

# Plato's Myth of the Cave Images. A Didactic Analysis of the Mediation Function <sup>†</sup>

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<sup>†</sup> Presented at the International and Interdisciplinary Conference IMMAGINI? Image and Imagination between Representation, Communication, Education and Psychology, Brixen, Italy, 27–28 November 2017.

Published: 23 March 2018

**Abstract:** The 'Myth of the cave' is one of the topic of philosophical knowledge and a most debated object of study among philosophical scholars and authors. It is also a core-content knowledge of the philosophical school curriculum in high schools. The 'Myth of the cave' is also a useful object of didactic analysis that allows to deep the processes of teaching mediation. Based on the theoretical approach of 'visual thinking', the contribution presents the first findings of an exploratory study, realized in a High School, that have analyzed the mediation function of the 'Myth of cave' images in supporting the student learnings.

**Keywords:** teaching philosophy; iconic mediation; *visual thinking*

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## 1. Introduction—The 'Myth of the Cave' in the Philosophical and 'Pop' Culture

The 'Myth of the cave', or Allegory of the cave, or Plato's cave, is a very well-known novel from the Republic by Plato, into the book VII (514a–520a) through which the philosopher describes the human condition [1] both and the process of knowledge [2]. Furthermore, Plato's myth is a powerful metaphor for contemplating a divide between ignorance and enlightenment—between the 'visible' world and the 'intelligible' realm [3].

Plato—by the Socrates character—describes a group of people chained to the bottom of a cave, facing a blank wall. The people watch only shadows on the wall that are projected from objects on the wall behind them, because of a fire over the wall. One of the prisoners manages to get rid of chains, goes up the cave and can finally see the sunlight. Every element of this story is an indispensable aspect for understanding the Plato's concept of human condition and theory of knowledge too.

The 'shadows' are the prisoners' reality (knowledge by conjecture = εἰκασία). The 'free prisoner' is the philosopher who can contemplate the true knowledge, the 'form' of reality (intuitive and direct knowledge = νόησις) thanks to the 'sun' that represents the real 'good'—Figure 3b,c. The human condition is so described: humanity believes that knowledge comes from reality (*shadows*) but few know that true knowledge comes from the contemplation of good (*sun*).

The allegory is related to Plato's 'Theory of forms', according to which the 'forms' (or 'ideas'), and not the material world known to us through sensation, possess the highest and most fundamental kind of reality. Only knowledge of the Forms constitutes real knowledge or what Socrates considers 'the good' [4].

The 'Myth of the cave' is one of the central *topics* of philosophical base-curriculum [5] and a most debated object of study among philosophical scholars and authors: it was interpreted ethically, politically and ontologically, from the psychoanalytic to the mystical-theological point of view, etc. [1,6–11].

The epistemological and the political meanings tend to be discussed most frequently [7]. R.L. Nettleship [12,13] interprets the allegory of the cave as representative of our innate intellectual incapacity. In order to compare the lower common understanding with that of the philosopher, the allegory concerns people who are unable or unwilling to seek truth and wisdom [8]. Ferguson [1], on the other hand, interprets the cave as an allegory of human nature and the novel as a symbol of the opposition between the philosopher and the corruption of the prevailing political condition [13,14].

But there is other supplementary scholarly literature on the ‘Myth of the cave’ that includes articles from alternative, and independent viewpoints as M. Eckert [15], that uses the myth for reflections on kinematics, or B. Tsabar [16], that makes interesting combinations between knowledge theory and affective education.

One of the particularly interesting studies on the ‘Myth of the cave’ is about the images used to describe it. Over the years, numerous authors [17] have provided different graphic, pictorial, cinematic and digital representations of the myth for different communicative purposes and uses (expressive, documentary, educational, etc.) [18] that contributed to and transforming it even into an *icon* of pop-culture, a very well known object among non-specialist audiences [19,20]. Some examples include: the films Wachowski’s ‘The Matrix’ and ‘The Truman Show’ of P. Weir; the video game ‘Furi’ (The Game Bakers, 2016) or the webseries ‘Cave of Shadows’ (Bluwood Films, 2015).

## 2. The ‘Myth of the Cave’ as School Curriculum Knowledge

Nonetheless the ‘Myth of the cave’ is, above all, an essential content of the philosophical school curriculum *tout court* and a central ‘hub’ in the path of philosophical school knowledge (‘Indicazioni Nazionali per i Licei’, dpr 89/2010).

As a content of the school curriculum and in supporting the apprenticeship needs of students, the The ‘Myth of the cave’ has different functions:

- (a) If considered as a *content* of knowledge, that is the subject of one of the most significant pieces of the Republic of Plato (*intrinsic* function);
- (b) As a *tool* of knowledge, ‘explanatory simulation’ of further contents of Platonic thought (i.e., degrees of being: sensitive and super-sensuous; degrees of knowledge: imagination, belief, dialectics and intellection—Figure 3d.) (*extrinsic* function);
- (c) As a *mediator* of student knowledge, that is an in-form representational model [21] and helps to visualize the same student learning processes (*mediation* function).

For this reason, the Plato’s ‘Myth of the cave’ also turns out to be a prime subject of didactic analysis [43–46], useful to deepen and expose the processes of teaching ‘mediation’ [22–27], especially in its representational and iconic aspects [28]. It should be noted that, over the years, often, the ‘Myth of the cave’ has been subject of specific teaching experiences [29–31], most of the time along an interdisciplinary orientation or as useful argument to enhance student social skill [3].

Plato’s allegory, for example, has been used into an educational course addressed to High School students in order to better understand and explain the meanings and reasons of crisis of the addicted individual [20]. In this way, the addiction becomes a subject of philosophical inquiry: Plato’s philosophy and the allegory of the Cave engendered in the students a commitment to living an examined life, and gave them the tools and concepts to do so. The students training in moral philosophy made it natural for them to wrestle with issues of character, responsibility, freedom, care and compassion in both work and life [3] (p. 31).

From the teaching point of view, this type of training offered students excerpts from both texts along with links to the original sources, plus discussion and writing questions. To ask students to illustrate the allegory of the cave through film or images and analyze the emerged meanings using structured charts (double-entry chart, document analysis questions etc.) was the focus teaching idea. After reading Plato’s allegory, the students made a visual representation of the text as a way to deepen and demonstrate their understanding. Before starting, they could watch different interpretations on the web, or look at illustrated depictions of Plato’s allegory, such as a comic (Figure

1a). Finally, they could create their own short film, storyboard or comic depicting Plato’s allegory (Figure 1b).



**Figure 1.** (a) Illustration of the comic used in the educational course on the addiction; (b) a clip-frame taken from a short film made by the students at the end of the course (O’Connor, 2012).

As suggest O’Connor [3] (p. 31), this resources may be used to address the academic standards listed below:

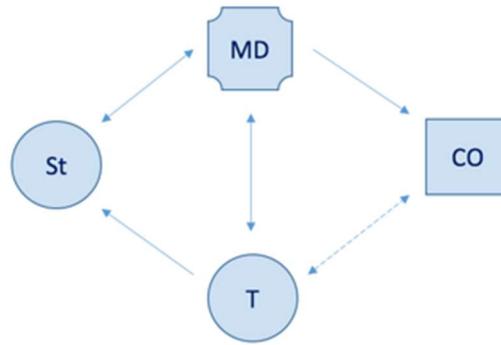
1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text;
2. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words;
3. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

### 3. The ‘Myth of the Cave’ Images: A Didactic Analysis of Mediation Function

The purpose of the study is to deepen the mediation function of the ‘Myth of cave’ images: as *tools* to support the students understanding of literal (the story of the slaves) and philosophical (Plato’s Theory of Ideas) meanings of content, but also as mediators to facilitate student knowledge processes. The study has been conducted in Bari and has involved two High School teachers: the data collection was made in 2013 as part of a teaching qualifying apprenticeship; the data analysis has been carried out on the didactic requirements of the iconic mediators used by teachers [23,32].

From a didactic point of view and through a constructivist perspective [33], indeed, the mediation process is structurally meant to be all the conditions that teacher uses to promote the student learnings [23] (p. 25); [42]. In other words, teachers (T) trigger the mediation process providing students (St) with a system of media-devices (Md) that favor them to interact with cultural objects (Co) (Figure 2).

In reference to the mediation process of the ‘Myth of the Cave’: the teacher (T) teaches ‘The Myth of cave’, the content of the school philosophical curriculum (Co), in a High School V class students (St), using explanatory images (MD—mediation device, in particular, ‘iconic’ mediators).



**Figure 2.** Diagram of school mediation process (Damiano, 2013).

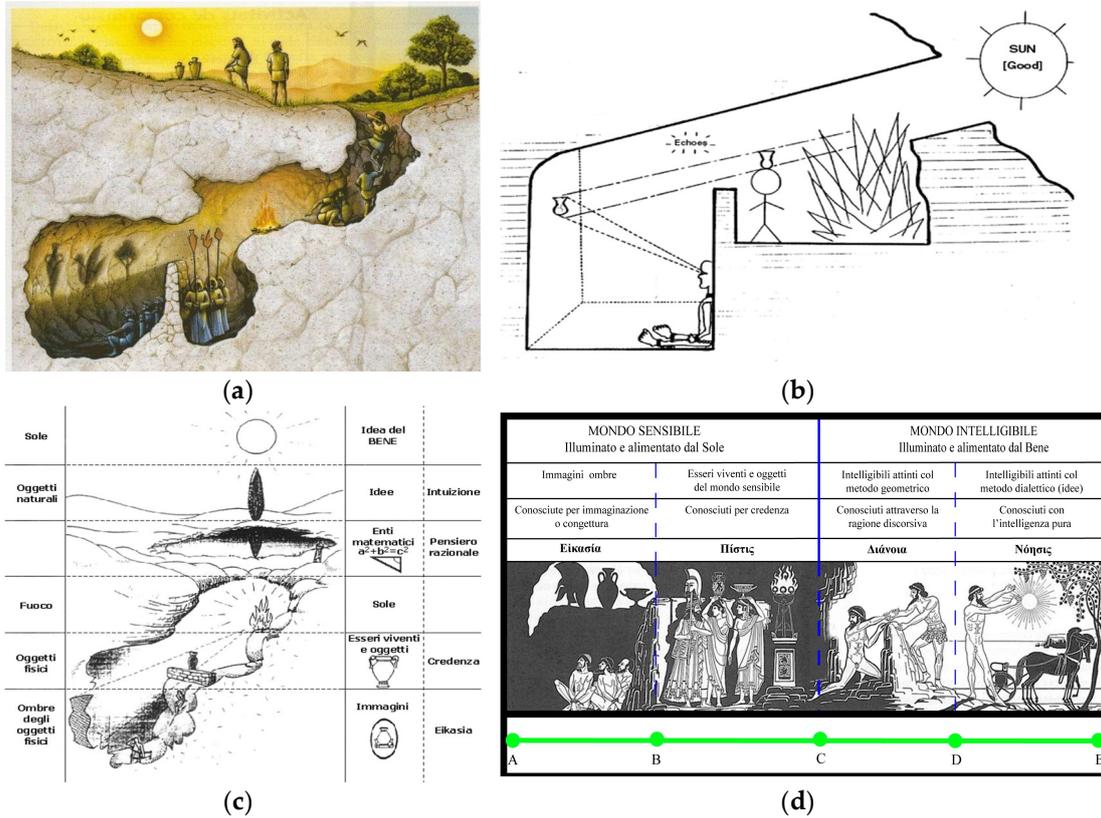
*Data Analysis—The Didactic Requirements of the Iconic Mediators*

The analysis was carried out on the ‘iconic’ mediators used by the teachers involved in the study. The ‘iconic mediators’ are the images of the ‘Myth of the cave’ used during the lessons or the workshop, supporting the explanation of the Plato’s content, and available on line as digital resources. The didactic requirements suggested by Damiano [23,32] have been used and relighted under the *visual thinking* studies [10], in order to carry out the analysis of the ‘iconic’ mediators.

These series of didactic requirements are an elaborated taxonomy, based on the ‘schematicity’, the property of the images to extend the content they represent, to greater or lesser degrees. These are:

- *Objectification*: the iconic mediator ‘allows a focus of the object (...), make it accessible in the absence (...) and therefore makes it available for the investigation of its characteristics’ [23] (p. 181). This is a simplification ‘aimed at loosing the meaning from the faults of the aspects that limit their intelligibility’, but also a distortion that isolates some significant elements to the sacrifice of others (i.e., the pictograms used in the PECS program—the umbrella image *means* it could rain).
- *Density*: it is possible to ‘comprehend a large number of information in quick and concise representations’ through the iconic mediator [23] (p. 181). It is the case of histograms, as ‘cognitive organizers’ [28], that facilitate the representation of data, the space-time organization and, so, the inference processes of understandings (i.e., a histogram representing the population distribution by classes).
- *Coordination*: some iconic mediators ‘use space—that can be grasped at a glance—to clearly show the interrelations between the elements of representation’ [23] (p. 182), they can be considered as the supreme mediators of sets, contexts, systems because they express better the relationships between the elements—dominance, conversely, subalternity etc. (i.e., the organizational charts as The Food Pyramid).
- *Animation*: some iconic mediators, by a ‘forcing’ operation [23] (p. 183), make intelligible cause/effect relationships, ante-retro actions, multiple correlations etc., of phenomena that in reality are either too slow or too fast, or even complex (i.e., the well-known images of the Water Cycle).

As the studies of visual learnings and visual thinking suggest [34–37], the mediation function of images refers to their ability to correspond to reality but, above all, to show a ‘schema’ of reality, to provide a useful model in order to represent and explain it—by simplifications, interpolations and completions. Consider the didactic activities for enhancing student learnings (i.e., learning complex concepts; learning difficulties): through explanatory images, learners observe how information are connected and organized (*first* level of knowledge), farther they are facilitated in obtaining new concepts from the information given (*second* level of knowledge).



**Figure 3.** These are the images analyzed as ‘iconic’ mediators and used during the lessons/workshop to support the student comprehension: (a) ‘The-cave’ by iammrjinks, in flickr.com (2013); (b) Image by ‘The Raven’ (2013); (c) Image by zerozetasm.it; (d) Image by ‘Eticamente.net’.

First of all, consider the general graphic features of the images. Figure 3a,b. represent, in an iconographic mode, the situation described in myth: in a realistic (image a—the trees and the birds of the countryside), or schematic and essential mode (image b—the stylized man in the center). In image a, however, there are all the phases of the narration (e.g., chaining, climbing along the stream, spilling out of the cave); whereas, in image b, only the chaining phase is described.

The images c and d represent, in a similar iconographic mode, the situation described in myth, as images a. and b. In addition, there are explanatory diagrams of the metaphorical meanings. Image c illustrates the configuration between elements of the story and extended meanings through a vertical movement (from the bottom to the top); image d. shows, instead, the same configuration but in a linear progress (from the left to the right). In addition, in image c, there are further explanation elements (e.g., the triangle representing the mathematical entity, which in turn invokes rational thought); in image d, there is a broken line, down. It represents ‘The Analogy of the Divided Line’, another metaphor used by Plato to explain his idea of knowledge (Republic, book VII, 509d–511e).

Based on the previously mentioned didactic requirements, it is possible to summarize the didactic ‘mediation’ functions of the analyzed images, as in Table 1.

**Table 1.** Matrix double entry used for image analysis.

Didactic Requirements <sup>1</sup>	Image a	Image b	Image c	Image d
objectification	X	X	X	X
density			X	
coordination			X	X
animation	X			

<sup>1</sup> Damiano, 2013, pp. 103–118.

All the images assume the function of *objectifying* the narrated story of the myth: they represent the characterizing elements, with ‘simplification’ (Figure 3a) and ‘distortion’ (Figure 3b) to greater or lesser degrees.

The *density* requirement seems to be only in Figure 3c: there are a double-entry grid, as well as exemplary objects (e.g., triangle, amphora etc.), represents the data in order to facilitate inference and supports student comprehension.

The *coordination* requirement is also ascribable to Figure 3c, and partly to image d. The overlaid grid of Figure 3c, in fact, has the purpose of explicating the interrelations between the elements of representation, giving a system that facilitates the understanding of the hierarchical degrees of knowledge. Also the table upward in Figure 3d has a coordination function, but less effective: it seems to inspire more than Plato’s Line Theory (which divides the degrees of knowledge into four distinct levels) and not the Myth of the Cave (where the degrees of knowledge are depicted as less distinguishable).

The *animation* requirement seems to belong only partially to Figure 3a. Only in Figure 3a, it is, indeed, possible to infer the narrative development of the story (the slave is released, goes on the cavalry, finds out reality, returns to the cave to free his companions), although with some abstraction (e.g., the slave painted is the same character, caught in moments different).

#### 4. Findings. Less Objectivity, More Coordination

The images that represent the Plato’s Myth of the Cave—available online—are extremely numerous. However, only a few of them are functional in the mediation of philosophical content and as a tool for student learnings.

The analysis of didactic requirements has highlighted that the images used by teachers may have different functions: only representative (Figure 3a,b), explicative of the hidden meanings (Figure 3c,d), clarifying the Plato’s Theory of knowledge (Figure 3c) and thought (Figure 3d).

The analysis of the iconographic resources used by the teachers to explain the ‘Myth of the cave’ confirms, also, same evidence elsewhere [21,38].

Teachers tend to avoid representational tools, found in—cognitive maps, figures, tables, etc.—but they use additional resources, as result of personal searches. These textbooks resources have been often defined ‘inappropriate’ to expose the concept and ‘ineffective’ to support student learnings. Teachers prefer to resort to even more complex resources, following a principle of *integration* rather than *simplification*: it is not enough, indeed, to clarify the story of the ‘Myth of the Cave’ but it’s necessary to expose the metaphors, the underlying meanings and the Plato’s thought.

Teachers are not afraid that the images may appear to be difficult to understand, rather they confident in the explanatory capacity of the images and ‘meta-representational’ ability of the students.

At present, at least theoretically, it is possible to extend to the teaching of complex philosophical content what Hennessy [39] supports in his studies on mathematics teaching, based on the theoretical approach of visual thinking [21,38]: the central role of mental and material ‘artifacts’, used by the teacher both to explain the content of knowledge and the student learning process. The effective iconic mediation tools—images, tables (Figure 3d) and grid (Figure 3c)—as find in this explorative study, strengthen the cognitive structures that students build in their learning process [32]; favor the ‘mental view’ [38] of the disciplinary content structure.

#### 5. Conclusions and Future Perspective

These first findings will be used in the further investigation for the operational definition of the unit of analysis [40]. The next phase of the study will be focused on a different complex disciplinary content and evaluate if the evidence found in this analysis (the teachers choose the explaining images according to a principle of *integration* rather than *simplification*) are really related to the specific disciplinary content, the personal teacher’s strategies, or the characteristics of the learning context.

As Chocran argues, the mediation function performed by the teacher does not only act at the communicative and relational level but as a true new knowledge building. Then, it would be

interesting to deepen the way the teachers choose the personal tools for mediating disciplinary content—the influence of past experience and training; the reference to non-disciplinary knowledge (art, cinema, etc.)—in order to better understand the process of teacher and student meta-representational competence [41] and, thus, the ability to generate new knowledge [21].

**Acknowledgments:** The analysis was carried out as part of the master’s program ‘Digital competence for special education’ at the University of Bari Aldo Moro in 2015.

**Conflicts of Interest:** The authors declare no conflict of interest.

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