. By and far, language is approached as in (1a) through (1c), with well-known connections with Politics, Literature, and Sociology. Surprisingly, the formal-cognitive-biological approach is almost totally unknown by society, a situation that has a clear reflex in all the Education levels. There is no doubt that language may be addressed as an artistic object and as a social object. The point is, quite simply, that proponents of these majority approaches often neglect or dismiss other possible perspectives.

A key distinction between (1a,b,c) and (1d) is the fact that only the latter allows us to connect language with disciplines like Physics, Mathematics, Chemistry or Biology. This are referred to as "scientific disciplines". We cannot go into the complex controversy of what exactly are the crucial features telling natural and social sciences apart. Certainly, authors who deny that Linguistics may be addressed as a natural science also reject any source of data different from attested texts. They also reject experiments in grammar (the use of asterisks, minimal pairs, and the very notion of grammaticality, to name just a few). Plainly said, if we decide that language is only a social system and a means of artistic expression, all possible questions about its nature and its structure raised from a different angle will be automatically dismissed, a not so uncommon position.

One may be tempted to think that a discipline is 'scientific' if it makes use of certain machinery (which Linguistics certainly does have; cf. Chomsky 1955 [1975], 1990, among others), if it runs experiments (which Linguistics also does; cf. Phillips 2009, Sprouse 2016 and references therein). However, we have in mind a much simpler definition of "scientific approach" here: that which helps us learn how to be surprised by everyday things and to wonder why they are the way they are. This is, by no means new. It has been advocated by Noam Chomsky in different writings, but also by others. The following passage suffices to make this point:

> It was hard to convince people that they ought to be puzzled about things that looked simple and obvious. And some of the things that seemed simple and obvious Galileo could never really explain. So, for example, if the Earth is rotating, why don't objects fly off into space? [...] If you are willing to be puzzled by simple things, then that's the way science starts.   [from Chomsky 2010: 3]

More important, though, is the fact that relevant as all the approaches in (1a,b,c) are, an interesting property of the neglected one is the fact that it becomes rather appealing and challenging to students, when it is properly presented to them.

Details aside, (1a,b,c) invite us to see language as *an external instrument*—used to create, to do art, to define a country and its society, or to communicate thoughts or feelings. Only (1d) sees language as *an object internal to the individual* (her mind/brain) and cares about how the thoughts we convey to others are constructed in restricted ways. We hasten to add that this is not to say that some perspectives are right and others are wrong. All of them are legitimate and fruitful, and all of them should be presented to our students and our society. At the heart of this tension lie a large number of never-ending conflicts about what language is, how it emerged, how it is used, etc. Conflicts are good, as long as they lead to rethink ideas, refute hypothesis, and improve our understanding of the facts. But it is not always the case that the very existence of these conflicts helps us to better approach the teaching of our discipline.

The whole situation resembles the well-known parable of the blind scientists and the elephant. Just like the blind scientists, linguists come across this big elephant (the human language faculty), and instead of talking to each other trying to put all the pieces

together, they keep on touching the different parts of the animal thinking those parts were… all there is. The moral is easy—and equally worrisome. When (or whether) we will take a step back and realize that we are only touching a small piece of a bigger object that must be approached collectively from different angles is something we do not know. But, then again, who does? In the next section we put the pieces together in a puzzle where those 'different angles' can be connected in a coherent way. We start by emphasizing some of the non-trivial asymmetries that exist between how students approach language and how they approach Physics or Chemistry.

3. The study of language: towards a scientific approach

A question one could raise at this point is whether students are puzzled about linguistic phenomena in the same way they can be about how apples fall to the ground, electricity and magnetism interact, or black matter/energy being almost 90% of the universe. The obvious answer is NO. In this section we will have little to say to scholars who argue that Linguistics cannot be approached with the tools and methods commons in natural sciences, since (by definition) it belongs to the same category as Sociology, Anthropology, Human Geography or History. Interestingly, most of these scholars are not interested in (synchronic) Grammar either. We would agree that a number of linguistic sub-disciplines (including Sociolinguistics, Etymology, Onomastics and others) might not fully qualify among those able to be addressed with the common resources in the natural sciences. In the following pages we will concentrate on Grammar, and the way it is often taught at schools.

A cursory look at the way grammar is taught in Secondary schools in the Spanish-speaking world may be obtained from Bosque (2018a,b) and Bosque & Gallego (2016, 2018), and references therein. If students are puzzled (feel passion or excitement) about anything, it is Literature. And this is why most students choose a BA on Language & Literature: because of Literature. Grammar, instead, is seen as boring, useless, repetitive, old-fashioned, and terminologically chaotic. Students of Grammar do not feel that they face a complex, internal system to be understood, but rather an arbitrary and abstruse nomenclature puzzle, intricate as a legislative maze.

There is in fact a terminological obsession —in both students and teachers— when it comes to the analysis of linguistic objects. In Bosque (2018a,b) it is argued that this is not actually *analyzing* (i.e., carefully observing and dissecting in order to understand), but *labeling*. Almost any example could be useful to tell the difference. Let us consider the one in (2)

(2)   Judas kissed Jesus

Suppose we analyze (2) as in (3):

(3)   [$_S$ [$_{NP}$ Judas] [$_{VP}$ kissed$_V$ [$_{NP}$ Jesus]]]

Bluntly put, we do not understand what the nature of (2) is by looking at (3). What we have in (3), or any notational variant, does not tell us much about the meaning of (2). How is it that *Judas* is the agent of the kissing action and *Jesus* the patient, and not the other way around? Does (3) tell us this? Why can we only have one agent and one patient? These questions are typically not asked in class.[1] They would not appear in textbooks or course guideless, and students do not even imagine can be asked.

Needless to say, these are basic questions, but also scientific issues, in the relevant sense. Their absence is remarkable even in official documents, often quite detailed and parsimonious on the supposedly relevant didactic issues. Consider the following pages from the Spanish BOE (Official Bulletin of the State, 2014), discussed by Paradís &

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[1] A reviewer observes that we can derive the meaning of (2) through (3) if the teacher knows that the external argument of a transitive verb is interpreted as an agent, while the internal argument is interpreted as a pacient. We agree. But do teachers know that? We suspect most teachers lack such background knowledge. In any event, it is not immediately obvious that technical notions like "external/internal argument" are needed to discuss how (3) can help us understand the meaning of (2). We believe the key discussion revolves around how much teachers know and how they approach language. Depending on those factors (tools and resources, but also attitudes), a teacher can approach form-meaning nuances with little technical machinery.

Pineda (2016), which refer to what students should do in Physics & Chemistry (Table 1) and Language (Table 2) courses:

TABLE 1. Physics & Chemistry courses – (4 ESO, 16 years old)

Contenidos	Criterios de evaluación	Estándares de aprendizaje evaluables
Bloque 3. Los cambios		
Reacciones y ecuaciones químicas. Mecanismo, velocidad y energía de las reacciones. Cantidad de sustancia: el mol. Concentración molar. Cálculos estequiométricos. Reacciones de especial interés.	1. Comprender el mecanismo de una reacción química y deducir la ley de conservación de la masa a partir del concepto de la reorganización atómica que tiene lugar. 2. Razonar cómo se altera la velocidad de una reacción al modificar alguno de los factores que influyen sobre la misma, utilizando el modelo cinético-molecular y la teoría de colisiones para justificar esta predicción. 3. Interpretar ecuaciones termoquímicas y distinguir entre reacciones endotérmicas y exotérmicas. 4. Reconocer la cantidad de sustancia como magnitud fundamental y el mol como su unidad en el Sistema Internacional de Unidades. 5. Realizar cálculos estequiométricos con reactivos puros suponiendo un rendimiento completo de la reacción, partiendo del ajuste de la ecuación química correspondiente. 6. Identificar ácidos y bases, conocer su comportamiento químico y medir su fortaleza utilizando indicadores y el pH-metro digital. 7. Realizar experiencias de laboratorio en las que tengan lugar reacciones de síntesis, combustión y neutralización, interpretando los fenómenos observados. 8. Valorar la importancia de las reacciones de síntesis, combustión y neutralización en procesos biológicos, aplicaciones cotidianas y en la industria, así como su repercusión medioambiental.	1. Interpreta reacciones químicas sencillas utilizando la teoría de colisiones y deduce la ley de conservación de la masa. 2.1. Predice el efecto que sobre la velocidad de reacción tienen: la concentración de los reactivos, la temperatura, el grado de división de los reactivos sólidos y los catalizadores. 2.2. Analiza el efecto de los distintos factores que afectan a la velocidad de una reacción química ya sea a través de experiencias de laboratorio o mediante aplicaciones virtuales interactivas en las que la manipulación de las distintas variables permita extraer conclusiones. 3.1. Determina el carácter endotérmico o exotérmico de una reacción química analizando el signo del calor de reacción asociado. 4.1. Realiza cálculos que relacionen la cantidad de sustancia, la masa atómica o molecular y la constante del número de Avogadro. 5.1. Interpreta los coeficientes de una ecuación química en términos de partículas, moles y, en el caso de reacciones entre gases, en términos de volúmenes. 5.2. Resuelve problemas, realizando cálculos estequiométricos, con reactivos puros y suponiendo un rendimiento completo de la reacción, tanto si los reactivos están en estado sólido como en disolución. 6.1. Utiliza la teoría de Arrhenius para describir el comportamiento químico de ácidos y bases. 6.2. Establece el carácter ácido, básico o neutro de una disolución utilizando la escala de pH. 7.1. Diseña y describe el procedimiento de realización una volumetría de neutralización entre un ácido fuerte y una base fuertes, interpretando los resultados. 7.2. Planifica una experiencia, y describe el procedimiento a seguir en el laboratorio, que demuestre que en las reacciones de combustión se produce dióxido de carbono mediante la detección de este gas. 8.1. Describe las reacciones de síntesis industrial del amoníaco y del ácido sulfúrico, así como los usos de estas sustancias en la

TABLE 2. Activities related to "Knowledge of Language" courses (4 ESO, 16 years old)

Contenidos	Criterios de evaluación	Estándares de aprendizaje evaluables
Bloque 3. Conocimiento de la lengua		
La palabra. Observación, reflexión y explicación de los valores expresivos y del uso de las distintas categorías gramaticales, con especial atención al adjetivo, a los distintos tipos de determinantes y a los pronombres. Observación, reflexión y explicación de los valores expresivos y del uso de las formas verbales en textos con diferente intención comunicativa. Observación, reflexión y explicación del uso expresivo de los prefijos y sufijos, reconociendo aquellos que tienen origen griego y latino, explicando el significado que aportan a la raíz léxica y su capacidad para la formación y creación de nuevas palabras. Observación, reflexión y explicación de los distintos niveles de significado de palabras y expresiones en el discurso oral o escrito. Manejo de diccionarios y otras fuentes de consulta en papel y formato digital sobre la normativa y el uso no normativo de las palabras e interpretación de las informaciones lingüísticas que proporcionan los diccionarios de la Lengua: gramaticales, semánticas, registro y uso. Las relaciones gramaticales. Observación, reflexión y explicación de los límites sintácticos y semánticos de la oración simple y la compuesta, de las palabras que relacionan los diferentes grupos que forman parte de la misma y de sus elementos constitutivos. Conocimiento, uso y valoración de las normas ortográficas y gramaticales reconociendo su valor social y la necesidad de ceñirse a ellas en la escritura para obtener una comunicación eficiente. El discurso. Observación, reflexión y explicación y	1. Reconocer y explicar los valores expresivos que adquieren determinadas categorías gramaticales en relación con la intención comunicativa del texto donde aparecen, con especial atención a adjetivos, determinantes y pronombres. 2. Reconocer y explicar los valores expresivos que adquieren las formas verbales en relación con la intención comunicativa del texto donde aparecen. 3. Reconocer y explicar el significado de los principales prefijos y sufijos y sus posibilidades de combinación para crear nuevas palabras, identificando aquellos que proceden del latín y griego. 4. Identificar los distintos niveles de significado de palabras o expresiones en función de la intención comunicativa del discurso oral o escrito donde aparecen. 5. Usar correcta y eficazmente los diccionarios y otras fuentes de consulta, tanto en papel como en formato digital para resolver dudas sobre el uso correcto de la lengua y para progresar en el aprendizaje autónomo. 6. Explicar y describir los rasgos que determinan los límites oracionales para reconocer la estructura de las oraciones compuestas. 7. Aplicar los conocimientos sobre la lengua para resolver problemas de comprensión y expresión de textos orales y escritos y para la revisión progresivamente autónoma de los textos propios y ajenos. 8. Identificar y explicar las estructuras de los diferentes géneros textuales con especial atención a las estructuras expositivas y argumentativas para utilizarlas en sus producciones orales y escritas. 9. Reconocer en textos de diversa índole y usar en las producciones propias orales y escritas los diferentes conectores textuales y los principales mecanismos de referencia interna, tanto gramaticales como léxicos. 10. Reconocer y utilizar los diferentes registros lingüísticos en función de los ámbitos sociales valorando la importancia de utilizar el registro adecuado a cada momento.	1.1. Explica los valores expresivos que adquieren algunos adjetivos, determinantes y pronombres en relación con la intención comunicativa del texto donde aparecen. 2.1. Reconoce y explica los valores expresivos que adquieren las formas verbales en relación con la intención comunicativa del texto donde aparecen. 3.1. Reconoce los distintos procedimientos para la formación de palabras nuevas explicando el valor significativo de los prefijos y sufijos. 3.2. Forma sustantivos, adjetivos, verbos y adverbios a partir de otras categorías gramaticales utilizando distintos procedimientos lingüísticos. 3.3. Conoce el significado de los principales prefijos y sufijos de origen grecolatino utilizándolos para deducir el significado de palabras desconocidas. 4.1. Explica todos los valores expresivos de las palabras que guardan relación con la intención comunicativa del texto donde aparecen. 4.2. Explica con precisión el significado de palabras usando la acepción adecuada en relación al contexto en el que aparecen. 5.1. Utiliza los diccionarios y otras fuentes de consulta en papel y formato digital resolviendo eficazmente sus dudas sobre el uso correcto de la lengua y progresando en el aprendizaje autónomo. 6.1. Transforma y amplía oraciones simples en oraciones compuestas usando conectores y otros procedimientos de sustitución para evitar repeticiones. 6.2. Reconoce la palabra nuclear que organiza sintáctica y semánticamente un enunciado, así como los elementos que se agrupan en torno a ella. 6.3. Reconoce la equivalencia semántica y funcional entre el adjetivo, el sustantivo y algunos adverbios con oraciones de relativo, sustantivas y adverbiales respectivamente, transformando y ampliando adjetivos, sustantivos y adverbios en oraciones subordinadas e insertándolas como constituyentes de otra oración. 6.4. Utiliza de forma autónoma textos de la vida cotidiana para la observación, reflexión y explicación sintáctica. 7.1. Revisa sus discursos orales y escritos aplicando correctamente las normas ortográficas y gramaticales reconociendo su valor social para obtener una comunicación eficiente. 8.1. Identifica y explica las estructuras de los diferentes géneros textuales, con especial atención a las expositivas y

As Paradís & Pineda (2016) point out, understanding, reasoning, calculating and interpreting are presented here as activities exclusively associated with Physics and Chemistry courses, whereas language courses should concentrate in identifying, naming and recognizing different units.

The dissemination and sharing of knowledge is a complex issue in our society. Scientists develop their work in the research realm, with conferences, publications, projects, experiments, etc. (i.e., from *above*), whereas society should feed on the outcome of all those activities (i.e., from *below*). An important aspect that we would like to highlight in this perspective is how much distance there is between 'above' and 'below', especially in the case of knowledge of Grammar. What we should focus on is the strengthening of the above-below connection by making the perspective in (1d) reach society. In the specific case of High Schools this should happen by supporting and spreading what we would like to call the *Grammar-as-Science Conjecture* (GaSC):

(4)   **Grammar as Science Conjecture**

The study of Grammar should be approached from a scientific point of view. This is fully compatible with the development of instrumental skills, and also with approaches that focus on the social and cultural aspects of language interactions.

By 'scientific point of view' we mean at least three things: one, the ultimate goal of the study of grammar is to understand how language works in our minds, which —to a large extent— leads to a better understanding of a part of our nature (cf. Larson 2009, Roberts 2017, Bosque 2018a,b); two, studying grammar should incorporate certain types of strategies and exercises which avoid the mere identification of segments and relations, as opposed to what educational authorities sustain in TABLE 2 above, and similar official provisions. These exercises include minimal pairs, generalizations, data observation, formulation and refutation of hypotheses, etc.; Bosque & Gallego 2016, O'Neil et al. 2008); and three, knowing how the grammar of a given language works should help us use it better (O'Neil 2010a,b, O'Neil et al. 2008). This implies that normative rules and recommendations should stand of grammatical reasoning, not just on elegance, euphony or tradition.

All of this involves implementing ongoing substantial changes in different domains: the teachers' training, the contents of textbooks, the University Access Tests (so-called PAU or EVAU), promote interdisciplinary activities, and more. To give an example of the kind of changes that should be used in language's class, consider the contrasts in (5):

(5)   The car was {repaired / finished / bought / *arrived}.

It goes without saying that the asterisk points to an objective fact here. It does not mean "incorrect, inelegant, not recommended but language experts", but rather "impossible, naturally excluded by any native speaker or English". This type of exercise (a problem) is rather conventional for linguists, but not for High School teachers or students. In fact, the latter often find (5) rather puzzling, not only because of the type of question they are

being asked, but also because they see that there is a contrast they do not have the tools to solve. It is the responsibility of researchers to provide these tools, along with the scientific attitude that can make students feel that there are questions to ask and things to understand when one studies language.

Let us go back for a moment to the tables 1 and 2 above. As Paradís & Pineda (2016) point out, there is no reason why the possibility of understanding, reasoning, evaluating or carrying out experiments or calculations should be limited to *so-called* hard sciences. In fact, we believe that such activities are perfectly compatible with Grammar teaching. Probably, the fact that glossing, identifying and commenting are the most frequent activities in both Language and Literature courses (and not, instead, problem solving; cf. Bosque 2018a) is the main obstacle for developing scientific approaches to the teaching of Grammar. As it is obvious, problem-solving approaches make student focus their attention on very specific aspects (for example, in minimal pairs). This facilitates observation and experimentation strategies, and specifically the construction of paradigms, the formulation of descriptive generalizations (subject to objective disconfirmation) and other similar activities which turn out to be rather different from the mere identification of grammatical units.

In our opinion, these are not new attitudes, to be implemented in students, but just the natural growth of well-known in-born tendencies early attested. As a matter of fact, children's questions to their parents are based, as is well known, on a natural disposition that reveals that same surprise towards most everyday phenomena. It is, to say the least, disturbing that children lose such an inquisitive attitude when they start going to school, and even more so that educational specialists do not feel concerned by such a significant cognitive change. From our point of view, an essential task of language education should be to ensure that students regain and develop in school the curious and inquisitive attitude they had towards the world before entering it. Science teachers have struggled to move in that direction for many years.

In Bosque & Gallego (2016), attention is drawn to the relationship that exists between the objectives pursued in any discipline and the nature of the exercises that are proposed to students to gain insight into their knowledge. Attention is rarely drawn in the Faculties of Letters, for example, to the fact that the teachers of Natural Sciences do not

propose as an exercise to their students the comment of a landscape. As we well know, literary analysis exercises have traditionally been based —and continue to be based— on text comments. The close association that exists between Language and Literature led naturally to extend literary comments to linguistic ones. The truth is that most of the students do not have a clear conscience of what is the use of "commenting linguistically (or grammatically) a text". They do not understand what they gain by assigning to words or sentences the labels demanded by their teacher, the book chosen by the school or the curriculum that the academic authorities have set. Such mechanical assignment of labels, whose place in the grammatical system is almost never explained in class, and even less questioned, very rarely implies a greater knowledge of Spanish, or of the language to which the exercise corresponds.

This attitude towards grammatical content is reflected in textbooks, but also in the language exams of the entrance exams to Higher Education (PAU, EVAU). Although the specific formulation of these can change from one Autonomous Community to another in Spain, the type of questions that are posed usually encompass two variants: on the one hand, the comment, the summary and the syntactic analysis of a sequence; on the other, the multiple-choice questions, those that ask to fill in the blanks and those that ask the student to choose between true or false. The first questions are therefore amplifying, while the second are telegraphic. In the next section, we discuss some of the exercises that, we believe, could make grammar a much more attractive subject. Before going into the details, though, we would like to provide some context.

4. Pedagogical strategies to turn grammar scientific: problems

4.1. What should students exercise in?

In a well-known article among specialists in language teaching in Spain, Luis Landero (an acclaimed Spanish novelist) made the following point:

> Of course, then, one wonders: what is language useful for? Why do our young
> people need to know so many grammatical and semiological requirements? The

priority objective of this subject should be to learn to read and write (and, consequently, to think) as God intended, but the technical study of the language, as long as nothing else is demonstrated, only serves to learn language. That is to say: to pass language exams [...] One has nothing against grammar, but one does against the grammatical intoxication that our young people are suffering. One is convinced that, apart from some theoretical rudiments, grammar is learned by reading and writing, and that whoever manages, for example, to read a page well, intoning the sentences well and unraveling with the voice the content and the music of the language, that one: he/she knows syntax.

[*El gramático a palos*, Luis Landero, El País, 14/12/1999, our translation, IB and ÁJG]

As we discuss in Bosque & Gallego (2016), this quote nicely captures a generalized idea about the study of grammar in Secondary Education: a boring, useless and complicated activity. To be sure, the reasons that led to this perception are diverse, and we do not intend to find out what they are. We restrict ourselves to pointing out that grammar is presented by Landero (and many others) as a system to be "used" rather than "known" or "understood". Before Landero, Américo Castro had transmitted a similar idea in an extremely graphic way:

Grammar is not useful to teach us to speak and write our own language correctly, just as the study of physiology and acoustics does not teach one dancing, or mechanics does not teach you how to ride a bicycle.

[from Castro, 1922, our translation, IB and ÁJG]

Probably the most curious thing about the reasoning that this attitude reveals is the implicit logic that it hides. No one doubts that it is necessary to teach students to speak and write fluently, to distinguish lexical nuances, to write articulated texts, etc. All of that is both necessary and important. What the "antigrammatical attitude" (as we call it) advocates for, not surprisingly, is that one must choose between transmitting to the students that practical knowledge, often called instrumental, but not the knowledge of the internalized system that we assume everyone knows implicitly. The question that seems relevant to us is simply: Why should we choose between one type of knowledge and the

other? Why should one be better than the other? Why should one be right and the other wrong? In our opinion, it is possible to replicate the antigrammatical attitudes revealed by these quotes, based on two principles:

The first is the fact that it is not possible to correct students' writing without using grammatical terms: agreement, subject, passive, adjective, subjunctive, auxiliary verb, etc. Whoever tries to do it in the classroom will surely fail. He/She will explain to his/her students that a certain form must be chosen because "it sounds better than this other one", and he/she will tell them that they must agree this verb with this noun because "it is more expressive than not doing it" or perhaps "because good writers do it that way". Whoever chooses this option will certainly not explain grammar. Instead, it will turn language teaching into a set of arbitrary opinions that students will have to accept because of the simple authority of their teacher, or the supposed elegance or expressiveness of the texts in which they are displayed.

The second principle is stronger. Landero explains in the quote above that who is capable of "reading a page well, intoning sentences well and unraveling the content and music of the language with his voice" is the one that "knows syntax". We are surprised that this unusual statement has triggered so few reactions among teachers. Applied to other domains of knowledge, this would be like saying: "The one that is capable of marveling at the splendid spectacle offered by the starry sky on a summer night is the one that knows astronomy" or "The one who opens his balcony, takes a deep breath and is able to fill his body with fresh morning air is the one that truly knows his lungs."

Antigrammaticalism reveals an odd opposition between knowledge and behavior (or competence and performance, to use another binomial well-known in the field of linguistics). It is also characterized by confusing knowledge with personal experience. Ultimately, it does not seem to be able to differentiate between the need to learn strategies for action in a given domain (including techniques to move around the world or to survive in it) and the convenience of acquiring some knowledge of the world in which we want to survive.

We would like to suggest that a good part of the controversy about the ways of approaching the teaching of grammar lies in the way in which we understand the very

concept of exercise. What exactly do we want our students to exercise in? It should be remembered that people who make an effort to ride a bicycle well or to dance the tango acceptably do not aspire to understand anything. The exercise required by these activities consists of the repetition of guidelines that allow us to master a physical activity. If speaking is like dancing or riding a bicycle—or so the story goes—, language students should "practice" the subordinates in the subjunctive in a similar way to how students at a dance academy practice any dancing style. But there is something about this logic that does not make sense. Now, if speaking a language is very different, as we claim, from dancing or riding a bicycle the concept of 'exercise' and 'exercising' changes radically. The exercises will still make perfect sense, but they will no longer be just resources to acquire skills, but rather strategies aimed at improving understanding and analysis of the language. The exercises are still necessary, but they have to be designed differently, since their objective will be to help us penetrate into the properties of the internalized system with which we shape our thoughts and with which we communicate our intentions, our feelings or our experiences. If one thinks like this, dancing and cycling will cease to constitute valid metaphors or —even more so— models, frames or images able to provide some didactic inspiration.

There is little doubt that some aspects of language learning require training. Nothing is further from our minds than to dismiss language exercises aimed at students to acquire a greater command of vocabulary, spelling or written expression, areas among which syntax occupies a prominent place. Moreover, in basic courses it is extremely useful to ask them about the differences between the meaning of words or sentences, without implying that they have to carry out exhaustive lexicographic or grammatical analyses. Some Secondary and Baccalaureate manuals already contain exercises of this type. Students must identify, for example, the gender of certain nouns that are presented to them without articles or other modifiers, or that of nouns that have one gender or another with different meanings. They also have to choose between graphic options that correspond to different syntactic structures. Some textbooks also contain exercises in vocabulary acquisition, grouping words into different semantic classes, or understanding and differentiating meanings. In other manuals, we can find analyses of ambiguous sentences, lexical nuances or contextual adaptation of vocabulary items. In practice,

students are asked to explain the difference in meaning between words or between sentences that have close meanings. They are also asked to substitute a lexicographical paraphrase for the corresponding noun or adjective; they also have to assign a suitable context for those items, and so on and so forth.

It will perhaps be said that, if we add the many possible exercises on normative issues to this extensive group, we will obtain a set of sufficient resources to "teach language". We are not sure if Castro, Landero, and other antigrammaticalists would understand that the information these exercises provide is supplemented by the reading practice. They could perhaps reply that you learn language by reading, writing and speaking, in the same way that you learn to play soccer by… playing soccer, or to dance by… dancing. If any adult of average culture is capable of solving linguistic exercises like the ones we have just mentioned without difficulty, it is not because he/she has solved many other analogues in his/her life, but rather because reading and writing have progressively shaped the linguistic awareness of most educated citizens.

But even the most radical "antigrammaticalist" individual would agree that reading is a habit that is extremely difficult to pass on to young people today. Moreover, the simple formulation of a necessary practice is far from its effective realization. Elsewhere we have defended that the exercises to which we have just alluded are necessary as a partial complement to a series of habits not acquired by the students (fundamentally that of reading, but also that of creative writing, as opposed to the merely instrumental). It would be too hasty to argue that exercises aimed at improving agile and fluent use of language are analogous to those practiced in dance schools or on the athletic tracks. The fundamental difference is that speaking a language is not an activity comparable to dancing, pole vaulting or cycling. In fact, with the possible exception of spelling, there is always something to discover in all linguistic activity, if only because languages are not sets of habits that speakers must practice or series of rules that they must know and apply.

To all this, it must be added that the elementary knowledge of lexical or syntactic units does not imply the handling of elaborate rhetorical strategies: speaking a language is not being an oratory professional, in the same way that walking or running is not equivalent to being an athlete. The exercises to which we have referred so far are not

designed to improve their speaking skills but to realize some of the most basic distinctions that they carry out in their own language, probably without knowing it.

4.2. A new typology of exercises

In what follows, we briefly discuss exercises that are rather unusual in textbooks. We will basically take the typology presented in Bosque & Gallego (2016).

4.2.1. Direct analysis

In this exercise, students are given very short sequences (a simple sentence, even a single phrase) and they have to perceive aspects of them that are not obvious at first glance. These exercises sharply contrast with those, rather common, in which students are asked to analyze very long texts.

Here is an example. If we ask students to analyze the sequence *very slowly*, they will undoubtedly tell us that it is an adverbial phrase in which the adverb *very* modifies the adverb *slowly*. The answer is only partially correct. If *slowly* means "in a slow manner", the natural question is why *very slowly* does not mean "very in a slow manner" (absurd meaning), but "in a very slow manner". The answer that has been given for years in modern morphology is that the suffix *-ly* has access to segments that exceed the frame of the word. The sequence *very slowly* requires two segmentations: one reflects its meaning: "[very slow] [ly]"; the other, just its shape: "[very] [slowly]". The technical name that this phenomenon receives in current morphology (*bracketing paradox*) is not essential in Secondary education. What is interesting to highlight is that, whatever name we decide to give to it, the phenomenon reveals an apparent mismatch in form and meaning that high school students can understand perfectly without any technical apparatus.

These exercises do not appear in textbooks and are rarely offered in classrooms. The truth is that they can be extended to almost all grammar. As can be seen, they are radically opposed to those of simple labeling or identification, but —it is fair to say— they require some preparation on the part of teachers. But, in our opinion, any grammar practice that is not routine or automated requires such preparation. While most specialists in language teaching insist on the need to improve the pedagogical updating of language teachers (such as their familiarity with modern technologies as applied to teaching), we

insist on the need to improve their knowledge of the subject.[2] Unlike what some researchers will surely do, we suggest that this knowledge must be adapted, simplified or poured into the appropriate didactic molds. It cannot, on the other hand, be dismissed or overlooked, much less be replaced by those same molds.

4.2.2. Inverse analysis

This type of exercise allows students to develop their capacity for abstraction, one of the most neglected aspects of language teaching in our classrooms. Inverse analysis exercises make students construct sequences that conform to conditions set by the teacher. For example, if the teacher asks the students to construct a passive in which the role of patient subject is exercised by a relative element, the students can build up examples such as the *Some books that were read*.

An agile and productive way to carry out these exercises in the classroom is to write the required conditions on the board and ask students to write the sentence that meets all those criteria on a piece of paper. As soon as a student is done, he/she must raise his/her hand; the teacher comes over to examine the solution and says whether or not her example fits what has been asked. Meanwhile, the rest of the class keeps on thinking on possible answers. The next step is to analyze on the blackboard the most repeated errors in the students' proposals, to finally go on to consider those that do correspond to the requested pattern.

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[2] An anonymous reviewer points out that it is important to offer more discussion (beyond just recognition) about this important part of the problem. We cannot do that here, as it would require an independent paper. All we can say is that teachers should never stop learning, which often requires going beyond what they usually do. These activities include consulting reference grammars, taking courses with specialists, attending conferences, keeping in touch with other instructors with similar problems, regularly visiting web pages or internet forums addressing grammar teaching, establishing a more frequent contact with university scholars, etc. It goes without saying that nothing of this is easy, but we see no way around it. Moreover, in most cases teachers should to do this by themselves, given that waiting for institutions to make the relevant changes is —we are afraid to say—wishful thinking. Thus, it is teachers, with their constant and 'stubborn' effort to improve, that hold the key to the kind of changes we believe are necessary.

Just like with direct analysis exercises, it is important that teachers have a rich and consistent background on grammar. Otherwise, they cannot immediately react to the solutions suggested by students nor answer their questions. As before, teachers will probably not get better at this exercise by studying more "didactics of grammar", but simply by studying "more grammar".

4.2.3. Ungrammatical sentences

The natural reaction by any speaker, whether or not a teacher or a linguist, when faced with an ungrammatical expression is to add what is missing or to remove what is left over so that it becomes grammatical. Obviously, the person who reacts this way shows that he/she is a native speaker of that language, but does not show that he/she has any knowledge of its grammar.

The point of this exercise is to refrain from correcting the sequence and try to operate as follows: "If we leave this anomalous sequence as it is, it will violate a principle or a generalization that could be formulated as follows: in language L, ..." .

Here is a very simple example: it is very easy to make the anomalous Spanish sequence **Prefiero que viajas a París* (Eng., 'I prefer you travel to Paris') grammatical. Instead of asking students to make this change, they are asked for a generalization of this type: "In Spanish, if the complement of the verb *preferir* is a subordinate sentence with a personal verb, it is constructed in the subjunctive." The generalization should be worded in such a way that it does not prevent the existence of sentences such as *Prefiero viajar a París* (Eng. 'I prefer to travel to Paris'), nor that of others such as *Prefiero un viaje a París* (Eng. 'I prefer a trip to Paris'). If the teacher deems it appropriate, he/she can extend the generalization so that students understand that it applies, as a whole, to the class of will verbs (*want*, *desire*, *yearn*, etc.), among others, since it is not a particular property of the verb *preferir*.

Like many other exercises, this one also admits degrees of difficulty. If the proposed example were **Vi a ella* (Eng. 'I saw her'), neither would students be asked to add what is missing, or take away what is left over, to make this anomalous sequence grammatical. Interestingly, there is no semantic anomaly in this sentence. A simple descriptive generalization could be this one: "In current Spanish, if a personal pronoun is

a direct or indirect object, it is also unstressed (then, clitic). The unstressed pronouns can appear duplicated by the corresponding tonic pronouns, with which they agree in gender, number and case".

We are aware that exercises of this type are difficult, but we also believe that they are designed so that students play, for a moment, at being grammarians. The generalizations they might construct will probably be partial, weak, or insufficient, but it is no less true that while they formulate them, they will be exercising their capacity of abstraction. Moreover, the effort they put into writing them will be an effort put into ordering grammatical factors and assessing their relevance; in short, it will be an effort to understand why things happen the way they do.

4.2.4. Minimal pairs

Minimal pairs consist of two sentences that are differentiated by means of a small change. There are two types of minimal pairs, depending on whether one of the two sentences is ungrammatical, as in (6), or it is not, but it display a remarkable change in the interpretation, as in (7):

(6)   a. I sent Mary a letter
        b. *I sent Paris a letter

(7)   a. John saw him
        b. John saw himself

Given the modality in (6), minimal pairs exercises are similar to those regarding ungrammatical sequences, to which they add a new variable. In the pattern in (6), the student must explain why the isolated factor does not affect the other member of the minimal pair, as happens, for example, in *I {bought / *disappeared} a car*. As in previous cases, grammar teachers must be able to handle the variables that intervene in each syntactic structure, which does not have to do exactly with their didactic training, but rather with the linguistic preparation prior to such adaptation. In the last minimal pair, it is obvious that the problem follows from the use of the intransitive verb *disappear*.

One of the main didactic advantages of minimal pairs is that they allow the sequence analyzed to be compared with a different one for which the analysis that we just used is not adequate. If a student tells us that the Spanish sequence *caída durante el fin de semana* (Eng. 'fall during the weekend') is a noun modifier in *lluvia caída durante el fin de semana* (Eng. 'The rain fallen during the weekend'), or even that it is formed by the participle *caída* (Eng. 'fallen'), from the intransitive verb *caer* (Eng. 'fall'), we could ask why we cannot say then *La gente sonreída durante la película de Woody Allen* *(Eng. 'People smiled during Woody Allen's film'), a sequence to which exactly the same analysis could be applied. As can be seen, the minimal pair strategy has a very active teaching / learning effect, since it openly raises questions about possible and impossible substitutes in particular positions, ultimately helping us to narrow down plausible generalizations. In this particular case, the teacher may choose to explain, in the way he/she deems most appropriate, that there is a group of intransitive verbs, generally called *unaccusatives*, which have properties in common with transitive verbs. In this paper, we just want to emphasize that the minimal pairs strategy constitutes a good didactic resource to make students notice the relevance of the distinctions that are to be introduced.

4.3. Taking stock (and more)

In the previous pages we have seen that, along with traditional grammar exercises (which often fall into two broad, and opposite, categories: commentaries and short-answer), we can introduce new activities that pose problems to students. They pursue two main goals: one is to show teachers and students that grammar exercises simply follow standard scientific practices: there are intended to reach generalizations, find regular patterns, make predictions, etc.); the other is to help them develop more general, non-linguistic, skills (observing, reasoning, providing arguments, thinking of counterarguments, learning to make generalizations and to identify gaps and overlaps in them, etc.) that are needed in almost any discipline, and probably, most professional activities.

Needless to say, the types of exercises we favor are compatible with the classical ones. So our message is inclusive: we should incorporate these exercises gradually, and

without dispensing with the other, best known, types, given that they are aimed at different —and equally relevant— targets.

5. Teminology in Secondary Education: Old and New concepts

In the preceding pages we have emphasized the idea that the teaching of grammar at the non-university levels has largely become a labeling task that is hardly stimulating. The problem sometimes extends to university levels, as noted in Bravo (2018), Bosque (2018a, b); Bosque & Gallego (2016, 2018). It is still surprising that, unlike what one finds in almost all other disciplines, the very concept of "analysis" does not go beyond, in our own, the mechanical identification of classes of words, phrases or sentences, as well as the syntactic function that these units perform. *Analyzing*, as we insist in those papers, should not be equivalent to "labeling", but to "exploring and dissecting in order to understand". Any analysis must allow us to derive, calculate or deduce the meaning of linguistic expressions, as well as explain why their meaning is what it is, rather than a different one. Crucially, in order to reach these naturals goals it is necessary to ask certain questions that are rarely asked among us.

No teacher of subjects such as medicine, zoology, astronomy, geography or even chess would be happy if their students were able to identify tissues, arthropods, quasars, isthmus or bishops without knowing the properties of these elements and their relationships with other units within the system to which they belong. Somehow surprisingly, both students and language teachers seem to be satisfied when there is a suitable label for each segment or each function, so that the labeling becomes the beginning and the end of the analysis, a rather strange state of affairs. It is thus forgotten that the goal of *analyzing*, we insist, is none other than to *understand* and *explain*, that is, to relate forms with meanings in a systematic, articulated and progressive way. When it seems that the desired label does not exist, or is not evident, things are forced to make one of the usual labels fit (very often, *circumstantial complement*, *nexus*, *particle, manner adverb*, *subordinate clause*, among others).

In this section we do not want to insist on the numerous limitations that this merely nominalistic attitude brings with it towards our object of study in High School

Education, despite the fact that it constitutes a conceptual difference that separates our subject from almost all other disciplines. Instead, we would like to focus on the grammatical concepts themselves and their appropriateness to the teaching of grammar at those levels of education. To simplify our exposition, which must necessarily be schematic, we divide these units into four groups, all referring to their role in such educational stages today—and, for expository purposes, we will concentrate on (8d):

(8)   Grammar concepts: a typology
        a) Traditional grammar concepts often applied and proved to be useful.
        b) Traditional grammar concepts hardly applied, but useful.
        c) Traditional grammar concepts usually applied, though hardly useful.
        d) Modern grammar concepts rarely applied that could be useful.

As said, here we will be largely concerned with (8d). Before that, some caveats are in order. In Bosque & Gallego (to appear) —where the typology in (8) is introduced, developed and discussed— we defend the need to establish a stable terminological perimeter for High School Education. Although we endorse the options chosen in the recently published *GTG*, we do not oppose any other solutions that converge on the need to update (as well as clarify and justify) a good number of terms and concepts. Second, we wish to support an applied approach to the study of language, where 'applied' refers to the need to demonstrate the assimilation of the contents in an active, practical, sensible, participatory and experimental way. This change of perspective can be carried out in several ways, including incorporating exercises that pose problems, as we discussed in the previous section, and contribute to the development of argumentative skills and the degree of maturity of students. Third, we wish to draw attention to the advisability of reconsidering the number and distribution of grammar contents that are exposed in the Secondary and High School textbooks (in Gil et al. 2018 a recent proposal in this regard is introduced).

Let us now focus on (8d), and let us do so by concentrating on the situation in Spain, which may differ in non-trivial respects from the one attested in other countries, as a reviewer observes. There are many contemporary concepts of grammar that have some

antecedent (either in the Hispanic tradition or in the structural linguistics of the last century), so it is not always easy to clearly distinguish between groups (8a) and (8d). Indeed, the notion of "thematic role" or "semantic role" can be considered modern, but the distinction between agents, patients or recipients, among other "semantic functions" is found in European structural grammar, in addition to being implicit in some traditional descriptions. This is not to say that we know exactly which of these labels corresponds exactly to each argument or adjunct of a predicate), but the notion itself is perfectly understandable by High School students. It is also, of course, that of "argument structure", which is naturally linked to the concept of "valence", typical of structural linguistics.

The labels chosen are much less important than the concepts they cover. Some teachers may prefer the "arguments vs. adjuncts" opposition, while others may understand that the "actants vs. circumstants" opposition is more appropriate. That is not the point. What is really important is that students understand that predicates select certain participants based on their lexical meaning, while they admit others (which express circumstances, such as mode, place, time, etc.), generally based on their aspectual properties. At the same time, certain complements, especially indirect ones, may be arguments, as in *Dio un libro a sus amigos* (Eng. 'S/he gave a book to his friends'), or may not, as in *Abrió la puerta a sus amigos* (Eng. 'S/he opened the door to his/her friends. This opposition has many consequences in the syntax, which may or may not be addressed in the classes once the distinction has been assimilated.

Group (8d) can be expanded in many other directions. It is not possible (or even appropriate) to bring to language classes all the discoveries and proposals that have been made in recent decades in the study of grammar. Granting this, it should be possible to explain, albeit in a simplified way, the main aspects of some domains, for example those of so-called "informative structure". The student will easily understand the difference in meaning that exists between *I read these books* and *These books, I read*. A key idea here is that the propositional meaning of the sentence is the same in both cases. What changes has to do with the way speakers package the information: in the first case, the NP *the books* is (part of) the focus (new information), whereas in the second one the very same NP constitutes a topic (old information), which admit paraphrases with "as for" or "as

regards". These notions are not totally absent from grammars and textbooks, but we have observed that reference to these important issues in classrooms does not often go much further than an allusion to the vague concept of "emphasis".

The concept of "scope", essential for many years in any analysis of expressions containing quantifiers and operators, is not usually explained in High School either. Surprisingly, this concept is absent from almost all grammar textbooks in Spain (and other Spanish-speaking countries, as far as we know). One of the risks of not operating with it is to substitute vague stylistic considerations for the grammatical analysis that would be necessary in many sequences that reveal it. Let us suppose that a teacher brings the following newspaper headline to class, from the *Diario de Pontevedra* (20-VI-2013): *Fallece por segundo día consecutivo una mujer de 103 años* "A 103-year-old woman dies for the second day in a row". It is possible that the language teacher does not know that the two senses of this sentence are derived from the effect of one quantifier over the other: when the expression *una mujer de 103 años* 'a 103-year-old woman' is interpreted with a smaller scope than *por segundo día consecutivo* 'for the second consecutive day', a "multiplicative reading" is obtained, as intended by the journalist who wrote the article. According to this reading, the sentence speaks of as many women as days. On the other hand, if the indefinite noun phrase receives the wide reading interpretation (the one perceived by readers who want make fun of the journalist or the newspaper), we get the absurd interpretation: a single woman dies in two consecutive days. In the absence of the concept of "scope", the teacher will surely limit him/herself to drawing attention to "the bad writing of some journalists" and to highlight the ambiguity that the headline undoubtedly contains. Consequently, there will be no relevant grammatical analysis. The concept of "scope" is also relevant to explain the difference opposing the members of many other pairs.

The notion of "light verb" is also unusual in the Spanish grammatical tradition. One of the consequences of this absence is the fact that the Academic Dictionary (DLE) continues to consider verb phrases such as *dar un paseo* 'take a walk' or *hacer mención* 'make a mention' as "verbal idioms", therefore analogous to *kick the bucket* or *cut the crap*. This assimilation has long been known to be incorrect. The components of light verbs have a certain syntactic independence (*the walk I took in the afternoon*), not shared

by VP idioms. Phrases constructed with light verbs also admit a double segmentation that is equally unfeasible in verb phrases. This allows us to say, in Spanish, *la mención que hizo el ministro a la crisis política* (Eng. 'the mention that the minister made of the political crisis'), and also *la mención a la crisis política que hizo el ministro* (Eng. 'the mention of the political crisis that the minister made'). Other differences between verbal phrases and light verb constructions in Spanish are added in Piera & Varela (1999).

Something similar could be said of inergative and unaccusative verbs (mentioned above), which belong to the traditional list of intransitive verbs (since they select for one argument), but displaying very different properties. It is not necessary to memorize which verbs are part of one class and another, since some formal tests make clear the main differences between them: unaccusatives can be part of absolute constructions (*Una vez llegadas las noticias* 'Once the news arrived'), they reject the passive in the current language (**Las noticias fueron llegadas* 'The news were arrived'), they admit participles as nominal modifiers (*Las noticias llegadas a nuestra redacción* 'the news arrived at our editorial office'), they accept the adverb *recently*, as transitive verbs do (*recientemente llegado* 'recently arrived'). Teachers and students may wonder what the use of splitting the class of intransitive verbs is. There are two main reasons. On the one hand, we are introducing concepts that have been in the field of linguistics for around forty years and about whose relevance has, as of today, unanimous consensus. On the other hand, we need to split the group of intransitive verbs (whatever name we give to each of the subgroups) for empirical reasons. Without this division we cannot explain simple contrasts, such as *la gente {nacida ~ desaparecida ~ *esquiada ~ *roncada}* (Eng. *the people {born ~ disappeared ~ *skied ~ *snoring}*, which involve participles of intransitive verbs, or explain why most newspaper headlines with postverbal subjects (in Romance languages) contain unaccusative verbs. This last argument is important, since it links aspects of the teaching of writing (therefore, instrumental skills) with relevant grammatical distinctions, a connection that is not usually explored.

One might perhaps argue that, if current dictionaries do not yet incorporate these notions (however widespread they may be in current linguistics agenda), teachers should not be required to explain them in their classes. They might belong —the argument goes— to the domain of research, not to that of High Schools basic notions. We

suggest that this hides a variety of what we have called "administrative attitude" towards knowledge that is becoming more and more widespread in education. This sort of response is not properly aimed at improving the goal of understanding the relevant phenomena or their transmission in the classroom. Curiously, what we call "administrative responses" does not deny the deficiencies we point out in the contents or analytical concepts that are usually handled, but rather justifies them by adducing current study plans, official curricula, excessive extension of the programs, textbooks that do not contain this information, different criteria of the coordinators of the official exams to access to University, or —quite simply— lack of time to update the knowledge of the subject. In any event, notable differences are perceived between teachers when assessing the relevance of these possible justifications.

As we see things, teachers are not responsible for the training they receive or how much updated the textbooks they handle are. In Bosque (2018b) it is noted that the school textbooks of Natural Sciences many years ago surpassed the classification of the three "kingdoms of nature" (animal, vegetable, and mineral) that some of us learned in our childhood, and replaced them by most current classifications. The natural question is why the units of grammar analysis are not updated in parallel, at least those that most urgently require some updating. The question remains unaddressed. Obviously, it is the authorities that should decide whether or not they consider it appropriate to address its relevance and give it a solution. Ideally, this should come through the different areas that would have to be coordinated, so that the changes are implemented in a progressive, solid and effective way: fundamentally official curricula, textbooks, master's degrees in teacher training and university entrance exams.

In addition to all this, the convenience of introducing some concepts of discourse grammar seems to us to be out of the question. Interestingly, some of those notions are already taught to students in Secondary School, but some of them do not have as clear boundaries as one would like in order to be able to apply them in the classroom. Others require a degree of abstraction for which we do not believe students are fully prepared. It is likely, for example, that the average high school student does not know what grammatical elements may or may not be antecedents of a reflexive pronoun. Strangely enough, neither teachers nor textbooks provide this information, but students

are likely to be required to know if that information is part of the "coherence" of a text or corresponds to its "cohesion", two key notions that seem to be all over the place in present-day discourse approaches to grammar in the Hispanic countries. On similar grounds, it is rather unlikely that a teacher of a Secondary School language class explains the notion of "associative anaphora" (an extremely useful and precise grammatical concept), but students will be required to face a text, literary or not, and decide what elements provide its "unity of meaning", and which ones contribute "its unity of argumentation". Students will probably not be asked to know the variants that an embedded interrogative can present, but they will be asked to decide whether a given text is narrative, descriptive, expository or argumentative, all on the (too unrealistic) assumption that it cannot be several things at once.

Some specialists in discourse linguistics may not share with us the idea that these notions are more complex than those mentioned in the preceding pages. In our opinion, if the limits between them are imprecise, as it seems to us, and the generalizations that can be made about their properties are also weak, it will be difficult for teachers to answer he students' natural questions about how to apply and develop them in the classroom.

As before, it is up to academic authorities to reflect on whether or not it is correct to advance more and more in length and less and less in depth, especially in cases where important details are (inevitably) lost in grammatical analyses. In our particular opinion, the relationship between forms and meanings is not better understood by jumping from phrases and sentences to long and complexly articulated discourses, unless the internal structure of the former is well understood. The opposite would be something similar to asking to analyze a symphony to someone who does not quite understand what we exactly mean by "the beats of a compass".

6. Conclusions

We have to stop here. In the previous pages we have tried to summarize, very schematically, the 'program' outlined in a series of papers (Bosque 2018ab, Bosque & Gallego 2016, 2018, to appear), where we advocate for a more up-to-date teaching strategy for grammar. Our proposals are worth nothing without the commitment of the

different parties involved—especially so, teachers and educational authorities. There are some ingredients we have tried to emphasize. Let us recall them briefly.

1) The first (and most important) one concerns the attitude towards grammar. We have defended the idea that grammar is not an object to use (in, say, writing or speaking), but a system to discover. Just like it happens in most natural sciences, students should be able to see that grammar obeys generalizations and has principles, some of which go beyond language. Needless to say, the change of perspective that we support requires of teachers a deeper knowledge of grammar, a knowledge fully compatible with the didactic resources and strategies that most of them have been acquainted with already. These strategies will be quite useful in the essential task of transmitting that knowledge to others. This implies that teachers should be ready to answer questions of any type, as well as encourage students to make them.

2) The second ingredient is more realistic, as it merely affects the type of exercises that we ask students to solve. In Bosque & Gallego (2016) we suggest that classical textbook grammar exercises should be complemented with a variety of problems that fosters students' ability to observe, make generalizations and predictions, evaluate hypotheses, provide (counter)arguments, etc. Crucially, these are both teaching strategies and standard practices in scientific research. We are aware that introducing these exercises may not be easy (depending on the teachers' training), but they constitute a great pedagogical asset, and it is part of that shift of attitude that is necessary to improve grammar teaching.

3) The final ingredient has to do with the intermediary role of terminology. Analyzing a sentence is not reduced to assigning labels or drawing trees, but to obtaining its meaning from its form in a systematic way. It also involves the simple question of why that sentences has some particular meaning instead of another (or instead of some absurd content). Students are used to take these connections for granted. In fact, it seems to us that too many courses implicitly convey the idea that students should take the world surrounding them for granted, and somehow assume that their main task consist in finding the appropriate name

for each attested phenomenon, or (at most) some of its historical causes. We have emphasized that terminological repertoires are sets of useful tools, not packages of ready-made answers. It is somewhat puzzling that notions that have been there ever since the 60s have not been incorporated into most textbooks. We are not referring to last-minute terminology, but to fundamental concepts like *compositionality*, *scope*, *anaphora* or *recursion*. Needless to say, it is not easy to decide which concepts should be incorporated and which ones should not. All we are saying is that the debate should be over the table, and right now it is not.

We hasten to add that none of these ingredients goes against teaching instrumental skills. We have too often witnessed that there is a tendency to confront the instrumental side of language classes with the more theoretical (grammatical) one. We honestly fail to understand why. Such a confrontation is not only tendentious: it is wrong. We believe that the more grammar teachers know, the more tools will be at their disposal in any writing, reading of speaking class. It is not immediately obvious to us how one can solve problems related to the semantic relation between words, agreement or the use of pronouns without knowing something about the grammatical structures in which these units occur.

We leave the discussion here, hoping that it ultimately will lead us into what we think should be our concern as teachers and members of a society. Either at High School or the University, the contribution of language teachers will be more fundamental as they are able to make their students improve, think, argue and judge by themselves, grow (intellectually), and come to understand a part of the world they live in, including their own minds.

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