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Dialectic and Didactic: Divergent Paths to Contemporary Discourse

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Abstract

This paper attempts to uncover the semantic history of the concepts of "dialectic" and "didactic" which goes back to the Ancient Greece. I compare and contrast Socrates/ Plato's and Aristotle's approaches to dialectic. Dialectic became associated with formal logic in Scholasticism, and, as such, came under attack by secular and religious humanists in late Medieval Europe. The history of didactic began with Aristotle who introduced it in *Sophistical Refutations* to indicate a type of argument, synonymous to demonstration, but not antonymous to dialectic. Almost forgotten during the late Antiquity and early Middle Ages, didactic enjoyed wide acceptance by Ramists, especially Commenius, who saw in it a revolutionary methodological approach to education differing from the Scholastic trivium. While the contemporary use of didactic, whose intellectual value has significantly diminished since Commenius, is largely confined to the realm of instruction, dialectic became associated with the ideas of Hegel and Marx.

Key words: Dialectic; Didactic; Discourse; Plato; Aristotle; Ramus; Commenius; Descartes; Hegel

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INTRODUCTION

This paper examines the meaning of two concepts – dialectic and didactic – through the lens of the dominant discourses in history. But let me start first with their particular practice in contemporary society. It is not an exaggeration to say that the term "didactic" is used much less frequently than the term "dialectic". There is also an enormous body of literature on the history of dialectic, while not nearly as much has been written on didactic. (e.g., Brandom, 1994; Ferrarin, 2001; Horkheimer & Adorno, 1972; Owen, 1985; Popper, 1966; etc.) Moreover, we often hear arguments that aspire to the use of dialectic and despise didactic approach. The contemporary association of "didactic" with "pedagogically pedantic" is exemplified in the following quote from a reviewer of "The Assault on Reason" documentary:

> In "The Assault on Reason," [Gore] lingers over those well-worn topics and others, employing the same didactic method that used to provoke irritation or even ridicule during his hotly contested presidential campaign (Conason, 2007).

Quite dissimilarly, the following passage conveys a positive connotation, but that of dialectic, not didactic: "Dialectic, and only dialectic … can establish the truth; only it can justify any claim that may be made" (King, 1988). The passage clearly extols the virtues of dialectic as the most respectful scientific method.

However difficult may it be to argue otherwise, but in everyday discourse most of us, knowingly or unknowingly, rely on the connotations of dialectic and didactic (2 D's hereafter) similar to those cited above. Moreover, the recognition of this fact itself shows that notions of 2 D's became firmly established in their

semantic milieu. Yet, it would be naïve to suppose that the contemporary everyday use of 2 D's was always the same or, at least, close to their original meaning.

The best way to trace the original meaning(s) of 2 D's is, arguably, to confer with a dictionary. When consulting the Oxford English Dictionary (OED), I found the closest cognate of "didactic" to be "instructive" (Oxford University, 2003). Indeed, in minds of our contemporaries the closest associations of the latter are "rigidity" and "inflexibility" of formal instruction. Although the OED provides evidence of a complex semantic history for the word "dialectic", at its most straightforward the meaning is given as "the art of critical examination into the truth of an opinion" (ibid). Undoubtfully, *"didactic" carries in a negative connotation, while "dialectic" does not*. Originally, the Ancient Greek terms "dialektikē" (**διαλεκτικ*η***, adj., fem.) literally means "of debate" and "didaktikē" (**διδακτικ*η***, adj., fem.) means "of teaching". Moreover, among the educated elite of the Ancient Greece at the peak of its intellectual might, both terms were commonly used as attributes of the word "technē" (***τέχνη***, noun, fem.) – "art, craftsmanship". Thus the more accurate translation of both terms from Ancient Greek will be as follows: "dialectic" – "the art of debate" and "didactic" – "art of teaching". Yet even then both terms, as we shall see, applied to many professedly logical methods of developing philosophical thought.

In this paper I attempt to answer the question of why contemporary thought values more dialectic than didactic thinking. I embark upon this task by, first, reconstructing both terms to their original meaning, that is the one held in Ancient Greece at the time of Socrates-Plato-Aristotle. Then I reflect on the use of both terms in the Middle Ages, and finally, I examine how and why, at the height of the Enlightenment project, the dialectics and didactics became established in their contemporary semantic boundaries. The question raised in this paper is important because throughout history both terms have had many meanings and begotten a great deal of controversies, especially dialectics. Let us recall the profound critique of Hegelian thought by Popper (1966) who believed that Hegelian dialectic is responsible not only for the establishment of Communist regimes all over the world but in giving birth to Nazi and fascist ideology by encouraging and justifying irrationalism. An inveterate enemy of totalitarianism and a professed advocate of liberal democracy, Popper believed that the dialectic "played a major role in the downfall of the liberal movement in Germany, ...by contributing to historicism and to an identification of might and right, encouraged totalitarian modes of thought....[and] undermined and eventually lowered the traditional standards of intellectual responsibility and honesty" (Popper, 1966, p.395).

THE BIRTH OF DIALECTIC AND DIDACTIC: HELLENISTIC PERIOD

In order to understand why Marxists erected dialectic to the pedestal of the Method of social sciences and humanities, we have to understand why specifically dialectic method became so important in Marx's and Hegel's work. The concept of dialectic is, in all likelihood, taken by Hegel directly from Aristotle, not via Kant, since, with respect to the conceptual structure, Hegel's work is influenced more by Aristotle than by Kant or by any other philosopher (Ferrarin, 2001). Before examining Aristotelian legacy, though, we must turn to Socrates and Plato (or even to pre-Socratic Hellenistic sages), in whose works the notions of dialectic first became evident.[1]

It is possible that not only dialectic but also didactic were commonly employed by pre-Socratic sages, including those coming prior to Zeno. However, our knowledge of 2 D's is bound to the written word. This is not to say that their existing only in written form – deprived of the animating presence of storytelling – places them at one remove from genuine philosophic truth. The truth can and should be discerned and no amount of vague talk will suffice to clinch the case for a "true" reading of the text. Yet, written texts may not partake of the tacit understanding which underlies the surface workings of the language. Therefore, we can only hypothesize about the actual significance of dialectic (and/or didactic, if it actually existed) in pre-Socratic period, and whatever meaning 2 D's have had in oral culture of Ancient Greece is lost forever.

Expounded in the works of Plato, but particularly in his *Dialogues*, to which, as various scholars agree (Bolton, 1994; Irwin, 1988; Owen, 1985), it owes much of its contemporary meaning, the dialectic epitomizes the Socratic method of cross-examination. In Plato's *Dialogues* the two opposite opinions are presented by different persons. Socrates typically plays a role of a devil's advocate, of a critical opponent of the commonsensical truths presented by his interlocutor(s). Socrates, by a series of questions and answers, examines an interlocutor's thesis on a fundamental issue to show in what way the thesis may serve as a partial manifestation of the Truth, which then needs to be incorporated into a more holistic, ontological understanding. In logical terms, Socrates reduces his opponent's hypotheses to absurdity by deducing from them contradictory consequences (*reductio ad absurdum*). Put in the language of Hegelian-Marxian dialectic, Socrates represents the antitheses of all theses incarnated by his interlocutor(s). But Socratic elenchus can be interpreted not only as a dialectic but also as a didactic method. We continually find Socrates asking his opponent to explain themselves, that is the

[1] The original treaties of all aforementioned philosophers have been lost in time.

cross examination employed by Socrates serves to educate his interlocutor about other possible explanations. For the sake of the Truth or *didactic* purposes (educational in a moral sense), Socrates makes his interlocutor *inductively* revise his argument and present it as a partial manifestation but not the whole Truth.

An important turn comes in late Plato, particularly in his *Republic*, where the dialectic enjoys special esteem above all other methodologies and/or sciences. In the following passage from the *Republic* the position of late Plato towards the dialectic is best illustrated:

> …We have at last arrived at the hymn of dialectic. This is that strain which is of the intellect only, but which the faculty of sight will nevertheless be found to imitate… And so with dialectic: when a person starts on the discovery of the absolute by the light of reason only, and without any assistance of sense, and perseveres until the pure intelligence he arrives at the perception of the absolute good, he at last finds himself at the end of the intellectual world, as in the case of sight at the end of the visible.
>
> Exactly, he said.
>
> Then this is the progress which you call dialectics?
>
> True.
>
> But the release of the prisoners from chains, and their translation from the shadows to the images and to the light, and the ascent from the underground den to the sun, while in his presence they are vainly trying to look on animals and plants and the light of the sun, but are able to perceive even with their weak eyes the images in the water (which are divine), and are the shadows of true existence (not shadows of images cast by a light of fire, which compared with the sun is only an image) – this power of elevating the highest principle in the soul to the contemplation of that which is best in existence, with which we may compare the raising of that faculty which is the very light of the body to the sight of that which is brightest in the material and visible world – this power is given, as I was saying, by all that study and pursuit of the arts which has been described.
>
> …Then Dialectic, and dialectic alone, goes directly to the first principle and is the only science which does away with hypothesis in order to make her ground secure the eye of the soul, which is literally buried in an outlandish slough, is by her gentle aid lifted upwards and she uses as handmaids and helpers in the work of conversion, the science which we have been discussing (Plato, 2008, pp.194-195).

From the quotation just presented it seems that the dialectic in the *Republic* is not a neutral term for the art of discussion, but is elevated to the status of the *only* method to discover the absolute Truth. Note that Plato calls the dialectic a "hymn", a "strain which is of the intellect only", guided by "the light of reason only". Clearly, lurking behind Plato's Republic is the *doctrine* of dialectic, not a method, nor a science, but a quasi-religion. And the purpose of this quasi-religion, in Plato's opinion, is to educate philosophers about the righteous path to the Truth. Hence, in addition to heuristic purpose, dialectic needs to serve a *didactic* one. This value-laden interpretation of the term "dialectic" is not entirely incompatible with the dialectic of Socratic elenchus present in the Dialogues. In both instances the meaning of dialectics shifts to what, according to Plato, constitutes the best method of examination. Having epitomized the Plato's legacy of the term, Robinson (1953, p.70) observes that "the word 'dialectic' had a strong tendency in Plato to mean 'the ideal method, *whatever that may be*'. In so far it was thus merely a honorific title, Plato applied it at every stage of his life to whatever seemed to him at the moment the most hopeful procedure" (italics in the original).

As for the concept of didactic, it is conspicuously absent from the system of Socrates-Plato. It was only with Aristotelian logic that the term "didactic" used along with its synonym "demonstrative" (apodictic, ἀποδεικτικός) appears in discussions of methodology. Looking at the uses of "didactic" and "dialectic" in Aristotle affords an opportunity to compare the traditional Platonic "dialectic" in a broader sense and more narrow Aristotelian "dialectic", applicable to types of argumentation (reasoning). Unlike Plato, Aristotle uses the name "dialectic" for a particular form of intellectual activity which is not to be equated with the whole of intellectual activity. Consequently, unlike Patonian *dialectic*, Aristotelian *dialectic* is circumscribed mainly to a logical rather than an ontological meaning. To gain an insight into the epistemological uses of 2 D's by Aristotle, I turn to his *Sophistical Refutations* and *Topics*, for a consistent picture can be extracted from all remarks on 2 D's in these two works. The widely cited and, arguably, widely misunderstood, passage from Aristotle's *On Sophistical Refutations* differentiates between four types of arguments (*syllogisms*):

> Of arguments in dialogue form there are four classes: Didactic, Dialectical, Examination-arguments, and Contentious arguments. Didactic arguments are those that reason from the principles appropriate to each subject and not from the opinions held by the answerer (for the learner should take things on trust); dialectical arguments are those that reason from premises generally accepted, to the contradictory of a given thesis; examination arguments are those that reason from premises which are accepted by the answerer…; contentious arguments are those that reason or appear to reason to a conclusion from premises that appear to be generally accepted but are not so (Aristotle, 2004a, p.2).

A parallel passage in the *Topics* mentions three types of arguments:

> Now reasoning is an argument in which, certain things being laid down, something other than these necessarily comes about through them. (a) It is a "demonstration", when the premises from which the reasoning starts are true and primary, or are such that our knowledge of them has originally come through premises which are primary and true: (b) reasoning, on the other hand, is "dialectical", if it reasons from opinions that are generally accepted. Things are "true" and "primary" which are believed on the strength not of anything else but of themselves: for in regard to the first principles of science it is improper to ask any further for the why and wherefore of them; each of the first principles should command belief in and by itself. On the other hand, those opinions are "generally accepted" which are accepted by everyone or by the majority or by the philosophers – i.e. by all, or by the majority, or by the most notable and illustrious of them. Again (c), reasoning is "contentious" if it

> starts from opinions that seem to be generally accepted, but are not really such, or again if it merely seems to reason from opinions that are or seem to be generally accepted (Aristotle, 2006b, p.5).

The definitions given to the types of arguments in the *Topics* are similar to those of didactic, dialectical, and contentious arguments in the *Sophistical Refutations*. Consider first that Aristotle did not rank these types of argumentation. For him, possibly, didactic and dialectic were equally valuable. Second, the examination arguments are missing in the *Topics*. As defined by Aristotle, their function is to test whether an alleged expert is truly knowledgeable in her/his field. Most commentators agree that they may be treated as a subtype of the dialectical arguments (Bolton, 1994; Irwin, 1988). The same is true about contentious or (in some interpretations) *eristic* arguments, which are also construed as "sophistic arguments" (Owen, 1985) continuous with the Socratic *elenchus*. Third, and most important, Aristotle defines the didactic arguments which take their start from what is primary and/or true (*archai*, άρξάι), in contrast to the other arguments, i.e., as mentioned above, subtypes of the dialectical one, which start with "generally accepted" opinions (*endoxa*, ένδοξά). This led some researchers (e.g., Bolton, 1994; Guthrie, 1968) to believe that the distinction between the didactic and dialectical arguments lies in the character of their premises, which, in turn, alludes to the content, not the form of arguments, i.e. their logical structure. Consequently, distinction between the dialectical and didactical arguments becomes the distinction between *archai* and *endoxa*. Put differently, a syllogism is didactical if its premises are *archai,* whereas it is dialectical if they are *endoxa*. If we accept this view, then our understanding of Aristotelian didactic and dialectic would be limited to a study of which premises are *archai* and which are *endoxa.* Yet a difficulty for this view arises when we attempt to distinguish these two concepts.

Without going into much detail over ancient (e.g., Alexander of Aphrodisias) and more recent (e.g., Irwin, 1988; Owen, 1985) commentators' opinions about the meanings of these terms, it is sufficient to mention that the irreducible principles (*archai*) are axioms within the given domain of inquiry that cannot be deduced from anything more basic, something which "goes without saying". In *Posterior Analytics* Aristotle (2004b) tells us that we arrive at these principles directly from our experience, that is empirically. On the account of the former, i.e. the *endoxa*, as many scholars agree (Barnes, 1975; Irwin, 1988; Owen, 1985), that the possible interpretation of the term must include "common beliefs", "accepted opinions", "reputable views" or some combination of the above. In Aristotle's own words, the *endoxa* "commend themselves to all or to the majority, or to the wise – that is, to all of the wise or to the majority or to the most famous and distinguished of them" (Aristotle, 2004b, p.23).

Strictly speaking, the difference between the *archai* and *endoxa* is somewhat reminiscent of that between the objective truth and conventional wisdom. If we generalize further and, especially, if we adopt a conventionalist view à la Ayer (1952) or Hempel (1965), the boundary between the *archai* and *endoxa* becomes fuzzy, if non-existent. Furthermore, according to the Marxist view, the accumulation of knowledge proceeds from "things-for-themselves" to "things-for-us", that is the distinctions between *archai* and *endoxa* depends on the stage at which a subjective knowledge is converted into objective knowledge, and vice versa (Clark, 1997; Jay, 1973). Indeed, the dichotomy between the *archai* and *endoxa* becomes, if pressed, at least artificial and at most absurd. Hence, I object to two D's, thus defined, on the following ground: the distinction between two D's rests upon the false division between *archai* and *endoxa*.

It is important to note here that the term "didactic", unlike that of "dialectic" used by Aristotle as a synonym of "demonstration" in *On Sophistical Refutations*, reappears in virtually all Aristotle's writings. In *Metaphysics*, which is a collection of various Aristotle's work edited by an anonymous author in first century C.E., Aristotle pays a considerable attention to the distinction between philosophy as First Science and dialectic. A recurrent theme of Aristotle's description of First Science is that its principles (*archai*) cannot be contradictory (Aristotle, 2006a). The phrase "to the contradictory of a given thesis" (*On Sophistical Refutations*) is the key to the principle of non-contradiction proposed by Aristotle. Among other first principles (*archai*), this is the most reliable, since, according to Aristotle, "it is impossible to be in error about it." Dialectic cannot be this first science, Aristotle argues, because its nature is based on negation. It is by negation that dialectics can destroy claims to knowledge but positively it is unable itself to produce knowledge. He says: "The dialectic is merely critical where philosophy claims to know" (Aristotle, 2006a, p.34). Hence, dialectic can only be tentative where philosophy is scientific. Finding a contradiction in someone's beliefs may show that they are not truthful, while failure to do that does not establish their truthfulness either. Not surprisingly, then, Aristotle believes that dialectical negation cannot establish the truth. Therefore, for him, dialectics lays no claim to the title of First Science.

Our understanding of Aristotle's model of science would be incomplete without the discussion of demonstrations (i.e. *didactic* means of scientific proof) and their function vis-à-vis definitions. In *Posterior Analytics* Aristotle (2004b) closely examines the question whether there is a difference between definition and demonstration of the same subject. Knowing a definition of some existing thing, Aristotle argues, means knowing what it is, while demonstrating what it is means moving from one definition to the other. Consequently, acquiring

new knowledge is possible only through demonstration. Established by *induction* from experience and subjective to negative verification by dialectic, knowledge is composed of demonstration(s). The method of science is thus didactic (i.e. demonstrative).[2]

To conclude the description of Aristotle's view of didactic and dialectic, we must state that didactic (or demonstrative) and dialectic are not just types of arguments. These, if all Aristotle's oeuvres are given equal importance, are two modes of scientific thinking, and the key to the difference between them, in my opinion, lies in their function of, respectively, acquiring new knowledge and critically examining it. As we shall see, Aristotelian meaning of dialectic, that is the one based on contradiction or refutation, is akin to the one used by Hegel two millennia after Aristotle.

MIDDLE AGES AND BIRTH OF MODERNITY

After a hiatus following the collapse of the Roman Empire the intellectual tradition of Greco-Roman antiquity was reborn by the efforts of learned men of Europe and Middle East in attempt to justify the positions of nascent world religions. In the Middle Ages Aristotelian logic flourished in the Western World, loosely defined. Highly fashionable as *auctore recognitus*, Aristotle's name was primarily used, indiscriminately at times, to establish the truths of Christianity (e.g., Thomas Aquinas), Islam (e.g., Averroes) or Judaism (e.g., Maimonides), depending on the specific religious doctrine the scholar adhered to. Roughly put, the Aristotelian logic gave support to scholasticism in its efforts to reconcile faith and reason. Scholasticism's main purpose was to discover God's intentions for his creation. The masterly of logic as the "first" discipline of the *trivium* became an obligation for an aspiring scholastic (Joseph, 2002). Thus, the term "dialectic" took priority over "logic". The following citation of extremely influential scholastic thinker Peter of Spain (13 century) illustrates the importance of the dialectic, that is logic in the broad (Platonian) sense, in the Middle Ages. In the *Summulae logicales*, "the most widely read of all scholastic works" (Ong, 1958, p.55), Peter of Spain writes: "…Dialectic alone disputes with probability concerning the principles of all other arts, and thus dialectic must be the first science to be acquired" (Ong, 1958, p.60). From now on, identifying dialectic with formal logic became generally accepted for centuries. No wonder therefore that only one meaning of dialectic is given in an unabridged Webster's English Dictionary (1896 ed.): "that branch of logic that teaches the rules and modes of reasoning; the application of logical principles to discursive reasoning" (Webster, 1896).

Another important feature of intellectual climate of the early Middle Ages is that scholasticism in Europe was a mixed oral and written culture based on Latin with some elements of Latin-Greek literary bilinguism (Conley, 1990; Lohr, 2000). The use of Latin as the language of exchange created a community of scholars which, as the educated class of the time, was only a tiny stratum of society. And the educated class was mainly multilingual. The languages of a typical product of Medieval education in the order in which they were acquired were native language of the area where this person was from (e.g., Upper German, part of local oral culture), Latin, and almost certainly Greek. Greek language was influential in its written form because, despite the fact that Latin was the lingua franca of the era, Greek patterns of thought dominated educational institutions (Hale, 1971). The status of Greek was further elevated in the mélange of Renaissance thought, which parallels the resurfaced interest in ancient texts (Lohr, 2000). It is likely that the term "didactic" became well established in Medieval Latin to denote what we call today "inductive". An Aristotelian scholastic would rather refer to "apodictic", the notion used interchangeably with "didactic" in Aristotle (Owen, 1985). As stated above, in Aristotle, dialectic, or more specifically dialectical deduction, is often contrasted with demonstration. It is also possible that "didactic" in Medieval Latin was not only circumscribed to "inductive" but also, however paradoxically it may sound, to "deductive". Consider first that inductive/deductive distinction was not firmly established until the mid-19th century, a period of relative tranquillity of the debate over the method of science (Hempel, 1965). Second, and most importantly, "didactic" is confused with "deductive" even today, in the age of computer literacy. Consider two passages from a contemporary scientific literature where the didactic/deductive confusion is obvious:

"All learning exist on a continuum ranging from deductive or didactic approaches at one end to inductive or constructive approaches at the other" (Gentry, Reis & Renzulli, 2003).

> All learning, from diapers to doctorate, exists on a continuum that spans the deductive, didactic … prescriptive on the one hand, and the inductive, investigative, and inquiry-based on the other…and they are, therefore, with propriety, introduced, not only into the amusing kinds of composition, but also into those of the grave and didactic form (Renzulli, 2008).

As it can be discerned from the above, "didactic" is not only a cognate of "deductive", but also is clearly opposite to "inductive", the very word it means to represent in Aristotelian discourse. This confusion is hardly commensurable with the one that existed in

[2] It should be noted here that there exists another Aristotelian term – "epagoge" – which was and still is commonly translated as "to induce" (*inducere* in Latin). Yet "epagoge" is often interpreted to refer to all syllogisms regardless of their structure and it is not contrary to didactic or demonstrative method (Bolton, 1994).

Medieval Latin, in which Greek words borrowed directly from Aristotle (e.g., didactic) coexisted with their Latin translations. More curious still is that didactic/deductive confusion originated in Medieval Latin-Greek bilingual literature is not unique. Another example would be the notions of analysis and synthesis that are in use since Greek antiquity. The use of these concepts in ancient Greece was almost exclusively confined to the realm of geometry (Doll, 2005; Gilbert, 1960). During Medieval times due to the ambiguity of early translations from ancient Greek, the Greek terms "*analusis*" and "*sunthesis*" were rendered as "*resolution*" and "*compositio*" (Gilbert, 1960). Hence, for example, Galileo Galilei identified two methods applicable to all sciences – composition and resolution (Sharratt, 1994). This contrasts sharply with the modern use of the concepts of analysis and synthesis that have little in common with "resolution" and "composition". Such confusion of terms was much more common to Medieval than to contemporary scientific language due to the peaceful coexistence of elements of oral and written culture within the former (Clark, 1997).

It is an established fact that the transition from an oral culture to a written one is a lengthy process (Clark, 1997; Simon, 1978). The written culture did not penetrate fabric of society primarily because they were very few who knew how to read and write, i.e. the tiny stratum, as indicated above. And even this stratum relied very much on a spoken word, or more exactly on an oral representation of truth, through the device of rhetoric. To the scholastic, rhetoric played an important role in securing path to *hermeneutic* (interpretative) truths. Because rhetoric was a constituent of trivium, the basis of Medieval education, rhetorical features were not treated in principle as inimical to the scholastic discourse. Rather, elements of oral and written cultures became inextricably entwined, as personal, and often acrid disputations, had constituted the basis of reasoned dialogue. In this climate the semantic boundaries between Latin and Greek terms derived from Aristotle's writings became fuzzy.

Probably because of many linguistic and methodological controversies associated with scholasticism, Aristotelian logic, as canonical as it might become during the Middle Ages, became a subject of iconoclasm while European critical thought matured during the Renaissance and even more so on the verge of Reformation (Mack, 2002). According to Ong (1958), another reason for the decline of Aristotelian logic was that dialectic has become gradually removed from its critical shell and replaced by formal logic or, more exactly, by logical formalism.

One Renaissance scholar whose name ought to be mentioned here in reference to the history of dialectic is one of the most important critics of medieval scholasticism – Lorenzo Valla. Influenced by the recently rediscovered works of Cicero and Quintilian, Valla was arguably first to show that Aristotelian scholasticism has departed from Aristotelian tradition and was at odds with the nascent trend towards secular humanism. According to Moss (1996, p.61), Valla's efforts were "to reclaim the territory of dialectic as it was originally marked out by Aristotle." In Valla's footsteps followed Agricola, Seneca, and other Renaissance thinkers who openly questioned the validity of scholastic interpretations of Aristotle's works. Agricola, who was claimed as a father figure by Erasmus, is famous for revitalizing interest in rhetoric, a "counterpart" of dialectic. In his extremely influential work, *De Inventione Dialectica*, he attempted to put an end to the subordination of dialectic to rhetoric that had become a prominent feature of late scholasticism (Murphy, 1974). Indeed, the scholastic argumentation was only loosely based on reason. As the subordination of reason to faith was complete, rhetoric became the art of persuasion, leaving dialectic to be concerned with formal logic. Hence the scholastic discipline preferred *hermeneutic* (interpretative) sciences to *homiletic* (didactic) ones because there was no need of coming to "new" truths as truths had already been given by God. Thus rhetoric subdued logic since scholars and audiences use rhetoric to interpret the divine truths already known. Agricola believed that dialectic (still largely interpreted as logic) should incorporate the discursive aspects of rhetoric, leaving only decorative aspects in the realm of the latter (Mack, 2002; Murphy, 1974).

In a certain sense, the work of Valla and Agricola can be placed within the functionalist tradition, as they tried to re-evaluate Aristotelian legacy from a praxis-oriented point of view. As Mack (2002, p.56) put it, they "had stripped away the philosophical complications which attended late scholastic logic and had focus instead on the *use* of dialectic." Most importantly, by softening the intellectual mountains of scholasticism which the new generation of European intellectuals were going to climb, Renaissance thought precipitated the re-birth of didactic that occurred during the Reformation.

The cultural impetus gained during the Renaissance was shared primarily by the nascent European intellectual elite, while the masses were still to reap the benefits from the increases in global trade accompanied by the geopolitical expansion of Europe. The trend towards cultural emancipation from the domination of the Church, nevertheless, continued, reinforced by the discoveries in natural sciences and technology. As such, Reformation was historically inevitable outcome of this trend.

The ecclesiastic struggles raged in the early Reformation were profoundly imbedded in the criticism of clerical follies and abuses and therefore are not directly relevant to the topic of the present study. Still, the major figures of the early Reformation, such as Luther and Calvin, shaped a climate in which new ideas about mass education could breed. In a much similar way to Calvin's close associates whose theological doctrines created a

significant new attitude toward work, Luther's followers, primarily Melanchthon, laid the ground for the educational reform movement that sparked the interest in didactic. Melanchthon vehemently argued for the establishment of a state-run school system funded by taxes rather than tuition. His efforts were inspired by the guiding principle of Protestantism "that every baptized person, as a priest before God, must be able to read" (Green, 1972, p.118). Melanchton's educational reform was certainly helped by the growing demand for mass education in bourgeoning German city-states and Gutenburg's invention of moveable type printing (Overfield, 1984). The introduction of mass printing allowed scholars to correspond with each other with a certainty that they were considering the same issues (Hale, 1971). Additionally, as printed books became cheap commodities, the system of education reinforced curriculum and standardized textbooks.

An increased concern for pedagogy was a primary motif behind the intellectual pursuits of a Melanchton's contemporary, Huguenot scholar Petrus Ramus (a.k.a. Pierre de la Ramée). Perhaps, it is not an exaggeration to say that Ramus drove the last nail in to the coffin of Aristotelian scholastic. Although Ong (1961) asserted that Ramus "was not a great intellectual" (p.ix) and Ramism "is not a respectable theory" (p.2), posthumous proliferation of Ramus' works (mainly due to the printing press) became a vast and widespread cultural phenomenon, especially in Central Europe (Ong, 1961). Following in the footsteps of the figures of the early Reformation, Ramus openly repudiated hermeneutic in favour of homiletic approach. Similar to Melanchton, Ramus' anti-scholasticism arose primarily from his preoccupation with pedagogy. According to Ong (1961), Ramus was critical of Aristotle because "Aristotle is at his worst when he refuses to be dogmatic or magistral, questioning and doubting rather than teaching" (p.161). For Ramus, there is nothing left to be discovered since antiquity. The task lies in presenting knowledge already attained.

Because Ramus saw Aristotle's works as overwhelmingly confusing, he believed it was his task to sort them out for pedagogical purposes. Order and simplicity had to be the guiding principles of dialectics, argued Ramus. Hence, he described his method as "a straight and economical way or road" (Ong, 1961, p.237). On Ramus' model, in seeking to define anything, one may go up and/or down the appropriate classificatory hierarchy to find the higher or lower (i.e., more basic or more general) "forms". Moving from the general before the specific (i.e., through the use of the method which is known today as deductive), Ramus worked as a cataloguist by reorganizing complex philosophical concepts of his time into detailed tables and tree diagrams. This was a real revolution in method signified the adoption of the language of mathematics as a way to describe previously obscure philosophical entities.

Another important figure of the time – Francis Bacon – was arguably as influential on his contemporaries as Ramus. Their differences notwithstanding, Ramus and Bacon were, as all typical intellectuals of their time, devout Christians and devoted scientists. Bacon, for instance, proclaimed that science could "raise and advance our reason to the divine truth" (Green, 1952, p.41). As such, Bacon and Ramus shared deep aversion to the scholastic method of education, and both saw knowledge as having a "firm and permanent" base or groundwork – imagine an architectural fundament supporting an ever increasing number of methodical stories. Bacon, however, much more than Ramus, stressed the importance of empiricism and inductive style of knowledge (Gordon, 1991; Ong, 1960). Induction is important, he posited, because it means concentration upon the unitary and not upon the all-inclusive and totalizing, it permits the opportunity to repeatedly test results obtained by the senses.

In a long list of intellectuals influenced by Ramist pedagogy and Baconian induction, John Amos Comenius (a.k.a. Komenský) is arguably the best known for his seminal opus–*Great Didactic* (Magna Didactica). According to Doll (2005), he was and remains one of the most articulate writers about didactic methodology. He compared learning to the process of printing: knowledge can be "impressed" on the mind similar to the way ink leaves a permanent mark on paper. He argues that, "The art of printing involves certain materials and process. The materials consist of the paper, the type, and the ink and the press. The processes consist of the preparation of the paper, the setting up and inking of the type, the correction of the proof, and the impression and drying of the copies… [In education] instead of paper we have pupils whose minds have to be impressed with the symbols of knowledge. Instead of type, we have the class books and the rest of the apparatus devised to facilitate the operation of teaching. The ink is replaced by the voice of the master, since it is that which conveys information from the books to the minds of the listeners; while the press is school discipline, which keeps the pupils up to their work and compels them to learn (Keating, 1910, p. 289).

Being ardent follower of Ramist pedagogy, Comenius believed that a body of knowledge can and must be imprinted on the learner's mind who is its passive recipient. In this he can be credited with proposing a passive model of the mind (a half century before Locke). Even further, he linked a modern, mechanical picture of the mind to the factory system of production. This approach is founded on the belief that it is possible to define a universal set of rules for effective transmission of knowledge, ideas shared by all Ramists (Ong, 1958, 1961).

A contemporary of Comenius and, arguably, the most famous Ramist, René Descartes took Ramist methodology one step further. According to Merleu-Ponty (see Fisher, 1969) and Foucault (1967), ontologies predicated on the severance of subject and object are traceable to Descartes.

This is evident, for example, from the famous Descartes" treatise on the separation of mind and body (Wilson, 1999). In treating "reason" and "rationality", Descartes, as Ramus before him, explicitly adopts the *didactic* view that reason is wholly procedural – it refers to modes of justifying statements, or the belief propositions that underlie action. What makes something "scientific" has nothing to do with its content, or its origins, but depends wholly upon the procedures that can be followed to test it. This view derives from the acknowledgement that there can no longer be First Philosophy – that all knowledge is build upon shifting foundations. Descartes insists upon clear criteria which can be put to use in seeking actually to differentiate among different propositions (Wilson, 1999). Reason which concerns procedures of rational argumentation still needs to be defended by procedures of rational argumentation.

Being a geometer as well as a philosopher, he resuscitated interest in the methods of analysis and synthesis and gave them a modern interpretation. By breaking down of complex problems into simpler ones, Descartes allowed geometrical problems to be transformed into arithmetical ones and more easily solved: "If we perfectly understand a problem we must abstract it from every superfluous conception, reduce it to its simplest terms and, by means of an enumeration, divide it up into the smallest possible parts" (Cottingham, Stoothoff, & Murdoch, 1985, p.51). Hence, Descartes introduced the decompositional notion of analysis, which set the methodological agenda for philosophical approaches and debates in the (late) modern period (nineteenth and twentieth centuries). This is a significant improvement over Ramus's own concept of analysis which Ong (1958, p.264) described as "a way of operating *didactically* upon a text" (italics added). Hence, it can also be argued that not only didactic was revitalized by the efforts of Ramists, but also the notions of analysis and synthesis.

Some scholars, perhaps the best known of whom is Foucault (1967), believe that Cartesianism as version of late Ramism marks the beginning of the modern discourse which, coupled with the rise of prestige of Natural Sciences in academe, contributed, if not lead, to the abandonment any vestiges of scholastic worldview. I concur with that view. Indeed, analytic sciences and the worldviews originated by them flourished in what followed and known today as Enlightenment. Specifically, analysis and synthesis became much more known to general public due to the efforts of Descartes and later Leibnitz and Kant, thinkers who engaged in active dialogue with Descartes and hence borrowed heavily from his terminology. For instance, the contemporary definition of the analytic judgment – one in which the predicate is contained in the subject – is often credited to Kant (Bird, 2006).

As a conclusion to this section, I must reiterate the importance of Aristotelian legacy in Middle Ages and the further reevaluation of its postulates by the Renaissance scholars. The preservation of oral traditions and Latin-Greek bilinguism in scholastic academe gave rise to a certain ambiguity in the common use of scientific terms. Further I claim that this period of uncertainty might have attributed to the notions of "didactic" and "deductive" being oftentimes used mistakenly as synonymous. This confusion, as the examples cited above show, persists even today. With the advance of Reformation and the invention of the printing press, the epistemological position of rhetoric dwindled while that of didactic improved, and the notions of analysis and synthesis as scientific methods became popular. Ultimately, 2 D's became dissociated with, and sometimes even referred in opposition to, rhetoric and argumentation, in general, and types of arguments, in particular. At the same time, dialectic became habitually associated with formal logic and didactic with pedagogy, both of which have later become separate academic disciplines. While the contemporary use of the word "didactic" is largely confined to the realm of instruction and schooling, the fate of "dialectic" has been "unsealed" by the efforts of Hegel and Hegelians.

HEGELIAN REVOLUTION

The notions of 2 D's were passed onto Kant almost unchanged since the late Ramist era. Kant admired the precise thinking of mathematics and physics, and thought that only principles that are universal and necessary and absolutely certain deserve to be considered a scientific knowledge at all (Pippin, 2005). In this Kant is more close to Ramism, as his ontology was overly positivistic (Brandom, 1994). Inasmuch as Kant was influenced by and reflected on Descartes, Hegel openly admired his most fierce contemporary critic – Spinoza. In fact, Hegel went so far as to proclaim: "You are either a Spinozist or not a philosopher at all" (Duquette, 2003, p.144).

Unlike Kant who assimilated dialectic with sophism and, thus, despised it, Hegel took a different turn: he rediscovered its Aristotelian meaning. As some authors point out (e.g., Duquette, 2003; Ferrarin, 2001; Pippin, 2005), Hegel's philosophy is more indebted to Aristotle (and, possibly, Fichte) than to Kant whom Hegel regarded as his intellectual master. In contrast to Kant, Hegel believed that negativity is necessary in all reasoning, for negation itself is a form of relationship.

The following passage from Hegel's *Encyclopaedia* is the best to illustrate what Hegel meant by negation: "With regard to its form, logic has three aspects:

(a) the abstract or understandable aspect;

(b) the *dialectical* or *Negatively rational* aspect,

(c) the speculative or positively rational aspect" (italics added; Finocchiaro, 1988, p.193).

As we can see, for Hegel, the dialectic is: (1) an aspect

of reasoning; and, most importantly, (2) associated with negation. For him, dialectic implies a negative or negating element: namely, the active negation of the given. The very act of dialectical thinking thereby sustains a negative moment vis-à-vis the positive. In this, the influence of Aristotle on Hegel is the most evident. Recall Aristotle's definition of dialectical arguments in *On Sophistical Refutations* as "those that reason from premises generally accepted, to the contradictory of a given thesis." Thus, for Hegel, dialectic is only a part of the synthetic truth, it is an antithesis of any given thesis.

As such, Hegelian method is not dialectical, but rather descriptive, while his synthetic truth's position vis-à-vis thesis and antithesis is reconciliatory (Brandom, 1994; Ferrarin, 2001). On a historical plane, Hegel's synthesis offered an apparently satisfying unity to a generation confronted by revolutions and counterrevolutions, Napoleonic wars and political turmoil. It found a place for everything and discerned the order behind the arcane façade of events. Faced with the question of whether liberals, conservatives, or socialists were right, the Hegelian could answer that all equally are – each in its place and time, each a part of a necessary patter. The Hegelian could hold that all these opinions are part of the final synthetic truth. Like scholastics before him, Hegel also found a place for both reason and religion, which many had seen as antagonistic: just different ways of stating the same eternal Truth. Hegel's synthesis, which seemed to harmonize all things, was almost as impressive as that which Thomas Aquinas had offered at the peak of medieval civilization (Brandom, 1994).

Yet Hegelian philosophy became widely known not because of the apparent harmony of the synthesis. It is his dialectic antithesis that became the cornerstone of the forthcoming ideological revolution (Horkheimer & Adorno, 1972). The Hegelian idea that contradiction permeates every existence lent itself primarily to radicals, not to conservatives (Finocchiaro, 1988). It is from this idea that "the Hegelian left" (including Marx) have drawn their inspiration, and they have used it precisely to oppose idealism which often drove Hegel to complete schemes. They preferred to move dialectic swiftly along its course rather than to dwell patiently with the "things in themselves", the particular phenomena as they actually appear in Hegelian philosophy (bad odor of Kant?). For example, the master-slave dialectic described in the *Phenomenology* struck Marx as holding the key to the very nature of human intercourse.

Throughout his life, Marx produced enormously diverse body of work, some sartorially rumpled, some incisive and articulate. For him, as for Hegel, dialectic implied a negative or negating element: namely, the active negation of the given, the negation which is at the foundation of every conflict in the social world. Although the critique of Hegel himself lies at the heart of Marx's work, Marx always remained strongly under the influence of Hegelian concepts. This, however, does not necessarily apply to his followers. Orthodox Marxists who followed in the footsteps of Engels and Lenin accepted the basic postulates of Hegelian dialectic but gradually removed it from its critical shell (Horkheimer & Adorno, 1972). The Engels-Leninist effort to make dialectic installed in things as the principle of explanation for all the dynamic structures in reality (for Marxists "forces in motion") requires that the notion be rendered large enough to enclose any sort of objective opposition which may present itself in experience. Denaturized of its "idealism", i.e., its intentionality, the dialectic thus becomes didactic in which material principles rule.

In sum, Kant repudiated dialectics and thus repeated the age-old logocentric gesture, inaugurated by Socrates in his dealing with the sophists and other such "irrational" thinkers. In contrast to him, Hegel produced a revolutionary switch in our understanding of dialectic. He appropriated Aristotle's focus on negativity as a defining element of dialectic. Eventually, his ideas paved the way forward in the philosophy of Marx and, consequently, Marxism which, in turn, ascribed the notions of dialectic to the method of historical materialism. In it, bereft of its intentionality (i.e. idealism), Hegelian synthetic method became part of the universal laws of natural world. Moreover, with the rigor of ideological proficiency, Marxism replicated a need to educate the masses in the virtues of dialectic, similar to what happened with the didactic movement in late Reformation.

CONCLUSIONS

In this article I attempted to trace semantic histories of dialectic and didactic, both of which run deep and far back in the history of Western philosophy. Particularly, I explored why the contemporary usage of 2 D's depart in many ways from their original usage proposed by Plato in the *Republic* and Aristotle in the *Sophistical Refutations*. Thereby I advanced the following propositions:

It is likely that the search for true origins of the 2 D's in pre-Socratic Greece is a redundant task, since we do not have a confirmed record of these notions being used prior to Socrates (except Zeno who did not consider himself a dialectician). Only with Socrates and Plato dialectic becomes Dialectic, the preferred method of philosophy and/of science. Generally, it is worthy to consider late Hellenistic thought on the didactic/dialectic borderline under two intellectual legacies: the Platonian and the Aristotelian. The former described dialectic as the universal method of philosophy and sciences, while the latter placed dialectic within a typology of rhetorical/logical devices, ascribing a particular quality to it – negation of the established truths. In Aristotle, didactic, with its cognate – demonstration, became the method of discovering truths, which are to be subjected to critical

scrutiny by dialectic.

Aristotelian dialectic prospered in the early Middle Ages, while later, at the time of Renaissance and Reformation, coming under attack of critically-minded thinkers who were not satisfied with the fact that dialectic became replaced with formal logic. As the prestige of dialectic dwindled, practically-oriented philosophers rediscovered didactic. It made its way to the scientific discourse largely due to the efforts of Ramus and Ramists (especially Commenius) who saw in it a method of instruction and inductive thinking, an instrument incongruent to scholastic dialectic.

It is with Descartes that the didactic becomes associated and ultimately reduced to the analytical method. Since then the didactic becomes an obsolete principle, vitality of which is limited to the late Middle Ages and Comenius himself. As didactic grew out of use, the concept of dialectic was given a new life by Hegel. Whereas Kant equated dialectic with sophism and, thus, despised it, Hegel's dialectic is the dialectic of contradiction, that is the negation of the given.

For Orthodox Marxists (i.e., for Engels and those who followed in his footsteps) the dialectic became to mean the same as to Plato, that is: preferred method. No wonder then that such staunchly opponent of Marxism as Popper unleashed his criticism of the dialectic because in his mind the dialectic was "the method" of Marxism, and, indeed, it was, the dialectic in Platonian sense.

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