ISSA Proceedings 2014 ~ Current Trends In Educational Research On Argumentation. What Comes After Toulmin?

Abstract: Although many education researchers exclusively use Toulmin´s model, more and more scholars opt for other Informal logic tools, such as dialogue models or argumentation schemes. The present paper describes this tendency of slowly moving from Toulmin to other models and gives a narrow focus to those articles that use other argument models than Toulmin´s to analyze and assess students and/or teachers´ arguments. As a final contribution, we provide a taxonomy of argumentation tools used in educational research in relation to a number of variables such as type of task, age of participants, disciplinary subject, and main skills assessed as significant.

Keywords: argument analysis and assessment, education, skills, taxonomy, tools, Toulmin.

1. *Introduction*

Since the early beginning of the informal-plausible logic theories as a counter-balance to the existing formal-deductive ones, scholars from the informal logic field have made suggestions on how argumentation should be instructed, or what is important when teaching argumentation (e.g. Voss & Means, 1991; Voss, Perkins, & Segal, 1991). In its almost 50 years of existence, if we consider Kahane´s ¨Logic and Contemporary Rhetoric" (1971) as the first official informal logic manuscript as proposed by Johnson (2000), informal logic has expanded into many schools of thought, especially regarding how informal arguments should be analyzed and assessed. Among them, we distinguish the following for their applicability in education research and practice: dialogue analysis, which focuses on argument as a dialogical process taking place in a specific dialogue context in which participants make a series of "moves" forming strategic sequences or even a dialogue game (e.g. Felton & Kuhn, 2001; De Vries, Lund, & Baker, 2002; Felton, 2004; Mcalister, Ravenscroft, & Scanlon, 2004; Prakken, 2005); argumentation schemes, which is a device that aims to formalize (in the sense of

giving structure to) everyday arguments mostly related to plausible reasoning (e.g. Walton, 1996; van Eemeren & Grootendorst, 2004; Walton, Reed, & Macagno, 2008; Rigotti & Morasso, 2010); and dialectics and pragmadialectics, which apply in conflict argumentative contexts where one of the opposing views is more sound or acceptable than the other(s) (e.g. Barth & Krabbe, 1982; Walton & Krabbe, 1995; van Eemeren & Grootendorst, 2004).

Notwithstanding the plethora of informal logic tools and methods of analysis and assessment proposed, there is a remarkable tendency among educational researchers to apply Toulmin´s Argumentation Pattern (TAP) as it was proposed in the late fifties (Toulmin, 1958). TAP´s main original contribution was to oppose to the mathematical standards in logic at the time. From an informal logic perspective, TAP is still considered an acceptable method, as several contemporary authors have successfully addressed questions that Toulmin´s model had provoked (see Hitchcock & Verheij, 2005, for an overview). In the field of education, some of the reasons for its predominance are the following: a) its strong connection with science and scientific reasoning (Duschl & Osborne, 2002); b) its success in coding large data protocols (Voss, 2005); and c) its easiness to use as a measurement of both teaching and learning performance (Erduran, Simon, & Osborne, 2004). On the other hand, TAP also received several criticisms, such as: a) the model concentrates on the proponent (Leitao, 2000), b) it can be difficult to structure reasoning in real time (Simon, Erduran, & Osborne, 2006), c) we should study argumentation in a more holistic and emergent manner rather than imposing an existing analytical pattern such as TAP (Sampson & Clark, 2009), and d) the scheme is restricted to short arguments and the categories impose ambiguities (Kelly, Druker, & Chen, 1998).

The goal of this paper is to provide a reflective overview of educational research in argumentation, and to identify any existing trends in terms of tendencies of preference towards one tool of argument analysis and assessment or another. More precisely, we seek answers to the following questions:

1. Is there a correlation between the use of one tool of argument analysis and assessment or another and the study´s characteristics such as date, design, focus, and variables?
2. Can we discuss about an evolution in the tendency of educational research in the field of argumentation skills?

2. *Method*

The data collection was based on both preliminary and secondary sources. Among the first, the databases of Wiley, ScienceDirect, and Springer were used. We also identified some primary journals focusing on the subject of argument and education. Among the secondary sources, three reviews were of special interest to our goal and questions, namely Clark, Sampson, Weinberger & Erkens (2007), Nussbaum (2011), and Rapanta, Garcia-Mila & Gilabert (2013). Further details for both types of sources are provided below.

The criteria for preliminary articles´ selection were the following:

a. Peer-reviewed articles published in scientific journals related to argument and/or education with an explicit focus on argument skills and their enhancement or analysis through concrete interventions and/or methods which lead to the presentation of concrete results regarding the quality of arguing of different age participants in the field of education;

b. Clear dependent variables assessed in sufficient ways and related either to concrete independent variables, in case the study is experimental, or to influencing factors or task characteristics in case the study is non-experimental;

c. Exclusion of studies entirely focusing on outcomes of arguing such as collaborative learning or problem solving.

Finally, we reviewed 73 scientific articles published from 1985 to 2013 with an explicit focus on argument skills enhancement in education. The goal of the review was to give answers to the two research questions mentioned in the introduction.

Three secondary sources were also used in order to better contextualize the observations based on the preliminary review results presented in the next section. Clark et al. (2007) reviewed frameworks for analyzing online dialogical argumentation, and they came up with five most predominant types of focus regarding argument analysis:

a) formal argumentation structure,
b) conceptual quality,
c) nature and function of contributions within the dialogue,
d) epistemic nature of reasoning, and
e) argumentation sequences and interaction patterns.

Toulmin (1958) appears as contributing only to the first focus-criterion of argument analysis and assessment. Rapanta et al (2013) reviewed 97 studies in order to describe how argumentative competence is conceived by educational researchers. They propose three general conceptions of argument, as form, as strategy, and as goal, and three main levels of argument assessment, namely metacognitive, metastrategic and epistemological. Among the findings, TAP is used by more than two thirds of the total studies that define argument as form and mainly when the task is written argumentation, showing its strong connection with structural elements of argumentation. On the other hand, when the focus of the study is argument strategy or goals, TAP is hardly used. Last but not least, in his recent essay Nussbaum (2011) argues that other frameworks of argumentation rather than Toulmin's may be used for both research and practice in education, such as Walton´s dialogue theory and Bayesian models of everyday arguments. Both tools provide a detailed focus on important aspects of in-class argumentation, such as plausibility and dialecticity. Yet, their application in educational research is still stunted.

The secondary sources helped us identify the main characteristics of the preliminary sources, in terms of the following:

a. *Study design*, meaning if it is experimental or non-experimental;
b. *Type of task,* including production (written, oral, semi-oral) or assessment tasks (e.g. fallacies identification, test on argument understanding);
c. *Age of participants*, meaning children, adolescents, or adults;
d. *Subject of argumentation*, ranging from natural sciences and mathematics to social/socio-scientific issues and general/everyday issues;
e. *Independent variables*, including age/grade, prior knowledge, gender, and epistemological knowledge (knowledge about argumentation) of participants, and also task characteristics such as goal instructions, topic, explicit argument teaching as an intervention, or use of diagrams and computer scaffolds;
f. *Dependent variables*, focusing mainly on quantity and quality of grounds and reasons, quantity and quality of counterarguments and rebuttals, argument strategy, epistemic strength, and quality of argumentative interaction.

3. *Findings*

Not to our surprise, of the 73 studies reviewed, 30 (41 %) use TAP as their main tool of argument analysis and assessment. However, nearly the same percentage of studies (36 %) uses other informal logic tools, such as interaction analysis,

dialectics and pragmadialectics. Last but not least, 23% of the studies use the analytical framework of argument skills proposed by Kuhn (1991), initially as a tool to analyze participants´ interview answers on everyday

Table 1. *Distribution of Use of Argument Analysis Tools Over Years*

	Toulmin	Kuhn	Other	Total
1985-1995	0	1	4	5
1996-2005	8	11	11	30
2006-2013	22	5	11	38
Total	30	17	26	73

Chi^2 (4) = 13.43, p = .001

Table 1. Distribution of Use of Argument Analysis Tools Over Years

issues, and later adapted to dialogue and interaction analysis (e.g. Kuhn & Felton, 2001). Regarding our first question on whether there is a significant correlation between tool of analysis and year of study, the answer is positive. As shown on Table 1, the use of Toulmin´s model, either in its original form (Toulmin, 1958) or adaptations of it (e.g. Toulmin, Rieke, Janik, & Allan, 1984; Erduran et al., 2004), has increased in the last years, together with a re-awakening of Kuhn´s tool and a steady increase of other informal logic tools (especially interaction analysis, dialectics and pragmadialectics).

We also asked whether there is a significant correlation between tool of analysis and more specific study characteristics, presented in the Method section. More precisely, we did not find any significant correlation [*Chi2 (2) = 3.3, ns*] between study type and use of specific analytical tool, which means that the fact of conducting an experimental study or not does not influence on the researchers´ decision regarding using one tool or another. In regards to whether the task assigned to the study participants was a production, an assessment, or a combined task, again no significant differences in the distribution of frequencies of tool of analysis were found [*Chi2 (4) = 4.8, ns*]. However, we observed a tendency in not

Table 2. *Distribution of Frequencies of Tool of Argument Analysis According to Type of Task*

	Toulmin	Kuhn	Other	Total
Production task	12	7	13	32
Assessment task	3	0	3	6
Combined	15	10	7	32

Table 2. Distribution of Frequencies of Tool of Argument Analysis According to Type of Task

considering Kuhn´s tool as appropriate for assessment tasks, but rather for production (oral, written, semi-oral) tasks. As seen on Table 2, for assessment tasks, which are mostly related to the identification of fallacies, dialectical informal logic tools are preferred.

As far as the age of participants is concerned, no significant correlation was found [*Chi2 (6) = 1.1, ns*], which means that whether the study focuses on children, adolescents, or adults is not a factor influencing on the tool´s decision. On the other hand, when the subject of argumentation is considered, there is a strong tendency (*Chi2 (4)=24.6, p<.001*) in using Toulmin´s tool and its adaptations for natural sciences, whereas Kuhn´s and other informal logic tools for general issues. Table 3 shows the distribution of frequencies.

Table 3. *Distribution of Frequencies of Tool of Argument Analysis According to Subject of Argumentation*

	Toulmin	Kuhn	Other	Total
Natural sciences-Mathematics	18	0	5	23
Social sciences-Socioscientific	8	5	7	20
General issues	4	12	14	30

Table 3. Distribution of Frequencies of Tool of Argument Analysis According to Subject of Argumentation

When it comes to independent variables and their use in combination with "Toulmin", "Kuhn" or "Other", a rather homogeneous distribution appears as shown in Table 4. In spite of the low frequencies, we still may observe a qualitative tendency: When the intervention is at a general level, i.e. explicit argument teaching, Toulmin seems to work, but when it becomes more concrete or combined with other variables, Kuhn and other tools are preferred.

Last but not least, some interesting insights emerged when we crosstabulated the tool of analysis used with some main dependent variables related to argument characteristics assessed by each reviewed study. More precisely, we identified the

following three significant correlations, presented in detail on Table 5:

a. For the assessment of the quality and quantity of grounds and reasons, Toulmin is considered more appropriate, followed by Kuhn and then others [*Chi2 (2) = 22, p=.001*];

Table 4. *Distribution of Frequencies of Tool of Argument Analysis According to Independent Variable*

	Toulmin	Kuhn	Other	Total
Age/Grade	1	2	2	5
Prior Knowledge	0	1	0	1
Gender	0	0	1	1
Epistemological Knowledge	0	0	1	1
Goal Instructions	2	4	1	7
Topic	0	0	1	1
Argument Teaching	6	3	2	11
Computer scaffolds	2	1	3	6
Mixed	8	4	8	20

Table 4. Distribution of Frequencies of Tool of Argument Analysis According to Independent Variable

b. For the assessment of the quality and quantity of counterarguments and rebuttals, Kuhn is considered more appropriate, followed by Toulmin and then others [*Chi2 (2) = 6.2, p=.05*];
c. For the assessment of argument strategy, other tools are considered more appropriate, followed by Kuhn and then Toulmin with no studies at all [*Chi2 (2) = 13.6, p=.001*].

Based on these findings, a taxonomy of preferences towards one of the three most frequent types of argument analysis tools (i.e. Toulmin, Kuhn, and Other) based on the researcher´s focus each time may be proposed, as presented in Table 6.

Discussion

In this paper, we studied the dominance of argument analysis and assessment tools in regards to their use by educational researchers. Our main motivation lies on the fact that most educational researchers still prefer to use Toulmin´s model (TAP), which is based on the structural rather than strategic aspects of arguments. The main question was whether the choice for TAP or other tools is systematically related to any study characteristics, and, thus, we can identify any trends in educational research in argumentation.

Table 5. *Distribution of Frequencies of Tool of Argument Analysis According to Dependent Variable*

		Toulmin	Kuhn	Other	Total
Grounds & Reasons	No	1	5	16	22
	Yes	29	12	10	51
CAs & Rebuttals	No	13	7	19	39
	Yes	17	10	7	34
Argument Strategy	No	30	12	16	58
	Yes	0	5	10	15

Based on these findings, a taxonomy of preferences towards one of the three most frequent types of argument analysis tools (i.e. Toulmin, Kuhn, and Other) based on the researcher's focus each time may be proposed, as presented in Table 6.

Table 6. *A Taxonomy of Argument Analysis Tools And Focus of Educational Research*

	Subject	Task	Ind.Variable	Dep.Variable
Toulmin	Natural Sciences	All	Explicit Argument Teaching	Quantity and Quality of Reasons
Kuhn	General	No assessment tasks	Goal/Task instructions	Quantity and Quality of CAs & Rebuttals
Other	General	All	Mixed	Argument Strategy

Table 5 & 6

After a careful analysis of both primary and secondary sources, we found that some significant correlations between tool of analysis and study characteristics do exist, especially regarding the year of study and the type of dependent variables involved. The subject of argumentation and the task proposed to the participants are also related to the researchers´ preference for TAP, which is mainly the choice for both production and assessment tasks in the field of natural sciences. On the other hand, when the research focus is more general, the design more complex (variety of independent variables) and the unit of analysis is either argument strategy or argumentative interaction, Toulmin is not the first preference of educational researchers, who also tend to use Kuhn´s analytical categories or other proposals such as argument schemes, dialectics and pragmadialectics. However, TAP continuous to be the most predominant (but not necessarily the better justified) choice for researchers who endeavour to analyse and assess students and teachers argument skills.

6. *Conclusion*

This paper led to some first insights regarding what guides educational researchers towards the choice of a tool of argument analysis or another. It was shown that the choice for TAP or other tool is not hazardous, but it is based on criteria related to the study´s focus and characteristics. The taxonomy presented on Table 6 might guide future educational researchers regarding their choice of one tool or another in respect to what others have done thus far.

The pre-dominance of Toulmin´s pattern as an argument analysis tool has been

confirmed also in this study. However, this fact alone does not make TAP or any other tool more powerful or more appropriate. Our duty as argumentation scholars is to look at the main challenges of education research in argumentation and try to find ways to better approach those. For example in our previous study (Rapanta et al., 2013) we showed that the main argument skills that teachers-researchers focus on are the correct use of evidence, the distinction of arguments from explanation, and the achievement of learning goals through arguing. More researchers should focus on the profound assessment and enhancement of these skills and others. At the end of the day, our question should not be *What comes after Toulmin*? but what hinders educational researchers from applying other tools of assessment, more related to the well-known informal logic standards of quality, such as the relevance, sufficiency and acceptability of the arguments and counterarguments used in different contexts of the curriculum.

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ISSA Proceedings 2014 ~ Linguistic Argumentation As A Shortcut For The Empirical Study Of Argumentative Strategies

Abstract: A recent interest for the empirical observation of argumentation through institutional practices was underlined by van Eemeren (2010). Since discourses give empirical hints which inform the observer on the institutional conventionalized practices involved in the study of strategic manoeuvring, there must be ways of describing meaning which allows to account for the dynamics of this field: a study of these ways is the object of this paper.

Keywords: empirical study of strategic manoeuvring, experiments in semantics, utterance meaning, sentence meaning, empirical observation of institutional practices, indirect observation, inhabited words, points of view, viewpoints semantics.

1. *Introduction*

Research in argumentation has acknowledged the important role of discourse in the study of argumentative strategies and manoeuvring. This acknowledgement is not recent; however, more recent is the inclusion, within the possible objects of research on argumentation, of the relationship between institutional contexts and

argumentative discourse, via conventionalized institutional practices. The recent interest for the empirical observation of argumentation through institutional practices was underlined by van Eemeren (2010, p. 129) in these terms:

… the term argumentation [… also refers to] an empirical phenomenon that can be observed in a multitude of communicative practices which are recognized as such by the arguers. Because these communicative practices are generally connected with specific kinds of institutional contexts […] they have become conventionalized. Due to this context-dependency of communicative practices, the possibilities for strategic manoeuvring in argumentative discourse in such practices are in some respects determined by the institutional preconditions prevailing in the communicative practice concerned.

This new interest for an empirical approach to the relationship between institutional contexts and argumentative strategies, *via* communicative practices linked to institutional preconditions, opens a wide and important field of research, as van Eemeren convincingly shows it in his 2010 book.

As van Eemeren pointed out, the empirical study of this multidimensional space is possible because, among other reasons, all the terms of these relations are, at least partially, observable through discourse. Since discourse gives empirical hints to grasp the different facets of this space, it may be argued that there may be a way of describing meaning, which would allow to account, at lest partially, for the dynamics of those relations: this would provide a sort of shortcut to the description of argumentative strategies, as they are partially in-formed by the institutions. Obviously, such a shortcut lives aside an enormous part of the field opened by the abovementioned remarks. Nevertheless, for one who is 'only' interested in a better description of the semantics of natural languages, it offers interesting and rich perspectives.

This is what this paper is intended to show. We will also see that this shortcut is not a completely new idea in semantics: I will examine how several ideas borrowed from the paradigm of *Argumentation Within Language* can be adapted to an empirical study of the relationship between argumentation and the institutional constraints. Finally, I defend the idea that this shortcut is useful also for the one who is engaged in the complete study of the field: since most of what is observable in that field is discourse, it may be useful to make explicit the reasoning which compels to describe the institutional conventions the way we do.

A rigorous semantic description is more than useful for this purpose.

Among the various ways of describing meaning that might meet those requirements, I emphasize the interest of several aspects of the so called "View-Point Semantics" (VPS), partially inspired by Mikhaïl Bakhtin's work on the "inhabited" character of natural language words (see, for instance, Bakhtin (1929, p. 279), as well as by Oswald Ducrot's work on the semantic constraints on argumentative orientation and strength (see, for instance, Ducrot (1988)). In particular, I insist on the technique it provides for, so to speak, extracting ideological and cultural preconditions from discourses, which inform the observer on the institutional conventionalized practices.

2. *From strategic manoeuvring to semantics (through the route of empiricity…)*
The field of research opened by van Eemeren and Houtlosser (2009) and further investigated by van Eemeren (2010) includes, among other, the study of the multi-dimensional space of relationships between the different kinds of institutional contexts, the different types of institutionalized purposes, the different aspects of conventionalized communicative practices, the different aspects of communicative activities, and the different types of argumentative strategies. As for the parameters that must be taken into account in order to investigate that field, van Eemeren and Houtlosser (2009, p. 11) circumscribe them in this way:

In analyzing the strategic function of the maneuvering that is carried out by making a particular argumentative move, the following parameters need to be considered:

1. *the results that can be achieved by the manoeuvring;*
2. *the routes that can be taken to achieve these results;*
3. *the constraints imposed by the institutional context;*
4. *the commitments defining the argumentative situation*

Following van Eemeren and Houtlosser (and one really wants to follow them –at least on those points), what we have to observe are things like *results, routes, constraints* and *commitments*. Moreover, in agreement with one of the cornerstones of pragma-dialectical theories, the empirical study of that field is possible because those 'ingredients' are observable through discourse. Finally, as van Eemeren insisted in his introductory lecture at ISSA 2014, the study of strategic manoeuvring must be *contextualized*, *empirical* and as *formal* as

possible.

We will see how an empirical semantics of human languages can do the job and collect and organize observational data for a study of strategic manoeuvring that would meet the requirements proposed by van Eemeren and Houtlosser (2009).

2.1. *Empirical observation for strategic manoeuvring and semantics*

From the three theses I underlined (the ingredients, the observability through discourse, and the three desired properties of the study) it follows there must be a way of describing meaning which accounts for how utterances inform with respect to *results, routes, constraints* and *commitments*.

The claim is stronger than what it first appears: the term *meaning* is used here in a technical sense, where it refers to the *semantic value of languages units*, independently of the situation in which they are used; as opposed to the term *sense,* (utterance meaning), which we use to refer to the *semantic value of utterances in situations.*

The reason why that claim has to be acceptable is that the only observable facts that lead a hearer, in a given situation, to reach a particular *result, route, constraint* or *commitment*, rather than others, are the linguistic units used in the utterance. Obviously, in other situations, the same linguistic units might (and will) lead the hearer to reach other *results,* etc., so that the study of strategic manoeuvring really has to be contextualized, in spite of that claim. But, given that in each particular situation, it is the choice of some linguistic unit rather than some other that produce some effect rather than some other, in order to carry an empirical study, it must be acknowledged that a set of instructions which is stable with respect to situations, must be given by the language units which are used in the discourse. Acknowledging this allows to meet the last requirement underlined by van Eemeren: having the study of strategic manoeuvring supported by semantic descriptions (i.e. independent of context), is a necessary (though not sufficient) condition for a possible formal study.

2.2. *Empirical observation in general*

From a more general perspective, I will now address two essential aspects of empirical observation: causality and subjectivity. This will help understand (a) why and how, in spite of the fact that causal relations are not accessible to our sensorial system, they play an essential role in empirical sciences, and (b) why

and how, in spite of the necessary radical subjectivity of individual observation, a certain degree of constructed objectivity can be achieved within a community.

a. *Causality*
Empirical observation concerning the parameters underlined by van Eemeren and Houtlosser can be expressed by (meta-)statements of the form:

The linguistic segment *X* used in the institutional situation *S*
produced the effect *R,* with respect to parameter *P*.

As can be seen by the reference to *produced effects,* these (meta-)statements convey implicit causal attributions. This is not specific to the field of strategic manoeuvring, nor to that of argumentation, and not even to linguistics or any human or social science: indeed, any scientific observational statement, like, for instance, "water boils at 100° C", carry implicit causal attributions; in our last example, if we try to substitute "43 years old" to "100° C", we immediately understand that the original statement conveys the implicit causal assumption according to which the cause of the boiling is the temperature (and not the age of the technician…).

Now, no scientist and no thinking human being in general would ever pretend they have observed some causal relation *with their sensorial apparatus:* causal relations are not observable through our sensorial apparatus and causality is always *only* a hypothesis. Obviously, some causal attributions are more plausible than others, but *plausibility* is not a proof…

Acknowledging that causal relations are not directly observable through our sensorial apparatus does not imply believing that *causality doesn't exist,* but only understanding that *causal statements cannot be used as empirical evidences*. And, since we have just seen that all scientific empirical observational statements convey an implicit causal attribution, it follows that no scientific empirical observational statement can be directly used as an evidence for some theoretical standpoint. This may seem paradoxical, but it is not so. The same idea can be reformulated in another way, which shows an exit to that apparent paradox: 'any statement about the world, which evokes a causal relation between facts of the world, refers to non directly observable facts'. The apparent paradox dissolves itself as soon as we abandon the naïve belief that only material things *really* exist for science, belief which entails that only direct observation can count as an

evidence. This is why sciences, and especially 'hard' sciences have developed a very sophisticated system of indirect observation, including criteria of validity for the causal attributions supposed by that indirect observation.

b. *Objectivity and intersubjectivity*
Since scientific statements suppose previous causal attribution hypotheses, our perception of the world is significantly influenced by our theoretical biases.

Again, acknowledging that our beliefs about the existence of what we perceive cannot be invoked as a proof of its existence is *something different from* believing that those beliefs are false. And, in the same way, acknowledging that the way we perceive the world is influenced by our theoretical biases is *something different from* believing that the world plays no role in the way we perceive it.

Roughly, the essential reason for that difference is that, though we cannot directly access the world (we can only access it through the individual interpretation of what our sensorial apparatus gives), the world accesses our actions and reacts to them. Thus, analyzing what is stable in different selected human actions and in the world reactions to them may give us collective stable elements to make hypotheses about how the world is within that zone of stability.

In Raccah (2005), I showed that an essential scientificity requirement, valid for any kind of science, is that it should provide descriptions of a class of phenomena, in such a way that the descriptions of some of those phenomena provided *de dicto* explanations for the descriptions of other ones. I also pointed out that fulfilling empiricity requirements could not lead to believe that science describes the phenomena 'the way they are', since one cannot seriously believe that there is a possibility, for any human being, to *know* the way things are. Though scientific observers cannot prevail themselves of *knowing* how the world is, they have access to the world through their interpretation of the states of their sensorial apparatus: that interpretation often relies on previously admitted scientific – or non scientific – theories.

If we want to apply these requirements to semantic theories, we have to find observable semantic facts, which can be accessed to through our senses. As we will see in the next section, it seems that we are faced with a big difficulty, which might force us to admit that there cannot be such a thing as an empirical semantic theory: we will see that semantic facts are abstract and thus not directly

accessible to our sensorial apparatus. We seem to be in a situation in which the very object about which we want to construct an empirical science prevents its study from being an empirical study…

However, if we admit that physics is a good example of empirical sciences, we should realize that we are not in such a dramatic situation. For what the physicist can observe through her/his senses, say, the actual movements of the pendulum (s)he just built, is not what her/his theory is about (in that case, the virtual movements of *any* – existing or non existing – pendulum): the object of physical theories is not more directly accessible to the observers' sensorial apparatus than the object of semantic theories. Physicists use different tricks in order to overcome that difficulty, one of which is the use of indirect observation: some *directly observable***[i]** entities are considered to be traces of non directly observable objects or events, which, in some cases, are seen as one of their causes, and, in other cases, as one of their effects.

If we are willing to keep considering physics as an empirical science, we are bound to consider that that *indirect observation* strategy is not misleading; we only have to see how it could be applied to the study of meaning. In order to illustrate how this could be done, I will examine an example and will abstract from it.

2.3. *Empiricity in what concerns the study of human languages semantics*

Now that we have been reminded that (i) causality is not directly observable, (ii) scientific empirical statements of observations suppose causal attributions, (iii) sciences speak of indirectly observable entities embedding relations between directly observable entities, I would like to elaborate on a few interesting properties of the causal attributions used within the sciences of language(s), and, in particular, semantics. This will help understand why semantics can be a shortcut for strategic manoeuvring.

2.3.1 *A few conceptual distinctions*

The concepts I resort to for this study are not all used in a normalized way: in the intent to be understood by different trends of thoughts, I will first insist on several conceptual differences (it should be noted that the terms I used do refer to these concepts may very well not be the ones some or other reader would use. I do not mean to compel them to use the same terms I use rather than the ones they prefer: I only aim at characterizing the concepts and insist on their

differences.

a. *Several concepts of language*
Though it is unavoidable that notions which are deeply related to our ways of thinking are grasped in different manners, according to the differences in those ways of thinking, it is avoidable, and highly desirable (see Pascal 1655, pp. 523-535) to ascertain that these *conceptions* are about the same *concept*. In the case of *language*, the differences in *conceptions* are frequently altered by an abusive assimilation of three distinct concepts:

(i) something that human beings speak (or write) in, that is usually acquired by all human beings between birth and 24 months, that may serve to communicate, to think, to deceive, etc., that may be different from one group of human beings to another, that may be learnt, taught, etc.; English, French, Spanish, etc. are different instances of this *something*, which is called "idioma" in Spanish, "langue" in French; the noun referring to it may be pluralized;
(ii) the faculty that human beings have (some people may believe that it is also the case for some animals, robots, gods, etc.), and that enables them to learn, use and possibly forget the *something* I coined as the first concept; this second *object* is called "lenguaje" in Spanish, "langage", in French; the noun referring to it cannot be pluralized;
(iii) an abstract system, consciously and deliberately built by a human being, or by a team of human beings, in order to achieve a specific goal or set of goals.

The fact that these three different concepts happen to be called, in English, by the same name is not an evidence for their being the same concept… To avoid such confusions, I will use the term *human languages* for concept (i), *Language Faculty*, for concept (ii), and *artificial language*, for concept (iii).

b. *Several concepts of meaning*
The difference between a sign and its use in a particular situation is acknowledged by most linguists. However, one of its consequences on the study of semantics and pragmatics, namely the essential difference in nature between *utterance meaning* and *sentence meaning*, is not so often taken into account**[ii]**.

In order to fully understand the rest of this paper, it will be necessary to keep this difference in mind: I will speak of utterance meaning in order to refer to the result of some interpretation of a discourse or of an utterance in a particular

situation; in contrast, I will speak of sentence meaning in order to refer to the contribution of language units (not only grammatical sentences) to the interpretation of their different possible utterances.

Note that this apparently 'neutral' terminology presupposes that each unit of any language has something stable which is partially responsible for the infinitely many possible interpretations its use may lead to**[iii].**

2.3.2 *Instructional semantics*

Semantics can thus be conceived of as the discipline which empirically and scientifically studies the contribution of language units (simple or complex) to the construction of the meanings of their utterances in each situation. The contribution of the situations to the construction of utterance-meanings is studied, according to that conception, by pragmatics.

According to that conception of semantics, *utterance-meaning* is, clearly, the result of a construction achieved by some hearer, construction influenced by the *linguistic meaning* (*sentence-meaning, phrase-meaning*) of the language units used in the utterance and by the elements of situation taken into account by the hearer. Diagram 1 illustrates this conception:

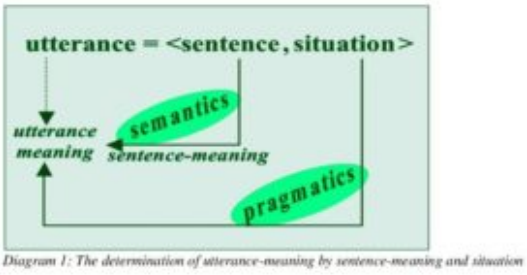

Diagram 1: The determination of utterance-meaning by sentence-meaning and situation

Diagram 1: The determination of utterance-meaning by sentence-meaning and situation

This pre-theoretic way of understanding the canvas of utterance-meaning construction belongs to the instructional semantics trend, as presented, for instance, in Harder (1990, p. 41):

the emphasis is on meaning as something the speaker tells the addressee to do. If A (the addressee) does as he is told (follows the instructions), he will work out the interpretation that is the product of an act of communication

2.3.3 *Causal attributions in semantics, and their essential properties*

Suppose an extra-terrestrial intelligence, ETI, wanted to study the semantics of English and, for that purpose, decided to observe speech situations. Suppose ETI hides in a room where several – supposedly English speaking – human beings are gathered, a classroom, for instance. Suppose now that ETI perceives that John pronounces "It is cold in here". If all of ETI's observations are of that kind, there is no chance that it can formulate grounded hypotheses about the meaning of the sequence it heard. For what can be perceived of John's utterance is only a series of vibrations, which, in themselves, do not give cues of any kind as to what it can mean (except for those who understand English and interpret the utterance using their private know-how). If ETI wants to do its job correctly, it will have to use, in addition, observations of another kind. Intentional states are ruled out since they are not directly accessible to the observers' sensorial apparatus. It follows that we will have to reject any statement of the kind: "the speaker meant so and so", or "normally when someone says XYZ, he or she wants to convey this or that idea" or even (in case the observer understands English) "I, observer, interpret XYZ in such and such a way and therefore, that is the meaning of XYZ". ETI will have to observe the audience's behaviour and see whether, in that behaviour, it can find a plausible effect of John's utterance: it will have to use indirect observation. The fact that it may be the case that no observable reaction followed John's utterance does not constitute an objection to the indirect observation method: it would simply mean that ETI would have to plan other experiments. After all, even in physics, many experiments do not inform the theorists until they find the experimental constraints that work.

Before we go further, let me insist and emphasize that we have just seen that the different 'popular learned conceptions'**[iv]** of semantics are wrong. Indeed, the observable phenomena of semantics

(i) cannot be *directly* meanings, since these are not accessible to our sensorial apparatus;

(ii) they are not just *utterances*, since that would not be enough to describe meaning phenomena;

(iii) they are not pairs consisting of *utterances* and '*intended meanings*', since such intentional things are not accessible to empirical observation. In our extra-terrestrial example, we suggested that they are pairs consisting of utterances and behaviours.

I will take that suggestion as seriously as possible: in the rest of this section, I examine how to constrain the relationship between utterances and behaviours, and sketch some of the consequences of this choice.

a. *The causal attribution hypothesis*
Suppose that, in our example, ETI notices that, after John's utterance, the following three actions take place:

(i) Peter scratches his head,
(ii) Paul closes the window and
(iii) Mary writes something on a piece of paper.

We all know (actually, we think we know, but we only believe…) that the correct answer to the question "what action was caused by John's utterance?" is most probably "Paul's". However, ETI has no grounds to know it and, in addition, it may be the case that Paul closed the window not because of John's utterance (which he may even not have heard), but because he was cold, or because there was too much noise outside to hear what John was saying… Obviously, the most plausible hypothesis, in normal situations, is the one according to which Paul's action was caused by John's utterance; but the fact that it is plausible does not make it cease to be a hypothesis…
Thus, before ETI can continue its study, it must admit the following general hypothesis

H0: *Utterances may cause behaviours*

Moreover, in each experimental situation s, ETI must make specific hypotheses hS which particularise H0 in the situation s, and relate particular actions with the utterance under study (an aspect of van Eemeren's *contextualization*).

It is important to remind that H0 and the different hS are not facts about the world but hypotheses: they do not characterise the way things are but rather the way things are *conceived* of in our rationality.

b. *The non materiality hypothesis*
Let us suppose that ETI shares with us the aspects of our contemporary occidental rationality expressed by H0. This would not prevent it from believing that the way John's utterance caused Paul's action is that the vibrations emitted by John during his utterance physically caused Paul to get up and close the

window. Though it hurts our contemporary occidental rationality, this idea is not absurd: the fact that we simply cannot take it seriously does not make it false**[v]**. Moreover, utterances do have observable physical effects: a loud voice can hurt the hearers' ears, specific frequencies can break crystal, etc. What our rationality cannot accept is the idea that the linguistic effects of the utterances could be reduced to material causality. In order to rule out this idea, we need another hypothesis, which is also characteristic of our rationality rather than of the state of the world:

H1: *The linguistic effects of an utterance are not due to material causes*

As a consequence of H1, if we cannot believe that the observable actions caused by an utterance are due to its materiality, we are bound to admit that they are due to its form. In our rationality, the causal attribution requested by H0 is constrained to be a formal causality.

c. *The non immediateness hypothesis*

If we use the term *sentence* to refer to a category of form of utterances, we start to be in the position to fill the gap between what we can observe (utterances and behaviours) and what we want semantics to talk about (sentences and meanings). However, there is yet another option that our rationality compels us to rule out: ETI could accept H1 and yet believe that though the causality that links John's utterance to Paul's action is not material, it directly determined Paul's action. That is, one could believe that John's utterance directly caused Paul to close the window, without leaving him room for a choice. This sort of belief corresponds to what we can call a 'magic thinking'; indeed, in Ali Baba's tail, for instance, there would be no magic if the "sesame" formula were recognised by a captor which would send an "open" instruction to a mechanism conceived in such a way that it could open the cave. The magical effect is due to the directedness of the effect of the formula. It is interesting to note that this feature of our rationality, which compels us to reject direct causality of forms, is rather recent and probably not completely 'installed' in our cognitive systems: there are many traces in human behaviour and in human languages of the 'magic thinking'. From some uses of expressions like "Please" or "Excuse me" to greetings such as "Happy new year!", an impressing series of linguistic expressions and social behaviours suggests that, though a part of our mind has abandoned the 'magic thinking', another part still lives with it. Think, for instance, about the effects of insults on normal contemporary human beings…

However, for scientific purposes, we definitely abandoned the 'magic thinking' and, again, since it is a characteristic of our rationality and not a matter of knowledge about the world, no observation can prove that it has to be abandoned: we need another hypothesis, which could be stated as follows:

H2: *The directly observable effects of utterances are not directly caused by them*

The acceptance of that "anti-magic" hypothesis has at least two types of consequences on the conception one can have of human being.

The first type of consequences pertains to ethics: if utterances do not directly cause observable effects on human actions, no human being can justify a reprehensible action arguing that they have been told or even ordered to accomplish them. If a war criminal tries to do so, he or she will give the justified impression that he or she is not behaving like a human being, but rather like a kind of animal or robot. As human beings, we are supposed to be responsible for our actions; which does not mean that we are free, since a reprehensible decision could be the only way of serving vital interests. Though this type of consequences of H2 are serious and important, they do not directly belong to the subject matter of this paper and we will have to end the discussion here. However, we think they were worth mentioning…

The second type of consequences of H2 concern the relationship between semantics and cognitive science. Indeed, H2, combined with H0 and H1, can be seen as a way of setting the foundations of a science of human cognition and of picturing its relationship with related disciplines. If we admit, in agreement with H0, H1 and H2, that an utterance may indirectly and non materially causes an action, we are bound to accept the existence of a non physical causal chain linking the utterance to the action, part of that chain being inaccessible to our sensorial apparatus. The object of semantics is the first link of the chain; the first internal state can be seen as the utterance meaning. The action is determined by a causal lattice in which the utterance meaning is a part, and which includes many other elements and links; none of these elements or links are directly observable, though indirect observation can suggest more or less plausible hypotheses about them. Different theoretical frameworks in cognitive science construe that causal lattice in different ways; they also use the variations of different observable parameters in order to form these hypotheses. In our example, the only two directly observable parameters were utterances and

actions, for the part of the lattice that we are interested in is the chain that links utterances to actions. However, other kinds of cognitive science experiments could be interested in studying the variations of other directly observable parameters, such as electrical excitation, visual input, outside temperature, etc. for the beginning of the chain and movement characteristics, body temperature, attention, etc. for the end of the chain**[vi]**.

Note that the fact that cognitive science and semantics may share experimental devices is not sufficient to adhere to the present fashion and suggest that there can be a "cognitive semantics": the object of semantics (the link between utterances and utterance meanings, as it is inscribed in languages units) does not belong to the causal lattice which constitutes the object of cognitive science**[vii]**.

3. *Strategic manoeuvring, human languages & argumentation*
From the necessity of devising experiments providing indirect observation for semantics, as analyzed above, many consequences follow, from many different points of view. For the purpose of this paper, I would like to insist on two of them, which are related to the connection between strategic manoeuvring and semantic approaches to argumentation: namely the essential role of discourses analysis, and the essential insufficiency of ordinary corpora.

3.1 *The essential role of discourses analysis in semantics*
As acknowledged by the pragma-dialectical approach to strategic manoeuvring, most, if not all, of what we know about results, routes, constraints and commitments involved in the that is carried out by making an argumentative move, we know it through the interpretation of texts or discourses. It follows that, if we don't use an empirically grounded formal model in order to account for how this knowledge is built out of these texts and discourses, the essential knowledge used for describing argumentative strategies will remain intuitive.

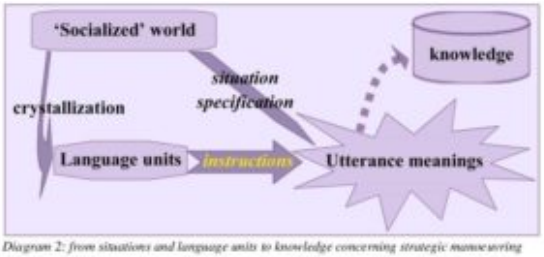

Diagram 2: from situations and language units to knowledge concerning strategic manoeuvring

Diagram 2: from situations and language units to knowledge

concerning strategic manoeuvring

In order to account for how this knowledge is built, out of the interpretation of texts and discourses, the semantic models that can be used must enable to describe how languages units impose the construction of the particular senses (utterance meanings), in the situations in which they are uttered, senses which constitute the different pieces of that knowledge. And, in order to allow such descriptions, the language units have to crystallize some aspects of the socialized world which constitute the institutional situation. Diagram 2 illustrates this point.

3.2 *About corpora*

The second consequence of this causal study which I would like to emphasize concerns the kind of corpora that can be useful for an empirical study of strategic maneuvering through semantics. The requirements for such corpora are limited to the ones for semantic corpora, since any discourse and any text refers to the institutional constraints on its own interpretation. However, these 'limited' requirements that must meet a corpus in order to be usable for an empirical study of semantics are not so weak and, actually, are very seldom met in the corpora used in the literature.

Indeed, ordinary corpora provide only (in the best cases) one half of the empirical data required to study semantics: they usually only provide the linguistic units that have been used (the signifier), but do not give cues for the utterance meanings that have bean actually constructed in the real situation in which they have been used. This leaves the second half of the necessary data to the observer's intuition. The fact that observer's intuitions are usually rather good does not help: on the contrary, it makes the observer rely on these intuitions without even noticing it. In order to illustrate this point, one only needs to imagine a physicist's reaction to another physicist claiming "I know where the cannon ball will fall, so I don't have to tire myself to examine what is happening in the field"…

Obviously, the actual interpretation that a reader or a hearer made in the actual situation in which those linguistic units were used (like any interpretation whatsoever) is not accessible through our sensorial apparatus. Therefore, no corpus could possibly provide it. However, it is the burden of the observers to justify the interpretations they assign to those texts and discourse. Again, indirect observation is necessary: a useful corpus for semantics should contain cues for

assessing the correctness or, at least, the plausibility of hypotheses on what has been understood.

4. *Provisional conclusions, and perspectives*

I will conclude underlining some of the consequences of the ambition to use semantics in order to more formally and more empirically access institutional knowledge within the study of strategic manoeuvring.

In this study, we saw that, if we want to take seriously the findings of the pragma-dialectical approach to strategic manoeuvring, we must be in the position to take into account the institutional preconditions prevailing in the communicative practice, preconditions which can be observed mainly through discourses and texts. For that reason, we must be able to, so to speak, extract those preconditions out of these discourses and texts, as rigorously as possible; in particular, in order to limit the role of intuition, we need a semantic model which can determine the contribution of language units to the assessment of those preconditions.

Neither cognitive semantics nor truth-conditional semantics can do the job because the descriptions they provide have nothing to do with socialized ways of understanding the institutions: what is needed is an instructional semantics that accounts for how the languages units influence the hearer's ways of seeing the role of institutions, or, from a complementary point of view, how the languages units reveal the speakers' ways of understanding the impact of institutions. As a consequence, what is needed is a semantics that assigns socialized points of view to language units, constraints on points of view to connectors and operators, in order to allow to compute the points of view suggested by more complex language units. Given that causal relations are not observable though our sensorial apparatus, particular attention must be paid to the refutability of each observational statement. Moreover, given that the interpretation that was actually built out of a discourse or a text is not directly accessible to observation, particular attention must also be paid to the justification of the interpretation assigned to the triple <language unit, situation, addressee>.

Such semantic models, called *ViewPoint Semantics* (VPS), have been developed and are mainly used to extract knowledge and/or ideologies from texts and discourses. Their use for assessing institutional preconditions prevailing in the communicative practice, in order to study strategic manoeuvring, is promising,

from a practical point of view, and inspiring, from a theoretical point of view.

NOTES

i. Though I have shown (ibid.) that nothing can be directly observable by a human being (since anything requires the interpretation of the state of our sensorial apparatus), I will use that expression to refer to objects or events whose access is granted by the interpretation of the effect they directly produce on our sensorial apparatus. This terminological sloppiness is introduced for the sake of legibility…

ii. As far as I know, one of the first explicit modern presentation of the conceptual difference between utterance meaning and sentence meaning is due to Dascal (1983).

iii. This very strong claim is evidenced by the fact that any dunce can acquire, and does acquire, a human language in 18-24 months, being exposed only to speech and human attitudes

iv. That is, the conception an educated person could have about semantics without having learnt and reflected about it previously… This is, it must be admitted, the conception held by many people who speak or write about language!

v. Some Buddhist sects seek the "language of nature" in which the words emit the exact vibrations which correspond to the objects they refer to… Even though most of us, occidental thinkers, reject the belief underlying that quest, there is no ground to profess that the belief is silly independently of our set of beliefs.

vi. I obviously didn't choose realistic nor very interesting parameters… but my purpose is only illustrative.

vii. See Raccah (2011) for more about this subject.

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ISSA Proceedings 2014 ~ Transparency In Legal Argumentation: Adapting To A Composite Audience In Administrative Judicial Decisions

Abstract: An important topic in the debate about transparency of the administration of justice includes the communicative function of judicial decisions. This function should be conceived as the judge's aim to have his argumentation understood (the communicative effect), as well as to have it accepted (the interactional effect). In this paper I will analyse how the judge may maneuver strategically to achieve these effects on a composite audience. The analysis focuses on the communicative activity type of administrative judicial

decisions.

Keywords: administrative law, audience demand, composite audience, judicial decisions, legal argumentation, legal opinions, Role-shifting.

1. *Introduction*

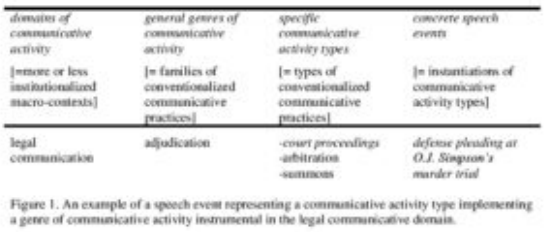
In a recent study (Broeders, Prins and Griffioen, 2013) that was conducted by the Netherlands Scientific Council for Government Policy (WRR) it is argued that there is a need for `a more contemporary transparency of the administration of justice relative to the different 'outside worlds' with which it comes into contact.' According to this study, the need for transparency has become urgent because of changes in society under the influence of globalisation, individualisation and populism. One of the topics in the debate about transparency includes the communicative function of judicial decisions.

From an argumentation theoretical perspective, the communicative function of a judicial decision should not only be conceived as the judge's aim to have the argumentation underlying his decision understood (the communicative effect), but also to have his argumentation accepted (the interactional effect). The judge may be expected to have the intention to achieve these effects on the parties to the proceedings, his immediate addressees, as well as on a broader audience. Long before the current debate on transparency, literature on legal (argumentation) theory and on decision writing emphasized that, apart from the litigants in the case, the audience of the judge consists of members of the legal community (other judges, lawyers interested the decision), law students and the general public. In order to address such a so-called composite audience (van Eemeren, 2010) in his justification of the decision, the judge may make use of different techniques when maneuvering strategically.

A recent pilot study carried out in administrative courts in the Netherlands demonstrates that judges do at times, indeed, attempt to address a composite audience when justifying their decisions. In this contribution I will clarify which audiences may be addressed in administrative judicial decisions. Then I will analyse the way in which a judge may manoeuvre strategically to adjust his argumentation to these audiences. In view of this analysis I will start with a first attempt to characterize administrative judicial decisions as an argumentative activity type.

2. *Administrative judicial decisions as a specific activity type*

To analyse the strategic maneuvering in judicial decisions by the Dutch Administrative Court, these decisions should first be characterized as a communicative activity type. In the pragma-dialectical argumentation theory (Van Eemeren 2010, 40, 129), strategic maneuvering refers to the continual efforts made in all moves that are carried out in argumentative discourse to keep the balance between reasonableness and effectiveness.**[i]** An argumentative activity type refers to a more or less institutionalized argumentative practice. Requirements pertinent to the activity type may affect the strategic maneuvering.



domains of communicative activity	*general genres of communicative activity*	*specific communicative activity types*	*concrete speech events*
[=more or less institutionalized macro-contexts]	[= families of conventionalized communicative practices]	[= types of conventionalized communicative practices]	[= instantiations of communicative activity types]
legal communication	adjudication	-*court proceedings* -arbitration -summons	*defense pleading at O.J. Simpson's murder trial*

Figure 1. An example of a speech event representing a communicative activity type implementing a genre of communicative activity instrumental in the legal communicative domain.

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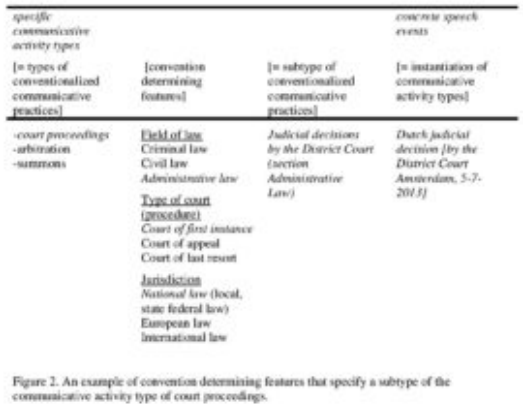
In order to characterize judicial decisions by the Dutch Administrative Court in terms of communicative activity type, we may start from an overview as presented by van Eemeren (2010, 143). This overview represents examples of different types of conventionalized communicative practices that are connected with specific kinds of institutional contexts, such as political and medical contexts. In the example of the legal context (Figure 1), the concrete speech event of the defense pleading at O.J. Simpson's murder trial is considered to be a representation of a particular communicative activity type: the communicative activity type of legal proceedings. This communicative activity type belongs to the domain of legal communication and makes use of the prototypical genre of adjudication.

Judicial decisions in general belong to the genre of adjudication and can be considered as a subtype of the conventionalized communicative practice of court proceedings. The communicative activity type of judicial decisions, however,

should be specified in order to characterize the activity type in a meaningful way. This specification should be made by means of three different convention-determining features. The first feature that determines the conventions of a judicial decision, is the field of law in which a legal dispute is situated: administrative law, private law, punitive law etc. The second feature is the type of court that has the competence to decide at a certain stage of the legal procedure: the court of first instance, the court of appeal or the court of last resort. The third feature that is relevant is the (territorial) jurisdiction under which the judicial decision has come into being and which national or international legislation is applicable.



specific communicative activity types			*concrete speech events*
[= types of conventionalized communicative practices]	[convention determining features]	[= subtype of conventionalized communicative practices]	[= instantiation of communicative activity types]
-court proceedings -arbitration -summons	Field of law Criminal law Civil law *Administrative law* Type of court (procedure) *Court of first instance* Court of appeal Court of last resort Jurisdiction *National law* (local, state federal law) European law International law	*Judicial decisions by the District Court (section Administrative Law)*	*Dutch judicial decision [by the District Court Amsterdam, 5-7-2013]*

Figure 2. An example of convention determining features that specify a subtype of the communicative activity type of court proceedings.

Figure 2. An example of convention determining features that specify a subtype of the communicative activity type of court proceedings

The ratio of this specification of features is that all three distinctive features are relevant to the analysis of the argumentation in the concrete speech event of a judicial decision; they entail different institutional conventions that are, in combination, pertinent to the concrete speech event: the actual decision. The specification of the conventions that bridge the gap between the specific legal communicative activity type of court proceedings and the concrete speech event of a judicial decision by the administrative section of the Dutch district court is represented in figure 2.

3. *Dutch administrative law procedure*

The activity type of administrative judicial decisions by the Dutch district court concerns binding decisions by this court in legal disputes between administrative

authorities and citizens. Administrative law provides the government with the power to administer, but it also establishes limits on administrative activity. In the Netherlands, when a citizen disagrees with an order or a decision made by an administrative authority, he can object to this order or decision in court. As a general rule a citizen is required to follow a preliminary administrative procedure before they can take his case against an order to court. This procedure allows the citizen to explain why he disagrees with the order, after which the administrative authority considers its order once again and to correct possible mistakes. The General Administrative Law Act (Algemene wet bestuursrecht) applies to both administrative decisions by the administrative authorities and to judicial reviews of these decisions by the district court (administrative law division).**[ii]** For the activity type of administrative judicial decisions this means that the General Administrative Law Act is pertinent to the institutional goal, the conventions and the format of the procedure preceding the judicial decision as well as the judicial decision itself.

Some of the important characteristics of administrative legal procedure may be summarized as follows.**[iii]** The point of departure of the administrative procedure is the assessment of a decision *ex tunc.* This means that the judge has to determine whether or not the decision by the administrative authority was legal at the time it was taken. In doing so, the judge does not in principle take new facts into account. However, if the judge does not merely annul the decision, and instead replaces the administrative authority's order by inserting his own judgment, then the assessment may take new facts into consideration.

The judge must ensure that all aspects of the relevant law are applied. He may supplement the facts himself, if necessary. He should be able to make use of this power in situations where one party to the proceedings appears to be weaker than the other.

There are two important restrictions the judge has to observe with regard to the scope of the dispute he decides upon and to the result of the dispute. Firstly, the judge should not go beyond the subject of the dispute (*ultra petita*). Secondly, the judge should not put the person in a worse position than he was in when he moved for an appeal (*reformatio in peius*).

The judge has discretionary power in the area of procedure. Consequently, the judge defines the length of the process, leads the investigation during the trial,

and can independently order an expert examination, if necessary. It is also the judge who ends the investigative phase if he considers the information that he has received to be sufficient to come to a decision.

With regard to the accessibility of the administrative procedure, parties to the process can appeal to the judge without many requirements of form. There is no requirement to proceed with the aid of a lawyer; trial representation is not required.

In the judicial decision, the judge is obliged to state the grounds for his decision. However, the judge is not obliged to deal with each argument that is raised by the parties to the proceedings. The institutional point of administrative judicial decisions is to provide a binding decision in legal disputes between administrative authorities and citizens. The justification should provide insight into the decision and, if at all possible, render it acceptable. The justification should enable the parties to ascertain how and to what extent the facts and legal foundations, as presented by them, have been taken into consideration. On top of that, the justification should enable the public at large to monitor the administration of justice as well as gain insight into its proceedings.**[iv]**

4. *Administrative judicial decisions and the composite audience*

In the pragma-dialectical argumentation theory, adaptation to the audience is one of the three aspects of strategic maneuvering; it refers to the requirements that must be fulfilled in strategic maneuvering to secure communion, at the point in the exchange, with the people the argumentative discourse is aimed at. In argumentative practice this amounts to adjusting the argumentative moves in such a way to the audience views and preferences that there is as much agreement as possible between the arguer and the audience (Van Eemeren 2010, 108, 112). The literature on legal theory (Makau, 1984, Rubinson, 1996) the law and economic approach (Garoupa and Ginsburg, 2009) as well as the more practical literature on opinion writing (Lebovits, 2008, Leubsdorf, 2001) recognizes that the audience of a judge may be diverse. Often the authors focus on the audiences of judicial decisions by the court in last instance, the Supreme Court, but the audiences of decisions the lower courts may be discussed as well (Hume, 2009). Most authors, however, list more or less the same groups of different (possible) audiences: the litigants in the case, members of the legal community (other judges, lawyers interested in the decision), law makers, legal scholars, law students, media, the general public.

In order to analyse strategic manoeuvring that takes place in administrative judicial decisions, a more detailed analysis of the audience is needed. The audience as whole, consisting of different persons or groups, may be considered a composite audience that is heterogeneous with respect to the points at issue in an administrative judicial decision as well as to the starting points pertinent to the dispute that is sentenced upon in the decision.

Both parties to the proceedings are the official antagonists who are addressed directly by the judge and who are therefore considered the primary audience.**[v]** The other persons or groups that make up the audience, are the antagonists who are reached indirectly by the judge. This 'third party' will also evaluate the acceptability of the argumentation that is brought forward in the judicial decision. The official antagonists are addressed by the judge in their procedural roles as 'the plaintiff' (or 'the applicant') and 'the defendant'.

Characteristic of the primary audience of an administrative judicial decision is that this audience is not always homogeneous. Since trial representation is not required, the parties to the proceedings may not possess the same professional knowledge of the law. Usually, the administrative authority is represented by a lawyer or a legal specialist, whereas for a citizen who is party to the proceedings this may not always be the case. Another significant difference between the parties to the proceedings is that unlike most citizens who are involved in a legal dispute, an administrative authority may be considered a 'repeated player'. It may only be expected that, compared to the average citizen, the (local) government is more often involved in legal disputes. This latter characteristic may become manifest in an administrative judicial decision when the judge addresses the administrative authority not only as a party to the present proceedings, but also in it's capacity as a party in future proceedings.

5. *Addressing a compositite audience*

In administrative judicial decisions, judges could address non-litigant audiences in an indirect way. If a judge would want to address (members of) this audience directly, he would have to initiate a new, second, difference of opinion in which the original 'third party' audience would then be considered the judge's primary audience. However, the institutional requirements determined by the administrative law, impose limits to that option. In this paragraph I will demonstrate how judges may maneuver strategically to address a 'third party' audience in either an indirect way or in a direct way.

The first case illustrates how a judge can make use of the argumentation that has been brought forward by the parties to the proceedings, in order to address a 'third-party' audience indirectly. In this case, the applicant, a homeless Chinese lady, asked the Central Agency for the Reception of Asylum Seekers (COA) for reception into the Netherlands. Pending the COA's decision, the applicant requested the defendant, the city of Utrecht, for temporary reception based on the Social Support Act (Wmo). The defendant dismissed the request, but offered the applicant a temporary place in the local Sleep Inn, a shelter for the homeless. The defendant argued that the applicant should address the COA for a structural solution. The applicant is of the opinion that the solution proposed by the defendant is not adequate for her situation and she requests the court for an interim relief measure. In its decision, the court puts forward the following.

(1)
The court is of the opinion that the defendant's political standpoint that reception of the plaintiff should be a task of the central government, is very understandable. (…). It is about the positive obligation to receive vulnerable persons, article 8 EVRM, and where the treaty prevails over national legislation. The court is of the opinion that decisions on this positive obligation, as made by the Dutch Administrative High Court (CRvB) and decisions made by the Council of State should be better attuned to one another. Since this is not the case, however, the court proceeds to decide on the current appeal under the conditions of the Social Support Act (Wmo). This decision is about the situation as it is and not about the desired developments in the administration of justice.

(ECLI:NL:RBUTR:2012:BY8445)

In this fragment of its decision, the court evaluates one of the sub standpoints as put forward by the defendant. With respect to this sub standpoint, the court makes a distinction between its political content and its legal effectiveness. As far as the political content of the argument is concerned, the court agrees with the defendant, but it refutes the argument on the grounds that it cannot be effective in the legal proceedings. In support of this argument the court puts forward that decisions by the Dutch Administrative High Court (CRvB) and the Council of State on the reception of vulnerable persons are not well attuned. By means of this argument the court provides the primary audience, the defendant, with a justification for the refutation of the defendant's argument. Through this argument, however, the court indirectly addresses a third-party audience, the

administration of justice, and criticises it for a lack of consistency in the judicial decisions that concern article 8 EVRM.

If, however, the argumentation put forward by the parties to the proceedings does not provide any points of departure for the judge to address (members of) a 'third-party' audience in an indirect way, the judge may consider addressing this audience directly. Role shifting is one technique at the judge's disposal when maneuvering strategically in order to address the 'third-party' audience directly. In accordance with his official, institutional role as an impartial decision maker, the (administrative) judge decides on the legal dispute that is brought before the court.**[vi]** This institutional constraint that stipulates not to go beyond the subject of the dispute (*ultra petita*), imposes a limit on the possibilities the judge has to address a 'third-party' antagonist directly.**[vii]** By shifting from the role of legal decision-maker to the role of (legal) advisor, the judge may maneuver strategically to make use of the opportunity to direct a standpoint at a 'third-party' antagonist. Strategic manoevering by making use of a role shift may be motivated by a broader interpretation of the task of the judge in view of the communicative function of administrative judicial decisions. With a view of the social or legal consequences the decision may have on (members of) the 'third party', the judge may choose not to restrict himself to his task as a legal decision maker.

The following case illustrates the way in which judges may manoeuvre strategically by the reversal of roles. The case concerns a difference of opinion between a citizen (the plaintiff) and the social service of the city council (the defendant). Since 1998 the plaintiff has received a monthly social security payment provided by the local authorities. In 2005 the defendant decided to cut back on the plaintiff's social security benefit by 5%, because the plaintiff failed to return a signed copy of a document that listed his schedule of activities (werkpolis). After the social service had rejected the request to reverse the decision regarding the cut back in the social security payment, the interested party appealed to the administrative judge. The judge decided as follows.

(2)
There is no legal obligation for the plaintiff to sign and return the said document to the defendant. The court concludes that there is neither law nor local act that requires such an obligation. It is open to the local government to amend their local act on reintegration. The court advises the local government to reconsider

this adaptation of article 8 of the Work and Welfare Act. […] In doing so, attention could be paid to […] because…

(ECLI:NL:RBBRE:2005:AU8054)

In the fragment under (2), the judge decides against the defendant on the ground that there is no law or act that prescribes the legal obligation to sign and return the said document. After that, the judge manoeuvres strategically by shifting from the institutional role of decision maker to the role of legal advisor. The judge exploits this technique to address a member of the 'third-party' audience, the local government, directly. The judge advances an implicit standpoint regarding anticipated (legal) consequences of the decision: the local government should not amend their local act on reintegration. By presenting his standpoint as an advice ('The court advises the local government to reconsider …') the judge attempts to avoid the risk of trespassing upon the area of the legislative powers of the local government; an institutional constraint that follows from the principle of the separation of powers. At the same time, by adopting the role of a legal advisor, the judge attempts to avoid the risk of being accused of going beyond the subject of the dispute in his decision. As is discussed in Plug (2000), the judge may explicitly present his advice as an *obiter dictum*, in order to even minimize this risk.

Both examples show how an attempt by the judge to address an audience may broaden the scope of the legal dispute he has to decide upon. By bringing forward a standpoint that introduces a difference of opinion with a (originally) 'third-party' antagonist, the judge, at the same time, provides the litigants and other members of the 'third-party' audience with more insight in the broader impact of the current decision. In doing so the judge may contribute to the communicative function of administrative judicial decisions and thus to the transparency of the proceedings of the administration of justice.

6. *Conclusion*

Administrative law prescribes the rules that public authorities must adhere to in their decision-making and regulates relations between the government and citizens. In this contribution I have explored on what grounds administrative judicial decisions by the Dutch district court may be considered as a specific argumentative activity type. Institutional requirements pertinent to this activity type determine that the justification of these decisions should be aimed at the

litigants as well as at the public at large. At the same time, other institutional requirements that are pertinent to this activity type impose constraints on the possibilities the judge has when addressing such a composite audience. By means of two examples I have illustrated the way in which the judge may manoeuvre strategically to address members of a 'third-party' audience, without trespassing upon the limitations that are determined by the institutional requirements.

NOTES

i. In research in the field of law on judicial strategic behaviour, the term strategic is used differently. Baum (2009, 6) for example, uses the term as follows: 'Strategic judges consider the effects of their choices on collective outcomes, both in their own court and in the broader judicial and policy arenas. […] Whenever (they) choose among alternative courses of action, they think ahead to the prospective consequences and choose the course that does the most to advance their goals in the long term.'

ii. Higher appeal against these decisions is open in the Administrative Law Division of the Council of State (or, in specific cases, the Central Court of Appeal).

iii. This characterization of the administrative legal procedure is based on Brouwer and Schilder (1998) and Verburg (2008).

iv. The justification principle is considered one of the most important principles in (administrative) procedural law. See also de Poorter and van Roosmalen (2009) and Plug (2012).

v. From the administrative law as well as from jurisprudence it follows that arguments from both parties to the proceedings should be discussed in a judicial decision.

vi. Apart from the competences of a judge that are prescribed in Dutch (procedural) law, the Dutch Association for the Judiciary (NVvR) formulated a Judges Code of Conduct (September 2011).

vii. Because the constraint is one of the procedural starting points that are pertinent to the activity type of administrative judicial decisions, it is not in contradiction with the pragma dialectical freedom rule that states that discussants may not be prevented from bringing forward a standpoint. See also van Eemeren (2013).

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ISSA Proceedings 2014 ~ Argumentative Strategies In Adolescents' School Writing. One Aspect Of The Evaluation Of Students' Written Argumentative Competence.

Abstract: Argumentation strategies constitute a crucial aspect of argumentation. The purpose of this paper is to explore the relations of the argumentative strategies observed in the writing of adolescents' texts within language evaluation tests, to the elaboration of their theses and the evaluation of their argumentative competence. Despite the diversity of argumentative strategies employed, their standpoints are not fully elaborated and so their argumentative competence is diminished. These findings are important for the designing of argumentative teaching.

Keywords: Adolescents' argumentation, argumentative competence, argumentative strategies, language evaluation.

1. *Introduction*

Argumentation strategies are of significant importance to the study and theory of argumentation. They reveal the deep structure of argumentation, the dynamic and convergent steps, moves and choices towards its construction, transcending semantic, pragmatic, lexico-grammar and rhetorical levels and relations.

Strategic maneuvering is a term coined by pragma-dialectics to describe the multilayered functions of contextualized argumentation strategies (van Eemeren, 2010).

In evaluating students' written argumentative competence, employment of a variety of strategies is considered a fundamental aspect of argumentation development (Swain & Suzuki, 2009). Argumentation strategies are connected to a high metacognitive level of awareness (Kuhn & Udell, 2007) revealing the abstract design patterns with and through which an argument text is constructed.

Within language evaluation tests, integration of reading and writing tasks draws a nexus of emerging dialectical argumentation strategies which supports students' written argumentation potential. Nonetheless, activation of strategic routes to argumentation does not imply argument competence. It constitutes rather a first, step towards argumentative competence if reflective coordination, elaboration and contextualization of argumentative strategies do not apply.

1.1 *Argumentation in educational context*

Although arguing is considered an experiential ability acquired quite early in a child's everyday life (Kuhn & Udell, 2003), its development and moreover its elaboration and connection to educational, institutional frames and disciplines is considered to be a highly demanding and challenging issue for both educators and students. Since critical thinking, science, communication, negotiation skills, decision making and social success were connected to argumentative skills (Baker, 2003, 2009; Byrnes, 1998; Gilardoni, pp. 723-725; Klaczynski, 2004; Kuhn & Udell, 2007, p. 90, Muller Mirza & Perret Clermont, 2009, pp. 127-144), teaching argumentation became a crucial issue for education. What is learned intuitively can be further elaborated through education thus offering equal opportunities for social and individual development to all social agents.

There have been various researches on the dynamics of argumentative skills within educational frames, all concluding its connection to a high metacognitive level, developed by age and institutional elaboration (Kuhn & Udell, 2003). Additionally, even teaching practice is regarded as a demanding argumentation approach (Macagno & Konstantinidou, 2012, pp. 2-3; Riggoti, 2007; Sandoval & Millwood 2005; Schwarz, 2009, pp. 91, 93).

1.2 *Written argumentation in language education*

Argumentation, as every communicational practice, is contextualized. Within pragma-dialectics this is a fundamental aspect of all the four principals (externalization, socialization, functionalization, and dialectification) in examining argumentation (van Eemeren, Grootendorst & Henkemans et al, 1996). Life domain, institution, instructional restrictions, subjects and culture construct the argumentative activity and consequently the argumentative type in practice (Eemeren van & Houtlosser, 2005, p. 70).

Although these variables are obvious in life situations and in dialogue involving agents' interaction face to face, they are 'hidden' and require a cognitively demanding and conscious reconstruction in written argumentation, especially for a child, (Dolz, 1996; Rapanto, Garcia-Mila & Gilabert, 2013; Schwarz, 2009, p. 95) acquired through educational practices.

In language education students are asked to constantly move back and forth across a continuum consisting of two domain circles, the one of the physically observable context of education and the other of the life domain where the language learning activity is reflected. These moves are even more cognitively and communicatively demanding and require metacognitive awareness and strategic coordination, especially when the educational subject is written argumentation.

1.3 *Language evaluation test, an educational context of emerging argumentation*
One crucial and explicitly institutional oriented aspect of language education is language evaluation tests. Language evaluation tests comprise a special and crucial educational context, a special genre within the institutional learning domain of education. They are crucial in determining the degree to which accomplishment of learning goals is achieved by both educators and students and special in that they consist broadly a communicative and educational learning activity aiming not only to the educational context but to real life communicative competence. In defining argumentative activities as:

conventional entities that can be distinguished by 'external' empirical observations of the communicative practices in the various domains, or spheres of discourse, institutionally variants, some of which are culturally established forms of communication with a more or less fixed format (van Eemeren & Houtlosser, 2005, p. 76)

Van Eemeren and Houtlosser offer a descriptive tool for language evaluation tests as argumentative activities trying to convey ways to reasonably convince educators for students' communicational skills within the restrictions posed by educational institutional frames while at the same time reflecting life communicative skills. This is especially obvious when the language assignment task in language evaluation tests concerns written argumentation.

In language evaluation tests, the integration of reading and writing tasks consists a textual and subjects' network within which students' written argumentation is constructed as an *externalized, functional, social* and *dialogical* communicative activity aiming to reasonably convince two interlocutors, the teacher, the physical subject of the educational context and the recipients of the text as these are constructed by the language assignment task. At the same time students' are in dialogue, explicit or implicit, with the author of the text assigned for reading. Although reading and writing assignments are not always explicitly related in language evaluation tests, they consist interconnected, fundamental parts of literacy in educational contexts (Fitzgerald & Shanahan, 2000) creating thus an emerging dialogical context for language learning (Hyland, 2002, pp. 8-9; Nystrand, Camoran, Kachur & Prendergast, 1997) which comprises with the requirements of *authenticity* in language education (Hawkey, 2004b; Weigle, 2002; Weir, 2005b) and in argumentation in particular. This is especially obvious when there is a common thematic and generic textual orientation (Lemke, 1996, p. 259).

Effectiveness in language evaluation assignments is mainly considered towards three directions:

a. moving dynamically across a communicative continuum constructed by the language assignment task and the educational context,
b. understanding of discourse goals and
c. application of effective strategies to meet these goals.

The last two directions are recognized by Kuhn and Udell (2007) as being the two potential forms of development in argumentative discourse skills (Kuhn & Udell, 2007, p. 1246).

In learning and practicing written argumentation students have to *strategically maneuver* across, back and forth the communicational continuum constructed on

the one hand by the language assignment task and on the other by the educational context, reconstructing a silent and physically absent dialogue as well as writtenly projected agents in the audience addressed (Hyland, 2002, p. 9).

The integration of reading and writing tasks in language evaluation tasks creates the prerequisite dialogical network for the emerging of critical exchanges and strategic maneuvering moves towards the construction of students' argumentative text. Texts assigned for reading and writing form an intertextual network which activates students' intertextual dynamics (Eco, 1979, p. 21) enriching their argumentative knowledge and competence by developing their ability to enhance a variety of argumentative moves within a dialogically rich textual frame echoing various voices and agents (Dimasi & Sachinidou, 2015; Panagiotidou, 2012). In that way, they form a 'real life' communicative setting (Hyland, 2002, p. 9).

1.4 *Emerging argumentative strategies within language evaluation tests*
According to Reisigl and Wodak strategy is "a plan of accurate practices more or less intentional including discursive practices to achieve a particular goal" (Reisigl &Wodak, 2001, p. 23; Reisigl &Wodak, 2009).

The recurrence and coordination of argumentative moves are considered as forms of argumentative strategies, *strategic maneuvers* (van Eemeren & Houtlosser, 2009, p. 7; Rocci, 2009, p. 258). In trying to construct their argumentative text, students use a variety of discourse strategies (Ferretti, Lewis, & Andrews-Weckerly, 2009; Nussbaum & Edwards, 2011) many of them emerging through the textual network constructed by the integration of reading and writing tasks in language evaluation tests. Language evaluation tests consists a hidden agenda of the constraints allowed and the opportunities offered by the educational context and the language curriculum in particular. The parameters determining the argumentative strategies used are also closely linked to the language assignment task and the communicative context designed by it.

Since argumentative strategies are communicatively contextualized, they are determined by the communicative objectives (Hyland, 2002, p. 35) designed by both the language assignment task and the language evaluation test. Rhetorical goal relating to genre and text type and informational goals such as subject matter as well as logical construction relating to the potential of argumentation schemes, direct the use of argumentative strategies. In a complimentary and

more detailed approach, pragma-dialectics distinguishes the parameters of the strategic functions of argumentative maneuvers in:

a. results,
b. routes to achieve results,
c. constraints imposed by the institutional context and
d. commitments defining the argumentative situation (van Eemeren & Houtlosser, 2009, p. 11). Adaptation to the demands of the audience to which argumentation is directed, selection from the topical potential of argumentation and choice of the stylistic devices in the presentation of argumentation are also considered as aspects of strategic maneuvering (van Eemeren & Houtlosser, 1999, pp. 484-486; van Eemeren, 2010, Ch4) giving a more detailed account of the forms and choices argumentative strategic practices take.

The effectiveness of students' written argumentation text is defined by subjects' perceptions for argumentation formed within this communicational continuum between the educational context and the real life projection the later conveys. When looking into students' argumentative strategies we can also gain insights into the educational formulation of their perceptions on what argumentation is and how it is effective, a reflection of the teaching and learning of argumentation.

2. *Study*

2.1 *Research questions*

a. What argumentative strategies do students employ within integrating reading and writing tasks in language evaluation tests while constructing their argumentative texts?
b. In what way do these strategies elaborate the validity of their standpoints and their argumentative competence?

2.2 *Research material*

2.2.1 *Participants*

Participants are twenty, 16 year old students, 9 females and 11 males, coming from an urban area and a low socioeconomic background, at the second, out of three, grade of the Greek Lyceum. The second grade of Lyceum schooling was preferred due to the proliferation of the language curriculum goals at that educational level and its connection to the learning and teaching of argumentation in particular. It is a grade just before the final grade of secondary

schooling and students' final exams to enter university, thus more directed to the secondary educational curriculum, without at the same time being strictly connected to the exams and related language evaluation tests for entering university.

The participants belong to the same class, randomly chosen out of five classes at the same Lyceum to promote a representative sample of an authentic class instance (Thomas, 2011), and were involved in the same language teaching course by the same teacher. In this way, they consist a relatively unified and at the same time authentic educational context for research (Lincoln & Guba, 1985).

2.2.2 *Data*

The research material related to the final language evaluation paper given at the end of the school year 2013-2014, in a period of 2 hours, with integrating reading and writing assignments as designed by the Greek national language curriculum. Between texts assigned for reading and texts assigned for writing there are thematic and text type relevancies constructing an intertextual network, dynamically supportive for the writing of argumentative texts and thus of argumentative strategies involved. Institutional significance of final language evaluation tests is of importance since they compose one aspect of the degree to which language learning was accomplished and is numerically presented and valued by degrees of accomplishment.

The research focus was 20 argumentative texts written by students within the frame of their final language evaluation test as the main part of the assigned writing.

2.2.3 *Methodology*

Two school teachers, familiar with the language curriculum at Lyceum and argumentation theory, were chosen as independents raters of students' texts. At first a 'generous reading' (Bartholomae, 1986; Donahue, 2008, p. 323) of texts and of the language evaluation test was conducted in order to acquire an overall and comprehensive perspective of the research material and to determine the levels, categories and units of research without pre acquired decisions on the research units that would impose a research perspective before ahead. Recurring patterns with similar textual functions at semantic, pragmatic, logic and lexico-grammar level were observed and categorized into research units.

The research units chosen, given the limitations of the current paper, are:

a. diversity of standpoints used,
b. gender diversity of standpoints,
c. elaboration of standpoints
e. idea negotiations with the reading assignment text
f. lexico-grammar construction of textual voice and communicational context g) argumentation schemes.
Each text was analyzed applying the units chosen. The consensus between the raters, expressed as the percentage of corresponding scores, is 87%.

2.3 *Results*
The language assignment task preceding the writing of students' text, referred to a subject familiar to students by their language curriculum.

One of the most important problems of our time is the increase of unemployment, especially among young people. Investigate the reasons of the phenomenon as well as the consequences in the life of young people. Suppose that your text is the speech that you will give at an event that will be held at your school.' (400-450 words).

The reading assignment text is an article in a daily newspaper written by a university teacher on the importance of higher education to social as well as individual life despite the growing numbers of unemployment for university degree holders.

2.3.1. *Diversity of standpoints*
The number of standpoints employed to meet the questions of the language assignment text concerning the reasons and consequences of young peoples' unemployment are 68 for causes and 65 for consequences, a total of 133 standpoints, slightly privileging numerically standpoints for causes to standpoints for consequences in a percentage of 1,046%. Given the word limitations of the text (400-450 words), an average of 3,4 standpoints for reasons and 3,25 for consequences is considered a quite appropriate length for their further elaboration (Figure 1).

In 7 out of 20 texts the number of standpoints for reasons was equal to the number of standpoints for consequences. In 8 texts the difference between the standpoints for reasons and for consequences was only a minimum one, echoing

teaching and curriculum directions of balance in the elaboration of the directions given by the language assignment task. In 5 texts, a difference of employment of reasons to consequences or vice versa is observed, revealing a difference in the knowledge dynamic for relevant information and ideas. More specifically, in 2 texts the standpoints employed for causes were 7 out 5 for consequences and 4 out of 1, whereas in 3 texts 4 standpoints were employed for causes out of 9 for consequences and relatively 1 out of 4 and 1 out of 3 (Figure 1).

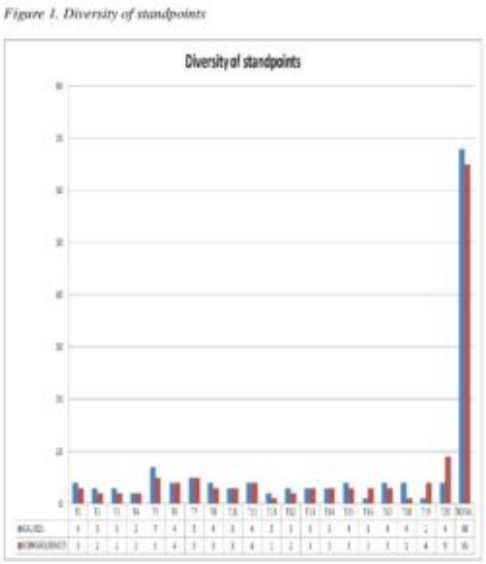

Figure 1. Diversity of standpoints

2.3.2 *Gender diversity of standpoints*

Gender diversity in number of standpoints deployed, although slightly favors males to females, falls under the statistical constraint that 55% of the participants are males and 45% females concluding to a female advantage of 2,17% standpoints. On the total, 69 standpoints were employed by males and 64 by females. Females employ more standpoints for reasons, 35 standpoints, while males 29, resulting to a 2,94% difference. Males employ 36 standpoints for consequences while females 29, a difference of 10, 77% (Figure 2).

2.3.3 *Elaboration of standpoints*

Elaboration of standpoints deployed is closely linked to the definition of argumentation as a composition of a structured constellation of propositions that mean to achieve its discursive purposes and reach a reasonable critique (van Eemeren & Grootendorst, 1992; van Eemeren et al, 1996, p. 5) and to its effectiveness and quality (De la Paz, Ferretti, Wissinger, Yee & Mac Arthur, 2012,

p. 418; Ferreti et al, 2009; Nussbaum & Schraw, 2007; Walton, Reed & Macagno, 2008). In that sense, elaboration in argumentation transcends pragmatic, semantic, lexico-grammar and reasonable directions simultaneously. Hence, argumentative elaboration is also closely linked to argumentative structure, and argumentation schemes into their specific communicational context.

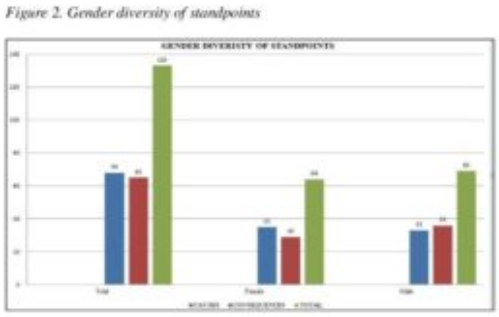

Figure 2. Gender diversity of standpoints

Argumentation structure comprises of explicitly, gradual and discursively interconnected propositions, structured constellations of students' propositions aiming at the gradual elaboration of their standpoints (Garssen, 2001, p. 81; Shultz & Meuffels, 2011, p. 120; van Eemeren & Grootendorst, 2004, p. 4), relevant to the issue under discussion, with sufficient support to the main conclusion, and with reference to the logical acceptance of reasonable participants (Johnson & Blair, 1994, p. 55) and the communicational context. A successful argument is semantically, syntactically and pragmatically valid (Minghui Xiong & Yi Zhao, 2007, p. 3).

One aspect of argumentation structure is argumentation schemes which for Macagno (2015) represent the formalization of abstract patterns of argumentative inference combing "material links with logical relations between the premise and the conclusion in an argument" (Macagno, 2015, pp. 2-3), "an abstract frame that expresses the justificatory principle employed by the arguer", as Hitchcock and Wagemans noted (Hitchcock & Wagemans, 2011, p. 185) "in order to promote a transfer of acceptability form the explicit premise to the standpoint" (van Eemeren & Grootendorst, 2004, p. 4). Argumentation schemes transcend the semantic and reasoned structure of argument and offer us a descriptive, reflective, analytical and evaluative insight to the structure of argumentation and argumentative text.

As a consequence, in defining whether a standpoint is elaborated the criteria proposed and applied in the present study are : a) reference to the issue under discussion, b) adequate advancement of links between premises and the standpoint one wishes to defend via argument schemes so as to insure acceptability of the premise and sufficiency of transference to the standpoint (Garssen, 2001, p. 81), c) argumentative discourse indicators d) appeal to audience reasonableness and e) communicational contextualization for the specific activity type or genre argumentation is aimed.

Only 35 standpoints out of 132 were elaborated by students, a percentage of 37, 7%. Elaboration of standpoints is mainly related to reasons, 26 out of a total of 68, a percentage of 38, 24% and 19 out of a total 64 for consequences, a percentage of 29, 23%. The 42 standpoints related to reasons and the 46 standpoints related to consequences consisted merely of one proposition leaving other premises and inference unexpressed and implicit. Females constructed 23 elaborated standpoints and males 24 which given the gender statistical difference of the participants, results to an almost equality (Figure 3).

Figure 3. Elaboration of standpoints

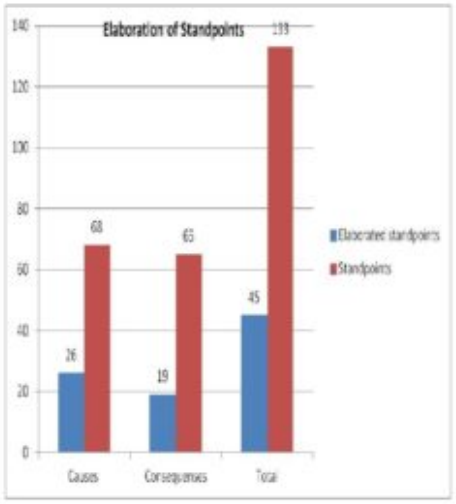

Figure 3. Elaboration of standpoints

2.3.4 *Negotiations with the reading assignment text*

At the semantic level of argumentation students negotiated and transformed ideas from the reading assignment text thus applying in writing the *knowledge transforming model* which is considered most appropriate for the writing of argumentation texts (Andrews, 1995, p. 167; Baker, 2009, p. 138; Grabe & Kaplan, 1996, pp. 121-2). With negotiation, reference is made to the deployment

and interactional construction of meanings and to lexico-grammar and reasoned structures that subjects' activate within communicational contexts in their effort to convey meanings and communicate, a strategy quite familiar to the integration of reading and writing tasks (Donahue, 2004; Garcia-Mila & Andersen, 2007, p. 42; Sachinidou & Dimasi, 2010). For the purpose of this paper, negotiation focused only to the semantic grounds of ideas and information between the reading and the writing assignment text.

Negotiations were numbered according to ideas students used from the reading assignment text, to deploy standpoints. 21 one out of 68 (31%) standpoints for the causes of young peoples' unemployment and 32 out 65 (49, 23%) standpoints for the consequences of unemployment are found in the reading assignment text. Students retrieve and transform ideas and information from the reading assignment text related to the subject and goal of their text and consequently diminishing the cognitive load that argumentation involves (Kuhn & Udell, 2007, p. 1247). Idea selection with reasoned discourse is an additive value to the construction and development of argumentation (Anderson, Chinn, Waggoner & Nguyen, 1998, p. 172). Semantic negotiations reveal a dialogical and intertextual dimension of students' argumentation texts that enhances their effectiveness by invoking strategies supportive of argumentation (Figure 5).

Figure 4. Examples of standpoints' elaboration Example 1 & Example 2

2.3.5 *Lexico-grammar construction of textual voice and communicational context*
Textual voice and textual identity are defined both by the communicational and social potentials (Scollon, 1996, p. 7). In writing argumentative texts within the assignments of the language evaluation test, students engage in the construction of a textual voice as designed by both the language assignment task and the educational context comprised by the language evaluation test.

Lexico-grammar construction of textual voice reveals one aspect of style and stylization and the strategies involved in presenting different voices and selves in the discourse (De Fina, 2011, p. 273; Fahnestock, 2011, p. 279) employing and at the same time revealing genre constraints, opportunities and dynamics and subjects' communicational potential and knowledge not only as discourse producers but as discourse recipients as well. The lexico-grammar construction of textual voice situates the writer and the reader in the communicational context as potentially interactional agents and constantly inscribes, changes and challenges their cognitive representations (Van Dijk, 1998, 2010) thus directing to argumentation (Rocci, 2009, p. 258).

Person markers are one aspect of lexico-grammar construction of textual voice under various forms, mainly in the pronoun system and verb suffixes'.

The first singular person was used in all 20 texts. In 19 out of 20 texts first plural person was used. In 7 texts, second plural person was included and in just 3 texts appeared second singular person. In all texts third singular and third plural persons were used. Genre of language assignment, speech to an audience, contextualized students' choices of person markers'. Emphasis was given to the first singular and first plural person and third singular and third plural person which were present in all texts.

Figure 5. Negotiations with the reading assignment text

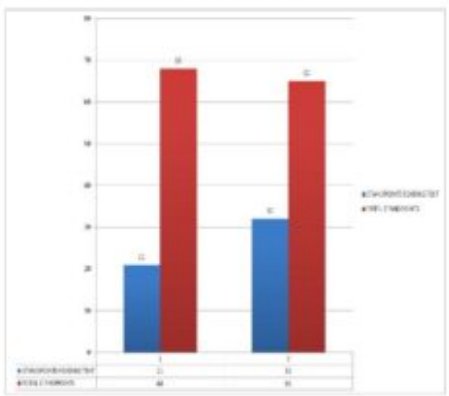

Figure 5. Negotiations with the reading assignment text

Writer's voice is explicitly stated and differentiated by other textual voices in the first singular person, discursively constructing an identity of a knowledgeable subject whose judgment is clearly fore grounded and appreciated for its expertise and authoritative power and thus increasing persuasive effects (Schulze, 2011, p. 132). First plural person, observed in 19 texts in an inclusive sense unities writer and reader (Fahnestock, 2011, p. 285) as belonging to the same identity group, with mutual perspectives and interests as designed by the language assignment task. Obvious audience appeal is observed in 7 texts with second plural person, "one of the markers of a more oral style" (Fahnestock, 2011, p. 281), in accordance with the public speech genre to which the language assignment task is directed. Second singular person was used only in three texts in the generic sense of a rhetorical appeal to the human audience. Third singular and third plural person were used in all 20 texts stating the objective positioning of an observer to actions, subjects, ideas, a premise of reasonableness (see figure 6).

2.3.6 *Argumentation schemes*

Argumentation schemes represent abstract patterns of semantic, pragmatic and reasonable relations between the premise and the conclusion in different and dynamic combinations (Macagno, 2015). The direction in which the activation of these combinations will be driven, is drawn in a map of complex possibilities and is closely related to the purpose of the argument and therefore to its pragmatic meaning emerged in a communicational context as well as to the strategies connected with the purpose of the move. The strategies available or of which a subject avails himself of, direct the combination of relations represented by argumentation schemes in the perspective of the ontological structure of the subject matter of the claim (Macagno, 2015, pp. 20-24).

Figure 6. Lexico-grammar construction of textual voice, person markers

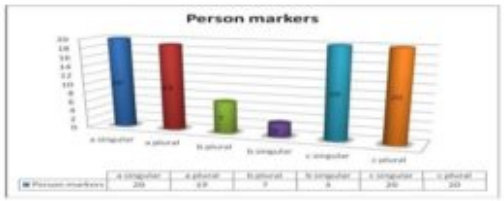

Figure 6. Lexico-grammar

construction of textual voice, person
markers

In referring to the causes and consequences of young peoples' unemployment, the language assignment task oriented students mainly to *causal argumentation*, structured on an interdependent chain of reasons and effects and thus facilitating and supporting two argumentative aspects of argumentation schemes:

a. promote transfer of acceptability from explicit premises to the standpoint and
b. fit to the sort of propositions (Garssen, 2001, p. 91) the assignment task is oriented to. Since the purpose is to support a judgment in a state of affairs, what causes young peoples' unemployment and the consequences that this has on their lives, the writer had to choose how to structure his arguments following two directions:

a. external arguments based on speaker's superior knowledge and
b. internal arguments providing reasons on the features and characteristics of the subject matter to support an evaluative judgment on an entity or a state of affairs (Macagno, 2015, p. 21).

In using the first singular verbal person and thus constructing a knowledgeable identity, students chose an external argument perspective. At the same time, providing reasons on the actions that lead to young peoples' unemployment and the consequences that this has on them, they characterize and evaluate entities and activities "aligning the addressee into a community of shared values and hierarchies of values and beliefs" (Martin & Rose, 2005, p. 95) and thus using internal arguments. The view point of the language assignment task directed another aspect in students' argumentative schemes. In arguing about the reasons of young peoples' unemployment they evaluate mainly actions and activities while in arguing for the consequences of the subject matter they evaluate entities of being, ascribing attitudes to subjects' behavior.

3. *Conclusions*
Before drawing on to the conclusions of the study it must be noted that it concerns a small group of students and can only be indicative for further future research.

A variety of argumentative strategies employed by students within integrating

reading and writing tasks in language evaluation tests in constructing their argumentative texts is observed.

More specifically:

a. There is a variety and a significant number of standpoints deployed. 133 standpoints were indentified in 20 texts, an average of 6, 65% per text (figure 1). The increased number of standpoints is considered as a presupposition for a reader that needs to be convinced or is in need for more information (Martin & White, 2005, p. 119), a goal in accordance with argumentation development (Knapp & Watkins, 2005, p. 192) and educational contexts.

b. There is 2, 17% gender diversity on standpoints employed, slightly privileging females to males (figure 2).

c. Elaboration of standpoints is quite low, only 37,7%, 35 out of 133 standpoints employed. Students, both females and males, rest at the standpoint of the argument not making explicit premises aiming to conclusion justification and thus dispersing the relevance of the standpoint to its conclusion and the issue under discussion while minimizing the depth and effectiveness of argumentation (Knapp & Watkins, 2005, p. 192; De La Paz et al, 2012, p. 418) and its validity (van Eemeren, Grootendorst & Henkemans, 2002, p. 132) (figure 3).

d. The elaboration of their standpoints is mainly related to the causes of the issue under discussion (figure 3).

e. Students transform, modify and adjust the information of the text assigned for reading, to the goals of the new communicative circumstance, recontextualising and negotiating meanings and structures (Donahue, 2008, pp. 90-103; Linell, 1998, p. 154; Plakans & Gebril, 2012) and in this perspective, constructing a basic premise of argumentation (Baker, 2003, 2009) (figure 5). Despite this knowledge supporting negotiation moves, students lack elaboration of relatively standpoints constructed. Although they seem to direct themselves to a knowledge transforming writing model, they apply ultimately a knowledge telling model (Grabe & Kaplan, 1996, pp. 121-122; Bereiter & Scardamalia, 1987), making only a move related to the semantic transformation of the information with no further elaboration. This, according to Plakans and Gebril (2012), consists an indication of “possible need for firm teaching direction, especially if the task is persuasive writing” (Plakans & Gebril, 2012, p. 31).

f. In negotiating semantically with the reading assignment text, students deploy nomination and explicitly referential strategies drawing from a common pool of words from the text read and cultural strategies drawing from a common cultural pool of ideas (Lemke, 1992).

g. They take distances from the reading text at whatever they disagree with thus forming implicitly stated counterarguments which is considered as a differentiated characteristic of mature argumentative writing (Knapp & Watkins, 2005, p. 192; Kuhn, 2005).

h. They invoke experiential material in their effort to explicitly construct their arguments in lack of content knowledge (De La Paz et al, 2012, p. 417; Donovan & Bransford, 2005; Ferretti et al, 2009).

j. They discursively construct, using lexico-grammar devices such as person markers, an identity of a subject whose viewpoint and life perspective is argumentatively and institutionally valued.

k. Students' schematic strategies are in response to their task assignment and the reading text.

l. Schematic strategies are explicitly, discursively and semantically stated with discourse markers (conjunctions, verbs, nouns).

The contextual framing of students' strategies in a continuum between the physical observable educational context and the communicational context formed by the language assignment task comprises an important step towards their argumentative and communicational competence (van Eemeren & Houtlosser, 2005; van Eemeren, 2010).
Despite the variety of strategies used and their contextualization, students' argumentation remains at the start point of their standpoints, merely listing information with little elaboration and coordination of the explicit reasoning and rhetorical steps leading to the conclusion of their arguments and the support of the issue for which they argue. In the argumentation strategies used, students reveal a primary and shallow knowledge of results, routes to achieve results, constraints imposed by the institutional context and commitments defining the argumentative situation (Igland, 2009, p. 510; van Eemeren & Garssen, 2008, p. 11). Their argumentative strategies are inconsistent, only applying patterns learned as steps for argumentation construction which often left implicit and with

little elaboration to reach inferences. In that sense, their strategic maneuvering is incomplete and ineffective.

Systematic teaching and learning of contextualized argumentative moves as classes of dynamic, rich and open ended activations of choices building argumentative strategies and argument validity is needed. This does not mean that teaching and learning of argumentative moves should be seen as a canonical classification and employment of relative moves but rather as a strategic maneuvering of constantly reflecting, structuring and restructuring moves and involving into a variety of argumentation instances and activities in order to form a metacognitive and dynamic awareness of argumentation.

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Abstract: Recent work on narrative-based arguments has insisted on the importance, for assessment, of construing a theory of story "credibility" or "believability". The main tenet of most approaches is the idea that a credible story should resemble "reality". However, "narrative realism" is a rather problematic concept. The paper proposes a more nuanced, multi-dimensional and explicitly meta-argumentative approach to the assessment of arguments involving narratives, that would not prejudge their argumentative form or function.

Keywords: argument assessment, narrative argument, narrative rationality, narrative realism.

1. *Introduction*

Narrative argumentation, narration in arguments or the inherent narrativity of arguing and debating, are, no doubt, trendy topics in the field of argumentation theory. We heard several papers on these issues in last year's OSSA 10th Conference and here in ISSA 2014, we have two complete panels labelled "Narrative argument". Of course, this implies a certain variety of approaches and some clarifications as to the referents and the scope of my own paper are required.

First of all, even if I take W. Fisher's narrative paradigm of rationality (1989 [1987]) as a truly attractive philosophical stance, that could yield interesting insights regarding the cognitive basis of our reasoning, I claim some of its assumptions may turn our attention away from the particularities of real discourse. If we assume that:

regardless of genre, discourse will always tell a story and insofar as it invites an audience to believe it or act on it, the narrative paradigm and its attendant logic, narrative rationality, are available for interpretation and assessment (Fisher,

1989, p. xi) there would be nothing specific to arguments involving explicit narratives as obvious parts or as a manifest linguistic strategy. Again, Fisher insists "When narration is taken as the master metaphor, it subsumes the others" (1989, p. 62). So my first clarification is that here I don't mean to use "narrative" as a metaphor (however insightful) of what's happening when we argue and listen to or interpret arguments; nor as the cognitive key (however revealing) to the widespread features of our species' argumentative practices (as allegeddly *Homo narrans*). I will focus, instead, on the straightforward recognition of a variety of argument types and argumentative discourses in which the particular linguistic features and genre-specific qualities of narration play a significant role.

2. *Narrative arguments*

There are a number of widely acknowledged argument types in which narratives may be involved in significant ways. Certain explicitly "narrative-based argument schemes" have been presented and discussed in recent literature (Walton, 2012; Govier & Ayers, 2012) and there is also interest in pure "narrative discourse" as a possible way of arguing for a thesis in the adequate pragmatic contexts (Plumer, 2011; Olmos, 2014).

Not trying at all to be exhaustive in any sense and just for the purposes of this paper, I will mention four broad categories of arguments for which an exploration of "narrative credibility" would be of interest.

i. First of all, as it comes to everybody's mind, arguments presenting parallel, *digressive* stories (cf.: Cic. *De inv*. I 27), i.e. not directly related and causally and historically independent, be them fictive or not, to the circumstances referred to in the thesis, as reasons, nevertheless, for its acceptance (although not necessarily through an argument by analogy, cf. Olmos, 2014b). They would typically conform (and I refer here to Walton, Reed and Macagno's 2008 catalogue): arguments from example (*WRM* 2008, p. 314), arguments from "analogy", especially "practical reasoning from analogy" (*ibid*. pp. 315-316) or arguments from precedent (p. 344).

ii. In second place, arguments in which the data, or part of the data are presented in narrative form; i.e. arguments which involve narrative premises which have something to do with the particulars and circumstances referred to in the thesis (they are not *digressive* but they are not *core* narratives either "which contain just the case and the whole reason for a dispute", *De inv.,* I.27). For example,

practical inferences from consequences (p. 323), or from goal (p. 325), arguments from sacrifice (p. 322) and waste (p. 326), arguments from interaction of act and person (p. 321), pragmatic inconsistencies (p. 336), arguments from memory (p. 346).

The argument types so far mentioned do not necessarily always represent what I would call a narrative argument – especially not when they just involve a one-step consequence supported or supportable by a simple warrant. I would restrict the concept of narrative argument to cases that explicitly involve a more complex, sequential chain or compound of events that should be assessed as a whole. In any case, the credibility of the narratives endorsed as reasons or parts of reasons in these two categories of arguments would be essential to their interpretation and assessment. But then, we may also think of:

iii. Arguments *about* narratives, i.e. about versions of events (these would be what I call *core* narratives, cf. Olmos, 2014), with usually partly narrative claims or conclusions (typically global assertions regarding narrative accounts of disputed facts: "what really happened is…") supported by a variety of reasons (typically involving source reliability) when facts themselves are under discussion or are unknown to the audience. Such cases would typically involve arguments from position to know (p. 309) or arguments from witness testimony (p. 310).

These are usually *not* narrative-based arguments (the key reasons involved are not typically narrative, although they could be), but theories about story credibility may be part of their analysis, understanding and assessment as the critical questions presented by Walton Reed and Macagno (2008, p. 310) concerning "arguments from witness testimony" reveal:
CQ1: Is what the witness said internally consistent?
CQ2: Is what the witness said consistent with the known facts of the case (based on evidence apart from what the witness testified to)?
CQ3: Is what the witness said consistent with what other witnesses have (independently) testified to?
CQ4: Is there some kind of bias that can be attributed to the account given by the witness?
CQ5: How plausible is the statement *A* asserted by the witness?

iv. And finally, we have what we could call credible "pure narration", that I have elsewhere treated as some sort of self-standing and self-referring "argument"

(Olmos, 2014), and perhaps could be better understood in terms of assuming certain argumentative qualities –rhetorical and others– in a discourse that does not explicitly present an argument. In such cases we could have a manifestly credible narration as a discursive way to *implicitly* support the veracity of an account. The story's veracity would be the (usually implicit or just suggested) conclusion and its manifest narrative plausibility, its only justificatory measure. We can imagine that a particular theory or a principle of story credibility could act as such conclusion's warrant, if challenged in subsequent interchange.

There exists, on the other hand, a rather extended impression that the way we go about assessing the credibility of the stories we hear is something extremely basic within our cognitive capacities. Thus, Fisher talks about our "inherent awareness of *narrative probability*" (1989, p. 5) or even our "natural capacity to recognize the coherence and fidelity of stories" (1989, p. 24). In fact, our everyday experience somewhat matches this confidence, but this doesn't mean that we cannot try to be more specific as to the way we assess such narrative *probabilitas*. In fact, there have been numerous attempts at that, and many of them from the ranks of the rhetoricians, concerned with argumentative issues and the specific problems posed by argumentative settings (Olmos, 2012).

3. *Criterial theories of story credibility*

As early as in Isocrates (4th c. BCE), we may find the well-known classical triad of the virtues required by a narrative discourse to be persuasive, i.e. rhetorically effective. Narration employed in persuasive processes and rhetorical settings should be clear (*safēs*), brief (*suntomon*), and convincing (*pithanon*). In the subsequent Latin tradition this "convincing" (*pithanon*) was alternatively translated for *probabilis, credibilis* or *verisimilis.* Fortunatianus (4th c. CE), in his *Artis rhetoricae* (II.20), supports the relevance of these three virtues by identifying the argumentative benefits expected from each one of them: "Brief, so that the audience may enjoy listening to us; clear, so that we be fully understood; verisimilar, so that our story serve as evidence" ("Brevis, ut libentius audiatur, manifesta, ut intellegatur, verisimilis, ut probetur"). According to Fortunatianus' formula, then, it is the third virtue what allows us to use narratives as supporting reasons for our claims. But how do we attain such verisimilitude that would result in the credibility or believability of our stories and, therefore, in their usefulness as assessable reasons? The main tenet of most of approaches to "story credibility" is the rough idea that a credible story should resemble "reality" or "what we know

about reality". But usually this main rough idea is complemented and developed by identifying more concrete requirements. We will take a look at several of these "criterial" theories of story credibility starting with some apparently simple distinctions and advancing towards a more complicated panorama.

There has been a long-standing tradition in locating criteria for "story credibility" in, at least, two distinct realms: one *intra-diegetic* (inside the story itself), the other *extra-diegetic*. This is very clear and straighforward in Gilbert Plumer's characteristically *diadic* account of the novel's *believability* (2011, pp. 1554-1555) which would be attained by means of its:
1. "internal coherence": that events in the narrative be fully connected, and
2. "external coherence": that they also "cohere with our widely shared assumptions about how human psychology and society […] work".

W. Fisher also presented, in principle, this kind of *diadic* approach to the evaluation of communicative discourse (which, in his view, is always narrative). However, while developing his criteria throughout his book, Fisher finally introduces certain ideas that point to somewhat different evaluative sources. Fisher calls "coherence" or "probability" what's roughly Plumer's "internal coherence", and "fidelity" Plumer's "external coherence". Here is a summary scheme of what Fisher says about these two testing qualities of "human communication" in different parts of his book (1989: pp. 47; 75; 88; 175).

A.
PROBABILITY /COHERENCE: whether a story "hangs together"
A.1. Probability is assessed in three ways:
– by the story's *argumentative* or *structural coherence* (i.e. its involving a "coherent plot");
– by its *material coherence*, that is, by comparing and contrasting it to stories told in other discourses;
– and by *characterological* coherence.
A.2. These features (which Fisher calls formal) result in the narrative satisfying the demands of a *coherence theory of truth*. The idea is that the story be "free of contradictions".
A.3. "Knowing something about the character of the speaker and his or her actual experience, one can judge whether his or her story 'hangs together' and 'rings true'." (p. 88).

B.
FIDELITY: truthfulness and reliability.
B.1. Fisher calls features of fidelity *substantive* (vs. *formal*) features, which result in the narrative satisfying the demands of a *correspondence theory of truth.*
B.2. Narrative *fidelity* concerns the soundness of its internal reasoning: Does the message accurately portrait the world we live in?
B.3. Narrative *fidelity* also concerns the value of its values: Does it provide a reliable guide to our beliefs, attitudes, values and actions?

This more lengthily developed and in principle more sophiticated account is ultimately only apparently *diadic*. Considerations presented in A.1. about "material coherence" rely on a comparative approach between available stories (even, reading through the text, between available "competing" stories) which is not so much an *intra-diegetic* criterion and which may have to do with a wider assessment of the pragmatic circumstances and discursive background in which a story is uttered and interpreted –we'll see more of that later, in other authors, but as a relevantly distinct criterion, with its own weigh.

More unexpected is probably the mention, in A.3., of the speaker's known or attested character as supporting the story's coherence when, for example, in Walton's considerations on "arguments by testimony" it is exactly the other way around: the story's apparent coherence would be part of the assessment of the testifier's performance that would finally support the plausibility of an argument in which the assessable reason would be that there is a witness testifying for a certain claim. In any case, I suggest that this and other ethotic questions would require a better fit as they conform a criterion or a set of criteria that go beyond the story's "coherence".

In the *fidelity* side, we see again the somewhat unexpected (although fully consistent with Fisher's avowed motivations) introduction of an ethical and value-based characterization of this requirement, which has to do with its "reliable" vs. its "truthful" quality. However, this very important aspect would demand, in my opinion, its own space as not immediately related to prima facie *believability* or, in any case, to a *correspondence theory of truth*. Of course the compliance of stories with values may be crucial for their usefulness in practical reasoning and so their assessment according to this criterion may be part of their acquiring the quality of "evidence" in certain contexts. But I still think it would be better to distinguish more neatly, at least in principle, between the two aspects of *fidelity*

mentioned by Fisher. So Fisher's account, apparently clear, schematic and diadic has finally proven rather pluralistic, which is not a bad thing, but just reminds us that there are still many things which could be clarified in this domain.

I will mention now the old list of requirements given by the 15th c. humanist Rudolph Agricola (ca. 1479) for a "probable account" (*probabilis expositio*), which is *triadic*, not because I intend to classify theories about story credibility according to the number of criteria they propose, but because the third criterion he adds to roughly the two equivalents of the main ones we have already seen deserves, in my opinion, some consideration. According to Agricola, in a well-known passage of his De *inventione dialectica*,**[i]** the kind of *probabilitas* we are after in accounting for facts is obtained by means of an exposition which would be:
a. "rich in argumentative content (*argumentosa*): i.e. which accounts for enough aspects of the action related;
b. "free from contradiction" (*per se consequens*): i.e. which presents an internal coherent structure;
c. "consistent with how things are" (*consentanea rebus*): i.e. resembles what we know about the real world, complies with an external standard of comparison.

While b) and c) could be more or less equivalent to Plumer's intra- and extra-diegetic criteria, criterion a) is, obviously, something different. It may have something to do with the "material coherence" mentioned by Fisher in the sense that the relative "degree of detail" (depth and richness) attained by a story cannot be an absolute meassure, but will always be evaluated by comparison to other accounts (competing or not).

In any case, this kind of criterion, reconverted into a requirement for "coverage", reappears in modern theories regarding the testing of stories in legal settings. We find something very similar in, for example, Pennington and Hastie (1992). These authors mention several factors that determine the acceptability of a story in juror's decision- making:
a. Coherence: which sums consistency (internal criterion) and plausibility (external criterion);
b. Coverage: of the legal evidence presented;
c. Uniqueness: that it is the only story available

The two most obvious principles (Plumer's internal and external coherence) they

group under the heading “coherence” and distinguish between an internal “consistency” requirement (freedom of contradictions) and an external “plausibility” one. The second criterion (close to Agricola’s “richness in argumentative content”) refers not just to the particular “degree of detail” of the story but to its degree of detail relative to the data presented in trial as evidence, the idea being that the credible story should be capable of “covering”, that is of explaining and situating such evidence within a global, articulate account. This I find a nice way of spelling out the pragmatic circumstances regarding the kind of criterion demanded by Agricola with his “*expositio argumentosa*” for a particular argumentative practice (in this case, juror’s decision-making) and I imagine something similar should be done in different contexts.

Now, Penington and Hastie’s criterion c), “uniqueness”, is also very interesting. It is rather akin to the “material coherence” mentioned by Fisher (although Fisher’s characterization would include both coverage and uniqueness in “material coherence”), as this author specifies that other stories told should be compared and contrasted with the one we are testing, in order to evaluate it. I would suggest, though that this criterion should be supplemented or qualified with an additional *independence* criterion that may bring in issues about multiple-source confirmation.

It is a common rule in law that, at least, two *independent* witnesses should coincide in telling roughly “the same story” for their “joint” testimony to constitute “evidence”. If there are contradictions between witnesses this circumstance goes against the plausibility of each of their accounts. However, the meassure of the “degree of independence” of two, more or less coincident, witnesses relies precisely on their stories being at least “slightly different” so that they do not seem to have been dictated by a common source. If two people, who in principle should have seen things with their own eyes, from their own respective different positions, tell exactly the same story, mention the same details and qualify actions with the same vocabulary, anyone will suspect that their testimony has been unduly prearranged. So Pennington and Hastie’s uniqueness criterion should be supplemented or qualified with an *independence* criterion that may take account of such possibilities. We’ll finally mention Cicero’s “multiple criteria” approach as exposed in a well known paragraph of his *De inventione:*

The narrative will be plausible if it seems to embody characteristics which are

accustomed to appear in real life; if the proper qualities of the characters are maintained, if reasons for their actions are plain, if there seems to have been ability to do the deed, if it can be shown that the time was opportune, the space sufficient and the place suitable for the events about to be narrated; if the story fits in with the nature of the actors in it, the habits of the ordinary people and the beliefs of the audience. Verisimilitude can be secured by following these principles (*De inv*. I.29.)

This paragraph was commented by Marius Victorinus in the 4th c. CE (*Explanationum in rhetoricam M. Tullii Ciceronis*) emphasizing the oposition between the so-called "seven circumstances" (that account for the story's "coverage" and "internal coherence") and the "doxastic" standards that have to do, above all, with the "pragmatic" circumstances of discourse delivery (audience-related issues). According to Marius Victorinus (Halm, 1863, p. 207) Cicero's criteria for the assessment of the plausibility of a *narratio* could be schematized thus, placing, on one side, the seven circumstances that must be duly accounted for by the narrative and, on the oher, the three doxastic aspects mentioned by Cicero.

Seven circumstances	Opinion
Who (person)	*Nature of the agents*
What (fact)	
Why (cause)	*Common habits and values*
Where (place)	
When (time)	
How (mode)	*Audience (arbiter's) opinion*
How possibly (faculty)	

Seven circumstances – Opinion

This is probably an oversystematic interpretation of Cicero's paragraph, but what counts for our purposes is that *De inventione* mentions among the extra-diegetic criteria for narrative assessment things like the "common habits and values of the ordinary people" (in line with Fisher) and also (in an explicit rhetorical mood) the need to take into account the "audience's or arbiter's previous opinion" in analysing the "credibility in context" of a story.

4. *Argumentative assessment of story credibility*

Now, all these proposals seem to be based on the collection and ordering of a list of different criteria that a story told in an argumentative discourse should fulfil in order to be credible and accepted as evidence of some sort. If we sum up and try

to arrange what we have so far seen, starting from the most inner (intra-diegetic) to outer (extra-diegetic) criteria, we have a much more complicated framework than the diadic theory we started with and which referred to roughly numbers 1 and 9 on our list, equivalents of which are mentioned by practically all authors:
1. Internal plot or structural coherence
2. Internal characteriological coherence (Ficher, Cicero)
3. Internal degree of detail: *expositio argumentosa*, covering the seven or more circumstances: i.e. a rich enough, dense enough account (Agricola, Cicero)
4. Arguer-related, "ethotic" assessment: story/storyteller coherence (Fisher)
5. Coverage of relevant extra-diegetic evidence ("material coherence"). Relative to argumentative practice involved (Pennington and Hastie).
6. Uniqueness, situation of the story regarding other "competing" discourses (Pennington and Hastie).
7. Independence regarding other competing discourses (relative contribution to a collective reconstruction of plausibility based on multiple-source confirmation) (Olmos).
8. Audience-related, "pathotic" assessment: previous beliefs of audience. Relative to argumentative practice involved (Cicero).
9. External coherence, fidelity to the real, extra-diegetic world. Degree of realism (a complicated issue in itself).
10. Fidelity to human values: reliability and applicability of the story. Degree of humanism: ethical assessment (Fisher, Cicero).

Now, what can we do with this growingly sophisticated list? (It could be easily extended). First of all, I see many problems in taking these criteria as a growing number of requirements that would eventually take us somehow closer to a kind of definitive list of necessary and sufficient conditions for the assessment of any story as "credible". But the alternative to such an approach is in the hands of argumentation theory.

If we assume that the process of evaluating the credibility of a story would be an argumentative practice in itself that would require arguments supporting it (or meta-arguments in case our story is already a substatial part of an argument) and further arguments if challenged, then criteria as the ones we have been reviewing (and other conceivable ones) would be possible (more or less combinable in argumentative structures) motifs or topics providing warrants for arguing for the credibility of a story or for challeging it in an argumentative interchange. Our

proposal would oppose these two conceptions and usage of such criteria

* Criteria as conditions or requirements for the *qualitative* assessment of narrative argumentative discourse. An approach that would imply discussions about the inclusion/exclusion of individual criteria and about their necessity/sufficiency, *vs*.

* Criteria as topical suggestions providing reasonable warrants for (meta)*argumentative* assessment, depending on things like: i) possible argument-types involved in the assessed discourse (i.e. different argument schemes would require different criteria for the assessment of the narratives making part of them); ii) discursive interactive context with possibly competing stories (i.e. assessment would in most cases be *comparative*, Marraud, 2013, p. 149ff.) or iii) objectives of the particular argumentative practice in which the narrative appears.

This approach is coherent with my general standpoint that argument evaluation and premis assessment are, finally, argumentative practices themselves, which may involve a variety of warrants and lines of argument.

The different theorist and authors that we have reviewed as providing us with criteria for narrative credibility, coming from different traditions and interested in diverse kinds of discourse, have coherently pointed to different aspects that could be conceivably used in arguing for the correctness, reliability or truthfulness of our stories and therefore for their usefulness as evidence in argumentative discourse.

Such an aproach is, in my view, applicable to any process of argument evaluation as reveal the different CQ's involved in assessing argumentation schemes which may be easily multiplied in several ways, especially if we take into account pragmatical and rhetorical issues. But in the case of our narratives, moreover, I think we must also acknowledge some rather intractable additional problems. In the next section I will concentrate on those regarding what in our summary list was criterion 9): the requirement of realism.

5. *Narrative realism*

What exactly is "a realistic narrative" is not a question that we can answer in any easy way. Literature scholars have been dealing with this topic for at least the last 150 years (cf. classics as Booth, [1961]1983; Stevick, 1967) and the answers

are multiple and historically changing. Wayne Booth in his classical *The Rhetoric of Fiction*, acknowledged that general rules fail in providing good answers: there are too many ways of being realistic and of conceiving of realism. More recently, Claudia Jünke (forthcoming), has presented a study about three French writers: Marivaux, Diderot and Stendhal, all of whom use very different literary devices (although in all three cases we are talking about explicit meta-linguistic authorial interventions) to account for the verisimilitude of their tales and novels. Jünke's study proves a certain historical variation and evolution in the conventional ways of arguing, within literary narrative, for verisimilitude. If we take in account the possibilities exploited by more contemporary novels, in which avoidance of authorial interventions becomes the norm, things get even more complicated. It is, of course an endless issue.

For our purposes though I would just suggest that we take into account these two rather reasonable and relevant claims:
a. we are not really sure of what is *plausible* in human affairs, the infinite complexity and unexpectedness of human life will always be there; it is the kind of realm where we should not look for a complete system of rules (Cf: Wittgenstein on *Menschenkenntnis* or "knowledge of human nature", PI §355-356, Cf. Bouveresse, 2007, pp. 80-81);
b. storytelling is a way (one of our most basic ways) to explore what's plausible in human affairs: so the relation narration/reality is inescapably circular.

Now, regarding (a), I would say that it is part of our condition that the inconceivable, the unexpected in many cases happens in human affairs and we cannot really construe a theory that would overcome this situation, among other things because we are not allowed to make lab-experiments about what would happen if so-and-so happened regarding human life and affairs.

Krzysztof Kieślowski's film *La double vie de Véronique* (1991) is precisely about an author (a storyteller and, ironically enough, a puppeteer) who is not sure about the plausibility of a certain tale he has imagined and tries to put part of the plot into practice, inducing a girl to take certain actions just to see whether such actions are conceivable for her. The film shows how inadmissible and inhuman this "playing with others as puppets" is, even in the case of apparently inconsecuential actions (as those in the film which are not really dramatic). Then, (b) is our alternative, one of our alternatives to this and Kieślowski's film is finally a piece of human life storytelling regarding the intrinsic difficulties of human life

storytelling. Kieślowski uses a fiction film, a narrative, to show us that we cannot make non-narrative or real-life experiments to test stories.

This circumstance exposes the intractable circularity of the relationship between reality and narrative or storytelling. When we (in a spontaneous, natural way, in Fisher's sense) find a narrative plausible, in part we may be comparing it with what we have already experienced (it rings true because it's similar to what we know) or, alternatively, we may be partly surprised (and nevertheless convinced) by what it reveals about human nature and, from then on, apply it in our understanding of real situations. This balance is rather complex and it may be further complicated.

From the point of view of argumentation theory, we could say, with Perelman, that narratives (be them fictive or not) are partly "based on the structure of reality", partly "founding the structure of reality" (1958, pp. 351ss, 471ss). We'll have to decide in each case and depending on the characteristics of the discourses (including the particular types of argument involved) and discursive interchanges in which the narratives are inserted, which of these aspects is more relevant and should be taken into account in our analysis, evaluation or challenge.

6. *Conclusion*

If we assume that the evaluation of arguments or parts of arguments can be conducted in an argumentative way and become an argumentative practice in itself, we will be prepared to listen to different ways of arguing for the adequacy of the stories involved in our practices of giving reasons.

For example, Aristotle's maxim warranting the use of past stories derived from facts as evidence to be taken into account in decision-making processes, by means of arguments from example, or *paradeigmata* and which reads: "*for the most part what's coming will be similar to what's already happened*," (*Rhet.* II.20) might seem fairly reasonable. But then so it is (especially for our modern sensibility) Richard Ford's justification of the verisimilitude of the story he tells in the novel *Canada*:

I can't make what follows next seem reasonable or logical, based on what anyone would believe they knew about the world. However, as Arthur Remlimger said, I was the son of bank robbers and desperadoes, which was his way of reminding me that no matter the evidence of your life, or who you believe you are, or what you're willing to take credit for or draw your vital strength and pride from

*–anything at all can follow anything at all. (*Richard Ford, Canada – 2012)

I think both are usable (and in fact used) warrants that I personally would accept as *prima facie* good reasons supporting stories in different settings and for different purposes. They are both rather extreme though and I would certainly prefer more balanced principles for "important" or "consequential" decisions. Ironically enough, if decision-making or other serious purposes are lacking or avoided and the end of our stories is something like *frivolous entertainment*, we may always abide with Mark Twain's warning at the beginning of *Huckleberry Finn* which prevents his novel's serious use as *evidence* by precisely forbidding its narrative assessment:
Persons attempting to find a motive in this narrative will be prosecuted; persons attempting to find a moral in it will be banished; persons attempting to find a plot in it will be shot. (quoted by P. Stevick, 1967, p. 3).

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NOTE
i. "Probabilis fit expositio, si sit argumentosa, si consentanea rebus, si per se consequens" (Agricola, 1992 [1539], p. 350).

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Abstract: In this paper, I have investigated partially the relation between reasoning and argumentative complexity from the theoretical framework of text linguistics. For this purpose, I have explored both the ability underlying the activity of speaking (the ἐνέργεια) and the product created by this competence (the ἔργον). This work supports the hypothesis that the ability reasoning in terms of critical thinking (ἐνέργεια) of college students is related to formal argumentative complexity (ἔργον) of their discourses.

Keywords: argumentation, complexity, density, reasoning, thinking.

1. *Purpose*

This paper is part of research project Fondecyt Nª 1130584, whose main objective is to investigate the relation between reasoning and argumentative complexity from the theoretical framework of text linguistics. To this effect, I have explored partially both the ability underlying the activity of speaking (the ἐνέργεια) and the product that is created as result of this competence (the ἔργον).

From the first perspective, cognitive operations involved in this knowledge during the real activity of discursive production are suggested that, as proposed, are projected in the form of more or less complex, discursive texture or density, on the discourse. From the second, an initial evidence of argumentative complexity -based on the derivational property of propositions and from the notion of argumentative coherence that proceed of those- is provided.

2. *Methodology*

The work has followed an approach mixed quantitative and qualitative. In order to establish the capacity or level of ἐνέργεια of the subjects, 80 college students was tested applying the test Tasks in Critical Thinking, created in 1986 by an expert committee of the Educational Testing Service, United States. The tool considers

both the multidimensionality of critical thinking and cognitive skills that it requires a priori in a test with 15 kinds of analytical reagents. The dimensions of the test considered are three: inquiry, communication and analysis.

In order to determine the degree of argumentative complexity of informants (ἔργον), I followed a qualitative approach, applying the procedures of grounded theory, through the Atlas / ti software.

3. *Theoretical framework*

3.1 *Thought and language*

The conception of a faint boundary between the notions of thought and language dates from Aristotle, when he says that the referents of the signs are the same for anybody (Aristóteles, 1986) to Wittgenstein, when he argues that the propositional sign applied is the thought (Wittgenstein, 2003).

Research in contemporary cognitive psychology, on the other hand, has shown that language is not the only cognitive capacity of the human being, but rather constitutes a module of a complex function which shares at least with the perception, memory, intelligence and thought; i.e., numerous specialized and relatively autonomous subsystems that, however, interact with each other to some extent. In this regard, it has been proposed that language is a cognitive module (Fodor, 1986) so that its mode of operation would not be found affected by the other components of cognition. In this context, and based on evidence such as FoxP2 protein of chromosome 7 (Marcus & Fisher, 2003), it is postulated that the language would, therefore, a specific skill, not dependent on other cognitive activities.

3.1.1 *Natural reasoning and language*

The psychology of development has reported that during the first years of life (stage of absolute realism), humans assume that the mental representation of reality corresponds exactly to reality itself. With the development of both cognitive functions as personality traits, appears later, between cognitive functions, metacognition, and with it, some reflective capacity that allows generate arguments.

The reflective thinking, due to be metacognitive, can only occur when the mental content is registered symbolically, what happen when the development of the language allows the representation and the construction of concepts. When we

put these concepts in relation in order to obtain a given conclusion we build a sort of arguments that may or may not be verbal, and that are expression formalized of mental activity.

In other words, according to Mercier & Sperber (2009) I admit that the arguments used in reasoning are the output of the mental mechanism of inference. The function of reasoning is conceived in this way as an argumentative mental activity since it involves an activity of conceptual inference that leads not only to a new mental representation (or conclusion), but also collateral representations (or premises) that provide guarantees to accept the largest representation.

Reasoning, in this sense, can be conceived both as activity mental that generates a convincing argument as to evaluate and accept the conclusion produced by a different individual.

3.1.2 *Reasoning and critical thinking*

The notion of critical thinking has been addressed basically from three different perspectives. First, from a philosophical approach (Siegel, 2010) that focuses its attention on the quality of thought from a regulatory point of view, in terms of standards or rules, i.e., accuracy, clarity, fairness, logic, breadth, relevance, etc., that must to have a person considered critical thinker. Second, from the principles of cognitive psychology (Halpern, 2003), focusing more attention on the real subject, through the research on the processing of information by the critical thinker in order to describe its phases such as analysis, interpretation, problem definition, formulation of hypothesis, etc. Third, from a pedagogical perspective (Bloom, 1971), from which cognitive abilities are classified hierarchically in a gradual taxonomies.

For the purposes of this paper, following Siegel (2010) I propose to link critical thinking with reasoning. According to his view, in fact, critical thinking is a manifestation of reasoning.

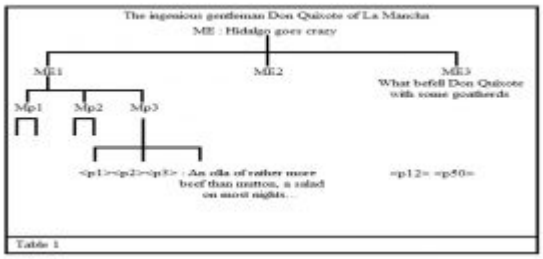
3.2 *Discursive complexity*

The notion of speech complexity has been addressed very superficially, from different theoretical approaches, and preferably focusing on the microstructure of the text, particularly its syntactic organization.

For example Véliz (1999) relates syntactic maturity with the ability to produce linguistic units structurally complex at sentence level, which in his opinion would be expressed in the number of combinations and transformations that the speaker

makes in the process of production of a given sentence.
From other epistemic approach, van Eemeren, Grootendorst and Snoeck (2006), to address the distinction between an argument based on a single and a complex, multiple, coordinated or subordinated argument, propose a model that considers argumentative complexity in terms of the number of arguments of a text and the relationships established between them.
Merlini (2011), in other hand, in a larger semiotic context, following Beugrande's standards of textuality relates the notion of textual complexity as evidence of mark, proposing that any sequence of text marked as complex, could derive from a source of conflict related with the cohesion, coherence, intentionality, acceptability, etc.

3.2.1 *Argumentative complexity as ἐνέργεια*
With the concept of discursive complexity I have tried to refer that body of knowledge of speakers to organize argumentatively, in varying degrees of texture or density, a speech with respect to the macrostructural level.



According to Van Dijk (1992) the macrostructure is an abstract representation, in a bottom up sense, of the semantic content of a speech. In cognitive terms, represents an operation of information reduction from the textual surface structure, as shown in Table 1 from the novel The ingenious hidalgo Don Quixote de La Mancha.

Conceived the discursive capacity as a ἐνέργεια, is interesting establishing the kind of knowledge involved (i.e., reasoning/critical thinking) that is used to discursively deploy the macrostructure of a text, in generative direction from top down, at different levels of complexity by means of a set of propositions of sequential lower level.

The discursive production rules that contribute to the density, texture or discursive complexity and which represent an opposite operation to the macrorules (van Dijk, 1992), I suggest, are basically, 'attach', 'particularize' and 'specify'.

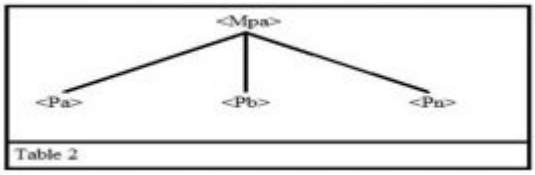


Table 2

The rule ‘attach’ represents the inverse operation to the macrorule ‘delete’. As we can see in the Table 2, through this application we can wrap the speech with a series of propositions that are of low relevance to the macrostructure and, because of it, should be at a low level of macrostructural depth.

The rule ‘particularize’ represents the inverse operation to the rule ‘generalize’ (see Table 3). Thus, through its application, we can decompose a macroproposition in a series of minor propositions that involve it. As textualization rule, apparently have higher density capacity, texture or complexity that rule ‘attach’.

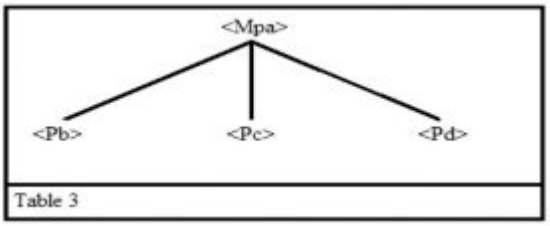


Table 3

The rule ‘specify’ finally is conceived as the inverse operation of the ‘integrate’ rule. As we can see in the Table 4, by putting into execution this rule we can generate speech in terms of propositions that are subsumed under the cultural framework corresponding at the macrostructure. Since cognitively represents the same operation as the rule ‘particularize’ should have a similar effect of textual complexity.

3.2.2 *Discursive complexity as ἔργον*

I conceive that linguistic competence is formed by the sum of a series of independent knowledge (Coseriu, 1992) that interconnect necessarily together in the time it is updated in the form of a particular discourse. Constrained by the strength of the discursive tradition, competence is projected unevenly in the form of discourse, thereby affecting the density, texture or complexity of the macrostructure and consequently, the degree of coherence.

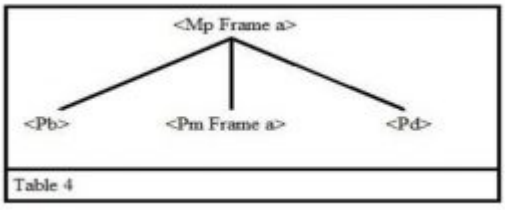


Table 4

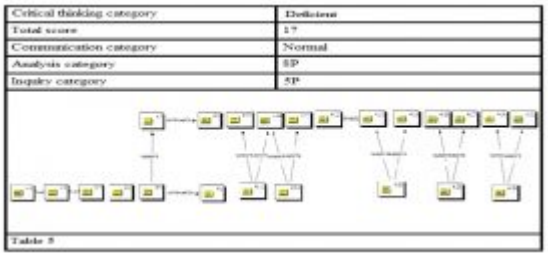
I use here the term coherence for to make references to the global inter-relatedness (macrostructural) in the text (Halliday & Hasan, 1976) that is dependent on the formal structure and the relationships established by the parties thereof. I recall that these relations are nonlinear and are set at different

levels of depth of discourse (Van Dijk, T. & Kintsch, W., 1983).

Depending on the grade or quality of reasoning variables possessing or activate a particular speaker will be updated a type of discourse with more or less global coherence, determined by textual structure and relationships of parts, potentially measurable in terms of complexity or intensity of the texture discursive.

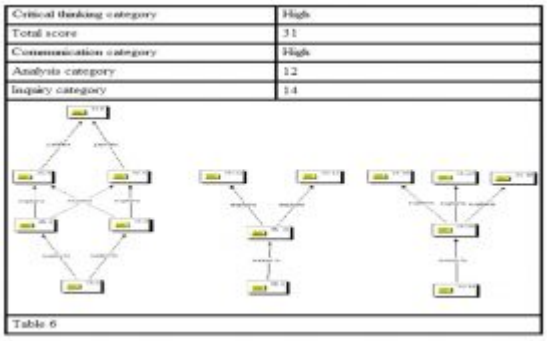
3.2.2.1 *Findings*

In order to show the relationship between capacity of reasoning and argumentative complexity, are presented below (see Table 5 and Table 6) two examples of the corpus with the scores in the dimensions critical thinking and argumentative complexity, respectively, which in turn are prototypical of the general tendency which emanates from the corpus.



The Subject 1 shown in Table 5, categorized as deficient in terms of the critical thinking to achieve a total score of 17 points, 8 in the category of analysis, 5 of inquiry and a normal behavior in the communication, through the cognitive operations that I have called macrorules of density, texture or argumentative complexity, generates a speech with 5 propositions disassociated through rule attach, and 6 linked propositions through rule particularize or specify.

The Subject 1 demonstrates low critical thinking, and consequently his speech low coherence, due to the poor speech density, represented by the low depth macrostructural and the absence of substantive relations between propositions.



The Subject 2, as show the Table 6, categorized as high in terms of critical thinking, achieve a total score of 31 points, 12 in the category of analysis, 14 in inquiry and a high performance in the communication, by the macrorules of density, texture or argumentation complexity generates an speech with 3 propositions at the base through rule attach, but linked with the rules particularize or specify on the second and/or third level of semantic complexity

(11 propositions at different levels of semantic complexity). Unlike the Subject 1, the Subject 2 has more speech density because progresses with greater cognitive macrorules to a second or third level of macrostructural complexity that ensuring more coherence overall due to the speech complexity.

4. *Conclusion*

The work has allowed propose initially certain cognitive operations associated with language competence, 'attach', 'particularized' and 'specify', whose role as has been suggested is to deploy in the speech, as ἐνέργεια, the semantic macrostructure causing thereby different degrees of density, texture or argumentative complexity.

In a similar sense, from the data is possible to suggest characteristics of argumentative complexity, as ἔργον, in terms of varying degrees of texture or density of speech in regard to macrostructural level.

The intersection of the information provided by the test Tasks in Critical Thinking and the obtained using the initial model of discursive complexity has allowed specify aspects of the relationship between thought and language, particularly as it relates to the specific domains of cognition modules.

This is an early work that still requires further research, especially on how and why the propositions in argumentative discourse relate, and their cognitive justification.

From the sample under analysis, it is possible to argue that there is a correlation between reasoning in terms of critical thinking and argumentative complexity. The cognitive dimensions measured quantitatively which provide higher correlations with discursive rules of complexity argumentative are analysis and synthesis.

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