Review of Michael Madary’s *Visual Phenomenology*

(Penultimate Draft)

In his remarkable book, *Visual Phenomenology*, Michael Madary argues for the claim that “visual perception is an ongoing process of anticipation and fulfillment” (Madary 2017, p. 3), by drawing upon lines of evidence from Husserlian phenomenology, philosophy of perception, and the cognitive sciences. While he considers Edmund Husserl as a major influence upon his ideas, he does not aim to adhere to Husserl’s views in every regard, but instead to develop Husserl-inspired views of his own, muster support for them, and bring them to bear on various issues (Ibid., pp. 4, 181). His book is therefore likely to be of interest not only to scholars of Husserlian phenomenology, but also to non-Husserlian philosophers of perception, as well as to cognitive scientists. Indeed, these latter categories of readers appear to form Madary’s primary target audience, given his choice of presenting his views in such a way as to limit the number of references to Husserlian phenomenology throughout the chapters of the book (Ibid., p. 177). However, this does not mean that Madary has bypassed all issues concerning the relations between his views and Husserl’s—he addresses them, instead, in a lengthy *Appendix*. I would, at this point, add that while Madary has already contributed a series of papers where he discusses the relations between Husserlian phenomenology of perception, and various current views and debates concerning perception—establishing himself, at least to my mind, as a leading contributor to the intersection of these areas of philosophy—the majority of the chapters of *Visual Phenomenology* are nevertheless based on new, hitherto unpublished material, adding further to the book’s interest and importance (Madary 2017, p. xiii).

Madary states his “Main Argument” on the very first page of his *Introduction*,

(1) The descriptive premise: The phenomenology of vision is best described

as an ongoing process of anticipation and fulfillment.

(2) The empirical premise: There are strong empirical reasons to model

vision using the general form of anticipation and fulfillment.

(AF) Conclusion: Visual perception is an ongoing process of anticipation and

fulfillment (Ibid., p. 3).

As can be seen, AF incorporates the famous Husserlian motifs of perceptual anticipation and fulfillment. In Husserl’s works we encounter discussions of how perceptual experience fulfills, i.e., non-inferentially supports, (or else disappoints) judgments, as well as how perceptual experiences are shot through with anticipations, which, as they are fulfilled (or disappointed), bring the perceptual experience itself to increasing levels of fulfillment (or to an abrupt disappointment).[[1]](#footnote-1) In Husserlian phenomenology, AF is contextualized among various other ideas, such as the larger theme of the experiential constitution of objectivity. In the currently popular enactivist and predictivist views of perception, perceptual anticipations also function as a core idea, but augmented by requirements to the effect that they necessarily involve action or bodily movement, or that they be conceived in terms of subpersonal-level probability assignments. As far as I can tell, Madary’s is the only book-length treatment where, encapsulated as thesis AF, the ideas of visual anticipation and fulfillment are thus purposely pared down to a minimum, abstracted from all extraneous notions, and assessed strictly for their own philosophical merits.

Madary conceives of the two premises of the Main Argument as independent of each other, and only interconnected in the sense of rendering salient a certain convergence of two lines of evidence, thereby providing support for his conclusion (Ibid., pp. 156-157). This approach yields two relatively self-contained areas of discussion, which Madary, respectively, relegates to Parts I and II of the book. Part I contains four chapters. In Chapter 1, Madary introduces his main ideas and sets forth the plan of the book. In Chapter 2, he argues that AF satisfies three constraints on acceptable accounts of visual experience, viz., that the experience be regarded as perspectival, temporal, and (to some degree) indeterminate. He goes on, in Chapter 3, to argue that “there [actually] is visual anticipation of various degrees of determinacy at the level of conscious experience” (Ibid., p. 41), largely by critiquing Susanna Siegel’s defense of the idea that there are highly inspecific visual anticipations, and contending, on his part, that visual experience involves more specific anticipations. In Chapter 4, which concludes Part I of the book, he argues that his view of visual anticipations involves a peculiar notion of perceptual content (AF content), which can be invoked in solving certain difficult philosophical problems. Part II comprises Chapters 5-7. Chapter 5 covers what Madary regards as the main lines of psychological evidence for premise 2 of the Main Argument—and, relatedly, the enactivists’ arguments to the effect that perceptual experience involves considerable degrees of indeterminacy. This is followed by Madary’s presentation of his neuroscientific case for premise 2, in the comparatively brief Chapter 6, considering brain activity with a view to its ongoing intrinsic dynamics, the generation of predictions, and massive cortical and subcortical feedback connections. In Chapter 7, we learn of Madary’s take on the distinction between the ventral and dorsal cortical pathways of visual processing. Part III deals with two remaining topics. In Chapter 8, Madary argues in favor of the methodology of symbolic dynamics in cognitive neuroscience, as providing a framework suitable for incorporating his main ideas from Parts I and II. In Chapter 9, he assumes that AF is true, and uses it to argue that the content of visual perception has a social element, enabling us to perceive a shared world. Finally, in *Appendix: Husserl’s Phenomenology*, Madary advises the reader as to where the ideas discussed in his book can be found in Husserl’s writings, clarifies the methodological and other differences between his own approach and Husserl’s—doing so, in considerable part, by responding to Kristjan Laasik’s criticisms of his earlier paper (Laasik 2014, Madary 2011), and situates his views in relation to some of the recent literature on Husserlian phenomenology and the cognitive sciences, especially Francisco Varela’s neurophenomenology, of which he gives a favorable assessment.

Since the scope of *Visual Phenomenology* is nothing short of prodigious, I will limit my critical remarks to certain focal topics, with two considerations in mind. On the one hand, I will seek to divide critical labor with Neil Mehta and Susanna Siegel, authors of two existing reviews of the book, who have already given considerable (though not exclusive) attention to premise 2 of the Main Argument (Mehta 2019, Siegel 2017), while considering that Laasik’s abovementioned critical discussion is also primarily relevant to premise 2. On the other hand, I believe that I may best accommodate the interests of the readers of this journal by providing a discussion that primarily pursues phenomenological avenues, while giving consideration to relations between Husserl’s and Madary’s views. For both of these reasons, I will focus on aspects of premise 1 of Madary’s Main Argument.

While Madary states his Main Argument in standard form, he does not similarly regiment the support he provides for its premise 1 (or, for that matter, its premise 2). I therefore propose to re-construct Madary’s Subsidiary Argument, for premise 1 of the Main Argument, as follows,

1. “[T]here is visual anticipation of various degrees of determinacy at the level of conscious experience” (Madary 2017, p. 41).
2. Indeed, visual experiences have “*AF content*” (Ibid., p. 59).
3. “[T]he structure of anticipation and fulfillment [which gives rise to AF content] is a straightforward and efficient [indeed, the best] way to satisfy [the] three constraints [on visual experience, viz., the perspectivalness, temporality and indeterminacy constraints]” (Ibid., p. 38).
4. Therefore, “[t]he phenomenology of vision is best described as an ongoing process of anticipation and fulfillment” (Ibid., p. 3). (Premise 1 of the Main Argument)

I am thus trying to include the material in Chapters 2-4 in an argument for premise 1 of the Main Argument, as comprehensively and economically as possible. The idea of this non-deductive argument is that we first argue that anticipations of some specificity do, indeed, go with perceptual experiences. Madary does this in Chapter 3. We then add to this point by further claiming that these ideas yield a special kind of content—something that Madary explores in Chapter 4, Section 4.1. We next argue that this view is superior to the alternatives, insofar as it meets certain constraints, whereas the alternative views encounter serious problems, evidencing their failure to meet some of these constraints. I take Madary to be doing this in Chapter 2 and Chapter 4, Section 4.4. I thus connect these premises by a certain specific thread of reasoning, but I also view them as supporting the conclusion in a kind of cumulative manner. So, if it be objected that one of the Subsidiary Argument’s premises is not really meant as supporting its conclusion, and that I therefore cannot, e.g., object to the Subsidiary Argument by criticizing it, my reaction would be that such a move just leaves the conclusion somewhat less well-supported. For a case in point, at the very beginning of Chapter 4, Madary avers that AF content, in some sense, “follows from” premise 1 of the Main Argument, instead of the other way round (Ibid., p. 59)—but I have nonetheless incorporated the idea of AF content into my re-construction of the Subsidiary Argument, in the hope of making the strongest possible case for its conclusion, i.e., premise 1 of the Main Argument.

I will now consider each of the Subsidiary Argument’s three premises in turn. My aim is not to argue that Madary’s argument does not work, or that some other Husserlian argument ultimately works better than Madary’s, but, instead, to clarify aspects of Madary’s argument, and to show that a more straightforwardly Husserlian line will, at certain junctures, take us to different places and open up different possibilities. Regarding premise 1 of the Subsidiary Argument, viz., that “[t]here is visual anticipation of various degrees of determinacy at the level of conscious experience”, Madary argues for it by a *reductio ad absurdum* (Ibid., pp. 44-45). More specifically, the argument involves the following three claims,

Perspectival Connectedness (PC): If S substantially changes her perspective on o, her visual phenomenology will change as a result of this change (Siegel 2010a, p. 179).

Factual Content (F): Visual Perception represents factual properties, which are properties that are in principle perceivable from multiple perspectives (Madary 2017, p. 44)

Specific Anticipation (SA): Visual anticipation is more specific than indicated in the consequent of (PC) (Ibid., p. 42).

PC is Siegel’s idea of an inspecific anticipation, conceived as a ubiquitous part of visual content; SA is Madary’s claim that more specific anticipations are a ubiquitous part of visual content. I take it that from SA, suitably construed, premise 1 of the Subsidiary Argument unproblematically follows. Now, Madary argues that PC and F, both of which he accepts, yield SA, because the conjunction of PC and F, and the negation of SA, would yield a highly counterintuitive consequence, viz., that when S significantly changes her perspective on o, and her visual phenomenology then changes *in a strange way*, her visual anticipations will still be fulfilled, since they are, by our assumption, completely inspecific. In other words, Madary believes that the assumption of the negation of SA would fail to do justice to the possibility of perceptual surprises.

I think this argument has considerable merit, but one could still attempt to dig in one’s heels and counter it in either of the following two ways. On the one hand, I take it to be the case that SA is meant to refer to ubiquitous specific anticipations, i.e., ones that come with all visual experiences. Yet, it is compatible with there being perceptual surprises, that these anticipations are only stirred up when there actually is perceptual change, or perhaps also in some other specific circumstances, but not ubiquitously—thereby rendering SA false. On the other hand, it might be suggested that the specific anticipations are actually beliefs, an idea which is also incompatible with the truth of SA. Madary considers the latter possibility and suggests that, unlike beliefs, the visual anticipations are constrained by one’s changeable perceptual circumstances (Ibid., p. 53). In fairness to Madary, in Chapters 3 and 4 he gives a quite thorough characterization of visual anticipations, invoking various features which could be used to distinguish them from beliefs, such as their ongoing (vs. episodic) nature, as well as their characteristic fusion, as they “flow into one another without distinction” (Ibid., pp. 48, 61).

But to address the first objection, Madary would need something like the idea that without perceptual anticipations, no factual properties (e.g., shape, size, color, or kind properties) could be experienced. I believe that Madary cannot avail himself of this idea without a considerable revision of his view. The most conspicuous difference between Husserl’s and Madary’s views concerns their use of the ideas of emptiness and indeterminacy. For Husserl, the most significant feature of perceptual anticipations is their emptiness, although he also conceives of them as coming in degrees of determinacy.[[2]](#footnote-2) Emptiness is nothing other than the absence of fullness, or “intuitive”, immediate givenness. Once we have availed ourselves of the ideas of emptiness and fullness, we can take the next step of conceiving of fulfillment as a transition between the two, e.g., when we turn an apple around, revealing, as anticipated, more brown rot on its backside. Perceptual experience of factual properties requires anticipations as providing it with the element of emptiness, and it attains degrees of fulfillment as the anticipations are fulfilled and the emptiness, by degrees, overcome.

Madary, on the other hand, speaks of visual anticipations as being, first and foremost, indeterminate to various degrees (Madary 2017, p. 48). Indeterminatess is first on Madary’s list of five important characteristics of perceptual anticipations, while emptiness is not even included on the list. Nowhere in his book does Madary offer a sustained discussion of the ideas of fullness and emptiness: the words “full”, “fullness”, or “emptiness (used in the relevant sense) do not occur anywhere in the book, and the word “empty” (used in the relevant sense) occurs just four times (Ibid., pp., 60, 159, 180, 200).[[3]](#footnote-3) The anticipatory indeterminacy of visual experience is one of the book’s leitmotifs, while emptiness is at most a marginal concern. Thus, when Madary speaks, as he frequently does, of visual experiences as involving fulfillments, one tends to get the sense that this is primarily due to the fact that visual experiences involve anticipations, and anticipations, as we know, can be fulfilled, i.e., satisfied, rather than frustrated.

Could Madary just emphasize the idea of emptiness more, and invoke it to address the first of the above two objections, viz., to premise 1 of the Subsidiary Argument? I believe so, but to better understand what this involves, we need to concern ourselves with the topic of perceptual content, to which we shall now turn. In premise 2 of the Subsidiary Argument, we encounter Madary’s interesting idea that the anticipation-fulfillment structure brings in its train a special kind of content, viz., AF content. Does the acceptance of AF content entail that without perceptual anticipations and the emptiness to which they give rise, no factual properties could be experienced? I believe that, from a straightforwardly Husserlian perspective, perceptual experiences do have a kind of content from which this follows. I prefer to call it “fulfillment-conditional content”—a clumsy phrase perhaps, but one that resists conflation with the widely-accepted idea of an accuracy-conditional perceptual content (Siegel 2010b, Chapter 2). The notion of a fulfillment-conditional content captures the idea that, for Husserl, objects and their properties are “constituted” in perceptual and other intentional experiences, i.e., they are experienced primarily in terms of the evidence that is required for confirmation of these experiences, where such confirmation is primarily regarded in immediate, non-inferential terms.[[4]](#footnote-4) Typically, this takes a multiplicity of constituents, including sensations, as well as anticipations and the motivation to pursue their fulfillment, yielding a perceptual or other intentional experience and its object (Mensch 2010, Ch. 1, § 3). The real object can be thought of as situated at the limit of all conceiveable confirmations.[[5]](#footnote-5) Thus, the Husserlian idea of constitution, as applied to perceptual experiences, goes together with a kind of evidentialist, or verificationist, notion of perceptual content. Instead of conceiving of content by recourse to the ideas of truth or accuracy, we do so by recourse to justification (suitably understood) or evidence. This approach does, indeed, have the upshot that without perceptual anticipations and the emptiness to which they give rise, no factual properties could be experienced.

It seems to me that Madary’s AF content is not conceived in the same spirit, and the idea of emptiness is therefore not quite as indispensable on Madary’s approach as it is on Husserl’s. Madary rejects the Husserlian idea of constitution for a principled reason, viz., that “Husserl’s notion of constitution reflects a larger philosophical commitment, a commitment to what would today be called a kind of anti-realism about the mind-independent world” (Madary 2017, p. 182). A Husserlian phenomenologist might agree with most aspects of Madary’s characterization of the Husserlian view, yet contend that this yields not an anti-realism but the only legitimate kind of realism—but let us set that aside. Madary’s aim is, in any case, not to press this point against Husserl, but to develop a Husserl-inspired position of his own that cannot easily be dismissed as anti-realist or idealist, thus facilitating a more productive dialogue with non-phenomenologists.

In light of this, let us consider Madary’s account of AF content. As I understand him, Madary accepts the standard characterization of visual content in terms of accuracy conditions (Ibid., p. 59), and argues that perceptual experience inherits AF content from the anticipations that go with it,

[W]e visually anticipate the sensory consequences of self-generated movements. When things are going well, these anticipations are fulfilled to various degrees. Since visual anticipations can be correct or incorrect, they have content. *AF content*, then, is the content of the visual anticipations themselves. AF content is determined both by unfulfilled and fulfilled anticipations (Ibid., p. 60).

As I understand this, Madary distinguishes between fulfillment conditions and correctness (or accuracy) conditions, and unpacks AF content by recourse to the latter idea: AF content is the content that anticipations have, insofar as they are either accurate or inaccurate (or perhaps even true or false), e.g., of the apple’s backside. From Madary’s text, it is also evident that AF content is not the only kind of content that perceptual experiences have, and that, on his view, non-AF content is independent of AF content. Distancing himself from phenomenalism, Madary takes issue with “[the] phenomenalist claim that the perception of factual properties is reducible to a set of anticipations and the fulfillments of those anticipations” (Ibid., p. 61), contrasting it with his own view,

Visual anticipations depend on there being a representation of a factual property, not the other way around. My anticipation that the sphere will continue to appear red as I shift my perspective on it depends on my intentional state, which is directed toward the color of the sphere qua factual property (Ibid.).

So, in addition to AF content, there is a basic kind of content that does not involve or depend upon anticipations, or the emptiness that goes with them. True, in an adjacent passage Madary says, “There is no tension between AF content and (F) if we qualify (F) with the claim that visual representation of factual properties is always *incomplete*” (Ibid.). But “incomplete” does not mean empty, as we see from a clarification that immediately follows, “That is, we do not anticipate seeing objects from all perspectives and in all possible lighting conditions all at once” (Ibid.). I.e., as it is meant here, to say that visual representations are always incomplete does not signify that they always involve emptiness; it means that when there are attendant anticipations, they never cover every possibility.

In sum, I believe that Madary does not actually build anticipation and emptiness into visual content deeply enough, for it to follow that without visual anticipations, no factual properties could be experienced. While this leaves Madary’s view somewhat open to the first of the above two objections, it also has the benefit of rendering the view immune to any charges of anti-realism, idealism, or phenomenalism, which might otherwise get in the way of its making contributions to important ongoing debates.

Premise 3 of the Subsidiary Argument says that, unlike various other views, Madary’s view meets the perspectivalness, temporality, and indeterminacy constraints. As concerns the claim of a comparative advantage vis-à-vis other views, I would merely note that it is mainly based on Madary’s discussion of three problems in Chapter 4, Section 4.4. By Madary’s lights, their solution requires a satisfactory account of the indeterminacy of perception—underscoring the importance of this topic within Madary’s project.

I wish to make some brief remarks on the temporality constraint. According to Madary, it is meant “to express the simple claim that visual experience appears to be continuous over time. We do not experience the visual world as a series of discrete snapshots” (Ibid., p. 33). Madary likens this idea to William James’s famous notion of the stream of consciousness, and emphasizes that it concerns precisely “the appearance of visual consciousness”, not its underlying metaphysical reality or its physiological basis (Ibid.). I am prepared to accept that Madary’s view meets this very reasonable constraint, which he uses in critically discussing certain other views, notably in the cognitive sciences. Yet, it seems to me that if we account for content in terms of fulfillment conditions, we may gain a deeper appreciation of the temporality of perceptual experience, than if we regard content in terms of accuracy conditions. I have already quoted Madary as asserting, concerning the visual experience of a red sphere, that “that the sphere will continue to appear red as I shift my perspective on it depends on my intentional state [sic!], which is directed toward the color of the sphere qua factual property” (Ibid., p. 61). Indeed, when we take the contents to be accuracy conditions, we do not ascribe such contents to an experience, taken as an event, which unfolds in time, but, instead, ascribe them to a state, which merely takes up time. Of course, one may aggregate such states in individuating an experience which changes through time, but insofar as they are conceived in terms of accuracy conditions, such phases of experience will appear as entirely self-contained, independent parts of the whole. By contrast, if these phases are regarded in terms of fulfillment conditions, the question of continuity or discontinuity, i.e., whether there are any intervening gaps, becomes highly significant, insofar as it bears on whether a subsequent phase can provide fulfillment for a previous phase. The same goes for the order of the consecutive experiential phases, effectively rendering them irreversible. I wonder whether Madary’s view has the same upshots, insofar as he regards perceptual experiences as being anticipatory, and consequently as having fulfillment conditions, but he does not, if, indeed, I understand him correctly, conceive of their content in terms of these fullfillment conditions.

When all is said, however, Michael Madary’s *Visual Phenomenology* is a well-organized, argumentatively lucid book of impressive topical reach. It deserves to be widely read.

Conflict of Interest Statement: On behalf of all authors, the corresponding author states that there is no conflict of interest.

# Bibliography

Husserl, E. (1973). *Ding und Raum. Vorlesungen 1907* (Hua XVI). (U. Claesges, Ed.) The Hague, The Netherlands: Martinus Nijhoff.

Husserl, E. (1974). *Formale und Transzendentale Logic* (Hua XVII). (P. Janssen, Ed.) The Hague, Netherlands: Martinus Njihoff.

Husserl, E. (1984). *Logische Untersuchungen* (Hua XIX/2). (U. Panzer, Ed.) The Hague, The Netherlands: Martinus Nijhoff Publishers.

Laasik, K. (2014). Constitutive Strata and the Dorsal Stream. *Phenomenology and the Cognitive Sciences, 13*(3), 419-435.

Madary, M. (2011). The Dorsal Stream and the Visual Horizon. *Phenomenology and the Cognitive Sciences, 10*, 423-438.

Madary, M. (2017). *Visual Phenomenology.* Cambridge, MA: MIT Press.

Mehta, N. (2017). Michael Madary, Visual Phenomenology. *The Philosophical Review, 128*(1), 131-134.

Mensch, J. R. (2010). *Husserl's Account of Our Consciousness of Time.* Milwaukee, WI: Marquette University Press.

Siegel, S. (2010). Do Experiences Have Contents? In B. Nanay, Ed., *Perceiving the World* (pp. 333-368). Oxford, UK: Oxford University Press.

Siegel, S. (2010). *The Contents of Visual Experience.* Oxford, UK: Oxford University Press.

Siegel, S. (2017.09.10). Michael Madary, Visual Phenomenology. *Notre Dame Philosophical Reviews, https://ndpr.nd.edu/reviews/visual-phenomenology/*.

1. In part A.1 of the *Appendix*, Madary instructs the reader as to where to find these ideas in Husserl’s works (Madary 2017, pp. 177-180). [↑](#footnote-ref-1)
2. For Husserl’s contrastive discussion of perceptual emptiness and indeterminacy, see Hua XVI, § 18, especially pp. 57-59. [↑](#footnote-ref-2)
3. Just to be clear, I do not notice that Madary speaks about fullness or emptiness in other terms either. In particular, I have no special reason to believe that, for him, “determinacy” and “indeterminacy” might (sometimes) just mean fullness and emptiness. [↑](#footnote-ref-3)
4. For Husserl’s evidential conception of intentionality and objectivity, see Hua XVII, pp. 143-144. [↑](#footnote-ref-4)
5. Husserl, in his earlier work, regarded this limit as attainable in principle, though not in practice (Hua XIX/2, pp. 762, 765), and, in his later work, as not even attainable in principle (Hua XVI, pp. 138-139). [↑](#footnote-ref-5)