

“A picture held us Captive”: The later Wittgenstein on visual argumentation

“Una pintura nos tenía cautivos”: El Wittgenstein tardío y la argumentación visual

Steven W. Patterson

Department of Philosophy and Religious Studies, Marygrove College,
Detroit, United States
spatterson@marygrove.edu

Received: 20-5-2010 **Accepted:** 23-11-2010

Abstract: The issue of whether or not there are visual arguments has been an issue in informal logic and argumentation theory at least since 1996. In recent years, books, sections of prominent conferences and special journals issues have been devoted to it, thus significantly raising the profile of the debate. In this paper I will attempt to show how the views of the later Wittgenstein, particularly his views on images and the notion of “picturing”, can be brought to bear on the question of whether there are such things as “purely visual” arguments. I shall draw on Wittgenstein’s remarks in the *Blue* and *Brown Books* and in *Philosophical Investigations* in order to argue that although visual images may occur as elements of argumentation, broadly conceived, it is a mistake to think that there are purely visual arguments, in the sense of illative moves from premises to conclusions that are conveyed by images alone, without the support or framing of words.

Keywords: visual argument, Wittgenstein, pictures, Groarke, Slade.

Resumen: El tema de si acaso hay argumentación visual ha sido un tema en lógica informal y teoría de la argumentación que ha estado presente al menos desde 1996. En años recientes, libros, revistas, secciones en importantes conferencias y números especiales en revistas han dedicado atención especial, creciendo de esta forma significativamente el perfil del debate. En este trabajo intentaré mostrar cómo la perspectiva del Wittgenstein tardío, particularmente su visión respecto de imágenes y la noción de “pintura”, puede enmarcar la pregunta respecto de si hay tales cosas como “argumentación visual pura”. Pondré atención en los énfasis de Wittgenstein en los *Cuadernos Azul y Marrón*, y en las *Investigaciones filosóficas*, para defender que aunque los ar-

gumentos visuales pueden ser parte de elementos de una argumentación, concebido de forma amplia, es un error pensar en la existencia de argumentos visuales puros, en el sentido de movimientos ilativos desde premisas a conclusiones que son promovidos por imágenes a solas, sin apoyo o enmarque de palabras.

Palabras clave: argumentación visual, Wittgenstein, pinturas, Groarke, Slade.

1. Introduction

“Pictures” and “picturing” are among the most prevalent and re-occurring ideas in the Wittgensteinian corpus. Central to the account of meaning and understanding in the *Tractatus*, these notions become instrumental for criticism of that same theory in later works, particularly the *Notebooks* and in the *Philosophical Investigations*. Of course, in many places in these works, Wittgenstein intends to build an argument from analogy from the case with pictures to the case with words that undoes his very different analogy between the same things in the *Tractatus*. Whether we ought to accept Wittgenstein’s analogy between pictures and language in either work is a question that goes beyond the present purposes of this article. Here I will be concerned only to draw on Wittgenstein’s meditations on pictures and picturing in these latter works in an attempt to address the controversy over whether or not it is plausible to think that there exists such a thing as purely visual argumentation. As a preliminary to my answer to this question, it will be necessary to address some of the themes and passages central to the later Wittgensteinian notion of pictures and picturing. I will begin with this task. For ease of exposition in this matter I will focus on some of the more prominent of Wittgenstein’s remarks on pictures and picturing in the *Notebooks* and *Philosophical Investigations*. While these two works shall be my primary sources, those familiar with the Wittgensteinian corpus will recognize the influence of other of Wittgenstein’s later works as well. Before I proceed to the body of the paper I should offer one qualification of its purpose.

My intention here is to imagine a rough account of the nature and limits of “visual argumentation” using the motif of pictures in the later Wittgenstein’s work as a jumping-off point. I make no pretense that this thesis should be taken as definitive on this topic. My reasons for this qualification of my thesis are three. First of all, to make such a claim would be out of step with the spirit of Wittgenstein’s later works, where time and again he proceeds cau-

tiously and with attention to alternative possibilities. I believe it wise to follow his example here. Secondly, Wittgenstein, like many great philosophers, writes in a way that makes particular demands of those who would interpret his labyrinthine and at times genuinely puzzling works. Though I believe my interpretations to be sound, they are of course open to challenge and controversy. To downplay that possibility would be to assume more warrant for my conclusions than that to which they (hopefully) are entitled. Thirdly, and finally, it is salutary to bear in mind that this account is limited in that its principal considerations are drawn only from reflections on Wittgenstein's remarks. Even supposing that these reflections are accurate and my arguments about them are sound, simply because Wittgenstein says something does not make it true. That said, Wittgenstein's having said as much as he did about pictures and their relationship to language and understanding *does* make it worth our serious consideration. Few thinkers have reflected on the body of concepts his works cover with as much penetration or lasting significance. So, I proceed in the belief that if I've managed to capture what can respectably be presented as a Wittgensteinian position on the subject of visual argumentation, that it is worthy of consideration by those who take visual argumentation seriously.

2. Pictures and picturing in the *Blue and Brown Books*

Picturing, for Wittgenstein, is different from meaning, different from forming an image, and altogether different from the application of a rule or a criterion. Time and again, Wittgenstein warns us away from the error mistaking picturing for any of these things. In fact, the earliest mention of picturing in the *Blue Book* comes in the form of a negative example. In the context of telling us what does *not* happen when, in making an utterance, we *mean* something, Wittgenstein offers the example of uttering a sentence while holding in the mind a corresponding picture of what it says. While “such cases and similar ones exist”, he tells us, “they are not at all what happens as a rule when we say something and mean it, or mean something else.” (Wittgenstein, 1960) The majority of the substantive occurrences of the metaphor of pictures or picturing in the Notebooks keeps with this theme, as when, ten pages later in the same work Wittgenstein refers to the notion

that the expression of facts must conform to pictures embedded in language as a bias. Consider also this passage from the *Brown Book*:

“... we may think that when we look at our drawing and see it as a face, we compare it with some paradigm, and it agrees with it, or it fits into a mould ready for it in our mind. But no such mould or conception enters into our experience, there is only this shape, not any other to compare it with, and as it were, say “Of course” to. As when in putting together a jigsaw puzzle, somewhere a small space is left unfilled and I see a piece obviously fitting it and put it in the place saying to myself “Of course”. But here we say “Of course” because the piece fits the mould, whereas in our case of seeing the drawing as a face, we have the same attitude for no reason.” (Wittgenstein 1960: 166)¹

The notion of “fitting” here, and its phenomenological associate, the “of course” feeling, have a familiar analog in argumentation in the ready manner in which even those with no training can complete patterns of logical inference. When presented with the hoary old example of the syllogism:

1. All men are mortal.
2. Socrates is a man.
3. Therefore__.”

Almost no one has trouble drawing the conclusion as the missing piece of the “jigsaw puzzle” and with the requisite feeling: “Of course Socrates is mortal”. One need not restrict this consideration to deductive arguments either. Consider whether or not the case would not be substantially similar with this argument:

1. 98% of widgets produced at factory ABC between June and August of last year have been shown to be defective.
2. This is a widget produced at factory ABC between June and August of last year.
3. Therefore__.

¹ This passage also marks the appearance of “seeing as” in the *Blue* and *Brown Books*. I shall have more to say about this very important theme later on in the paper.

Despite the fact that the argument here is not a deductive argument, the pattern-completion task involved here will proceed in much the same way and, it is reasonable to think, with a similar margin of success. We could perhaps attempt a similar move with various argument schemes, such as appeal to authority or argument from sign.² It is perhaps the fact that they provide us with a familiar sort of pattern-completion task that makes us want to think of them as schemes at all. Like Wittgenstein’s puzzle pieces, there is a way the reasons fit together that allows us to place the “final piece”, the conclusion, such that it “fits” too.

The important point for our purposes here is that Wittgenstein, in the quote above, is denying that this happens with the resolution of the elements of a picture into something recognizable, like a face. The *phenomenological* aspect of recognition—which we also have when we fit the puzzle piece into its space, or see that we can do so from its shape and the shape of the gap in the nearly-completed puzzle—is present, but unlike the case with the puzzle, the recognition of the picture has, in his view, *no grounding in reason*. But then how does this recognition work? As with the understanding of musical themes, Wittgenstein’s speculation is that the understanding of a picture works linguistically: “...in the same way I may say “Now I understand the expression of this face”, and what happened when the understanding came was that I found the word which seemed to sum it up.” (Wittgenstein 1960: 167) This statement is fascinating for a number of reasons, not the least of which is the reversal of roles it envisions in comparison to the doctrine of the *Tractatus*. It’s wider significance notwithstanding, for purposes of this article the chief interest of this statement is that makes the understanding of pictures dependent upon associating them with words. To understand a picture, then, is to be able to translate it out of the realm of image and into the realm of the verbal, into language. While he may indeed depart from the picture theory of meaning, at no point does Wittgenstein abandon the thesis, first advanced in the *Tractatus*, that thinking happens in the medium of language. It is plausible that his desire to preserve this thesis in the face of the challenges presented by the intentional vocabulary (the vocabulary of wishing that, hoping that, expecting

² A thorough, if possibly not exhaustive, accounting of a great many of these schemes can be found in Walton, Reed, and Macagno (2008).

that, etc.) is a motivating factor for many of the theses of the *Notebooks* and *Philosophical Investigations*.³ I now turn to Wittgenstein's remarks in *Philosophical Investigations*.

3. Pictures and Picturing in *Philosophical Investigations*

Philosophical Investigations (hereafter PI, for brevity's sake) is riddled with references to pictures and picturing, but there are four portions of this work in particular that are of special importance for the topic of visual argumentation. These are passages 139b-140, 422-427, 300-302 and all of Part II, section xi. Because of their individual importance I will treat each of these sections individually. I will treat them in this order for the sake of clarity of exposition.

3.1. PI 139b-140

PI 139b-140, in many ways, could be seen as starting where Wittgenstein's remarks in the *Blue* and *Brown Books* leave off:

139(b). "I see a picture; it represents an old man walking up a steep path leaning on a stick.—How? Might it not have looked just the same if he had been sliding downhill in that position? Perhaps a Martian might describe the picture so. I do not need to explain why we do not describe it so."

140. Then what sort of mistake did I make; was it what we should like to express by saying: I thought the picture forced a particular use on me? How could I think that? What did I think? Is there such a thing as a picture, or something like a picture, that forces a particular application on us; so that my mistake lie in confusing one picture with another?—For we might also be inclined to express ourselves like this: we are at most under a psychological, not a logical, compulsion. [...] [T]here are other processes, besides the one we originally thought of, which we should be

³ I owe this point to the late Barbara Humphries.

prepared to call “applying the picture of a cube”. So our ‘belief that the picture forced a particular application on us’ consisted in the fact that only the one case and no other occurred to us.” (Wittgenstein 1968, 54-5)⁴

The clear linkage between these passages and the remarks from the Notebooks are their emphasis on the extra-logical, psychological or phenomenological nature of picturing. As the image of 139(b) suggests, even a simple picture can suggest multiple, equally respectable understandings of what it represents. Is the man moving up the hill or down it?⁵ Many commentators, including Fodor (1975), have taken 139(b) in the spirit of the *Brown Book* quote given in the previous section and held it to be saying that the picture must be translated into language in order for us to know whether the man is moving up or down the incline of the hill. Perhaps an obvious next step—certainly one that Wittgenstein, on some readings, would have been happy with—is to say that this is also true of words and sentences.⁶ And it is true, but only to a point, and only in certain sorts of instances. To see why we have to consider the point Wittgenstein is making in these two passages in the context of the work as a whole.

The ways in which we might interpret a sentence are bounded by the sentence’s being embedded in the rule-governed, communal activity of language. The conditions under which a sentence, uttered by a speaker, will be intelligible to an audience of the same linguistic community restrict the possible meanings of the sentence. Importantly, these conditions restrict not just the meanings that the audience is likely to “take away” from the speaker’s utterance, but the meanings that the speaker may coherently intend by what he says. That said, it must be allowed that, as Wittgenstein puts it in 140, neither words nor pictures “force a particular application” upon us. The larger

⁴ Note that the mention of “applying the picture of a cube” refers to an earlier example of the same sort of problem.

⁵ We could perhaps alleviate some of the strangeness of Wittgenstein’s image, and better appreciate his point, by imagining that there is an escalator slightly hidden from our view or by replacing the path with a staircase set into a hill in a park which the man might either be walking up or cautiously backing down.

⁶ Koethe (1996) provides one example of such a view. It is important to note that saying that Wittgenstein’s views in the *Philosophical Investigations* exhibit continuity with those in the *Tractatus* does not commit one to saying that he did not change his views substantially over time—especially about the picture theory of the latter work. This point is well argued in Ellis (1978).

point that Wittgenstein is trying to make here, and in similar places throughout the later works, is just that it is a mistake to understand the semantics of any particular word in terms of a rigid and necessitarian ontology associated with it. Were we to do so we would be, as he says, “mistaking a psychological compulsion for a logical one”.

It would be tempting to take from this the lesson that pictures and words are on a par with one another, but Wittgenstein’s remarks here and elsewhere, as we shall see, make clear that this is a mistake. Words may be like pictures in that they do not of themselves force a use, but the similarity ends there. Whereas rules and communal criteria of meaning keep us from falling into humpty-dumptyism with language, there are no such checks on picturing, or if there are, their effectiveness falls far short of those accompanying our usage of language.

3.2. PI 422-427

These passages occur in the context of Wittgenstein’s examination of the language used to talk about states of consciousness, the vocabulary he sometimes describes as “psychical” and that some commentators have called the intentional vocabulary. As we shall see, they support the view of pictures developed in 193(b) and 194. Begin by considering the text of 422-3:

422. What am I believing in when I believe that men have souls? What am I believing in, when I believe that this substance contains two carbon rings? In both cases there is the picture in the foreground, but the sense lies far in the background; that is, the application of the picture is not easy to survey.

423. Certainly, all these things happen in you.—And now all I ask is to understand the expression we use. —The picture is there, and I am not disputing its validity in any particular case. —Only I also want to understand the application of the picture. (Wittgenstein 1968: 126)

In terms of pictures, 422 continues the notion of 193-4. Pictures, unlike

words, are harder to apply owing to their not being embedded within a communal system of rules and criteria. The image can be apt, it can give us a sense of “fitting” experience or an idea—but it does not by itself tell us “how to go on”. This crucial difference between aptness and application is reinforced by Wittgenstein’s emphatic repetition of it in the first half of 424: “The picture is there; and I do not dispute its *correctness*. But *what* is its application?” The contrast in these passages is really between the intuitive apprehension of a state of affairs—*the way things appear* to one—and the sort of grasp of a state of affairs that allows us to draw conclusions from it, to know its place among the relationships that hold between other articles of knowledge or belief. The “correctness” of a picture mentioned in 424 then is a *felt* correctness, an intuitive sense of the rightness of the idea held before the mind. It is *not* a logical correctness, with which we might reasonably hope to develop a more detailed account of the phenomenon under consideration. This, I suspect, is what is puzzling to Wittgenstein about ideas of the “psychical”. They “feel” right—sometimes because they arise from familiar expressions of speech, and perhaps sometimes as a purely phenomenological matter—but we cannot justifiably *do* anything with them that we can ordinarily do with conceptions whose sense we can work out within the framework provided by language.⁷ Hence the inherent lack of application in pictures. Pictures simply confront us in a brute, or at least a non-rational way.⁸ They do not tell us the way to go forward, and in fact they may hinder us from doing so. This is why we must beware of their ability to “hold us captive” (PI 115); because it “stands in the way of our seeing the use of the word as it is” (PI 305).

⁷ The pragmatic considerations implied here ought not to be taken lightly. They run through PI 107, 202, 206, and 241 to name just a few passages. On this theme in Wittgenstein and its significance see also C. A. van Peursen (1959).

⁸ I specifically use the word ‘non-rational’ here, and not ‘irrational’, because recent developments in cognitive science suggest that human reasoning is a composite of both rational activities roughly correlated with activity in the frontal and parietal lobes of the brain, and the older, emotional system of cognition correlated prominently with the amygdala and other structures. To say therefore that something is non-rational is not to mark it off as not being reasoning of a type. It is simply to say that it is not logical reasoning as that sort of reasoning has traditionally been understood.

3.3. PI 300-302

So far the following point has emerged about Wittgenstein's notion of picturing: To picture something is for one to have an experience of a particular quality, an experience not unlike a sudden realization but of a non-logical (and perhaps in some instances potentially misleading) variety. The experience is not unlike that of the slave boy in Plato's *Meno* upon being led to the solution of the geometry puzzle by Socrates. (Plato 2002) He is struck by the impression that the solution is correct, but it would be impossible for him to explain *why* it is correct, or to apply the process by which the solution was reached to a new problem. Though he has the answer, he does not grasp it in a way that would give him, in Wittgenstein's parlance, the *application* of the answer. Without this application, the boy would be unable to tell us whether he had learned something about squares, or how to draw the diagonal of any figure, or geometry in general, or dialectic in general or about any or all of these. He would be in the same position as the interpreter of the picture in 139(b)—assured of his impression that the man is going uphill, but without any grounds for being so assured. To picture something, then, is not to experience a *recognition* of the sort that we have when we grasp a mathematical or logical rule, or the application of such a rule to a particular case. It is to fix the mind on a particular aspect of what is seen—not for reasons, but because “it just feels right” to do so. It is to have, if this is not too much of a strain on both of these words, an *epistemic feeling*.

It would be understandable if someone were to resist this conclusion, holding instead that in at least some cases, what is happening in picturing is the intuitive grasp of a concept. To give in to this temptation, however reasonable it may seem on first blush, would be mistaken. This is the point of the distinction between images and pictures that Wittgenstein draws in PI 300-302. It is highly significant that Wittgenstein draws this distinction via the relationship of each to language games. This reinforces the notion that has been emerging throughout this essay that for Wittgenstein, pictures must be put into language before they epistemic feelings they engender can ripen into understanding, or at least usability. Consider the following, from PI 300:

300. [...] It is a misunderstanding to say that the picture of pain enters into the language game with the word “pain’.” The image of pain is not a picture, and this image is not replaceable in the language-game by anything that we should call a picture.—The image of pain certainly enters into the language game in a sense; only not as a picture. (1968: 101)

In terms of the example from the *Meno*, this is to say that there is a concept the boy could grasp (let us say the concept of the diagonal) and the Socratic process he has been subjected to points him in the right direction, but be that as it may, the boy does not yet grasp the concept—he does not yet have the *image* of the diagonal before his mind. What he has is a picture, an epistemic feeling that something is the case, not a well-defined concept that he could apply to other problems in geometry. The image of the diagonal is present in the Socratic dialogue (a sort of language game) used to lead the boy to the solution of the puzzle, but it is clear that this image is more than just an epistemic feeling about the correctness of the solution to the problem. Hence Wittgenstein’s claim that the image is not replaceable by the picture in the language-game makes sense, as does what might otherwise seem to be the cryptic delivery of PI 301, “An image is not a picture, but a picture can correspond to it.” Wittgenstein’s continued insistence that we must not mistake pictures for images or for understanding of the sort we can apply, then, is a caution against taking the *feeling* that one is right for one’s *actually being* right. It isn’t that pictures are never veridical, it is that they are unevenly and unpredictably so. Sometimes our pictures do turn out to be right (in these cases they do correspond to an image), but far too often, he warns us, our feeling that we are right is just a chimera. It is this unpredictable nature which Wittgenstein has in mind in his repeated insistence that pictures do not give us application and that this makes them ill-suited to be bearers of meaning or part of the processes of cognition. In order to be either of those things there needs to be a public framework of existing patterns of interpretation, and this is precisely what pictures (unlike images or concepts) do not have. “Hence”, Wittgenstein himself writes later in Section xi of Part II of PI, “the flashing of an aspect on us seems half visual experience, half thought.” (1968: 197) It is to Section xi that I now turn.

3.4. “Seeing as”: PI Part II, xi

One way of thinking about what partisans of visual argumentation ask us to do is to think of it as enticing us to see visual images as argumentation, or alternatively, to notice those aspects of images that are argumentative in nature. The process by which we do this would clearly be a form of “seeing as” or “noticing an aspect”, so it will behoove us to have some idea of Wittgenstein’s treatment of this notion.

Interestingly, Wittgenstein illustratively deploys a number of images in his account of “seeing as”, perhaps most famously the Jastrow duck-rabbit image, a version of which is pictured in Figure 1.

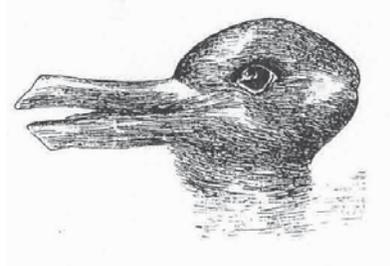


Figure 1: Duck-Rabbit Illusion (Jastrow 1899).

The phenomenon of “seeing as” is one in which a person’s visual perception undergoes a shift between two (or perhaps more) modes. In the case of the duck-rabbit the two modes are obvious. One may see the image as a duck or as a rabbit. Wittgenstein’s purpose in presenting the image is to say something about interpretation and how it differs from perception.⁹ The key point here is that interpretation is not a matter of having an “inner picture” in response to the visual image with which one is presented. The temptation to think that it is is due to the ease with which we find it satisfying to say, of illusions like the duck-rabbit, that one may interpret the figure as a duck (in which case one forms the inner picture of a duck when looking at

⁹ In my treatment of “seeing as” I follow the analysis of Seligman (1976).

the image) or that one may interpret the figure as a rabbit (in which case one forms the inner picture of a rabbit when looking at the image). Why is this problematic? Seligman, drawing on an earlier account by Aldrich, explains it this way:

All that this talk of inner pictures seems to get us is now two ‘private’ pictures—one, the ‘pure visual content’ and the other the ‘interpreted mental content’. And now we are worse off than before. Where we at least had criteria for what constitutes an interpretation, we are now faced with an image of such a mysterious sort that we cannot isolate any unique criteria for its presence or absence. The only criteria is what we say, and what we say is exactly what we would say if the object itself had actually altered. (Seligman 1976: 211)

The problem, of course, is that the object hasn’t altered in the slightest. Seligman continues:

Wittgenstein has tried to rule out in his characteristic fashion, explanations of the concept of “seeing” and “seeing as” which appeal to ‘inner pictures’ or private images. [...] The objective was to give the lie to any philosophical theories which might rest upon a notion of seeing which requires a ‘pure visual element’ and an accompanying element of ‘interpretation’. In the cases of seeing-as where such a two-element theory of seeing seems most at home it fails. And Wittgenstein’s point seems to be that if it will not work here, it will not work at all. (Seligman 1976: 212)

So “seeing as” is not a matter of interpretation. What is it then? For clearly *something* is going on when we consider the shift engendered by images like the duck-rabbit. Seligman, following Wittgenstein’s remarks about the image of a Necker cube a proposes that to “see the image as” is to have the capacity to form counterfactual contexts in which to locate the various aspects it appears to take on, for example to see the cube as if from above, or as if from below. We need not do this in every case, says Seligman, it is enough for the seeing of an aspect that we could do it. This is not as puzzling a notion as it may seem, for it returns us to the *Brown Book* notion of “fit” with which we began the investigation into picturing. To see an aspect is phenomenologically similar to the “puzzle-piece” epistemic feeling gener-

ated by the aptness of an image, but unlike the puzzle piece, which we fit into a context, seeing an aspect is like understanding how to fit the other pieces around a piece that we have decided to use for an anchor. It is, as Seligman puts it, “a kind of ‘knowing one’s way about’.” The important point to take away from this notion of “seeing as,” is that to see a visual image as having a particular aspect is not to pull out a hidden signification that lies within it, the way that a creature’s DNA lies within its cells. It is to *attach* a significance to the image through the positing of counterfactuals that frame the image in such a way as to make it possible for us to explain to others the aspect we ourselves see.

This completes the sketch of Wittgenstein’s notion of picturing. Though undoubtedly there is a great deal more to say about such matters, the sketch in its present form should suffice for purposes of application to the question of whether or not there can be purely visual arguments.

4. Picturing, Visual Arguments, and Visual Argumentation

It shall be my contention in this portion of the paper to show that while no one has yet satisfactorily shown that there are visual *arguments*, this does not rule out the possibility that visual images can be elements of *argumentation*.¹⁰ The account of picturing left to us by Wittgenstein, I shall content, can shed some light as to why this is. Because visual argumentation theories are so varied I cannot address them all, so I shall here confine myself to two of the better-known accounts of recent years, the interesting and very different theories put forward by the team of David Birdsell and Leo Groarke, and that of Christina Slade.

4.1. Birdsell and Groarke

Perhaps the best known view of visual argument is that provided by Birdsell and Groarke (1996, 2002). As is well known Birdsell and Groarke quite ex-

¹⁰ In this I am siding, I believe, with Blair (1996), though perhaps in a different way and for different reasons.

plicitly contend that theirs is a theory of visual argument “in the traditional premise and conclusion sense”. (Birdsell and Groarke 2007: 106) Though their theory is well worked out and contains a number of components, I wish here primarily to focus on their contention that there are such things as “visual propositions”. The reason for this is that it seems to me this contention is necessary for a theory of visual argument that takes those arguments to be of the traditional sort.

Birdsell and Groarke tell us that “a visual demonstration is inherently propositional because a visual image is used to convey information that is purportedly true”. They defend this assertion by calling up the example of a map which “purports to be an accurate (“true”) representation of the arrangement of places in space”. (2007: 106) The example is clear enough and the view they advocate is initially plausible, as it seems intuitive to read at least some visual demonstrations as declarative in their intent, or as assertives under the theory of speech acts. Certainly the intent of a map is to assert that “the territory described here is thus and such”. Notice, however, that the example of the map is one with properties that may not generalize to all examples—indeed not even to the other examples of visual argumentation in Groarke and Birdsell’s paper. The conventions around maps and their use are stable and shared in a way that the conventions around other sorts of images are not. But this is a minor point. The question at issue is whether or not visual demonstrations are propositional, *generally*. Let us consider this question in the light of the Wittgensteinian analysis of picturing developed in the first sections of this paper.

In order to be propositional, a visual image would clearly need to be more than a picture in Wittgenstein’s sense—a visual or imaginary display capable of eliciting an unjustified but nonetheless strong epistemic feeling. Recall the example from PI 139b—that of the image of the man half way up the incline. If visual demonstrations are to be propositional then it seems as though they should have to be capable of “forcing a use” upon us just as surely as a linguistic assertion would. They should contain within themselves an application that reveals itself in the context of a fund of shared, public conventions for interpretation, just as the grammatical pattern in a sentence or the inferential pattern in an argument form does. The feeling of “fit” we have between the image and the idea expressed should not be idiosyncratic or merely “psychological”. Can we say this about visual demon-

strations of the sort Birdsell and Groarke take to be examples of arguments?

Certainly Birdsell and Groarke appreciate the importance of context, so it will be no answer to the question to apply the Wittgensteinian critique to an image excerpted from the conventions one would use to understand it. Indeed, for Wittgenstein, context and conventions of interpretation are necessary to understand any utterance of language. If we are to be fair to Birdsell and Groarke, then we should not stack the deck against visual propositions by imagining that there aren't shared funds of symbols and visual conventions we need to be cognizant of when interpreting images. So are there visual propositions? Even if we grant the existence of the kind of context Birdsell and Groarke claim, I think the answer has to be no. The principal reason for this is that the context and the conventions against which we interpret images are nowhere near as stable as those involved in linguistic interpretation. To see this, consider the example of the political cartoon Birdsell and Groarke use as an example of visual argumentation (Figure 2):

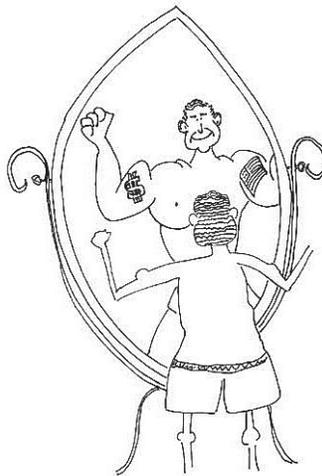


Figure 2: Cartoon from Birdsell and Groarke (2007: 108).

It is not insignificant that they give a caption for the image. The caption they give is “The economy reflected in the White House Press Office’s Magic

Mirror”. That they give the image a caption is in some ways a cheat.¹¹ The caption expresses the proposition that the image is supposed to contain itself, it contributes a sort of linguistic framing for the interpretation of the image the importance of which should not be underestimated. Just as we must not imagine ourselves as visual dunces, we cannot let the language do the work that the picture is supposed to do if we are to test Birdsell and Groarke’s theory fairly. Could we work this proposition out simply from the image itself, absent the caption? It doesn’t seem that we could. A whole host of problems similar to those in PI 139b would prevent us from doing so. Even if we were to see this image in its right context, with the knowledge that it is a newspaper editorial and that the figure in the picture is George Bush, without the caption a multiplicity of possible interpretations spring forward. Importantly, the purportedly negative tone of the editorial dissolves in a bevy of alternative readings of the image. Perhaps Bush, like the frail boy of the old Charles Atlas bodybuilding ads, is imagining success, and the image in the mirror reflects not a deluded self-image but a goal towards which he intends to work with dedication and perseverance. Perhaps he doesn’t look through a mirror at all, but through a portal at a figure who represents the body politic—an interpretation supported by the flag on the figure’s bicep, the dollar sign representing our common goal of prosperity—which Bush sees himself leading as its metaphorical head, and the two figures raise their arms in the gesture of boxers emerging victorious from a hard-fought match. Interpreted in this way the image could seem to say, “I, one man, am weak, but together we as a nation are strong and shall triumph over our common challenges.”

Now one could say to these alternative interpretations, “But that’s preposterous!” But why would it be preposterous? As Wittgenstein says of the image in 139b, it does not matter if no one ever really does draw such interpretations. What matters is that one can do so, and that there seems to be no rational barrier to doing so that emerges from within the image itself or the conventions of interpreting images we share. Of course one might draw the interpretation of the image that Birdsell and Groarke intend, even without the caption, but if one did not then Birdsell and Groarke need to be able to supply an account of why one would be wrong, or perhaps display a sort

¹¹ Ralph Johnson (2003) makes a similar point against Birdsell and Groarke’s view.

of incompetence were he to draw a different interpretation than theirs from the visual image. By Wittgensteinian lights, they need an account of what it is to misunderstand an image that compares perspicuously with what it is to misunderstand a linguistic utterance. If there is no such account to be found, as I suspect there is not, then visual images are like Wittgenstein's pictures. By themselves images may spur cognitive feelings or associations—and so may be persuasive—but they lack an internal pattern, the recognition of which would allow them to be the presentation of an illative move from premises to conclusion. Hence they do not seem to carry propositional content other than that which is assigned to them or framed by the caption (and what is a caption, but set of directions for how to interpret the image).¹² And if images on their own are not propositional, then visual images cannot be arguments of the sort that Birdsell and Groarke contend.

Smith (2007) has suggested a path that seems as if it might avoid this objection. According to Smith, the ability to draw at least one possible reading of the image that qualifies as an argument is enough to say that the image contains an argument. Quoting Birdsell and Groarke's (1996: 8) example of holding cake under a dieter's nose as a way of arguing that he should eat it she says: "This example illustrates enthymematic argument as I conceive it. Multiple interpretations are possible, some of which can be considered arguments for the dieter to consider." (Smith 2007: 119) Birdsell and Groarke might wish to say something like this as well. As long as one interpretation of the image reads it as a proposition then they are safe. However, this move does not succeed. For, Birdsell and Groarke must now hold that every picture admits of a set of interpretations some one of which is propositional in the way required for their to be an argument. The 139b problem remains: which interpretation is it and why should we treat with it rather than any of the others at any given instance. Why would we be wrong if we did not do so? And if, as I suggest in the next section, the propositional

¹² An appreciation of the significance of this problem of relating the sign to the signified in Wittgenstein's works in both its logical and phenomenological dimensions can be found in Munson (1962).

interpretation will be as much the product of the way we frame the image in language as the product of the elements of the image, then how are we justified in saying that the *image* contains the argument we construct out of it? A similar line of objection applies, *mutatis mutandis*, to Smith’s contention that images are enthymematic arguments.

But perhaps that’s not so bad. Why imagine that visual argumentation is propositional in the first place? Why not imagine visual argumentation as a complex semiotic phenomenon in which symbols and associations, but not propositions, are leveraged to produce a belief in the mind of the onlooker? Other parts of Birdsell and Groarke’s theory gesture in this direction. Christina Slade’s account of the argumentation contained in advertising is fundamentally of this variety. It is to her account that I now turn.

4.2. Slade

Christina Slade’s account (2003) of visual argumentation focuses on advertising. She contends that at least some ads contain argumentation that is “purely visual”. Her leading example in this paper is a television ad for “Bond’s Cottontails”, a sort of women’s undergarments. The ad itself, as Slade describes it, is not a purely visual ad but contains elements of text, both spoken and written. In her case for the “purely visual” argumentation in the ad, however, Slade goes out of her way to deal only with the images at work. Whether or not this strategy can evade the same sort of problem Birdsell and Groarke have with captions is an open question. The original television ad, one assumes, occurred in a relatively brief interval of time and with a blending of textual, visual, and musical elements that would make it difficult to pull any one element out of the overall gestalt and say that *it* functions separably from any or all of the others. Not having seen the ad myself I will not pursue this question further, but simply note it for those who have and move on. For purposes of what follows I shall simply accept Slade’s implicit assumption that the visuals are separable from the whole to a degree that makes the drawing of argumentation from them alone a plausible analytical enterprise.

Whereas Birdsell and Groarke contend that there are visual arguments of the premise-conclusion variety, Slade's overall view of visual argumentation is a blend of different elements. This makes her claim that there are visual arguments importantly different from theirs. Orienting the reader to her view of argumentation, Slade says the following:

Fleming and Blair are correct to maintain that the paradigm of argumentation is verbal. Indeed, there would and could not be argumentation in a society without language. Argumentation is essentially dialogical, and hence is based on verbal disputation. However it does not follow that analogical forms of argumentation may not exist in visual images – particularly when the conventions surrounding the meaning of visual images of a certain type mean that the images are read as arguments. Advertisements are the prime example of visual argumentation precisely because they are conventionally read as persuasive images. (Slade 2003: 148)

From this quote we may gather that Slade's concept of visual argumentation centers on the idea of the persuasive image. The persuasive image is not held to be an argument in Birdsell and Groarke's "classic premise and conclusion sense", but only analogically in comparison with dialogical notions of argumentation, the key ground of similarity apparently being the convention-based nature of our ability to read something as an argument. When we are presented with advertising, Slade contends, we expect argumentation so it stands to reason that in visual media we expect visual argumentation. If Slade's argument from analogy holds up, and if her account of the conventions within which meaning is garnered from visual images holds up, then she will have what Birdsell and Groarke don't have—a way of telling us, reliably, when visual argumentation is present and how to read it correctly. The whole case turns on Slade's account of the conventions involved.

Slade draws her analytical conventions for images from Kress and Van Leeuwen's system of "visual metafunctions". Their framework for image analysis, as adapted by Slade and applied to her central example, runs along the lines indicated in Table 1.

Kress and Van Leeuwen Metafunction Name	Analytical Significance	Application to Slade’s Cottontails Ad Example
Narrative Ideational	Explains the story told by the image.	The image tells the story of the girl’s transition from more to less conservative attitudes about sexuality and womanhood.
Conceptual Ideational	Explains the analysis given by the image.	The image analyzes womanhood as being more complex than just apparent conformity to social norms.
Textual	Gives the meaning of the compositional elements of the image.	The movement of the image suggests movement towards the future.
Interpersonal	Explains the position in which the image places the viewer.	The viewer is put in the position of covetous spectator who looks on as the woman undergoes her transformation, and desires a similar transformation herself.

Table 1: Application of Slade’s Image Analysis Rubric to the Cottontails Advertisement.

From the analysis of the image thus generated, Slade extracts the following argument:

1. People who wear cottontails look to the future. (from the narrative ideational element, textual element, and the context of the ad as an ad for cottontails)
2. If you want to move into the future, you should wear Bond’s cottontails. (from premise 1)
3. You want to move into the future. (implied by the interpersonal element)
4. It follows that You should wear Bond’s cottontails. (from premises 2 & 3, by modus ponens)
5. It further follows that, if you do not wear Bond’s cottontails, and they can be bought, you should buy Bond’s cottontails. (practical implications of premise 4) (Slade 2003: 150)¹³

¹³ I have elided some of Slade’s inter-premise text and added the parenthetical elements to allow the logic of Slade’s extracted and reconstructed argument to stand out.

This is a very impressive analysis, and one that seems to provide us with criteria from getting from the image to the proposition in a fairly stable way. Given Slade's contention that Blair and Fleming operate on too narrow a conception of argumentation it is striking that Slade produces as her demonstration of an argument embedded in a purely visual medium an argument that would satisfy the conception of argumentation they use. As a response to Blair and Fleming, it is a sound strategy in that it shows that visual argumentation can be found that meets even their (on her view, overly) strict conception of the argumentation involved. What is striking about it is that she generates this argument by the application of semiotic principles of interpretation that are supposed to be operative at the level of argumentation seen not as premise-conclusion argumentation, but as a dynamical interchange involving more than just that sort of argument. Regardless of what the Wittgensteinian perspective says about the possibility of visual argumentation of the sort Slade suggests, the connection her view displays between the wider and narrower senses of argumentation, I think, retains its force and its interest.

Despite the appearance presented by her key example, Slade makes no claim that images can be propositional. Were she to say that, all the same points that count against the Birdsell and Groarke analysis would count against hers as well. Since she does not explicitly make that claim, let us simply leave the matter at that. The Wittgensteinian notion of "seeing as" will prove to be far more relevant to the evaluation of her case for purely visual arguments. To return to this purpose let us now ask, does Slade's view fare any better than Birdsell and Groarke's on Wittgensteinian criteria?

Recall that "seeing as" was not a process of extracting a hidden meaning in an image. It was not a matter of interpretation, of revealing what the image says. Rather, "seeing as" is a matter of adopting a particular attitude towards an image, expressible in terms of counterfactual statements, that permits the person seeing the image to see it in a certain way (e.g. now as a duck, now as a rabbit). The question of whether the attitude thus taken provides access to something unequivocally communicated by the image itself is moot. The connection between this perspective of "seeing as" and the indeterminacy of interpretation suggested by PI 139b should be clear. What an image "says" is largely going to be a matter of what the viewer brings to it in terms of contextual knowledge and cultural or linguistic framing. This,

however, should not make us think that we need to be relativists about the meaning of images. On this point Gill’s recommendation is apt:

The only alternative to the “cult of objectivity” is not relativistic subjectivism. A more viable line of approach is to recognize that we live in a conversation among the personal, the social, and the physical dimensions of reality, and that each of these dimensions exerts its pull upon us in a specific historical context. As human beings we struggle to maintain our balance in this constantly fluctuating situation, and because of individual and cultural differences we do this in somewhat different ways. We find different models or metaphors by means of which to chart our courses. Nevertheless, there are certain commonalities which comprise the human form of life and which may be thought of as forming the bed-rock or touchstone for evaluating the overall worth of our chosen models. (Gill 1979: 283)

The objection being made to Slade’s analysis here, then, is not that it is just her subjective reading of the images in question. She might have very good reasons, after all, for thinking that the image says what she says it does. Rather, the objection is simply that Slade’s account takes images to do something that *they* cannot do, to be something they cannot be, on their own, that is, be bearers of hidden interpretations that viewers must unlock correctly if they are to grasp the “one true meaning” of the image. If we need such a complicated conceptual or semiotic apparatus to extract the argumentation from an advertisement, then the argumentation we find within it cannot be, as she claims, “purely visual”. The presence of the argumentation in the Bond’s Cottontails ad, then, is less a matter of the visuals themselves than it is of the framework of analysis we bring to it. Can *we* see the visuals in the ad as an argument? Absolutely we can. Is the argument *really there within the image*? This is a question which Wittgenstein would likely have regarded as unanswerable, perhaps malformed. It is like asking, of the Jastrow duck-rabbit, “Which is it, duck or rabbit?” and demanding a final answer. It is like asserting that seeing the Necker cube “from above” is the way in which the image calls upon us to see it, not “from below”.

The upshot of all this is that the argumentation of an image is constructed around it, not implicit with in it somehow. Drawing a conclusion from an image, then is unlike drawing a conclusion from linguistic premises in that

there is no implicit pattern of reasoning that the recipient of the argumentation recognizes and completes. This would be a case of genuinely completing a puzzle by fitting the last piece in. With “visual arguments” the case is different; the argumentation is constructed around the image to make use of its rhetorical impact. The important difference here is that the process in a visual argument involves not the recognition of a pattern of reasoning but a stipulation of the reading that the arguer wants the audience to draw from the image. This is part of the reason why Wittgenstein calls the recognition of a face a psychological, not a rational event and why, on his view, we can at most only experience an epistemic feeling of correctness with respect to visual images, but never a sense of *logical* correctness. This is also why no argument in favor of visual arguments will ever be given in images alone without any accompanying text. The textual accompaniment is a *sine qua non*. Either it will point us directly to the arguer’s intended proposition, as the caption on Birdsell and Groarke’s cartoon does, or it will close off alternative interpretations by stipulating a method by which the image must be understood if the argumentation is to be revealed, as Slade’s analysis does. Whichever method is chosen, the result is the same: the arguer directs the audience to that reading of the image (of the many that there are) that she wishes to use in her argumentation. For those who wish to make use of the indisputable power of visual elements in their argumentation, this restriction of readings is absolutely necessary owing to the open-textured nature of visual meaning. The image then functions not as a piece of argumentation itself—indeed it cannot—but as a kind of locus of argumentation.

5. Conclusion: Of Apples and Arguments

Slade, and Birdsell and Groarke, are partially right: *images are persuasive*. But not everything that persuades is an argument, and that applies to visual images. When one is persuaded by argumentation that contains images, like Slade’s cottontails ad or Birdsell and Groarke’s political cartoon, what persuades is not an argument that lurks within the image in such a way as to subconsciously or otherwise register with one’s rational faculties. What persuades is the “total package” of argumentation (argumentation in Slade’s wide sense) within which the visual image is nestled. It is the surrounding

argumentation that frames the image in such a way that one can see it as a part of the argumentation too. The work that that the visual image does therein may vary, but it can do work. The mistake, by Wittgensteinian lights, simply lies in thinking that because an image does some work in argumentation it thereby becomes an argument. Whatever else it can do, the visual image cannot do this. This is largely owing to three reasons: 1) images, though they are productive of epistemic feelings in us, do not lead us to conclusions by rational means, 2) even if we allow for contextual influences on interpretation, images always allow the drawing of multiple valid readings between which there is no a priori method of adjudication, and 3) the business of “seeing an image as___” is more a business of erecting a conceptual scaffolding around it for the purpose of arriving at a particular reading of it than it is of unlocking a fixed but hidden meaning lying within it. This is why, for Wittgenstein, it is a bad thing if “a picture holds us captive” with respect to our efforts to determine the meaning of a word or expression, and why we need a community of language users playing the same (or similar enough) language games by the same (or a similar enough) system of rules in order to speak meaningfully of the meaning of a word or expression.

It would be easy for someone to take the remark that pictures are less bound by rules of interpretation than words as a sort of slur, as what George Roque (2009) has called “linguistic imperialism”. If this is an implication of Wittgenstein’s view, the anti-linguistic-imperialist might say, then so much the worse for Wittgenstein. But I think this would be a mistake, for in Wittgenstein’s view is a tacit acknowledgement of the power of images that the visual argumentation theorist should find salutary. Images may not contain arguments on this view, but this does not mean that images are inferior to words. In fact, I would argue that it is the other way ‘round. It is the semantic polyvalence of images, their ability to carry multiple meanings and interpretations; the different ways in which we may see them that gives images their power. And, I would hasten to add, it is not as though there are no boundaries to the interpretation of images, that some ways of seeing (as with some ways of speaking) are not perhaps more accurate than others. The quotation from Gill to the effect that the open-textured nature of images need not collapse into a relativism about them given in the last section of the paper is one worth keeping in mind.

Consider, for example, a still life painting by Cézanne (Figure 3).



Figure 3: Cézanne, “Still Life with Apples, Pears, and a Gray Jug” 1893-1894.

Looked at in a certain way, this painting is rather mundane. It is a simple representation of ordinary objects in an ordinary setting. Looked at in another way, Cézanne’s apples are a call to revolution in painting. In order to see them in this way, however, one must first understand painting as it was practiced at the time Cézanne was painting. One must also understand the fundamentals of painting and, more generally, of two-dimensional design. Cézanne’s apples certainly say something to those who understand these things, and they say it elegantly and forcefully. However, it is not *mistaken* to see the painting as a pleasant, if somewhat oddly executed, picture of fruit in a bowl. It is not *mistaken* to see the painting as a call to painters in specific and to people in general to attend to the subjectivity of the act of seeing itself. Similarly, it is not *mistaken* to see the argument as a political comment on the role of farmers in French political life, or a religious medi-

tation on temptation (Cézanne was, until the time of his death a devout Roman Catholic). One need not assume that any such statement is being made at all. The painting may sensibly be interpreted as an exercise in composition or color theory and appreciated as such, without any sort of connection to "deeper" or more hidden meanings. Who knows that this isn't what Cézanne intended in the first place, and that he wouldn't chuckle at highly intellectual attempts to infuse his works with meanings that reach beyond what the images themselves portray by nestling them within a highly complicated semiotic architecture? Maybe he just painted for the challenge of developing his technique, without thinking very deeply about subject matter at all (though I feel compelled to say that that seems highly doubtful to me). Sadly, he is no longer with us, and we cannot know for certain what meaning he intended to communicate in the vast majority of his works. All of those mentioned are latent possibilities and it is impossible to say that Cézanne would have been unhappy with any of them or that he would have intended some and not others, even if his primary purpose *was* to say something about painting to other painters.

Visual images are such that the agent who makes them can intend multiple understandings, or simply intend that viewers reach *some* reading of the images she presents. This open-textured nature is the power of images, not their handicap.¹⁴ An argument over what Cézanne's painting means would thus have to be open-textured too. An argument over the meaning of the sentence 'The cat is on the mat.', by contrast, is far less open to alternative readings that do not do violence to communally held standards of interpretation and meaning. One has to leverage the context of the utterance to extract non-standard accounts of what the statement means, i.e. to assume that the context of the utterance was in the course of a long poem in which 'cat' and 'mat' were being used metaphorically. It is not so with the painting.

¹⁴ Though the Wittgensteinian diagnosis of the failure of pictures to be arguments on offer here bears some similarities to that offered in Fleming (1996), it is at the point of asking what pictures actually do where I suspect the two analyses would cease altogether running in parallel directions. Fleming spends considerable time on the question of what pictures actually can and cannot do. In keeping with the notion that images are open-textured, or semantically polyvalent, I wish simply to say that this fact about them prevents us from pinning down any one function they might have, *sui generis*. Though they cannot be arguments on the analysis given here, the roles that images play in argumentation or persuasion may be many and varied indeed.

The picture provides us with a richness of simultaneous, alternative interpretations of which the word can only dream. But this power comes at a price, and it is that the semantic polyvalence of images makes them unsuitable instruments for tasks requiring more communicative precision. The image stands on its own. *It* argues nothing. It is the *user of the image* who argues, using it to make or illustrate or emphasize a particular point. In order to do so, the power of the image has to be diminished. Its expansiveness must be closed off and one particular reading privileged over all others, at least temporarily, so that it may serve the purposes of the arguer. Because even when it is so restricted the image has power, this is sometimes acceptable to do in the service of a conclusion that calls for a particularly powerful presentation.

It is also reasonable to think that artists, at least sometimes, create works of art for the purpose of use in arguments. This way of reading what Birdsell and Groarke's political cartoonist does, what David intended with "The Death of Marat" and with him Goya and Picasso (and numerous others) in their politically inspired works does not force us into treating the visual images as arguments *themselves*.¹⁵ Even artists who have explicitly political purposes in mind when they make art, however, must bear in mind that it is not the *artwork* that argues. It is *the person* who deploys the artwork in his or her argumentation who does so. And the person will always need to use language in addition to artwork—not because the word is more powerful than the image, but precisely because the image is more powerful than the word, and must be reined in if it is to serve the arguer's purpose.

Wittgenstein himself hints at this in PI, II, iv, when in reference to religious imagery of the soul he says: And haven't pictures of these things been painted? And why should such a picture be only an imperfect rendering of the spoken doctrine? Why should it not do the same service as the words? And it is the service which is the point." Were he to have stopped there, the thesis of this paper would have been untenable. But he did not stop there, for a few lines down from this quote, the final paragraph of this section

¹⁵ Blair's (1996) treatment of these examples is particularly good, but does not to my mind establish that these images are arguments, only that they play, or can play, a supporting role in a person's overall campaign of argumentation.

reads (the emphasis on the last sentence is mine): "And how about such an expression as: "In my heart I understood when you said that" pointing to one's heart? Does one, perhaps, not *mean* this gesture? Of course one means it. Or is one conscious of using a mere figure? Indeed not.—It is *not a figure* that we choose, not a simile, yet it is a *figurative expression*." (Wittgenstein 1968) It is the words, then, that we use to draw the image into the service of the argumentation that do the real work in the argument. As I have argued in this paper, however, Wittgenstein gives us reason to think that things do not move in the other direction. We can build an argument *around* an image, but the image itself cannot be said to argue.

Though I have argued here that Wittgenstein gives us reason to think that visual images cannot be arguments, I do not think he shows that visual images have no role to play in argumentation more broadly conceived. Nor do I think that it means that images are somehow "irrational". I am willing to go even further than this and say that I think it should be a bad thing if arguers stopped using visual images as elements of argumentation. Discourse would be highly impoverished without them, and some points would be very difficult indeed to make. Wittgenstein himself uses visual images in his argumentation throughout his works. I have used visual images to make my points in this paper. And there is nothing hypocritical in either of these usages of images. The rhetorical power that images wield generally, and the fact that many people more easily process visual information than textual information makes them indispensable tools of argumentation (and more broadly, of communication). It simply does not make them *arguments*.

Works Cited

- Blair, J. A. "The Possibility and Actuality of Visual Arguments." *Argumentation and Advocacy* 33 (1) (1996): 23-39.
- Birdsell, D. S. and L. Groake. "Toward a Theory of Visual Argument." *Argumentation and Advocacy* 33 (1) (1996): 1-10.
- Birdsell, D. S. and L. Groake. "Outlines of a Theory of Visual Argument." *Argumentation and Advocacy* 43 (1) (2007): 103-113.
- Cézanne, P. "Still Life with Apples, Pears, and a Gray Jug" 1893-1894. Online image. 18 February 2010. <http://www.cwru.edu/artsci/engl/VSALM/mod/jung/gallery.htm>

- Ellis, A. "Kenny and the Continuity of Wittgenstein's Philosophy." *Mind* 87 (346) (1978): 270-275.
- Fleming, D. "Can Pictures Be Arguments?" *Argumentation and Advocacy* 33 (1) (1996): 11-22
- Fodor, J. *The Language of Thought*. Boston, MA: Harvard University Press, 1975.
- Gill, J. "Wittgenstein and Metaphor." *Philosophy and Phenomenological Research* 40 (2) (1979): 272-284.
- Jastrow, J. "Duck-Rabbit Illusion" 1899. Online image. 18 February 2010. http://commons.wikimedia.org/wiki/File:Duck-Rabbit_illusion.jpg
- Johnson, R. "Why Visual Arguments Aren't Arguments." In J. A. Blair, H. V. Hansen, R. H. Johnson and C. W. Tindale (Eds.), *Informal Logic at 25, Proceedings of the 25th Anniversary Conference*, CD ROM, 2003.
- Koethe, J. *The Continuity of Wittgenstein's Thought*. Ithaca, NY: Cornell University Press, 1996.
- Kress, G. and T. van Leeuwen. *Reading Images: The Grammar of Visual Design*. London: Routledge, 1996.
- Munson S.J. and N. Thomas. "Wittgenstein's Phenomenology." *Philosophy and Phenomenological Research* 23 (1) (1962): 37-50.
- Plato, *The Meno*, in *Five Dialogues*. Trans. G.M.A. Grube. Indianapolis, IN: Hackett Publishing, 2002.
- Roque, G. "What is Visual in Visual Argumentation." Proceedings of the Eighth OSSA Conference. University of Windsor. CD-ROM, 2009 (forthcoming).
- Seligman, D. "Wittgenstein on Seeing Aspects and Experiencing Meanings." *Philosophy and Phenomenological Research* 37 (2) (1976): 205-217.
- Slade, C. "Seeing Reasons: Visual Argumentation in Advertising." *Argumentation* 17 (2003): 145-160.
- Smith, V. "Aristotle's Classical Enthymeme and the Visual Argumentation of the Twenty-first Century." *Argumentation and Advocacy* 43 (3-4) (2007): 114-123.
- van Peursen, C. A. "Edmund Husserl and Ludwig Wittgenstein." *Philosophy and Phenomenological Research* 20 (2) (1959): 187-191.
- Walton, D., C. Reed, and F. Macagno. *Argumentation Schemes*. New York: Cambridge University Press, 2008.
- Wittgenstein, L. *The Blue and Brown Books*. Trans. and Ed. Rush Rhees. New York: Harper Torchbooks, 1960.
- Wittgenstein, L. *Philosophical Investigations*. Trans. G.E.M. Anscombe. New York: MacMillan, 1968.