

L'ANALISI LINGUISTICA E LETTERARIA

FACOLTÀ DI SCIENZE LINGUISTICHE E LETTERATURE STRANIERE

UNIVERSITÀ CATTOLICA DEL SACRO CUORE

ANNO XVI 2008

SPECIAL ISSUE

Proceedings of the IADA Workshop Word Meaning in Argumentative Dialogue

Homage to Sorin Stati

Milan 2008, 15-17 May VOLUME 1

edited by G. Gobber, S. Cantarini, S. Cigada, M.C. Gatti & S. Gilardoni

L'ANALISI LINGUISTICA E LETTERARIA

Facoltà di Scienze linguistiche e Letterature straniere Università Cattolica del Sacro Cuore Anno XVI - 1/2008 ISSN 1122-1917

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Pubblicazione realizzata con il contributo PRIN - anno 2006

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Redazione della Rivista: redazione. all@unicatt. it -web: www.unicatt. it/librario/all

Questo volume è stato stampato nel mese di luglio 2009 presso la Litografia Solari - Peschiera Borromeo (Milano)

THE DIALECTICAL-DIALOGICAL DEFINITION

FABRIZIO MACAGNO

The notion of "dialogical definition" seems to be in sharp conflict with the traditional views on definition. Definition for a long time was regarded as the expression of the immutable essence of the things. This traditional view was that the quest to put forward an acceptable definition requires finding the essential characteristic of the thing to be defined. However, the determination of what is essential has always been highly controversial in philosophy and in science (Walton 2005: 169-171). The conflicts of opinion on such matters tended to persuade philosophers and the general public that there is not such thing as "essence", or, if there is, it cannot be known (Sager 2000: 217; Walton 2005: 169-173). This position led to the shared view that the distinction between essential and unessential characteristics is invalid (Sager 2000: 216-217). For this reason, the most important recent studies on definition tended to regard it in relativistic terms (see for instance Schiappa 2003). In fact, if the essence cannot be known or does not exist, any definition advanced can be good, as it cannot be verified or falsified. Any discussion about the definition of a thing seemed for this reason to be trivial, or outside the boundaries of scientific interests. The advent of the new approach to argumentation has changed this by seeing definitions as arguments that can be put forward and supported by good reasons or not (see Walton 2005: 179-184; Kienpointner 1992: 259).

In argumentation, definitions are regarded as instruments for classifying¹, or rather naming, a fragment of reality. The acceptance of the use of a particular name (or, rather, a predicate) to denote a fragment of reality requires accepting the object's possession of certain properties presupposed or implied by the name itself. For instance, the same aspect of reality (X) can be labeled as "monopoly" or "strong company". However, whereas the concept of "monopoly" commonly implies "absence of the free market" or "destruction of the free-market economy", a "strong company" usually implies that "the company is solid and defeats the concurrence". Therefore, accepting the attribution of a predicate means accepting other properties that can be used to warrant the acceptance of a conclusion. The uses of the predicates "monopoly" of "strong company" in the propositions "X is a monopoly" or "X is a strong company" elicit arguments leading to different conclusions, for example "X is contemptible" or "X is laudable". Schiappa (2003: 131) and Zarefsky (2006: 404) call this strategy *argument by definition* (Zarefsky uses also the name "persuasive definition") and represent it as a kind of inference having the following structure: x is P(therefore, x is good/bad).

¹ For the notion of classification as the attribution of a predicate to a subject, see Mill 1959: 76-77.

This type of argument can be analyzed by distinguishing the two distinct aspects of the process of attribution of a predicate to a subject, and the reasoning stemming from the predication and leading to an evaluation. The first process can be examined using the ancient concept of *locus a definitione*, namely the maxims describing the reasoning from definition. Definition is the (often implicit) semantic link between a factual premise, like "X controls the manufacture of ping-pong balls" and a classificatory conclusion, like "X is a ping-pong ball monopoly" (Windes – Hastings 1965: 160). The whole classification is grounded on the implicit definition of "monopoly". The same aspect of reality (X) can be labeled as "monopoly" or "strong company" according to the definition of "monopoly" the speaker uses. The second part of the reasoning stemming from naming reality can be described using the concept of values and the link between the decision-making and the values. For example, it is commonly shared that "what damages the free-market is bad" and "the winner is laudable". In this type of reasoning, the argumentation based on shared values and leading to an evaluative conclusion is dependent on the adopted definitions. The choice of a definition can be a powerful argumentative instrument, aimed at altering the evaluation of a state of affairs. Definitions, therefore, can be chosen to support a viewpoint; however, the choice of a definition is not arbitrary in argumentation. By interpreting the ancient concept of dialectical definition developed in Aristotle's Topics (Giuliani 1972: 130), definitions can be conceived as *endoxa*, namely commonly accepted opinions. On this view, definitions are matter of commitment, that is, they depend on what is shared between the interlocutors. Definitions can be therefore the standpoint of an argumentative discussion, in which the controversial definition is assessed.

The purpose of this paper is to show the argumentative structure of the reasoning from definition, and the criteria for the evaluation of a definition. Different types of definition will be analyzed, showing how different types of definition (for instance essential definition, definition by parts, or definition by etymology) trigger different types of inference (see Victorini *Liber de Definitionibus*).

1. The argumentative structure of reasoning from definition

The most common use of definition is naming a fragment of reality. A being can be called a stone, an animal, or a man on the ground of the definitions of "stone", "animal" and "man". However, in argumentation naming often is not a standpoint in itself, but a premise for a consequent conclusion. Classifying a fragment of reality as "a non-human being" or as "a man" can be used to support contrary positions, like "It can be killed" or "It must not be killed".

In law, the importance of definition was highlighted by Cicero. He showed how the same action, stealing a sacred vase from a private house, could be punished as theft or as sacrilege according to the possible definitions of the latter term. If "stealing something sacred from a private place" was the definition of "sacrilege", the action would fall into that category; on the contrary, if "sacrilege" was defined as "stealing something from a sacred place", the defendant would be punished for theft2.

The relation between definition and consequences of attributing the defined term to a fragment of reality is the ground for another definitional argumentative move, namely the redefinition. The first uses of this argumentative move are again attested in Cicero. Redefining the concept of "personal enemy" (inimicus), he was able to classify Verres as a public enemy (Ciceronis In Verrem, II, 3, \S 6):

'Fidem sanctissimam in vita qui putat, religionem qui colendam esse existimat, is sine dubio *inimicus* est ei qui fana spoliavit, omnia templa violavit, delubra polluit': hic etiam iam Verris idem factum, id de quo specialiter quaeritur, ita continetur et includitur, ut simul cum approbatione et deductione definitionis in speciem clausum teneatur.

Here the concept of *inimicus* is redefined by Cicero as the enemy of any good citizen.

Definitions, at last, can be used as strategies for altering the evaluation of the thing defined. For instance, wisdom can be defined as the "ability of making money", whereas foolishness "excessive desire of glory" (Ciceronis *De Inventione*, I, 49):

'Sapientia est pecuniae quaerendae intelligentia'; [...] 'Stultitia est inmensa gloriae cupiditas'.

These strategies can be analyzed distinguishing between two argumentative processes. The argumentative uses of definition are based on a reasoning aimed at attributing a property to a fragment of reality, and a process of assessment grounded on how the attributed properties are commonly evaluated.

1.1 Reasoning from endoxical definitions

Reasoning by definition has been often regarded as an indefeasible type of reasoning. Mill describes it in the following fashion (Mill 1959: 539):

Some particular properties of a thing are selected, more or less arbitrarily, to be termed its nature or essence; and when this has been done, these properties are supposed to be invested with a kind of indefeasibleness, to have become paramount to all the other properties of the thing, and incapable of being prevailed over or counteracted by them.

For example, we can consider the following piece of reasoning. A body was defined as "what can move up and down"; in the void a body cannot move up and down; therefore, by definition, in the void a body is not a body anymore (Mill 1959: 539). This argument was used to disprove the existence of void, and was wholly grounded on the "nature" of the bodies. Similarly, by the definition of "man" a Negro was classified as a chattel (*Dred Scott V. Sandford*, 60 U.S. 393, (1856) at 404-405). In these arguments,

² "Quare in eiusmodi generibus definienda res erit verbis et breviter describenda, ut, si quis sacrum ex privato subripuerit, utrum fur an sacrilegus sit iudicandus; nam id cum quaeritur, necesse erit definire utrumque, quid sit fur, quid sacrilegus, et sua descriptione ostendere alio nomine illam rem, de qua agitur, appellare oportere atque adversarii dicunt." (Ciceronis *De Inventione*: I, xii).

the conclusion seems to logically proceed from the premises; however, despite the soundness of the reasoning, the conclusion cannot be acceptable. The critical aspect of these arguments lies in what is labeled as "the nature", or "the" definition of something. In order to understand why a piece of reasoning from definition can be strong, weak, or simply unacceptable, it is useful to inquire into the structure of this type of argument.

In argumentation theory, the type of reasoning from a definition to the attribution of the *definiendum* to a fragment of reality has been described by Hastings (Hastings 1963: 36-52) as Argument from Criteria to Verbal Classification. This pattern of argument has been later elaborated by Walton (Walton 2006: 129), who maintained Hastings' argument structure:

Hastings' Argument from Criteria to Verbal Classification	Walton's Argument from Verbal Classification	
Event or object X has characteristics A, B, C	INDIVIDUAL PREMISE:	a has property F.
If x has characteristics A, B, C then x is Q	CLASSIFICATION PREMISE:	For all x, if x has property F, then x can be classified as having property G.
Therefore, event or object X is Q.	Conclusion:	a has property G.

Table I: Arguments from classification

Argument schemes from verbal classification seem to broadly represent the nature of the conditional premise "If p then q". However, the notion of classification is in these patterns unclear. If a predicate is attributed to a subject on the grounds of one or more predicates, it remains unclear why should a predication imply another predication. According to these schemes, the conclusion "a is a cat" can logically follow from premises like "a is a dog" or "a is black". These argument schemes do not specify the nature of the relation between the predications, and do not explain the reason why a property, or a classification, implies another property or classification. Walton's argument scheme was further developed in (Walton, Reed & Macagno 2008). In the new formulation of the scheme, this semantic relation was made explicit in the classification premise:

CLASSIFICATION PREMISE: For all x, if a fits definition D, then x can be classified as having property G. (Walton, Reed & Macagno, 2008: 68).

In this latter argument scheme, however, the relation between the definition and the thing defined is not clear, as well as the role definition plays in an argument. A better understanding of the reasoning process grounded on definition comes from the an-

cient *loci* ³ . In the ancient tradition, the rule of consequence that we represent nowadays as "*p*, if *p* then *q*, therefore *q*" was applied to the possible semantic relations. The *p*'s and *q*'s, in other words, were in the topical system predicates, and the maxims represented the acceptable semantic links, like "what the definition is said of, the *definitum* is said of as well". The maxims were an abstraction of the possible reasonable (or semantic) relations that can be used in argumentation. The mechanism of the topics highlights the strict connection between the abstract rule of inference (the maxim), and the common knowledge. We represent the topical inferential structure of the argument:

X *exclusively controls* the manufacture of ping-pong balls. Therefore X is a *monopoly*.

as below (see Rigotti & Greco 2006; Rigotti 2006; Rigotti 2007):

MAXIM	Endoxon	
What the definition is predicated of, also the definiendum is predicated of		
	Exclusive control of the market is the definition of monopoly	
Preliminary conclusion		
What "exclusive control of the market" is predicated of, also "monopoly" is predicated of		
The <i>definiendum</i> is predicated of X	X exclusively controls the market of the manufacture of ping-pong balls	
Therefore the definition is predicated of X	X is a monopoly	

Table II: Reasoning from definition

From this diagram, the relation between the common knowledge, namely the *endoxa*, and the inferential rule called maxim is made clear. The definition of monopoly as "Exclusive control of the market" is a commonly accepted proposition, on which the acceptability of the conclusion depends. If the definition were different, the plausibility of the conclusion would be different, even though the inferential mechanism and the inferential rule applied were the same. For instance, we consider the following argument:

X is *the biggest industry* in the manufacture of ping-pong balls. Therefore X is a *monopoly*.

Here the conclusion is grounded on the endoxical premise "Monopoly is excellence in an economic field". Anyone who knows the laws of a free-market economy would hardly accept this definition of monopoly, and would judge the argument as unreasonable or fallacious. However, the strength of reasoning from definitions depends on

³ The most extensive account of arguments schemes from classification is given in Kienpointner (1992). In *Alltagslogik* four schemes from definition are identified and the classifications by means of genus, and whole and parts are analyzed (Kienpointner 1992: 250-252).

what is actually shared by the interlocutor. If the concepts of monopoly, free-market economy, and competition are not clear to the hearer, he can easily accommodate his implicit knowledge to the unshared definition. His lack of knowledge makes it possible for him to accept as shared a definition that would be commonly judged as wrong. The acceptability of a definitional argument depends on what is commonly shared by the interlocutor, and on his knowledge. When definitions are not shared, detecting unacceptable or fallacious definitions becomes much harder. For this reason, the failure in providing a unique definition of some crucial political concepts, such as "terrorism", "torture", or (as analyzed in Schiappa 2003) "wetland" can be considered a real manipulative strategy.

1.2 Definitions and values

As mentioned above, definitions are instruments of naming reality. However, the naming of reality is often an argumentative move aimed at supporting a standpoint. For instance, as seen above, characterizing an action as "a theft" or as "a sacrilege" implies different consequences. From a legal point of view, the types of punishment provided for the two crime types are different; from a social point of view, a man who committed sacrilege is usually regarded as worse than a simple thief. Naming reality can be an argumentative strategy for influencing the process of decision-making or the evaluation of the denoted fragment of reality. For this reason, definitions are regarded as "political" strategies, namely moves aimed at altering the interlocutor's or the audience's choices and assessments (Schiappa 1998: 3; Schiappa 1993: 404). In particular, on Schiappa's view, defining and naming always express an attitude, orientating the interlocutor towards a certain conclusion.

The relation between words and evaluations has been pointed out in argumentation theory in particular by Stevenson, Hare, and Halldén. Stevenson (1937; 1944) inquired into the nature of the ethical terms, that is, words that change the interlocutor's attitude. Words like "culture" or "blackguard", on Stevenson's view, enhance an emotive reaction in the interlocutor, like admiration or contempt. Stevenson analyzed these "ethical" words using the categories of descriptive and emotive meaning. Whereas the descriptive meaning was identified by Stevenson with a cognitive reaction, because it was aimed at altering the knowledge of the world of the interlocutor, the emotive meaning was identified with the change of attitude a word can provoke in the hearer. The emotive meaning was described as the component of a sign that was intended to alter the emotions and the behaviour of the interlocutor. Hare (1952: chap. 7), following Toulmin (1950), examined the nature of the emotive meaning of ethical words, and pointed out how they can lead to action on the basis of shared principles of behaviour. For instance, the argument "Do your homework; do your duty" is grounded on the shared principle that "You should do your duty". Similarly, the following argument, grounded on the qualities "sweet and juicy", presupposes an implicit relation between evaluation and action:

This strawberry is sweet and juicy. You should eat it.

In this example we can identify two types of shared premises, namely the evaluation premise ("What is sweet and juicy is good") and the behaviour premise ("You should eat what is good"). The directive effect of emotive meaning of words can be therefore analyzed in terms of reasoning grounded on implicit norms of conduct.

Halldén (1960: 73) focussed his inquiry on the nature of the reasoning from evaluation. He distinguished the descriptive criteria, used to describe the meaning of a word, from the evaluative criteria. These latter criteria can be interpreted as the shared propositions at the basis of the reasoning grounding the evaluation of an aspect of reality. For instance, "love" is positively evaluated in our culture because it is a morally noble feeling, and what is morally noble is considered to be good.

Stevenson, Hare, and Halldén highlight two crucial aspects of the argumentative use of a name. A name can be used to influence the interlocutor's emotions and choices, and this reaction can be analyzed in relation to the shared system of values, or "evaluative criteria". However, in these authors the relation between evaluation and action is not clear. The argumentative link between assessment and decisions can be found in the ancient tradition, and in particular in Aristotle's action theory. In the Nicomachean Ethics, Aristotle showed how a decision is always directed to a goal, and the goal can be what is good, or what appears to be good (III, 4, 1113a15); in fact, "everything aims at the good" (*Topics* III, 1, 116a 18). The emotive meaning can be explained in terms of reasons to act: the agent aims at obtaining what is good for him, and therefore his choices will be determined by what appears to be desirable to him. The agent's "emotive reaction", which can be identified with a decision to act, or with a behaviour of praise or contempt, is in this perspective the conclusion of a reasoning based on values, for instance, "Money is good. Therefore I should get it", or "Violence is bad. Therefore I should despise it"4. If we apply the Aristotelian view on action and values to the argumentation theory, we can represent the reasoning grounded on emotive words using the argument scheme from values (see Bench-Capon 2003a; 2003b). In argumentation, value can be described as what makes something desirable, and can be conceived as the reason leading somebody to desire something. Values are, in other words, reasons to act (Miano 1952: 657). The process of reasoning from values leads from a characterization of a fragment of reality to a decision about how to act. We can explain the complex argumentation as follows: x (an entity or a state of affairs) is characterized as P (for instance, x is a monopoly); P can be positively or negatively judged

⁴ Values can be different according to the culture and the people. What is good to somebody can not be good for somebody else. Aristotle tackles this problem distinguishing in the *Ethics* the absolute good from the relative or apparent good. In his *Topics*, he develops criteria for the choice between two things that appear to be desirable, like in the topics below (*Topics*, III 1, 28-34): "That which is desired for itself is more desirable than that which is desired for something else; e.g. health is more desirable than gymnastics: for the former is desired for itself, the latter for something else. Also, that which is desirable in itself is more desirable than what is desirable per accidens; e.g. justice in our friends than justice in our enemies: for the former is desirable in itself, the latter per accidens: for we desire that our enemies should be just per accidens, in order that they may do us no harm".

according to a value V (monopoly is bad); according to the desirability of x, x can become a goal (or object of praise or condemn) for the agent. Using Walton and Krabbe's terminology (see Walton & Krabbe 1995), we can say that the agent commits himself to an action (which can be a simple behaviour of praise or contempt) on the grounds of the desirability of x. Values are therefore the reasons of an action's desirability, and the grounds of the agent's commitments.

We can represent the abstract pattern of inference as follows (Walton, Reed & Macagno 2008: 321):

Argument from Positive Value

PREMISE 1:	Value V is <i>positive</i> as judged by agent A (judgment value)
PREMISE 2:	The fact that value V is <i>positive</i> affects the interpretation and therefore the evaluation of goal G of agent A (If value V is $good$, it supports commitment to goal G).
CONCLUSION:	V is a reason for retaining commitment to goal G

Table III: Positive values

Argument from Negative Value

PREMISE 1:	Value V is <i>negative</i> as judged by agent A (judgment value)
PREMISE 2:	The fact that value V is <i>negative</i> affects the interpretation and therefore the evaluation of goal G of agent A (If value V is bad , it goes against commitment to goal G).
CONCLUSION:	V is a reason for retracting commitment to goal G

Table IV: Negative values

In order to show how reasoning from definitions works, we can apply these argument schemes to the following simple arguments:

- 1. Pop Cola is a monopoly. It controls the market of soft-drinks.
- Pop Cola is a monopoly. It is the strongest company in the market of soft drinks.

We can represent the underlying reasoning as follows:

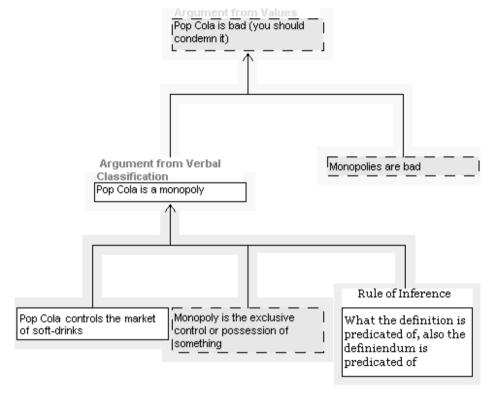


Figure 1: Structure of the argumentative use of definition

In this scheme the argumentative move (the value judgment expressed on the entity "Pop Cola") is grounded on the definition of "monopoly". By redefining a predicate it is possible to change the assessment of a fragment of reality. For instance, in case Pop Cola were the strongest company in the market of soft-drinks, a negative assessment of it could be drawn from redefining "monopoly" as "the strongest company". Leaving implicit the definitional premise and the evaluative premise, the same conclusion would follow from a different factual premise.

An argumentation from values can follow directly from a definition, which can be used to alter our evaluation of its denotation. For instance we can consider the following cases (Naess 1966: 92-93):

- 1) Democracy is the policy of government that tries to bring morality and politics closer to one another until they coincide;
- 2) Democracy is the form of government which gives, or tries to give, the people the illusion of their own sovereignty.

In both cases definitions are used to alter the evaluation of the concept of democracy. In the first case, the positive assessment of the *definiens* affects the evaluation of the *definiendum*, whereas in the second case the negative value associated to *deception* alters the evaluation of *democracy*. This kind of reasoning from definition can be represented in the following fashion:

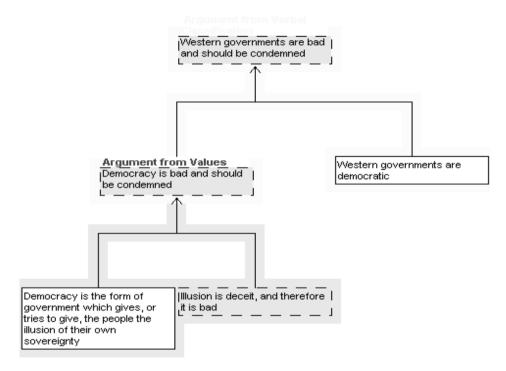


Figure 2: Altering evaluations through definitions

Arguments from values and classification represent abstract patterns of reasoning showing the argumentative structure of the most important argumentative strategies grounded on definition. However, in order to inquire into how definitions are used to persuade the interlocutor, it is useful to analyze the generic concept of definition in its specific types, namely the different types of definition.

2. Types of definitions and inferences from definition

As seen above, the choice of a definition can influence the whole assessment of a fragment of reality. The same concept can be defined in different ways. For example, the concept of monopoly can be defined as "Exclusive control of the market", or "Exclusive sale" (from the Greek $\mu \acute{o} \nu \sigma \varsigma$, alone or single, and $\pi o \lambda \epsilon i \nu$, to sell)", or "Companies like

Standard Oil, American Telephone and Telegraph, British East India Company..." The structures of these definitions are different: whereas in the first case the predicates of the definition are the genus and the difference of the *definitum*, in the second case the definition represents its etymology, and in the third case its parts. These definitions are, however, argumentatively different. The fact that the same thing can be defined in different ways does not imply that all definitions are equal from an argumentative point of view. In other words, even though there can be different definitions of the same concept, the reasonableness and the force of the arguments grounded on them is noticeably different. Definitions, in fact, are *endoxa*, and the strength of the reasoning based on them depends on their acceptability. Moreover, the structure of the definition determines which inferences are possible, and their strength.

The first type of definition we will consider is the essential definition, or the definition by genus and difference, for instance, "man is a rational animal" or "monopoly is the exclusive control of the market". In the ancient tradition, this type of definition was considered to be the most complete (Victorini Liber de Definitionibus, 7, 10-16), because it wholly represented the concept defined, namely the core endoxa relative to the characteristics of the definitum. The essential definition is characterized by the genus, that is, a predicate expressing what a thing is in a generic fashion. For instance, the genus of man is animal; the genus of house is building. The genus represents the generic fundamental (or most shared) properties of the definitum (Stebbing 1933: 429). For instance, it would be unreasonable to say "It is a man, but he is not an animate being", or "This is a house, but it is not a building". Moreover, the genus explains the possible attributes which can be predicated of the definitum. For instance, a man moves, swims, eats, breathes...because only animate beings can do it (the predicate "to eat" presupposes the fact that the subject is animate: it would be meaningless to say "This table eats a lot")⁵. The difference distinguishes the thing defined from all the other concepts belonging to the genus expressed, and must justify the attribution of some predicates that can be predicated only of the definitum. For instance, only the man can laugh, talk, or deny, because he is reasonable, and these predicates presuppose a reasonable being (it would be meaningless to say "This cat talks pretty well").

The argumentative strength of essential definition lies in the fact that it represents the deepest level of shared proposition. Essential definitions can be considered a form of semantic analysis, and semantics is the deepest level of *endoxa* (or shared commitments): if the most basic semantic characteristics are not accepted, a communicative failure can easily occur.

The essential definition is argumentatively powerful also because of the inferences it can trigger. For instance, we can examine some of the possible inferences based on the definition of "monopoly" as "exclusive control of the whole market":

⁵ It is interesting to notice (see Rigotti 1997) that a man can be sitting or standing, or he can be stretched out, but he must be in a position. Similarly, a stone can be green or grey, but cannot jump. Accident is related to the possibility of predication, to the semantic genera of the predicates, the ten categories.

What the definition is said of, the <i>definitum</i> is said of as well.	Pop Cola exclusively controls the market of soft drinks. Therefore it is a monopoly
What the <i>definitum</i> is said of, the definition is said of as well.	Pop Cola is a monopoly. Therefore it exclusively controls the market.
What is denied of the genus is denied of the species.	Free market is not a form of control of the market. Therefore it cannot be a monopoly.
What the species is said of, the genus is said of as well.	Pop Cola is monopolizing the market. Therefore it controls it.
What is said of the species, it is said of the genus as well.	Monopolies are bad. Therefore some forms of control are bad.
What is said of the whole genus is said of one of its species.	Any form of control is bad. Therefore monopolies are bad.

Table V: Topics of definition

These inferences are all grounded on an essential definition (that is, definition by genus and difference) of "monopoly". The structure of the definition allows the convertibility of *definiens* and *definiendum*, and the relation between species and genus allows the application of the inference rules of the genus (see Aristotle, *Topics*: book IV).

In the definition by parts the *definitum* is defined by its constituent or essential parts. For instance, a house can be defined as "walls, foundation, and roof" (definition by constituents), or as "apartment, villa, country-house, terraced house, cottage..." (essential parts). The possible inferences that can be triggered by these definitions are the following:

Definitions	Inferences
By constituent parts: A house is walls, the foundation, and a roof.	 There are walls, the foundation, and a roof. Therefore there is a house (there might not be). A house is destroyed. Therefore walls, the foundation, a roof are destroyed (they might not be destroyed). The walls, the foundation, the roof are solid. Therefore the house is solid (it can be weak anyway). This house is nice. Therefore its roof is nice (it can be ugly).
By essential parts: A monopoly can be a legal monopoly, a natu- ral monopoly, a verti- cally integrated mono- poly	 This company is a legal monopoly. Therefore it is a monopoly. This company is not a legal monopoly, nor a natural monopoly, norTherefore it is not a monopoly Pop Cola is a monopoly. Therefore it is either a legal monopoly, or a natural monopoly, or Natural monopolies are good. Therefore monopolies can be good

Table VI: Definitions and inferences

The definition by constituent parts is extremely weak from an argumentative point of view. In fact, it is not convertible with the *definitum*, because the integral parts and the whole are not equivalent. On the contrary, the definition by enumeration of the species (essential parts) is argumentatively powerful, because it is convertible and it allows the inferences from genus and species. However, from a communicative point of view, the definition by essential parts is useless. This type of definition does not show what the thing is, but the knowledge of the *definitum* is presupposed by the definition. Moreover, definition by essential parts must list all the possible species of the *definitum* in order to be acceptable and convertible.

A concept can be also defined by looking at the etymology of its significant. For instance, counselor, namely a lawyer who defends cases in court, can be defined by etymology as "he who gives counsels (from *consulere*)". Even though the etymology is correct, like in this example, the definition can be wrong or unacceptable. From an argumentative point of view, definitions by etymology are not necessarily convertible, but trigger inferences based on the *coniugates*, namely the processes of lexical derivation. For instance, we can consider the following cases:

He is a counselor, and therefore he should give counsels, and not decide. He is a teacher. He should teach, and not be in politics.

The argument based on definition by etymology is quite used in politics, as Mill (1959: 531) reports: "Perhaps no example of this can be found that is more extensively and mischievously employed than in the case of the word representative: assuming that its right meaning must correspond exactly with the strict and original sense of the verb 'represent', the sophist persuades the multitude that a member of the House of Commons is bound to be guided in all points by the opinion of his constituents; and, in short, to be merely their spokesman".

At last, some definitions are not aimed at showing what a thing is, but just at describing the thing defined. For instance, we can define "man" as "the being subject to sin" or as "the being that can pity the Gods"⁶. These definitions are used to describe the man through non-essential characteristics, which are useful to support a value judgment on the defined thing. For instance, we can use the first description to support the evaluation of man as an evil being, whereas the second to praise him. These descriptions, we can notice, are both convertible with the *definitum*, but they do not show what it is. The concepts of "vice" and "pity" presuppose a previous knowledge of what a rational being is. These predicates can only be attributed to a rational being (it would make no sense to say "this mouse is greedy" or "my cat prays a lot"). Definite descriptions are not necessarily convertible with the thing defined. For instance, if we define "man" as "the being that can laugh (or talk)", we distinguish him from all the entities; however, we can describe him also as "the biped animal" to differentiate him from quadrupeds.

⁶ Victorinus defines man as "ubi rursus malitia versutia ceteraque vitia versantur" (Victorini *Liber de Definitionibus*, 18, 19-20) or as "ubi pietas est, ubi aequitas continentia" (*ibidem*).

The same concept, to conclude, can be defined in different ways. However, definitions are different in structure and acceptability. Some definitions are stronger than others because they represent the core *endoxa* relative to a concept, and trigger particular types of inference. In particular, the definition by genus and difference can be interpreted as a type of definition showing the fundamental semantic properties of the concept defined. It can be conceived as an instrument of semantic analysis.

3. The Dialogical Definition

Definitions, from an argumentative point of view, are commonly known propositions, or implicit commitments of the interlocutors, that can be more or less shared. The strength of a definition depends on its acceptability and structure. The existence of several definitions does not lead to a definitional relativism, but to conflicts of definitions, that is, to dialogues grounded on different definitions about the same concept. Dialogues on definition can be divided into two broad categories: dialogues on descriptive definitions, and dialogues on normative definitions. Whereas in the first case the dialogue is aimed at establishing what the shared definition is, in the second case the interlocutors are engaged in a discussion on which definition should be adopted.

3.1 Conflicting definitions: Defining "Ambassador"

Dialogues on definition show how deep the relation between definition and implicit commitments or shared knowledge (see Walton & Macagno 2007) is. In particular, conflicts of opinion are sometimes based on different categorizations of reality, which in their turn are grounded on conflicting definitions. For example, we can analyze the following case, drawn from Manzoni's *I Promessi Sposi* (Ch. 4). The interlocutors, Count Attilio and the Podestà, are discussing about the rightfulness or wrongfulness of a cavalier's offence to a messenger. A Spanish cavalier sent a challenge to a Milanese cavalier; however, the messenger, not finding him at home, delivered the summons to his brother, who, after reading it, beat him. On Count Attilio's opinion, the cavalier's deed was right, whereas on the Podestà's view the action was mean. The conflict of opinions can be represented as follows (Manzoni 2001: 209-246):

Podestà: [...] an <u>ambassador</u> is, in his nature, inviolable by the law of nations, *jure gentium*. But, without seeking so far, the proverb says, *Ambasciator non porta pena*; and proverbs, you know, contain the wisdom of the human race. Besides, the messenger having uttered nothing in his own name, but only presented the challenge in writing...

Count Attilio: But when will you understand that this messenger was an inconsiderate ass, who didn't know the first?...

Count Attilio: [...] What puzzles me is why you think so much of the shoulders of a mean <u>scoundrel</u>.

Podestà: Who said anything about his shoulders, Signor Count? You would make out I had talked nonsense such as never entered my mind. I

spoke of his office, not of his shoulders; and am now considering the laws of *chivalry*.

Count Attilio: [...] according to the laws of modern chivalry, which are the only right ones, I affirm and maintain that a messenger who dared to place a challenge in the hand of a knight without having asked his permission, is an <u>incautious fool</u>, who may be beaten, and who richly deserves it.

This controversy is based on the classification of the messenger as an ambassador. Whereas the Podestà maintains that he actually was an ambassador, and therefore he couldn't be beaten, Count Attilio does not acknowledge the status of representative to the messenger, and refuses to admit that the latter could benefit of the diplomatic privileges. The Podestà's position is grounded on the definition of "ambassador" as "a messenger acting as a representative": as the messenger presented the challenge in writing, his role in that situation was that of an ambassador. Count Attilio, on the contrary, considers an ambassador a person who knows and follows the rules of chivalry, in addition to act as a representative. The definition of "ambassador", according to Count Attilio, encompasses not only the role of "acting as a representative", but also the messenger's behaviour and personal qualities. We can represent how the difference of opinions is grounded on a conflict of definitions as follows?:

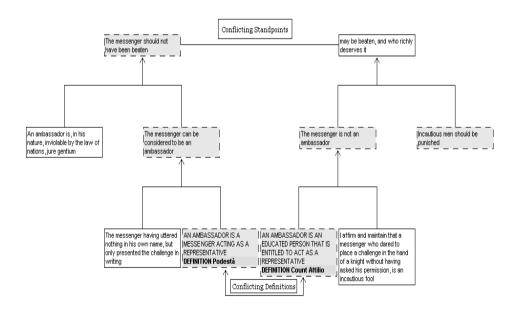


Figure 3: Conflicting Definitions

⁷ In this diagram, the premises in white boxes are the explicit premises of the arguments, which are quoted from Manzoni (2001: 209-246). The grey boxes represent the implicit premises.

In Count Attilio's view, an ambassador is not a role (to act as), but a person characterized by certain qualities and a particular behaviour. On the contrary, the Podestà considers the ambassador a role, comporting only the requirements of "to be a messenger" and "to be a representative". If we compare the two definitions, and analyze them as instruments of semantic analysis, we notice that only the Potestà's definition explains the semantic characteristics of the predicate "to be an ambassador":

TOPICS	Ambassador is a role	Ambassador is a person
What the definitum is said of, the definition is said of as well.	This man came as an ambassador. This man came as a messenger acting on my behalf.	This man came as an ambassador. (?) This man came as an educated person entitled to act on my behalf.
What is said of the definitum is said of the definition as well.	This is a good ambassador. This messenger <i>represents me well</i> .	This is a good ambassador. This educated person is well entitled to act on my behalf (follows well the rules of chivalry)

Table VII: Conflict of definitions

The application of the topics of definition to the two definitions highlights how the semantic features of the predicate are better represented in the Podestà's definition. Defining the definition as an instrument of semantic analysis allows one to compare definitions and choose between them.

3.2 Modifying a definition: Redefining "Virus"

Some dialogues on definition, as seen above, can be resolved analyzing the shared meaning of the *definienda*. These types of conflicts of opinion are based on the interlocutors' presuppositions. The proponent and the opponent take for granted definitions that in fact are not shared by the other party. These types of conflicts of opinion can be resolved through clarification dialogues, in which topics of definition are used to establish which definition is the best one.

A different type of definitional conflict of opinion emerges when a shared definition is countered with a proposed redefinition. In this case the interlocutor advances his proposal of how the concept should be defined.

A clear example of a debate on how to define a concept can be found in the discussion on the redefinition of "virus" after the discovery of a new giant virus, the Mimivirus (*New Scientist*, 25 March 2006: 37-39). In biology, viruses are placed outside the "tree of life", being microorganisms smaller than bacteria, which cannot grow or reproduce apart from a living cell (*New Scientist*, 3 September 2005: 26). However in 2002 a virus was discovered that was bacterium-sized, and presented an unusual number of genes, some of which are involved in the first process that makes proteins from genes. The complexity of this virus and its likeness to cellular life was the ground

for the proposal of redefining the concept of "virus". On the shared view, Mimivirus would be classified as a virus, as it "is still dependent on its host for basic metabolic processes such as protein synthesis and energy production. And it lacks protein-building ribosomes, one of the fundamental features of life. So it is still a virus. [...] And virus is a virus" (*New Scientist*, 25 March 2006: 41). This definition was countered by some scientists, who maintained that "a term broad enough to include everything from the minuscule hepatitis D to the giant Mimivirus is useless", and that the same concept of life should be redefined, encompassing the Mimivirus. This virus is commonly considered alive by virologists, and its DNA contains an impressive number of genes.

The conflict of definitions can be represented as follows:

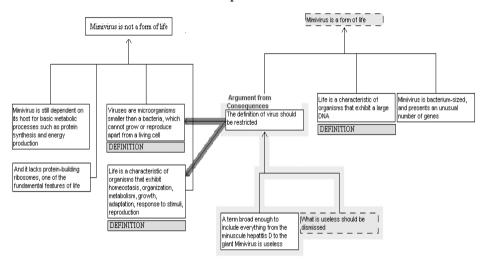


Figure 4: Dialogue on definition

The arrows between the argumentations supporting the two conflicting arguments represent the conflict of definitions. The interlocutor uses an argument from consequences, namely a pattern of reasoning leading from the premise "A's consequences are bad" to the conclusion "A should be avoided (not be chosen...)". The traditional definition of life is shared among the scientists, and the interlocutor cannot deny the shared commitments. However, he advances a pragmatic argument to support his redefinition of "life" and "virus" in virology. He argues that by redefining these concepts a better explanation of the evolution of life could be possible. This debate shows how deeply connected definitions are with theoretical issues such as the origin of life, which constitute the cultural background of a community.

Redefinitions, as shown in the example of the definition of "ambassador", are often implicit and are used to manipulate. If undetected, the redefinition can lead the interlocutor to fallacious conclusions. However, when detected, redefinitions can be

countered and proved to be wrong by confronting them with the implicit shared commitments. Redefinitions, however, are not always manipulative strategies. They can be supported by arguments aimed at attacking or countering the presuppositions the shared definitions are grounded on. In these cases, redefinitions, and dialogues on definition, become dialogues on the *endoxa* of a community.

4. Conclusions

Definitions from an argumentative point of view can be analyzed as *endoxa*, namely commonly accepted propositions. Definitional *endoxa* represent the deepest commitments of a community, as they are the basis of the mutual understanding. Definitions become argumentative strategies when they are used as premises in patterns of inference that are commonly called "argument from classification" or "*loci a definitione*". In these types of reasoning, the definition is used to name reality, that is, to classify it. Different classifications of the same fragment of reality can lead to noticeably different conclusions, or influence the interlocutor's process of decision-making. For this reason, conflicts of classifications are often based on conflicting definitions. This type of conflict can be resolved only by establishing first what a definition is, and what the criteria are to assess a definition. In the ancient tradition, the best definition was the definition that could license the strongest inferences, and it coincided with a semantic analysis of the *definiendum*. The essential definition can be therefore considered from an argumentative point of view the criterion to assess dialogues on definitions.

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