Book Review

Bio-Objects – Life in the 21st Century Niki Vermeulen, Sakari Tamminen, and Andrew Webster (eds.) Ashgate 2012

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Introduction

This book consists of 13 essays which are concerned with the objectification of different forms of life, conceptualised under the heading of 'bio-object'. There are three main parts to the book: part I deals with *changing boundaries* as the result of the introduction of new bio-objects, part II with *governance* of new bio-objects, and part III with *new social, economic and political relations* around bio-objects. In fact, the reader will find that the parts are not exclusive to one another, as quite a few themes recur in all parts and chapters.

The bio-objects, the forms of 'life in the 21st century' (to use the book's subtitle) under examination cover a wide area, including 'water', 'GMO's', and 'cryopreserved cells'. Indeed, the thematic ground covered in the book is so vast that it is impossible to do justice to the finer points of each of the separate contributions. I will therefore refrain from providing a summary of the various essays in the book, and will rather focus on the conceptual backbone that ties everything together. This means that the concept of 'bio-object' and 'processes of bio-objectification' will be given a central place in this review.

Andrew Webster ends his introduction to the book by noting that the "work is ... embryonic" (p. 8). By critically examining the conceptual framework which supports and holds together the separate chapters, I hereby hope to make a modest contribution to the maturing of the work on bio-objects. I would like explicitly to acknowledge that virtually all of the contributions convincingly show that such a maturation is worth exploring. In what follows, I will borrow Webster's previously quoted metaphor and pursue five critical trajectories along which I think the work on bio-objects should mature.

Five critical trajectories

First, the main character of the book, the 'bio-object', could do with a more elaborate introduction. Webster, presenting himself as a spokesperson for a 'we' that I take to be the collective of contributing authors, introduces the concept as follows:

We want to suggest that the term 'bio-object' is a useful conceptual device or heuristic to refer to socio-technical phenomena where we see a new mixture of relations to life or to which 'life' is attributed. (p. 1)

The bio-object must thus be regarded a conceptual device. It is unfortunate, however, that descriptions of the function and relevance of this device are either left to the reader's imagination, or are buried within the essays, rather than being systematically explored. The

above quote seems to indicate that the function of the device is to 'refer' to certain phenomena. One could thus interpret the function of 'bio-object' as a signifier, referring to 'socio-technical phenomena where we see a new mixture of relations to life or to which "life" is attributed'. The introduction does not make sufficiently clear, however, that such a signifier-interpretation of the concept is correct. In chapter 6, Janus Hansen puts it similarly:

[The] concept of 'bio-objects' [...] can facilitate an understanding of how novel biological entities (and different kinds of knowledge of such entities) take on different meanings and generate different social dynamics depending on the contexts they are introduced into...(p. 97)

An overall description of what the concept specifically facilitates would have been welcome. Further, it is not impossible to imagine why it would be fruitful, relevant, and even important to understand the significance of the cited phenomena (in other words: to put the bio-object conceptual apparatus to use), but it would have been better if this particular point had been more extensively presented.

The second critical trajectory follows from the first and concerns the status of the main concept. It is not clear whether the term bio-object refers to a certain object (a thing in the world) or whether it must be seen as the device which makes visible such an object. On the one hand, we learned from the introduction that the bio-object must be regarded a heuristic. On the other hand, almost all authors refer to bio-objects as somehow being objects-in-theworld that deserve attention. To give some examples from the book: transgenic animals can be understood bio-objects (chapter 1), as can certain patients (chapter 4), 'the human' (chapter 5), GMO's (chapter 6), IVF embryo's (chapter 9), and genes (chapter 12), but also DNA mutations (chapter 7), vital phenomena (chapter 10), and the Silicon Cell (chapter 11). Indeed, much of the talk about the bio-object suggests that it is a certain object, a "materialepistemic vessel that navigates and transcends different boundaries and contexts" (Eriksson, p. 39) which has a certain 'transformative character' (Van Hoyweghen, p. 188), and which 'evolves together with science' (Vermeulen, p. 182). I was somewhat confused by all this. Is the heuristic which makes certain phenomena visible the same as the phenomena which are made visible? Is the conceptual device the same as the concepts it is supposed to shed light on? And if so, what is the fruitfulness of using the two meanings interchangeably? Let me stress that I do not necessarily think that this way of applying the bio-objects heuristic mistaken; I simply think that in this respect, the concept needs clarification.

Third, if the concept of bio-object is introduced as a certain device with a certain reference-function, how does this function differ from other, already-existing devices? Looking at 'socio-technical phenomena' which have to do with life is certainly not something previously unseen. In fact, in order to make sense of phenomena under investigation, many of the authors make use of existing theoretical frameworks. The reader will find a multitude of references to Latourian networks, Douglasian 'matter-out-of-place', Foucaultian 'discursive formations', and Harrawayian 'border crossings' throughout the book. What does the bio-object concept add to such frameworks? Only a few authors explicitly address this question. In the chapter 9, Bettina Bock von Wülfingen justly admits that "[the] Foucauldian episteme

and that of the bio-object show useful overlaps" (p. 141), but does not really go into the areas where no overlaps are present and where the notion of bio-object could thus be particularly valuable. Lena Eriksson, author of chapter 2, asks: "So why a bio-object framework, rather than something else?" (p. 27). I believe this is a very good question, and it would have been better had this question been openly posed with regard to the book in its entirety. As matters stand now, the book does not convince me of the added value of the bio-object concept.

Let me expand on this a little by rephrasing the question: Can the notion of bio-object be considered a necessary condition for the existence of the studies presented in the book? I do not think it can. As stated earlier, many of the authors use existing analytical frameworks to build their case, and do this in an interesting and well developed manner. I do not think, however, that the value of the separate essays would diminish if the concept of bio-object were absent. If the efforts concerning the bio-object are to emerge from embryonic status, an accurate contrasting to other conceptual frameworks would be indispensable.

Fourth, the distinction between bio-objects and the process of bio-objectification is somewhat vague. Immediately after introducing the bio-object as a concept, Webster continues the introduction by pointing out that given the fluidity of boundaries (between organic and non-organic, living and nonliving etc.), there probably is no "once-and-for-all list of bio-objects, a sort of bio-object catalogue", and that it is "more useful to focus on the *process* of bio-objectification, that is to say, how different life forms are created and are given life" (p. 2, italics in original). How are we to understand the difference? Must the 'bio-object' be understood as the outcome (an object-in-the-world) of certain processes of bio-objectification?

In chapter 8, Nete Schwennesen refers to the "making and remaking of boundaries around life" as being "illustrative of a process of bio-objectification (p. 121). Should we thus regard the bio-object as that object around which boundaries are made and remade through the process of bio-objectification? This seems more or less accurate, but would mean that the bio-object itself is always only a semi-stable object, since its boundaries are 'made and remade'. Such a claim would be in line with the authors' expectation (voiced by Webster) to see "bio-objects as being characterised as having considerable fluidity and mobility across different socio-technical domains..." (p. 3). If so, however, one could wonder why Webster merely *suggests* that there is no 'bio-objects catalogue', since the possibility of such a catalogue is precluded by definition. In any case, the difference between the bio-object and the process of bio-objectification is sometimes emphasised but downplayed at other times. I would recommend that future work on bio-object(ification)s takes some time to clarify this point.

Fifth, and following from the other trajectories set out here, I think the work on bio-objects could do with more extensive self-reflection. How does the author of a text on a bio-object relate to the bio-object 'itself'? Put in the terminology of the book: how does the author of a text on bio-objects contribute to the process of bio-objectification? If the bio-object is made visible as an entity worth studying (which, as said, I think basically all the entries in the book convincingly show), then how is this 'making visible' part and parcel of the bio-

objectification process? Is it not first of all the author that first 'bio-objectifies' certain phenomena in order to study them as bio-objects? And should this (at least seemingly) particular kind of bio-objectification be studied separately? A few of the contributors explicitly face this issue, but it remains obscure on a general level. In the first chapter, Tora Holmberg and Malin Ideland explicitly view the case of the transgenic mouse "through the analytical lens of bio-objectification" (p. 13), and Schwennesen overtly performs "a reading [of certain phenomena] as processes of *bio-objectification*" (p. 117, italics in original). Von Wülfingen is most sensitive to this issue, as she clearly admits that her "chapter ... reconfigures the bio-object of 'the German embryo' ..." (p. 140, italics in original). These examples show that this fifth point is not lost on all contributing authors. Yet, a more organised exploration which deals with the relation between bio-objects and the 'bio-objectifying' role of the author studying the bio-objects is missing and is indispensible for future efforts.

Conclusion

Most if not all of the critical trajectories listed above have to do with the overall conceptual structure of the book. Taking a perspective that is well entrenched in both STS and some schools in philosophy of technology, I would like to conclude this review by a Husserlinspired turn 'to the things themselves'. The thing, in this case, is the book itself. Why, I wonder, are the 13 essays – all interestingly dealing with phenomena surrounding 'life in the 21st century' – brought together between two covers, in a book-thing? I have my reservations on whether the book-form is the best presentation of the widely varying contents. First, the practical execution of the book is below par. There are numerous textual flaws throughout the book, such as incomplete sentences, awkward punctuation, and spelling errors. This gives the impression that the putting together of the work has been a quick and sloppy business, and obstructs the reading and understanding of the text. More importantly, I was not convinced by the conceptual backbone that is supposed to guarantee continuity over the various chapters.

To sum up: the 13 chapters of the book convincingly show that the idea of studying phenomena concerning 'life in the 21st century' is interesting and worthwhile. However, it seems to me that the concept of bio-object as a way to approach these phenomena is in need of careful elaboration.

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