

... Is Different From...: A Corpus-Based Study of Evaluative Adjectives in Economics Discourse

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Abstract—Economics discourse is now seen as characterized by intersubjectivity and interactivity, since economists take a stance by using lexico-grammatical elements and rhetorical features to build a convincing argument from a personal perspective, to attain solidarity with readers, and to claim social participation in the economics community. Evaluation and particularly evaluative adjectives are thus a crucial feature of economics discourse. Taking a qualitative and quantitative approach, this study explores, in a small specialized corpus, the functions of evaluative adjectives, their variation across genres and registers, and whether they are constrained by the specific domain of economics. Findings show that evaluative adjectives can adopt more than one function simultaneously, they vary across genres and registers, and that they are strongly constrained by domain. Moreover, given the need to use specialized language internationally, this study wants to build, especially in NNS economists, an awareness of the features which typify economics discourse and a better understanding of the crucial role evaluative adjectives hold when economists have to communicate critical perspectives while building their professional persona.

Index Terms—Economics discourse, evaluation, small corpora.

Economics discourse has been considered to be based only on factual knowledge, in which personal opinion or preferences and speculative imaginings have no place, and where reliability is founded on objectively proven knowledge. Impersonality, however, may also be seen as a form of self-protection from having to accept responsibility for one's research results. Indeed, as Gilbert and Mulkey claim, the recurrent formula "it was found that" can be viewed as a manner of moving away from oneself and making things appear as if they have just fallen into one's notebook before getting reported [1]. Over the last decade, though, the analysis of economics discourse has provided a different picture. Economists no longer report research and draw inferences from a series of events without showing their attitudes or committing themselves to their texts. On the contrary, their texts are marked by intersubjectivity and interactivity. In Hallidayan terms, INTERSUBJECTIVITY is concerned with the interpersonal as well as with the ideational macrofunctions in a text; with the intentions and the goals of the writer as well as with the meanings of lexico-grammatical items; with personal sense as well as with conventional reference [2]. Hence, interaction always involves the ongoing negotiation of all these aspects of the participants' individual and collective construal of the situation, of which the text they

produce is both the mediator and the trace. Thus, in written texts the participants communicate on the basis of what the writer assumes the reader knows and expects to find in the text because the process of reading is a matter of predicting what the text means, according to what the reader assumes the writer's purpose to be [3]. So, interactivity in this study may be seen as a result of actions of socially situated writers who use linguistic elements and social conventions to attain both an increasing social participation in their disciplinary community as well as the persuasion of the reader into accepting the constructed text [4]. Several scholars, Bondi [5], Hyland [6], Samson [3], [7], and Poppi [8], have shown that economics discourse, in research articles, textbooks, and lectures, is underscored by authorial authoritativeness, which plays an important persuasive role in claiming knowledge. Knowledge claims are never simply presented as a matter of fact but are expressed in argumentational form and have to be convincing, if they are to boost the academic prestige and professional credibility of the economist aspiring to be accepted by the disciplinary community [3], [7]. Given this, the acceptance of claims depends not only on their convincing form but also on the economist's internalization of the epistemological assumptions of the discipline, on his or her understanding of the rhetorical moves, which characterize the genre and that he or she is able to reproduce, and on the implementation of rhetorical metadiscursive devices to anticipate possible reactions on the part of readers. Therefore, on one hand, textual and interpersonal relationships are essential for a message to have an illocutionary effect (i.e., to be interpreted and to be understood because

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the message is related to the reader's reality) and a perlocutionary effect (i.e., to be accepted thanks to the convergence between the economist's intentions and the reader's interpretation) on the other, it is relevant for economists to be aware of the importance of employing rhetorical meta-discursive devices to avoid disputation and to anticipate possible difficulties of interpretation by taking a stance in their work [9].

STANCE has been defined by Hyland as "the way authors project themselves into their texts to communicate their relationship to subject matter and the readers, and the way their persona is socially defined" [10, p. 101]. The author's persona is construed by the linguistic choices the author makes when he or she conveys attitudes to the propositional material which reflects the degree of ego involvement associated with authorial identity and authority [11]. Along similar lines, Martin classifies stance as part of his Appraisal system, and defines it as the ways authors' evaluation, attitude, and emotions are expressed and managed interpersonally [12]. Thus, attitudinal values clearly constitute an essential feature of the way writers convey their knowledge and persuade disciplinary communities and readers with their claims. Stance, according to Thompson and Hunston, is part of a broad definition of evaluation, that is "the expression of the speaker's or writer's attitude or stance toward, viewpoint on, or feelings about the entities or propositions that he or she is talking about" [13, p. 5]. In other words, stance is expressed by the personal slant the writer wants to cast on the information he or she is giving, which implies committing oneself to the text and the readers, while carrying out a social and cultural activity. EVALUATION is also viewed as a process of contrasting and comparing something with a norm. Dressen, in particular, points out that "the very act and essence of evaluation itself can be seen as a manifestation of the community's normalizing process" [14, p. 274]. So, when an economist says something is good or bad, or likely or unlikely, he or she is making a personal judgement by, implicitly or explicitly, referring to norms of common cultural ground and attempting to persuade the reader to accept his or her point of view while perhaps constructing a new norm [15].

Thus, evaluation can be defined as subjective, value-laden, and comparative along parameters which often intertwine giving way to a complex scenario. As Samson claims, in written economics lectures, economists are engaged in evaluating knowledge by taking a stance simultaneously on different discourse planes with various functions (i.e., the pedagogical, the professional, and the self-promotional) [3]. Such roles and functions are related to the use of different interpersonal metadiscursive devices, that is, person markers—in particular, personal pronouns and possessive adjectives—which reflect the way and the

extent the writer wants to involve and persuade the reader. This overlapping of functions may be defined, as Samson argues, as characterizing a "mixed" genre in which disciplinary boundaries are blurred and communication takes on multiple purposes [16], [17]. In other words, the lectures are text types in which current knowledge is negotiated through contested perspectives and, thus, they stand on a cline between academic (research articles and economics textbooks) and promotional genres wherein the pedagogical role of the economist is as important as his or her professional and self-promotional ones. The various roles played are therefore, on one hand, an important aspect of authorial presence in the lectures; on the other, they are a clear signal of the perspective from which economists want the reader to interpret their statements. By indicating a perspective, the economists express their attitude to what they say in their texts. It is within this framework that this exploratory study, as part of an Italian interuniversity research project on Academic Discourse: Genre and Small Corpora, sponsored by the Italian Ministry of University and Research, aims to analyze the use of evaluative adjectives, at a lexico-grammatical and patterning level, which can affect the ideational meaning and the impression made on readers while economists convey their knowledge. In this way I hope to shed light, on one hand, on what may be considered an overlapping of evaluative and metadiscursive dimensions, that is, the metadiscursive devices used at a textual level (i.e., the linguistic elements that show how the text is organized, or that refer to the text itself such as *first*, *second*, *as mentioned earlier*, *in sum*, etc.) and metadiscursive devices used at an interpersonal level (i.e., the linguistic elements which show the writer's attitude to what is said in the text by the use of person markers, hedges, boosters, etc.). On the other hand, I hope to shed light on the possible constraints of the discipline (economics) on the lexico-grammatical choices which can underline what written economics lectures have in common and/or are different from other genres and registers. Furthermore, the insights of this study could not only contribute, especially in NNS economists, to an awareness of the features which typify economics discourse but could also help to improve their understanding of the significant role evaluative adjectives hold in communicating critical perspectives while building their professional persona.

EVALUATIVE ADJECTIVES

In adjectival constructions the noun is modified by an adjective and the modification can be attributive or predicative. The former is usually used wherein the adjective is a premodifier, whereas in a predicative adjectival construction, as in "X is Y," the writer is projecting him/herself in the text and is responsible for the evaluation [18]. It is the latter I focus on in this study.

Evaluative adjectives are a resource employed by economists to express their attitude, their evaluation of propositions, methods, results or points in the texts, and have been classified in several ways. For instance, Vande Kopple [19] and Hyland [20] refer to them as devices that express economists' affective values and their attitude toward the propositional content and/or readers while taking a stance. Conrad and Biber regard them as part of stance [21], a cover term comprising both an epistemic and an attitudinal position for the expression of personal feelings and assessment. Crismore et al. term them attitude markers referring to something considered important, concessions, agreement, and disagreement [22, p. 53]. Similarly, Chafe includes attitude markers in his taxonomy of evidentials to explain the expression of a speaker's attitude toward what is said and his or her evaluation of its reliability [23]; Martin within his Appraisal system encompasses all evaluative uses of language [12], including those by which writers adopt particular value positions or stances and by which they negotiate these stances with either actual or potential respondents. Evaluative adjectives in his subsystem of attitude comprise those meanings whereby texts attach an intersubjective value or assessment to participants and processes by reference either to emotional responses or to culturally determined value systems. In fact, in written economics lectures where knowledge is assumed to be construed by texts, writers engage in a succession of alternative positions by "acknowledging," "disclaiming," and "proclaiming" propositions as part of their rhetorical strategy. This argumentation has been defined by Barton as problematization (i.e., that a prevailing assumption, idea, view, or situation needs re-examination, re-conceptualization, or re-evaluation of some kind) [24]. To disclaim alternative positions and proclaim their own, writers need to state their attitude and opinion toward propositions that highlight the "lack of knowledge" and/or "incorrect knowledge" of an opponent's work or theories or of findings not completely accepted or not viewed as consistent. From the foregoing discussion, it is evident that evaluation and more specifically evaluative adjectives are a crucial feature of discourse. The scrutiny of evaluation has comprised written and spoken academic genres, particularly research articles, textbooks, and spoken lectures, but little attention has been bestowed on evaluation in written economics lectures [9], [10], [15], [25], [26].

The objective of this study is to explore how evaluative adjectives may adopt a double function: they may be both evaluative and/or metadiscursive in the interpretation and acceptance of economic knowledge while the economist attempts to gain more or less solidarity within the disciplinary community. Borrowing Thompson and Hunston's distinction of the functions of evaluation [13], which comprise reflecting

the value system of the writer or of the disciplinary community, constructing and maintaining relations between writer and reader, and organizing discourse, the questions I will address in this study are: (1) what are the functions of evaluative adjectives in written economics lectures; (2) are there any differences between evaluative adjectives implemented in written economics lectures and in other genres and registers; (3) are evaluative adjectives constrained by the specific domain of economics?

DATA

The data consist of a small specialized corpus of about 130,000 words where, following Partington [27], I compiled: (1) a corpus of a single-text type in which not only the texts themselves but also their production, reception, and contexts take place in a relatively constant way; (2) a corpus for special purposes according to the object(s) of the research, which in the present case focus on rhetorical strategies and on the use of evaluative adjectives in written economics lectures; (3) a corpus containing a specialized subvariety of the language (i.e., written economics lectures as a variety of economics/academic discourse). The data collected consist of ten written economics lectures on macro and micro economics that exemplify academic discourse in this field [28]–[32]. The topics of the lectures comprise economic theories, models, and their evaluation by five contemporary economists from the Massachusetts Institute of Technology (US). The lectures were originally presented in their spoken form in front of audiences at the universities of Oxford and Cambridge (UK) between 1994 and 1997 and were successively expanded and divided into chapters in their written form for publication. Their target readers are professionals and graduates with a certain maturity in the field of economics, as stated in the introduction to each volume. These specific lectures were chosen for their availability in the library of the Faculty of Economics at the University of Florence, Italy, this being an indication of their inclusion in academic curricula. The lectures were also selected on the basis of their authors' professional prestige: all are renowned contemporary European and American economists.

As mentioned, the corpus was designed to serve the specific function of being maximally representative of the particular language domain. In the case of specialized corpora, as Leech argues, to focus merely on size would be naive [33, pp. 10–12]. What matters in a corpus collected for a particular genre is not its size but its adequacy in representing the genre. This is because, as Ooi claims, the major properties of a genre can be known after a certain **threshold** of words instantiating specialized language is reached [34, p. 179]. For instance, a corpus of 30,000 words can exemplify a specialized corpus which has

been compiled to offer insights into the form and function of business English. The threshold is not a defined number of words, but it depends on the genre and on the size that can be reached when the collection of more texts sheds light on its repeated lexico-grammatical or discourse patterning [34].

METHODOLOGY

In this study, the analysis of the corpus was undertaken by blending a qualitative and quantitative approach. The analysis followed several steps, beginning with a qualitative analysis of all the texts, followed by a computerized compilation of the corpus, then by a quantitative search and a contrastive analysis with other corpora: a portion of the MICASE corpus and a corpus of academic writing.

As a first step, because of the relatively small dimensions of the corpus, I could undertake a close reading of the whole texts. This is useful because it allows a more detailed look at the texts, taking into account single words as well as strings of words, considering their collocations. Moreover, a small specialized corpus is more homogenous than many large corpora, and consequently it can be more quantitatively interesting; in other words, it can contain more occurrences of a word that assigns the texts to a genre. A case in point is the analysis of the functions of evaluative adjectives in the economics lectures. By contrast, with multimillion word corpora all this is more difficult since their source might be uncertain and because, as Webber argues, large corpora can help to provide a better idea of general language norms, whereas small corpora provide adequate documentation of the features under scrutiny [35].

Hence, by reading the texts, I acquired an overall sense of the written economics lectures, then examined their general rhetorical structures, and reached some intuitive and impressionistic distinctions about the diverse incidence of certain lexico-grammatical features to be confirmed or disproved by successive empirical research. In particular, I observed that evaluative adjectives were used extensively throughout the texts but that their usage occurred more in certain parts than others of the lectures. I assumed they might be related to a metadiscursive function on the part of the economists who, by implementing adjectival evaluation, aim at underlining what they consider relevant not only at a textual level but also at the level of their particular value systems and that of their scientific community.

As a second step, the volumes containing the lectures were scanned, computerized, and formed a corpus of approximately 130,000 words. As already mentioned, in using specialized corpora, the primary aim is not size but the possibility of studying language variation

across genres and/or registers within a discourse area.

As a third step, the corpus was processed with Wordsmith Tools, a suite of programmes for language analysis, in order to obtain a wordlist and a frequency list to point out certain features of interest [36]. These were successively analyzed through concordancing to highlight recurring patterns. As McEnery and Wilson point out, quantitative methodology is considered suitable for frequent phenomena, since it allows us to discover which phenomena are likely to be genuine reflections of the behavior of a language or variety and which are merely chance occurrences [37]. Looking at a single language variety allows one to get a precise picture of the frequency and rarity of particular phenomena, and thus their relative normality or abnormality, their typicality or individuality/uniqueness, borrowing Sinclair's argument [38].

In the wordlist and frequency list, I decided to focus on evaluative adjectives with a positive value and adjectives with a negative value. Following Hunston, I use the term VALUE to refer to that aspect of evaluation in which the value's positive and negative are ascribed to an entity [39]. Value can be assigned explicitly or "evoked" by a text, but what counts as positive or negative depends on the bases of value-assignment available to a given discourse community. Evaluative adjectives are, therefore, an important indication of the economist's emphasis on his or her views as an alternative or divergent viewpoint from the rest of norms of the economic community. Moreover, the purpose of my focus was to compare the types of evaluative adjectives in written economics lectures with the results of a survey carried out by Swales and Burke on evaluative adjectives in corpora of different genres and registers [40]. Swales and Burke investigated evaluative adjectives in a portion of the MICASE corpus (71 speech events totalling about 800,000 words, all recorded and transcribed since 1997) and a corpus of academic writing (80 research articles amounting to about 484,000 words) which gave way to a broad taxonomy of evaluative adjectives (*central, important, main, major, peripheral, relevant, serious, unimportant, marginal, crucial, essential, fundamental, trivial, irrelevant, key*) suggesting that adjectival evaluation prevails in spoken register, though the two genres did not contain adjectives quite as polarized as they had hypothesised.

CORPUS ANALYSIS

As mentioned, the quantitative analysis of the corpus began with a wordlist and frequency list to identify the most frequent adjectives and to verify whether their typology is distinguished from those that emerged in Swales and Burke's contrastive analysis of MICASE and a corpus of research articles [40]. The frequency

count revealed the use of a high number of adjectives with a positive and a negative value, the type defined by Swales and Burke as centralized relevance markers, that is, adjectives/markers occurring in an intermediate position along a continuum which has negative and positive relevance markers at its polar opposites. Table I reveals the most frequently used adjectives with a positive and negative connotation on which I focused and which represent a novelty compared to previous findings by other scholars.

TABLE I
MOST FREQUENT CENTRALIZED EVALUATIVE ADJECTIVES

Tokens	Freq. per 100,000 words
<i>different</i>	178
<i>steady</i>	163
<i>central</i>	102
<i>optimal</i>	82
<i>important</i>	69
<i>clear</i>	53
<i>efficient</i>	49
<i>simple</i>	46
<i>relevant</i>	30
<i>inefficient</i>	20
<i>significant</i>	23
<i>interesting</i>	18
<i>indifferent</i>	18
<i>useful</i>	17
<i>ambiguous</i>	15
<i>bad</i>	15
<i>attractive</i>	12

A case in point is *different*, which is not in Swale's and Burke's list, but which emerged as the most frequent evaluative adjective in the economics lecture corpus. The collocational patterning of *different* reflects the way economists discuss theories or processes in their texts by underlining the different approaches that emerge in the creation of hypotheses. This signalling is essential in helping the reader to understand the message. Using concordancer, in order to investigate the collocational patterns, the most frequent three-word cluster with *different* obtained was: *is different from*. The most recurrent pattern was therefore:

VERB + ADJ + PREP

where the function of the adjective is to give a subjective judgment about something that is considered dissimilar to something else, and the contrastive evaluation is stressed by the preposition *from* that follows, as in example (1):

- (1) *The Arrow-Debrue general equilibrium model looks very **different from** the Hicksian ISLM model.*

Different in the dispersion plot crops up mainly in the middle and end sections of the texts where the close reading of the lectures showed that economists create hypothetical worlds to discuss, compare, and express an opinion on theories, models, etc. Thus, in these sections the economists project themselves into the text on a referential and attitudinal plane which make their position evident as the primary expert and guide to the reader through the text, as in examples (2)–(4):

- (2) *The relevant wage for firms however is the product wage. Fig. 2.4 gives a rather **different** story from Fig. 2.3 where the product wage has increased in four out of five countries [...]*
- (3) *The status quo point in the contract renegotiation is therefore quite **different**. To put it very simply, if Fisher is a separate firm, Fisher management can threaten to make [...]*
- (4) *[...] I consider my vocabulary **different** since my purpose is **different**. In arguing for modeling in explicit time, I do not mean that every aspect of resource allocation needs to be explicitly modeled in time.*

Different collocates with particular features of the cognitive tools of research being discussed (*models, settings, levels*) as can be seen in the examples below in which, as Hunston points out, adjectives can have a retrospective evaluative value if they follow a deictic, that is, pronouns that refer to chunks of discourse containing evaluative adjectives, with an anaphoric function in a pattern of the type [39]:

THIS + VERB + ADJ

The retrospective evaluative value of the adjectives also have the function, as Francis states, to facilitate the reader's interpretation of a text, since the skeleton of the structural scheme is revealed by signals that function as signposts, enabling the writer to organize the information and to form an intelligible picture of the relationship between any particular idea and the argument as a whole. Anaphoric nouns can thus be considered interactive organizational signals which the writer uses to talk about the ongoing discourse metadiscursively [41].

In addition, Hunston claims that evaluative communication is reinforced by the use of modals with the anaphoric element, as in (5) when the economist aims at signalling the salient point in the text by typically using metadiscursive phrases (6) containing discourse deictics [39], that is, a pronoun or an expression which refers to a portion of the discourse that contains the utterance or other ways in which an utterance signals its relation to the text [42, pp. 85–6]. These have the function of helping readers to judge which information is worthy of attention while influencing readers' interpretation:

- (5) This would give **different** benchmark levels of output (*Y*) in **different** settings, with short recessions. . .
- (6) ...1.7 after four quarters, and remains equal to 1.7. This approach leads to a very **different** description of movements in GNP. Movements in GNP result from the accumulation of shocks . . .
- (10) ...a shift in demand, etc. In contrast, in a world of incomplete contracts, public and private ownership **are different**, since in one case the government has residual control rights over the firm's assets, while in the other . . .

The combination of these elements gives way to an overlap of the two planes, the metadiscursive and the evaluative, which in written economics lectures, recalling Hunston's reference to relevance markers, may be termed reader oriented relevance markers to underline the pedagogical metadiscursive function of evaluation [39]. As we can see, it is not sufficient for the economist to organize the material into a textual form, but he or she must also indicate or signal to the reader the status and/or discourse function of individual parts of the text, in order to make propositional material explicit to the peer reader and/or student.

Interestingly enough, none of the occurrences of *different* match the patterns Hunston and Sinclair suggest for a local grammar of evaluation from their analysis of the Cobuild Bank of English corpus [43]. Some of the patterns they refer to are shown in Fig. 1.

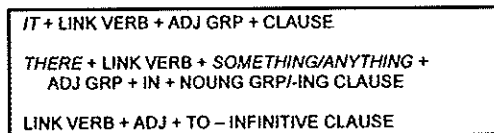


Fig. 1. Local grammar patterns [39].

In the economics lectures corpus, the lack of patterns matching Hunston's and Sinclair's local grammar suggests, once again, how specific linguistic features typify economics discourse, hence the genre, and are associated with a particular kind of meaning. Consequently, *different* is used to construct knowledge while choosing to present one's ideas as a problematization of a topic when re-examining, comparing, re-interpreting, discussing, and challenging existing data. In doing so, economists attach a value to the outcomes of research without necessarily criticising directly previous researchers. This can be seen in examples (7)–(10):

- (7) ... I suspect the relationship between the seasonal pattern of earnings and the seasonal pattern of spending is **different from** the relationship between their cyclic counterparts. It would be interesting to examine . . .
- (8) Like Marshall, Kreps identifies three different models, although his trichotomy **is different from** Marshall's. We imagine that firms begin with some initial levels of factor inputs, so . . .
- (9) ...to prove that an increase in government spending reduces the national debt. The right interpretation **is different**. If the government decides on a higher state level of spending with the same state . . .
- (11) ...of sophisticated securities does not detract from the main theme of this chapter: that debt has an **important** role in constraining the behavior of self-interested management.
- (12) ...surveys of firms for Russia and the new Republics show that shortages have typically played a more **important** role there than in Central Europe.
- (13) ...apply to a moderately wide range of (short) lengths of time. However, in the fourth equation, we have a **significant** role for errors in forecasting the price level. If prices move slowly, then we would not expect. . .
- (14) The contemporaneous correlation between innovations in GNP and each component is large and **significant**; correlations between innovations in GNP and innovations in each component one period later and one period

The examples above show that *different* is used not only to evaluate and compare past and present disciplinary knowledge and/or to signal incorrect knowledge, claims, but also to underline the economists' competence and authority which enables the reader to pick out the most meaningful issue. This overlapping of evaluation and metadiscourse is, furthermore, used to create a niche wherein to introduce and reinforce the economists' new views within the discipline's value system with the aim of influencing positively the scientific community.

But this was not the only difference to emerge from the analysis of the corpus. Other adjectives such as *important*, *significant*, and *interesting*, which account for 62% of the total number of relevance adjectival tokens in Swales's and Burke's study, are instead in 5th, 11th, and 12th position in the economics lectures corpus [40]. The reason for their relatively sparse frequency might lie in the fact that they are used to evaluate more generic points in the study at hand or the procedures involved in carrying out analyses, or to moderately praise a method of research, not to stress the contrasting value of, for instance, equations or statistical figures. Similarly to *different*, the adjectives *important*, *significant*, and *interesting* collocate, in the dispersion plot, in the central and final parts of the economics lectures with tokens such as *part*, *role*, *ways*, *differences*, *effect*, *feature*, *idea*, *issues*, *benefits*. But, unlike the adjective *different*, they refer to differences in more generic terms which belong to the "real" world and could well belong to other fields than economics, as in examples (11)–(16):

earlier are smaller but also **significant** (except in one case)...

- (15) ...relating to the ISLM model and referring to the entire economy. That is, there is interesting research about pieces of explicit-time models that relate to the ISLM...
- (16) ...economy to be included in the model. One can proceed this way. But, I suspect **interesting** things can also be learnt by trying to proceed in a more integrated way...

Other findings suggest further differences between the corpus of economics lectures and the Swales and Burke findings on polarized relevance adjectives, that is, adjectives referred to relevance at extreme points along a continuum, with strongly negative adjectives at one end and strongly positive ones at the other [40, p. 5]. In the lectures, only two adjectives related to extreme values are used: *marginal* (80 occurrences) and *best* (48). Their limited use suggests, as for the previous adjectives discussed, that the economists do not tend to mark their propositions dramatically, when writing up their lectures for publication, but rather comply with the norms of the disciplinary community, which require more balanced forms of expression that characterize written academic texts than transcribed oral data, such as the MICASE corpus contains. Furthermore, these adjectives seem to be restricted by the contextual constraint, as they collocate with tokens such as *sales, return, costs, rates, liquidation, value, product, goods, utility, investment, outcome, price, way, policy, problem, situation*, which are all related to micro or macro economics models and theories discussed and evaluated in the texts of the corpus. Balanced evaluation is also reflected in the paucity of adjectives bearing a negative meaning—Swales and Burke classify them under *assessment*—as for instance *inefficient* (20) or *bad* (15) which are “imbued” by their collocates (*mediocre, inefficient, liquidation*) as in examples (17) and (18). Similarly to all the other adjectives in the corpus, they undergo contextual constraints:

- (17) *a firm which mostly produces mediocre state goods, is clearly **inefficient***
- (18) *debt is **bad** because it may cause inefficient liquidation*

Furthermore, the frequency list revealed the use of adjectives of the type Swales and Burke categorize as *size*. The few emerging in the written economics lectures corpus are shown in Table II.

According to the findings of Swale's and Burke's study, evaluative adjectives of *size* are more likely to occur in spoken discourse than in writing, since colloquial, idiomatic, and generalized evaluations seem to characterize the former than the latter. However, the use of adjectives of *size* in the economics lectures corpus suggests there may be

traces of spoken discourse in the lectures resulting from the projection of the economist in the text (19) attempting to interact with the reader while enhancing the argumentative aspect of discourse by using *wh*-questions, as in example (20). These examples contain both cataphoric and interactive features which enhance or postpone the discussion of the topic or suggest the possibility of taking another perspective and approach into consideration, as can be seen in (21). In example (21), *small* is used as a vague quantifier, since the economist instead of providing an exact figure, which would be irrelevant in this specific point of the text, uses an adjective with a vague sense [44].

- (19) *Only government spending matters. This has a **strong** implication.*
- (20) *Why was the proportion of hirings from employment relatively so **high**?*
- (21) *Employment is usually slightly positive but often statistically insignificant. There is a **small** but consistent negative correlation ...*

What emerged from the overall analysis and in particular from concordancing, which was undertaken several times, was the difficulty in determining which adjectives expressed not only the attitude of the economist toward his proposition but also contained a metadiscursive function that is, adjectives that highlighted the importance of a specific point or part of the text for the reader. Very often, the two **planes** that Hunston distinguishes in written discourse, the autonomous plane which involves evaluation of the content and the interactive plane that refers to the evaluation of a part of the discourse, are not clearly distinguishable as in example (5). [39]. Nevertheless, when the economist explicitly interacts with the reader a textual or interpersonal metadiscursive device is implemented in the form of discourse deictics, person markers or deictics (I/WE), modals, etc. Thus, I argue that written economics lectures seem to share some of the features Christie highlights in pedagogic discourse, that is, the notion of different registers operating within them: the regulative and the instructional, which traditionally characterize textbooks [45]. The regulative register refers to language choices which are involved in establishing goals for teaching and learning activities and with fostering and maintaining the direction of the activities for the achievement of the goals. In written economics lectures, this is reflected in the

TABLE II
SIZE-EVALUATIVE ADJECTIVES

Tokens	Freq. per 100,000 words
<i>high</i>	119
<i>small</i>	67
<i>strong</i>	21

use of different forms of metadiscourse to guide the reader through the text. The instructional register refers to language choices in which the knowledge and the associated skills being taught are realized [45, p. 137]. In the lectures, this is associated with the use of specialized lexis which is necessary for the development of economic topics. In the relation between these two registers, the regulative/pedagogic discourse projects the instructional discourse of knowledge. Similarly, in written economics lectures, what is "said" is reinstated for pedagogic purposes first by identifying problem areas, and second, by representing scientific procedures which play a major role in drawing a map of the discipline, but also third, by enhancing the value of one's research in the academic world and implicitly in the professional world, as in example (22):

- (22) *In seeking to explain the interactions among output, employment, and capital accumulation, we shall for the most part take as given the long-term movements in multifactor productivity.*

Both the figures and the data we have presented emphasize the most important fact of modern economic history: persistent long-term growth. But, as the large fluctuations in Fig. 1.1 to 1.4 make clear, this growth is far from steady. [...] Our goal is to know, for example, how long typical recessions or expansions last, whether fluctuations in output are largely transitory or largely permanent [...]

The economist before making his claim acknowledges the validity of existing explanations on movements in productivity. Through the implementation of figures, he emphasizes the particular fluctuating nature of growth to then proceed to a detailed re-examination of the issue according to his set out goals. This implies the need, on the part of the economist, to determine the features of the issue investigated by proclaiming and showing the superiority of his knowledge. In this instance, we see how evaluation pervades long stretches of text and creates a mood or tone with the use of adjectives (*important, far, steady, typical, transitory, permanent*) and metadiscursive devices (*we, shall, but, figures, our*) so that the economist can promote his ability in academic argumentation and make his message understandable to readers.

FINAL REMARKS

In sum, it seems that the use of evaluative adjectives in written economics lectures has a twofold function: to interact with readers by underscoring the crucial points in their texts and to promote the economists' findings by asserting that theirs is a correct interpretation of the topics. What is interesting is the high number of evaluative adjectives that emerges from the quantitative data and the variety of syntactic

forms they co-occur in, thus revealing a complex world of economics discourse created by a partial overlap between evaluation and metadiscourse. Evaluative adjectives seem to be present throughout the lectures but with a major concentration in their middle and conclusive parts where comparison plays a major role. Moreover, unlike spoken corpora, as reported by Swales and Burke, the discipline seems to influence the choice of the adjectives and their use in that the economists tend to be reserved in their laudatory and disparaging lexis as Hyland suggests, in order to comply with the norms of the scientific community [6], [40]. Hence, the lectures are characterized by a choice of balanced, "centralized" adjectives clearly constrained by the topics and by the norms of the discipline. Another point to note is the similarity between the rhetorical and lexico-grammatical features used in the written lectures and in research articles, which confirm previous findings where the lectures appear to be a "mixed" genre [16]. This feature is essential to understand how important specific types of attitude and comments on economic concepts are in a community that requires moderateness in order to be accepted as its member. Moreover, I believe these findings to be beneficial particularly for NNS economists, who can thus develop an awareness of the norms of the disciplinary community which influence linguistic choices and recurrent patterning which characterize written economics lectures as a genre. In addition, a better understanding of how economists evaluate knowledge can reinforce NNS economists' ability to use evaluative adjectives more effectively.

To conclude, I would like to briefly stress also some pedagogical implications offered by the use of small specialized corpora in this study. Small scale analysis of specialized corpora could affect directly and positively the language needs of foreign language students who, due to expanding globalization, require wider information on language use in different genres. Thus, research carried out in corpus linguistics would be of even greater value if transferred to the classroom, especially in a reduced-context environment of specific knowledge domain such as economics. The use of small specialized corpora would allow, on one hand, to refer to full texts, on the other, to increase awareness of the lexical environment surrounding economics discourse, the use of single lexical items, their frequency, and how lexis and collocations typify genres. In addition, access to real data would improve students' knowledge of fixed collocates in economics and of the lexico-grammatical patterns which correspond to specific choices on the part of the economist with the attempt to claim his or her knowledge in the community.

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