The Deduction of Time and Space in J.G. Fichte's of the Constitution of Subject and Object

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Abstract
The aim of the present paper is to expose in its fundamental moments Fichte's deduction of time and space as pure forms of the intuition and, therefore, as condition of possibility of a theory of anticipations of perception. I will focus on one of the different versions of this deduction we can find in the work of this German philosopher between 1795 and 1814, namely, the time and space deduction presented in Fichte's *Outline of the Distinctive Character of the Doctrine of Knowledge with Respect to the Theoretical Faculty*, a substantial supplement to the *Foundation of the entire Science of Knowledge* published in 1795 and also originally planed only for his students.
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1 Introduction

Fichte's deduction of time and space represents a milestone in the history of transcendental philosophy. Fichte is the first philosopher in this tradition who offers such a deduction. Indeed, the founder of this philosophical school, namely I. Kant, has never clarified how a system of transcendental philosophy obtains the concepts of time and space in order to explain the conditions of possibility for experience. The originality of Fichte's treatment of time and space consists in that he introduces a new problem in the conceptual horizon opened by Kant, namely, the problem of how time and space can be deduced from the pre-conscious activity of the Self. This systematic exigency, namely, that time and space must be deduced, was certainly not a problem for Kant who conceives time and space as already given pure forms of experience. The question whether the introduction of this problem in a transcendental philosophical theory of knowledge can be considered as an improvement in the development of transcendental philosophy will not be handled in the present paper. For the aim of this paper is not to establish a conceptual continuity (in the form of an involution or evolution) between both philosophers, but to highlight the differences between them in order to make possible to think the conception of time and space in both philosophies in terms of alternative strategies of interpreting reality.

Although Fichte's philosophy, or, as he calls it, *the doctrine of knowledge* (German: *Wissenschaftslehre*), experienced in its different versions between 1794 and 1814

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secondary and essential changes (like the renounce to the systematic use of the term "not-self" and the introduction of the idea of the absolute, resp.), there is a continuity throughout his work in the treatment of time and space. From the very beginning of the development of his philosophy Fichte postulates 1) that time and space are a priori structures of knowledge, 2) that Kant's explanation of time and space is unsatisfactory, because he presented them as already given to the subject, 3) that time and space have necessarily to be deduced, if spontaneity (freedom) is what characterises the self, and 4) that both time and space have to be deduced from that interaction between subject and object that occurs in the pre-conscious activity of the self.

In the present paper I will illustrate these points by an analysis of the deduction of time and space presented in Fichte's *Outline of the Distinctive Character of the Doctrine of Knowledge with Respect to the Theoretical Faculty* (1795), a substantial supplement to the theoretical part of his most known work: the *Foundation of the entire Science of Knowledge* (1794/95), which hitherto has not received special attention in the secondary literature[1].

2 Kant's Conception of Time and Space as Anticipations of Perception

The problem of the anticipation of perception has certainly been handled in the history of Western Philosophy since its beginning in the Ancient Greece. The exposition of the categories in Plato's *Parmenides* and Aristotle's *Organon* are considered as milestones in the history of this topic in the philosophy. Later, in the Medieval Philosophy, we can also find attempts to a philosophical consideration of this problem, for example in the work of Anselm of Canterbury (1966). But it is only with Kant's transcendental philosophy that this problem acquires an epistemological and ontological status, since this issue is analysed within a theory of co-constitution of subject and object. Whilst in pre-Kantian philosophy, the problem of anticipation of perception is referred to a reality that exists without the intervention of the subject, Kant's treatment of the anticipations of perception is based on the premise that reality is a construction wherein the activity of the subject plays a fundamental role.

2.1 Experience and the Subject-Object Relationship

This change of perspective reflects what Kant calls the *Copernican turn*, namely, the displacement of the focus of attention from the object to the subject; in other words: from reality as it appears in everyday life to the conditions of possibility for the experience of this reality (Kant, 1787, XVI). This change in the perspective presupposes that there is no reality outside of experience, namely that reality is nothing but experienced (lived) reality. A reality without a subject experiencing it, is for transcendental philosophy a mere idea (although a regulative one), which expresses

[1] This claim is based on a research about the topic in international peer review journals included in the *Web of Knowledge* and in the international journal *Fichte-Studien*.

something impossible either to think of or to know, since it implies the absolute negation of the subjectivity inherent in every thought or knowledge. This idea of a reality without "an eye observing it", is what Kant called the *thing-in-itself* (German: *Ding an sich*).

Nevertheless, the assumption *that there cannot be reality without a subject and, therefore, no object without a subject either*, should not lead us to consider Kant's philosophy (and transcendental philosophy in general) as a *naive subjective idealism*. Then, for Kant's philosophy the opposite of the aforementioned judgment is also true, namely that *there cannot be subject without a reality and, therefore without an object.* So, subject and object are inherently in reciprocal determination. Their unity is represented by experienced reality. Neither the subject nor the object is *the* principle, on which reality is built. Both are fundamental moments of experience and have to be explained from the experience as criterion for verification of each premise. Outside of experience there is neither object nor subject in epistemological terms.

Kant's transcendental philosophical theory of knowledge distinguishes in experience a subjective and an objective moment. The former is represented by the form (the *a priori* in experience). The latter is represented by the content of experience (namely the *a posteriori* element of experience) (Kant, 1787, 34 ff.). The subjective side of experience constitutes that which is always present in every particular experience of reality, the content of experience, on the contrary, is always different. Within the form of experience we find time and space as the pure forms of sensible intuition (Kant, 1787, 36). As such they are conditions of possibility of meaningful experience.

From a transcendental point of view, experienced reality appears as a complex of *a priori* and *a posteriori* elements. The former must be presupposed as meaning horizon of the latter. The a priori as such cannot be object of experience. For example, we have direct experience of things in the world, but *no experience of the world as such*, which actually is a regulative idea a priori. As a totality, the world is always presupposed in each consideration of each phenomenon, but it is not a phenomenon itself. The world is for Kant a regulative idea that gives meaning to the particular experiences *of* the things in the world. The same can be said about time and space. We do not have any experience of them, we experience furthermore the phenomena as already placed in time and space. Both, time and space, are conditions of possibility for every meaningful experience.

2.2 Time and Space

One of the most important contributions of Kant's transcendental philosophy to a theory of knowledge is the demonstration that time and space are not things (or phenomena). Time and space are *a priori* elements of experience that make possible the representation of an object in general. A priori does not have to be conceived in temporal terms. For time and space are not *before* experience, they appear as a priori structures only by means of reflection on experienced reality. In this sense, they are abstractions of reality. If we, on the contrary, postulate an independent existence of time and space, we are making them to supra-sensible beings and so, not respecting the limits

transcendental philosophy indicates to thinking: namely, that we only can have knowledge of the a priori and a posteriori elements *in* experience. A priori refers firstly to a conceptual structure that is not given by particular experience, but it lies in the subjective side of experience.

According to the abovementioned *Copernican turn*, Kant's transcendental philosophical account of the construction of knowledge focuses on the subjective side of experience, namely on the a priori of experience. The subjective moment of experience is, as already said, always the same in all possible experience. Therefore, its elucidation allows the philosopher to *anticipate* the form of every possible experience and to demonstrate how a mathematisation of nature has been possible.

For Kant we can obtain knowledge of that structure of the subjective side of experience that permits anticipate the form of every possible experience. This structure is called in the *Critique of Pure Reason* the *anticipations of perception*. Perception is for Kant "empirical consciousness", namely a consciousness "which contains an element of sensation" (Kant, 1787, 207). The anticipations of perception are defined in Kant's philosophy as one of the axioms of the pure understanding (Kant, 1787, 200). The axiom of the anticipations of perception reads as follows: "In all phenomena the Real, that which is an object of sensation, has an Intensive Quantity, that is, has a Degree" (Kant, 1787, 207). Anticipation is "all cognition, by means of which I am enable to cognize and determine a priori what belongs to empirical cognition" (Kant, 1787, 208). Therefore, there is in sensation an element, the empiric content, which cannot be anticipated. The anticipations of the perception are related thus to the part of the sensitive experience belonging to the subject. "The pure determinations in space and time; as well in regard to figure as to Quantity," are "anticipations of phenomena, because they represent *a priori* that which may always be given *a posterior* in experience" (Kant, 1787, 209).

Time and space constitute in Kant's philosophy the pure form of sensation and, therefore, of sensible experience of reality. Every object we experience must necessarily appear determined in time and space. But, where do time and space come from? As already said, following Kant they are found as already constituting the form of experience by means of reflection on the subjective side of experience. Hence, they are obtained by means of abstraction, thus: not deduced. Given that the ultimate unit or element in Kant's theory of knowledge is experienced reality, this explanation answers the question. But, if we postulate that the autonomy and/or spontaneity Kant's subject characterises and distinguishes from the world of objects, implies that every element of the system must be deduced from the activity of the self, then we will see that his answer is actually unsatisfactory. In other words: if we follows Kant's postulate that the subject can only know what it itself poses in the experience, then we have to presuppose that time and space are posed by the subject as well. Consequently, transcendental philosophy should demonstrate how time and space are produced by the subject. On the contrary, time and space appears in Kant's theoretical philosophy as already given. Kant does not deduce them in a genetic way, namely, showing how they are produced by the activity of reason. Precisely, this claim is the starting point of Fichte's attempt.

3 Fichte's Deduction of Time and Space

Fichte's transcendental philosophy, the *doctrine of knowledge,* uses to be presented as a *radicalisation* of the Kantian program of a transcendental philosophy. This radicalisation is understood sometimes as an involution or as a consequence of Fichte's misunderstanding of the Kantian philosophy and the aim that it pursues; and sometimes it is presented as the consequent further development of the principles and presuppositions on which Kant's philosophy is based. Nevertheless, the two opposed considerations of the role of Fichte's philosophy regarding the Kantian legacy agree in the fact that Fichte's philosophy radicalise some central elements of Kant's philosophy such us the freedom of the self and the ontological status of the thing-in-itself. Far away from discussing which part in this debate is right, the aim of the present paper is to present Fichte's deduction of time and space as an example of this radicalization move without giving any definitive verdict about the relationship between both philosophies that could let establish a hierarchy between them.

3.1 The Novelty of Fichte's Approach to the Problem of Time and Space

In order to comprehend the aim of Fichte's deduction of time and space it is necessary to bring in mind Fichte's remark in his *Fundament of the Entire Science of Knowledge* about his own treatment of time and space in comparison to the Kantian one:

> "Kant demonstrates the ideality of objects from the presupposed ideality of space and time: we, on the contrary, shall prove the ideality of space and time from the demonstrated ideality of objects. He required ideal objects to fill up space and time; we require space and time in order to locate the ideal objects. Hence our idealism, though critical and by no means dogmatic, goes a step or two further than this." (Fichte, 1991, 171 fn.)

What do these "two steps further" consist on? Although Fichte does not concentrate on space and time in this work, this exposition of his system shows the possibility of inverting Kant's order of the elements composing the subjective side of experience. Whilst Kant first determines the ontological and epistemological status and function of time and space in order to deduce the possibility of an object for a subject, Fichte's system suggests that time and space must be deduced from the *already demonstrated* ideality of object. This inversion allows Fichte to deduce time and space from the interaction between self and not-self *in the pre-conscious self.* So, Fichte's system refuses the status of time and space as something merely given to the self by conceptually subsuming them to the activity of the self. In doing this, his system achieves in preserving the autonomy and spontaneity of the self even in the treatment of the pure forms of intuition. As already said, this is something Kant's philosophy has no responses for.

The quoted remark appears at the end of the synthesis E of Fichte's *Foundation of the Entire Science of Knowledge,* namely at the moment of the development of the system where subject and object in theoretical sense (i.e. as subject and object of

knowledge) are already deduced. Time and space do not appear, therefore, at the beginning of the elucidation of the structure of knowledge, but on its end. Indeed, the synthesis E represents one of the final moments of the theoretical part of this work. After this synthesis Fichte offers only a series of remarks and observations and the "deduction of representation", both issues are a systematisation of all the contents the deduction has delivered throughout the three main syntheses (causality, substantiality and reciprocal determination) (Fichte, 1991, 195 ff .). Hence, the synthesis E can be considered as a final moment, since it represents the end of the series of synthesis attempting at giving an answer to the problem of the connection between ideality and reality in the subject of knowledge. So, contrary to Kant, Fichte's elucidation of the possibility of knowledge thematises time and space only after having determined subject and object.

According to Fichte time and space cannot be given, because this contradicts one of the propositions postulated in the further explanation of the theoretical part of his *Foundation of the Entire Science of Knowledge* that his *Outline of the Distinctive Character of the Doctrine of Knowledge with Respect to the Theoretical Faculty* offers, namely: the self must determine the intuition (*Anschauung*) with regard to itself (Fichte, 1964, 193). The axiom this postulate is deduced from, reads as follows "nothing comes up to the self but what it poses in itself" (ibid.). So, the form of sensible intuition is not considered *in itself,* for this is impossible, since that means considering intuition as a thing-in-itself. But it is also not considered in the way it could be observed by a third person. The object of Fichte's inquiry is intuition as it appears for the *Self.*

3.2 Space

According to the inversion proposed by Fichte space and time result from the activity of the pre-conscious self. This activity presupposes the interaction between subject and object as condition of possibility of the emergence of the pure forms of intuition. As it will be shown, for Fichte time and space result from the activity of constantly positing points of contact between self and Not-self as ideal subject and object. This activity is referred to productive imagination.

Each of these points of contact between subject and object are the object of intuition. However, the starting point of the deduction is not the intuition as an isolated moment, but as a complex of opposed actions of intuiting. So, the object of inquiry is thus threefold: two opposed intuitions and the relationship between both (Fichte, 1964, 194).

The object of the enquiry is a synthetic unification of opposed intuitions.

Fichte defines intuition as the synthetic unification of the activities of the self (German: *Ich*) and of the not-self (German: *Nicht-Ich*) through the accidental encounter or coincidence of both in one point. Intuition occurs at the moment on which the *Self,* i.e. the I, experiences a barrier in its problematic (hypothetic) postulated blind progression in the infinitude. This barrier is necessary as far as it constitutes the self as a finite reason being. Hence, the experience of the barrier is real cause of the self as a reflexive being. Though the intuition on itself, i.e. as a singular intuition, it is not a barrier but a limit in Kantian terms. As such intuitions are not necessary, they can be

different, they can be intuited or not. The intuition, therefore, is posed in the self as accidental. The intuition will be further determined, although what it already had as its determinations, cannot be modified by the self.

An intuition can be considered as accidental only in comparison with a second intuition. This one is a second one for the Self, but it is first in the order of concepts, as far as the accidental character of the accidental intuition can only be comprehended in the horizon of another intuition, which was already there before the intuition that for the self is the first, was executed. So, we have two intuitions: intuition X and intuition Y. X is accidental in relation to Y, Y is necessary in relation to X. The self that observes X, does not observe Y and vice versa. Then X and Y correspond with two different points. The point where Y is situated is a condition for the position of X. The intuition X presupposes a first intuition, but X as such could also not be executed, thus it is accidental.

Where Y is, X cannot be. Therefore, both intuitions exclude each other, the objects they presuppose are also in reciprocal exclusion. X begins where Y has an end. This implies that there must be continuity between both. There is no vacuum between both intuitions, nor between the points they project. This continuity is not possible, if X and Y are not in the same sphere and if they do not meet in the same point. The synthetic unification of both consists in the positing of this common sphere. The common sphere is a product of the absolute spontaneity of the imagination, as far as it represents a synthesis of X and Y.

Following Fichte's deduction, the intuitions Y and X have to be thought as forces (Fichte, 1964, 197). As such they appear in something they themselves are not, namely: a *space*. The objects implied in each of both intuitions, must be thought as forces manifesting themselves, *ergo* producing a sphere of action.

In the deduction, we go forward from the object to the space. In this transit from the one to the other intensity and extensity appear as synthetic unified (Fichte, 1964, 201). The intensity of the intuition (of the object) is always accompanied by the place where they become visible: the extension of the object. No force can be thought without its manifestation, no point of manifestation without force: intention and extension are inherent related to each other.

"The space is nothing but what through these product is filled or must be filled" (ibid.). But the space is not a product of the things, but of imagination, which unifies the points creating space. Hence, it is the activity of the self in order to transform the intuitions in intuitions for the self what creates the space as the condition of possibility of the continuity between the different spheres of action of the forces of the objects[2].

Things have interne determinations, which define them. If we make abstraction of all of them, we would see that only space is the extern determination that makes possible a differentiation between the self and the things (Fichte, 1964, 201).

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[2] We can see here that without the postulate that the self must always be active, that means in all its determinations, the deduction could not have advanced successfully, then it is always the introduction of the point of view of the self (the "für sich") what opens up the possibility for a new step in this and in every other deduction in the doctrine of knowledge.

Every spatial determination presupposes an already filled space. Without an object B, we could not say where the object A is. Space implies always at least two elements. Everything is essentially or basically in "another place". The first answer to the question about the position of something refers actually to a second place in the order of concepts. Every spatial determination is relative. Without a second term there would be no spatial determination possible.

If the self is free, as Fichte postulates, its activity cannot stop in the act of determining the intuitions Y and X and their respective objects. Therefore, it must can be presupposed the possibility of a further determination, namely: the determination of the sphere XY through another sphere, for instance: RS, and so on *ad infinitum*. If the self is free, every intuition of objects in the space is accidental concerning its singularity. The self could have intuited another one and not the one it is intuiting now. Freedom has to do with the possibility of give a direction to the eye of the self. Freedom has to be therefore only considered as the possibility given to the subject of focussing here or there. Freedom has to do then with movement, with the capacity of the self of going out of itself. This is a condition of possibility for every barrier and also for every encounter with a contrary direction, a contrary force. Briefly: according to Fichte's philosophy the Self can be conditioned, limited and, finally, determined only because the Self is free. So, the construction of the space by the imagination consists in a constant setting of points and in a synthesising of them in common spheres.

3.3 Time

As we now observe the simultaneity of points, which actually is product of a number of activities, we can also observe that the construction of space appears as a succession of points of unification of the activities of the self and the Not-self in the intuition. And this succession is a temporal-series (Fichte, 1964, 206). So, time results from a reflection of the construction of space.

In the time-series the accidental point is the present point (Fichte, 1964, 207). The things, if we make abstraction of the self, are at the same time, they are introduced in time only through the presupposition of the activity of the self as condition of possibility for every intuition *for* the self. *Every intuition of spatial determinations is in time and vice-versa.*

Fichte's deduction of time and space in his *Outline of the Distinctive Character of the Doctrine of Knowledge with Respect to the Theoretical Faculty* describes the deduction of space deeper than the deduction of time. This is due to a strategy of exposition. Otherwise, Fichte's time deduction should repeat the first moments of the deduction of space concerning the construction of the object by imagination.

3.4 Consequences of Fichte's Deduction of Time and Space

Fichte's deduction of time and space ends with four remarks about the consequences of this new manner of considering time and space:

There is no past in itself. Only in relation to the present moment we have a past. Otherwise the past would become a thing-in-itself. From a transcendental point of view, the experience of the past is a signal that we are in the present.

But the past is necessary as condition of possibility of the present moment, which is condition of possibility for self-consciousness. The identity of self-consciousness depends of temporality, as far as for identity we always need two moments. Hence, from a transcendental point of view, there is no first moment of consciousness, but only a second one.

We can *move* in the time. We can project ourselves in the future or remember us in the past and go beyond ourselves in both directions *ad infinitum*. The only requirement is to have a second moment to limit it.

Determinations in space are thought at the same time, determinations in time are thought as after each other, on a spatial way. We need time to intuit space; on the other hand, we need spatial determinations in order to experience time. Time and space determine each other.

4 Conclusion

The aim of the present paper was to explore the fundamental moments of Fichte's deduction of time and space and its consequences for the establishment of a theory of anticipations of perception from a transcendental philosophical point of view. Fichte considers that Kant has not consistently proceeded in his treatment of time and space, since he "begins in the reflexion point where time and space and the multiplicity of the intuition are given in the self and for the self" (Fichte, 1964, 208). Fichte presents time and space as a priori deduced, namely as deduced from the possibility of an encounter between subject and object in the intuition.

Fichte's time and space deduction is based on the presupposition that there is a force going outside of itself (the self). Without this presupposition, which reflects in other terms the presupposition of the spontaneity of consciousness, is for Fichte unconceivable time and space as a priori structures of knowledge. So, the self has been thought here as a force experiencing two kinds of resistance: a necessary and an accidental, a barrier and a limit respectively. The self has been constructed as a force going outside because of its freedom (spontaneity), experiencing a shock or a not desired discontinuity in its progression to the infinite because of the same, and synthesising both moments, again because of its spontaneity. Time is the experience of the activity of the subject reflected in the things on space; space is only possible as far as the self is in constant movement, as far as it is absolute activity.

Fichte's attempt to deduce time and space emerges from a radicalisation of a motive of transcendental philosophy: the activity's principle or the principle of absolute spontaneity of the self, which Kant limits only to the field of practical philosophy. Fichte's radicalising move has made possible to display time and space in its genesis as structures a priori of experience and to let arise a phenomenology of temporality and spatiality, where a theory of forces as a theory of production of reality, plays a significant role.

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