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The Legal Norm as a Function: The Influence of Ernst Cassirer and the Marburg Neo-Kantians on Hans Kelsen*

La norma jurídica como una función: la influencia de Ernst Cassirer y los neokantianos de Marburgo en Hans Kelsen

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Abstract:

In this paper I argue that if we apply the Cassirerian concept of function to the Kelsenian legal norm we get an explanation free from non-juridical elements. After describing the process of desubstantialization that, according to Cassirer, has taken place in mathematics and natural sciences, as well as the concept of science that emerges from this transformation, I contrast the idea of the legal norm as a functional relation with Kelsen´s characterization of the legal norm as the objective meaning of an act of will.

Keywords:

Function, legal norm, Neo-kantianism, Kelsen, Cassirer.

Resumen:

En este artículo planteo que si aplicamos el concepto de función cassireriano a la norma jurídica kelseniana, obtenemos una explicación de ésta libre de elementos no jurídicos. Después de describir el proceso de desubstancialización que, de acuerdo con Cassirer, ha tomado lugar en matemáticas y en ciencia naturales, así como el concepto de ciencia que emerge desde esta transfor-

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mación, contrasto la idea de la norma jurídica como una relación funcional, con la caracterización de la norma jurídica de Kelsen como el significado objetivo de un acto de voluntad.

Palabras clave:

Función, norma jurídica, neo-kantianismo, Kelsen, Cassirer.

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I. Introduction

In *Der Soziologische und der Juristische Staatsbegriff*, Kelsen makes an extended use of the notion of function that Ernst Cassirer develops in his book *Substance and Function*, tracing a parallelism between the concept of atom as a hypothetical point of possible relations and the state as a common point of imputation.[1] In this outstanding work, Cassirer depicts in great detail, from the ancient Greeks to Einstein's general theory of relativity, the historical process of desubstantialization in formal and natural sciences. Since the times of the presocratics, mathematics first, followed by physics and then chemistry, have undertaken a gradual substitution of the notion of function for that of substance. The latest and more refined expression of such trend, when the second part of Cassirer's book was published in 1921, was Einstein's conception of space and time. This theoretical development has strengthened the capacities of these disciplines to explain and predict a broadened set of phenomena.

The influence of the Marburg Neo-Kantians on the pure theory is, as I have argued elsewhere, beyond doubt.[2] Kelsen himself embarked on a process of desubstantialization within the science of law that he completed for the most part.[3] Yet, there are points where he did not draw the uttermost consequences of this enterprise. To my

[1] Kelsen, Hans, *Der Soziologische und der Juristische Staatsbegriff. Kritische Untersuchung des Verhältnisses von Staat* (Scientia Verlag Aalen 1962) 211-218.

[2] García Berger, Mario, *La teoría kelseniana de la normatividad. Orígenes y actualidad* (Fontamara 2014).

[3] In a similar vein, Stanley L. Paulson has affirmed that, under the influence of the Neo-Kantian philosophy, Kelsen undertook a program of objectivization in the pure theory. See Paulson, Stanley L., "Dos programas radicales de "objetivización". La influencia de Kant y los neokantianos en Hans Kelsen" in Castañeda, Felipe, Vicente Durán and Luis E. Hoyos (eds.), *Immanuel Kant: vigencia de la filosofía crítica* (Siglo del Hombre Editores) 243-277.

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mind, one of these aspects is the notion of legal norm. I will argue that if we apply the concept of function to the legal norm, to define it as a relation "R" between two variables "x" and "y", we get a purer explanation free from non-juridical elements, which was Kelsen's own endeavour.

The first section sets the stage for the subsequent parts. It describes, in general terms, the process of desubstantialization in mathematics and natural sciences that I intend to carry, a step further, onto the notion of legal norm. Besides, in explaining this transition Cassirer's understanding of knowledge becomes explicit. For him, as we will see, the epistemological conceptual framework that best accords with such development is the transcendental idealism, that stemming from Kant found its most complete formulation in the *oeuvre* of the Marburg Neo-Kantians. In the brief second part I examine the model of science that springs from the former analysis of concept formation in different scientific disciplines. The last section spells out the idea of the legal norm as a functional relation. I first expound what a transcendental idealist science of law would look like. Then I analyse Kelsen's characterization of the legal norm as the objective meaning of an act of will to show that the notion of function helps dispel some problems associated with it. Next, I argue that the functional conception of the legal norm makes explicit a shortcoming of some positivistic accounts of law, as they are based on an empiricist understanding of knowledge that fails to capture the historical development of scientific concepts and, in this way, obscures the nature of the legal norm. Lastly, I trace a paralellism between the Kelsenian nomoestatic/nomodynamic approach and Cassirer's thesis that any scientific discipline has a static and a dynamic motive. I also show how Kelsen uses the function/substance distinction to criticize conceptions of the state that conceive it as a natural reality.

II. From substances to functions

Cassirer summarizes the historical progress in science as the gradual substitution of relation-concepts for thing-concepts. What does this passage mean and how did it take place? Here I will only sketch

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a very rough picture of this process highlighting its inner logic. Cassirer gives the credit to John Stuart Mill for clearly stating, for the first time, the procedure employed by science in constructing its concepts. He affirms that "in the definitions of pure mathematics, however, as Mill's own explanations show, the world of sensible things and presentations is not so much reproduced as transformed and supplanted by an order of another sort".[4] What we get from this conversion is an ordered system of functions not obtainable by abstraction from sensible experiences or data. In mathematics, as in theoretical physics, "the concrete sensuous reality" is not copied in thought but replaced by a theoretical complex.[5]

In these words a head-on opposition to Aristotle's method of abstraction is manifested. According to this procedure, concepts are built by selecting the common properties of a set of objects presented in experience. As Cassirer points out, this type of explanation confuses the categorical forms of experience, which make all sensible content possible, with the content itself.[6] The Aristotelian abstraction misses the fact that any connection of the members of a series by their sharing a common element is governed "by some general *law of arrangement*". So that the rule that binds together the members of a given set is not itself an element of the series, but the law of its progression that remains unaltered throughout. This procedure is best captured by the concept of function. Thus, the function [F (a,b), F (b,c),... ,], where 'F' expresses the relation between the members of the set, say 'a' to 'z', is not an element of the series, it is the rule according to which the latter proceeds. Therefore, the concept is not deduced from the elements but presupposed in the act of ascribing them an order.[7]

In the classical method of abstraction, the universality of the concept resides in the presentation of the common properties of a certain group of objects. On the contrary, in the functional reading of

[4] Cassirer, Ernst, *Substance and Function. Einstein's Theory of Relativity* (first published in German 1910 and 1921, trans. by W.C. Swabey and M.C Swabey, Dover Publications 1953), p. 14.

[5] *Ibid*., p. 14.

[6] *Ibid*., p. 16.

[7] *Ibid*., p. 17.

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concepts, it is given by the universal validity of the principle that governs the progression of the series.[8] Here, opposed to what happens in the abstraction, the relation between the elements of a set is not something present in them awaiting to be discovered, but it is created by our intellectual activity which binds these elements by means of an inclusive law. The notion that lies at the basis of the former type of concept formation is that of substance. In it those abstracted properties common to a group of objects are considered to be what is universal and permanent. Instead of this notion, the mathematical concept of function represents a universal law that contains the particular cases it ranges over by virtue of the values its variables can take.[9]

1. *The Concepts of Number and Space*

Cassirer analyses the development of the concept of number that is central in the history of mathematics. As a relation-concept, the "logical determination" or meaning of any number is given by its place in a system of mathematical relations.[10] In this field, as in natural sciences, the relation (point of view or starting-point), that generates all the elements of a series is an "original assumption".[11] Thus, from the concept of natural number, through the continuous application of the fundamental connecting laws of cardinal and ordinal numbers, new types emerge as the negative, irrational and transfinite.[12] Mathematics, says Cassirer, is "a pure science of form" because all features of numbers can be deduced from the principles defining them. Hence, here "proof does not go beyond thought itself into another sphere".[13]

[8] *Ibid.*, p. 20.
[9] *Ibid.*, p. 21.
[10] *Ibid.*, pp. 24-25.
[11] *Ibid.*, p. 36.
[12] *Ibid.*, p. 67.
[13] *Ibid.*, p. 97.

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He goes on to analyze the geometrical concept of space, where a similar desubstantialization process has taken place. Geometry has come to conceive the order of points in space as that of numbers. First a manifold of points and a certain relation of position between them is postulated. This assumptions lead to a principle whose subsequent applications issue the whole universe of possible spatial relations. "In this connection, projective geometry has with justice been said to be the universal "*a-priori*" science of space, which is to be placed beside arithmetic in deductive rigor and purity".[14] Thus, it is possible to construe different geometrical systems by changing the fundamental axioms of the theory.[15]

The description of concept formation in pure mathematics that we outlined is most clearly expressed in David Hilbert's procedure for the exposition and deduction of geometrical axioms. In contrast to the Euclidian definitions that proceed from the fixed concepts of the point or the straight line, which they take naïvely as "immediate data of intuition", in Hilbert's method geometrical objects are defined by the axioms of the theory. In this way, the properties of the elements follow from these "rules of connection" and not the other way round, as in the method of abstraction. The point and the straight line are conceived as structures whose relations with others are determined by the principles of the theory. It is the systematic arrangement of the elements, not any set of their properties, that constitutes their essence. "In this sense, Hilbert's geometry has been correctly called a pure theory of relations".[16]

Cassirer points out that it might seem a circular reasoning to define axiomatically the content of geometrical concepts, since the formulation of the axioms is based on the assumption of certain notions. This apparent difficulty gets dissolved the moment we distinguish the psychological from the logical origin. In a psychological sense "we can only present the meaning of a certain relation to ourselves in connection with some given terms, that serve as its

[14] *Ibid*., p. 88.
[15] *Ibid*., p. 89.
[16] *Ibid*., pp. 93-94.

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'foundations'".[17] However, these terms, that spring from sensuous intuition, do not possess an absolute existence but a mutable one. They are hypothetical points of departure that can be further determined when they appear in various relational complexes. Thus, what it was a provisional content is transformed into a fixed logical object. The law of connection stands for what is permanent, while the elements (the "foundations" of the psychological representation), which at first sight seemed like the absolute origin, are what can be changed. This contentless rule constitutes the logical source of geometry. We have here a transcendental explanation of concept formation and not a *petitio principi*.

From the empiricist perspective, it looks like the contents grasped by intuition were "isolated self-contained" existences. This false impression soon falls apart. When these contents enter into judgements, they are transmuted into a net of related structures that support each other. Therefore, the individual element is a point in a system of concepts and judgements. In geometry and arithmetic, the manifold, not the particular, is "the real logical *prius*" or theoretical origin. In this sense, the final logical phase of any scientific investigation is the characterization of the individual elements. This is done through "the progressive connection of universal relations".[18] Modern science, says Cassirer, picks a plurality of elements and then group them together in a series in which they succeed each other following a rule. Next, the individual properties of bodies are determined by their position in the set.[19]

An important consequence of the former analysis is that geometrical and perceptual space are not the same. In our sensory experiences, spatial location is connected to particular sensations, so that different places correspond to opposed contents of sensation. Terms like "above", "below", "right" and "left", are qualitatively distinct since they are associated with diverse sets of sensations. These oppositions disappear when we enter geometrical space. Here spatial elements have, for themselves, no individual content given that

[17] *Ibid.*, p. 94.
[18] *Ibid*., p. 94.
[19] *Ibid*., p. 218.

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all their meaning comes from their position in the system. Thus, the homogeneity of spatial points eliminates all variations among them, like that between above and below, which has to do with the relation of external things to our bodies.[20]

The conclusion Cassirer draws from the explanation of the concepts of number and space is, in his words, that "the logical nature of the pure functional concept finds its clearest expression and most perfect example in the system of mathematics".[21] Mathematical objects have only an ideal existence and their properties stem from the law that governs the way they are constructed. In this field thought displays a free and universal activity.

2. *The Concepts of Natural Sciences*

A similar process occurs in the mathematical sciences of nature. In this context also, the old fixed properties that found the Aristotelian method of abstraction are supplanted by universal rules.[22] In order to understand this analogous procedure it is necessary to turn to the concept formation in mathematics.[23] The insight gained here is applied to natural sciences providing them with the form of their concepts.[24]

Theoretical physics is the field Cassirer first analyses. The value of its method resides in that the "initial experience" is successively transformed, so that instead of a mere passive reproduction we have an active process of construction that converts what is given into a whole of new logical objects.[25] The ideal concepts of natural science do not state the existence of absolute objects since they establish the "*logical lines of direction*" that guide the investigation of physical phenomena. It is true that these concepts have their ultimate origin

[20] *Ibid.*, p. 105.
[21] *Ibid.*, p. 112.
[22] *Ibid.*, p. 22.
[23] *Ibid.*, p. 94.
[24] *Ibid.*, p. 230, footnote 86.
[25] *Ibid.*, p. 122.

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in the factual realm. They are not created *ex nihilo*, but are based on perceptual experiences. However, they do not stay at this level and go "beyond the given", only to return to it to grasp more clearly its "systematic structural relations". In a critique to some ideas of the German mathematician Paul du Bois-Reymond, Cassirer affirms that it is a misunderstading to hold that only relative straight lines and relative exact planes exist. The very idea of grades of exactitude is obtained by comparison with an absolute standard that makes measurement possible.[26]

The outcome of the logic of concept formation in natural science is the rejection of any attempt to understand concepts as bundles of perceptions. In this way, scientific theories are immediately related to the absolute notions ("ideal limits") they construe, and only in an indirect fashion to the facts these notions intellectually replace.[27] Testimony of this is that:

> [...] we investigate the impact of bodies by regarding the masses, which affect each other, as perfectly elastic or inelastic; we establish the law of the propagation of pressure in fluids by grasping the concept of a condition of perfect fluidity; we investigate the relations between the pressure, temperature and volume of gas by proceeding from an "ideal" gas and comparing a hypothetically evolved model to the direct data of sensation.[28]

Cassirer cites approvingly the chemist and philosopher Wilhelm Ostwald, for whom such extrapolations are current currency in science and states that a large amount of the quantitative laws of nature manifest a relation between values valid in ideal situations that, in general, never obtain in reality.[29] The mathematical hypotheses of natural sciences fix an ideal connection between individual facts, creating thereby a unity from scratch not directly provided by sensation, that is to be tested theoretically.[30]

[26] *Ibid.*, p. 128.
[27] *Ibid*., pp. 129-130.
[28] *Ibid*., p. 130.
[29] *Ibid*., p. 130.
[30] *Ibid.*, p. 135.

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Kepler's work is paradigmatic of this detachment from the naïve empiricist view of scientific method and its concept formulation procedures. Kepler, says Cassirer, was not occupied with the absolute causes of mathematically conceptualized astronomical phenomena. He aimed at a quantitative grasp of planetary movements on the basis of the facts of perception. Thus, the search for the ultimate forces of reality is replaced by an effort to understand the order that reigns in the universe, which is to be gained from a collection of observations.[31]

The Concept of Atom

As that of mass and force, the notion of atom has undergone modifications losing its initial substantial character and acquiring that of a function. The atom has come to mean a logical postulate instead of a fixed physical object, a variable expression rather that something immutable.[32] So, the necessity of the atom follows from the method of physics, not from experience.[33]

The historical development of this concept is illustrative of the general scientific tendency to substitute functions for substances. Cassirer says that for sinergism the concept of material point, according to mechanics, does not arise from that of an extensionless body, but from the abstraction of any rotary movement to the notion of body. Thus, the simplicity of the point is a consequence of the simplicity of movement, a methodological device to get to the rotary motionless body. So, the atom is not a constituent part of matter, it is an intellectual subject of possible changes or relations. As it happens in other fields, in physics "we analyse complex movements into elementary processes, for which latter we then introduce the atoms as hypothetical substrata".[34] The main concern is to establish certain fundamental relations from which a variety of other processes can

[31] *Ibid*., p. 136.
[32] *Ibid*., p. 156.
[33] *Ibid*., p. 160.
[34] *Ibid*., p. 161.

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be deduced, not to separate the ultimate elements of things. In this way, in modern physics the atom loses its materiality and is dissolved into movements.

The history of the concept of atom continues and when it gets to the point where inertia can be obtained from the laws of electrodynamics, and consequently, is no longer conceived as an absolute property of bodies, the material atom breaks up and becomes a system of electrons. These new unities are again relative and changeable, however, in Cassirer's times they constituted the most comprehensive theory of physical phenomena. The conclusion from this process is the variability of the content of the atom and the permanence of its function, namely, the determination and expression of the conditions (unity) of knowledge. Therefore, the simplicity of the atom is a logical predicate of our scientific view of nature. It does not make reference to our sensory capacities or to the technical characteristics of our instruments of analysis.[35]

For its part, chemistry employs the notion of atom as a relational concept that serves as a "unitary center of a system of coordinates" to give order to the assertions about chemical properties, which are reciprocally related to each other through this notion.[36] It is a common procedure in science to condensate an array of empirical relations into a single term.[37] Cassirer holds that the atom can be characterized as a Kantian regulative idea that guides the understanding in the progressive grasp of nature.[38]

Something similar happens in the case of the concept of energy, that "is a unitary system of reference on which we base measurement".[39] This concept functions as an intellectual point of view to measure and systematically organize, despite their "sensuous diversity", the phenomena of motion, heat, magnetism and electricity.[40] In this way, energy has come to mean the capacity to bring about changes, which

[35] *Ibid.*, p. 162.
[36] *Ibid.*, p. 208.
[37] *Ibid.*, p. 210.
[38] *Ibid.*, pp. 210-211.
[39] *Ibid.*, p. 191.
[40] *Ibid.*, p. 192.

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is universally present in all bodies. So energy was, according to the state-of-the-art research of the beginnings of last century, the most fundamental feature of physical phenomena.[41] Consequently, the individual object for the physicist is "a system of physical constants". If we want to tell one thing from another it is necessary to give it a specific volume, mass, gravity, capacity for heat, electricity, etcetera.[42]

The last step of the desubstantialization process of natural science Cassirer analyses in the second part of his book, published in 1921, is the theory of relativity. I will not follow the complex exposition of this particular history. Yet, it is worth mentioning one of its main outcomes because it is illustrative of the functional understanding of concepts in science. This result is that different systems of geometry are possible because the spatial measurement relations depend on the gravitational force that varies according to the place.[43] In the theory of relativity, the complete desontologization of the problem of space has been achieved and is turned into a methodological question. This is not any longer what space is but how to use geometrical systems in interpreting nature.[44]

III. The model of science

What is the model of science that emerges from the former analysis of concept formation? Let's follow again Cassirer in this characterization. The first thing to be said is that all rational knowledge is arranged in "single self-contained series" where all transitions, from one point to the other, are mediated. This is so because any new member arises, following the steps prescribed by a rule, from previous elements. Any object of cognition is subject to this demand. So, there are no question, no matter how abstract, that cannot be dealt with by this progressive method.[45]

[41] *Ibid.*, p. 194.
[42] *Ibid.*, p. 148.
[43] *Ibid.*, p. 438.
[44] *Ibid.*, p. 439.
[45] *Ibid.*, p. 70.

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A problem is explained, says Cassirer, when we know all its angles. But then, in what circumstances a phenomenon can be said to be known in physics? The first intuitive naïve response is ruled out right away: knowledge is not sensory acquaintance with isolated facts. We know a physical process when its relations with other phenomena are fixed, without contradiction, within the general system of physics.[46]

The principle that rules the expansion of physical knowledge is that every phenomenon, introduced in the "universal serial connection" of physics, is mathematically formulated making use of constant numerical values. The resulting formulae are founded in certain logical presuppositions or hypotheses. They make possible the order of phenomena in terms of magnitudes and are the principles of all particular measurements. Similarly, in any scientific field, the corresponding basic hypotheses do not transcend the factual in search of a metaphysical foundation, but signal the way to go from sensations to the sphere of mathematical relations.[47]

In this way, the relation between scientific laws and facts is circular from a logical point of view. The former are built by measuring individual facts, and this is only possible because the form of the law is already assumed in the acts of measurement. Such anticipation does not involve a contradiction since it is not an assertion about states of affairs. On the contrary, it is the basic presupposition of scientific investigation. The correction of this assumption shows itself in that it unifies the whole of experience.[48] Therefore, concepts are always confirmed, not in isolation, but as members of a system, so that each one of them gets support from the others. The theoretical adequacy of any concept, says Cassirer, resides in the consequences and explanations that follow from it.

The corollary of all this is that facts and concepts are not separated like a model and its copy. The former result from the whole network of concepts, while these are conceived in relation to possi-

[46] *Ibid.*, p. 140.
[47] *Ibid.*, pp. 140-141.
[48] *Ibid.*, p. 146.

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ble experience.[49] Theories and facts are always intertwined, so that the material of perception is, in all cases, conceptually interpreted.[50] This also modifies the traditional view that sees the activity of description as the sole passive recording of the sensory impressions coming from phenomena. From now on, to describe something is also to transform it intellectually.[51]

Another way of expressing the relation between theory and its subject matter is to say that the particular can be deduced from the universal because the latter is somehow already present in the former.[52] There is not any unsurmountable gap between them since the aim of the universal is to explain the particular.[53] Thus, functional concepts and their individual variables refer necessarily to each other. The character of phenomena is progressively revealed as they enter in connection with an increasing number of other facts. On the other hand, functional concepts mark the procedure for adding new elements to the series.[54] Thus, the opposition between thought and intuition loses all metaphysical trace and becomes exclusively methodological.[55] An important consequence of this conception is that mathematical deduction and physical induction are not two independent methods, given that the form of the former is present in the latter.[56]

This model of science involves a mathematical conception of nature and reality. In short, when the values of the numerical constants, that are the mathematical expression of physical phenomena, are tucked in the general laws of science, they form a structural totality we call nature. To speak of something as real is to make an assertion of nomological relations.[57] Reality is "a necessary [lawlike] connec-

[49] *Ibid.*, pp. 146-147.
[50] *Ibid.*, p. 107.
[51] *Ibid.*, p. 264.
[52] *Ibid.*, p. 152.
[53] *Ibid.*, p. 224.
[54] *Ibid.*, p. 224.
[55] *Ibid.*, p. 229.
[56] *Ibid.*, p. 230, footnote 86.
[57] *Ibid.*, p. 257.

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tion of grounds and consequents".[58] The whole network of empirical knowledge is representable as a function F (A, B, C, D...), where each term can be, in itself, a complex system, so that A can be represented as f (a_1, a_2,... a_n), B as ß (a_1, a_2,... a_n), etcetera. We get here a system of overlapping syntheses in superordination and subordination relations. The most general relation F, which is a structure of "mutually dependent determinations", provides its place to each individual element.[59] So, cognition consists of multiple analysis and synthesis, where relational complexes break down in simpler connections and these are grouped together into higher order unities.[60]

In these paragraphs, the transcendental conception of knowledge of the Neo-Kantian movement, comes out very clearly. Cassirer affirms that the conceptual creations of science are conventions because the activity of thought is spontaneous, not receptive or imitative. This activity, however, is not totally free. On the one hand, it is connected with the system of perceptions which constitutes the material of knowledge, on the other, it does not proceed arbitrarily but according to the concept formation process that is the criterion of the objectivity of science.[61]

The progressive and never ending character of science is stressed by the ellusiveness of scientific truth. This escapes from our hands every time we think we have it, regardless of the constant demand for a definite scientific picture of the world. The metaphorical words Cassirer uses to express this terrible and ineludible fact are telling:

> [...] what we call science appears not as an approximation to any "abiding and permanent" reality, but only as a continually renewed illusion, as a phantasmagoria, in which each new picture displaces all the earlier ones, only itself to disappear and be annihilated by another.[62]

The function of knowledge is never completely fullfiled, so the permanent elements of experience are not, in any phase, fully achie-

[58] *Ibid*., pp. 164-165.
[59] *Ibid*., p. 267.
[60] *Ibid.*, p. 75-76.
[61] *Ibid*., p. 187.
[62] *Ibid.,* p. 266.

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ved. They remain the constant task that prescribes knowledge its direction: the determination of individual phenomena.[63] Every answer is a new point in a series that, in a given time, constitutes the relative nature of reality.[64] Thus, truth, in a philosophical sense, is a Kantian regulative ideal and not a metaphysical entity. Cassirer points out that the question about the truth of the total system of experience is senseless for it presupposes a standard beyond our reach. What is at our disposal is to establish the value of the different pieces of knowledge, which is always relatively permanent or transitory.[65]

IV. The legal norm as fuction

Cassirer argues that the core aim of the philosophical method is to grasp the systematic connection of the different objects of science as strictly as in mathematics.[66] But how do scientific disciplines pick their objects of study from the universe of phenomena? They do so by means of certain formal concepts. He adds that "[...] the content of each particular field of knowledge is determined by the characteristic form of judgement and question from which knowledge proceeds".[67] Thus, the material element of cognition is fixed by its formal component: the logical form of the questions and answers (laws) peculiar to each discipline. In this sense, the task of philosophy is to explain how the unity of each science obtains. This is done by showing the necessary and sufficient presuppositions for exposing the totality of its experience in systematic connection. These conditions, which constitute the general form of its laws, remain unaltered throughout the flux of our knowledge.[68]

As we saw, in the history of mathematics and natural science there has been a transition from a qualitative to a quantitative pers-

[63] *Ibid.,* p. 269.
[64] *Ibid.,* p. 232.
[65] *Ibid.,* p. 278.
[66] *Ibid.,* p. 71.
[67] *Ibid.,* p. 356.
[68] *Ibid.,* pp. 373-374.

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pective. In physics, for instance, the qualities of subjective experience are transformed into numerical functional expressions.[69] Is it possible to make this passage also in the case of the science of law? For the Neo-Kantians, this was precisely the task Kant had left unfinished. Hermann Cohen affirms that jurisprudence is the mathematics of social disciplines, since it provides them with the categories to select their objects. In consequence, the science of law would be mainly ideal or formal. As Cassirer holds, the position of a discipline in the system of knowledge depends on the weight of its universal and particular elements: the more universal the more formal cognition is, and the more particular the more empirical it becomes.[70]

My purpose, as I said at the outset, is to apply the concept of function to the legal norm. In this way, I think clarity can be gained as to the nature of one of the central notions of the science of law. Besides, as I shall try to show, this step in the process of desubstantialization of the pure theory brings to the fore a shortcoming of some positivistic accounts of law. Throughout the text the Kelsenian distinction between the legal norm and the legal proposition is always present, since the characterization of the former as a function is captured in the latter. In other words, the functional nature of the legal norm gets expressed in the formula "a *Soll* b", which from now on is better to be read, as I will argue, as a functional expression and not as the objective meaning of an act of will.

One of the first things to be noted is Kelsen's basic tenet that the general form of the legal norm belongs to the realm of the ideal and not to that of the real. The legal proposition "a *Soll* b" reveals the logical structure of norms and not a particular state of affairs, for example, the probability that judges apply a sanction "b" in case the ilicit "a" obtains. In a similar fashion as the notion of atom, in physics, has come to mean not a physical entity but a logical postulate that serves to express certain fundamental relations that are necessary conditions of knowledge,[71] the concept of norm can be said to be a function that asserts that two events are connected by an im-

[69] *Ibid.,* p. 449.
[70] *Ibid.,* p. 231.
[71] *Ibid.,* p. 156.

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putation nexus. Regardless of what type of events, or particular instantiations, are bound together as ilicits and sanctions, the general form of the relation remains unaltered. According to Cassirer, some concepts represent particular existences, while others express possible forms of relations.[72] My claim is that the notion of norm is of the latter kind.

In this sense, the *Sollen* or Ought, is the constant element in the legal norm, that is, the form of judgement by means of which the science of law determines and organizes its content in a systematic and meaningful whole. It expresses the normative formal function of law. On the other hand, the elements "a" and "b", that are joined together in the legal proposition, are the variables in the function F(a,b), where F stands for the Kelsenian *Sollen*. How does this conception fares against Kelsen's characterization of the legal norm as the objective meaning of an act of will?

In the opening pages of the *Pure Theory of Law*, Kelsen defines the norm as "the meaning of an act by which a certain behavior is commanded, permitted or authorized".[73] A little bit earlier he had pointed out that "by "norm" we mean that something *ought* to be or *ought* to happen, especially that a human being ought to behave in a specific way. This is the meaning of certain human acts directed toward the behavior of others".[74] Two elements can be distinguished in this formulation: the act of will and its meaning. The former is an is (a fact), while the latter is an ought (a norm), and they are not to be confused nor conflated. Kelsen adds to this picture a third component: the linguistic, behavioral or symbolic expression of the act. So, we end up with a tripartite theory that states that a norm is the meaning of an act of will somehow manifested. This definition contains three elements: the semantic, the psychological and the syntactic (behavioral or symbolic) one. Kelsen identifies the norm with the Ought or the objective meaning of the act of will,[75] differ-

[72] *Ibid.,* p. 165.

[73] Kelsen, Hans, *Pure Theory of Law* (first published in German 1960, trans. M. Knight, The Lawbook Exchange 2009), p. 5.

[74] *Ibid.,* p. 4.

[75] *Ibid.,* p. 5.

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ent from its subjective meaning. The *Sollen* is the logical form of the legal norm.

The expression "act of will" stresses that norms are not the product of a thinking process. The norm-issuer wills the person to whom the norm is directed to behave in a certain way. If this will did not exist there would not be any norm. However, the notion of a willful act is not fit to do the work Kelsen intended it to, since it falls short of explaining the creation of legal norms. The series of acts that produce a norm do take place in the factual world, but clearly they do not have to be voluntary. What really matters is that they be procedurally and materially produced in the way indicated by the superior norms that regulate its creation.

To speak of an act of will is an anthropomorphic way to state the thesis that any norm is the result of an exercise of legal empowerment, that there are no imperatives without imperator. Yet, the notion of a willful act introduces a psychological element to the explanation of the process of norm creation that takes us away from legal science into the realm of psychology. The series of acts that produce norms are determined, with respect to their material, personal, temporal and spatial validity, by the supraordinated dispositions that rule their creation. But the willful character of an act of norm production is not a legal feature and has no place within a pure description of law. As Kelsen puts it:

> It is called a "pure" theory of law, because it only describes the law and attempts to eliminate from the object of this description everything that is not strictly law: Its aim is to free the science of law from alien elements. This is the methodological basis of the theory.[76]

According to this *dictum*, given that everything that is law is determined as an objective Ought, any psychological element falls outside its reach.

The conception of the legal norm as a function rules out any anthropomorphic interpretation because it does not make reference to the conscious activity of human beings. The functional concept

[76] *Ibid.,* p. 1.

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of the legal norm as a logical form, a synthetic *a priori* rule or principle that binds together two conducts, that remains unaltered throughout the flux of variable human behavior that can be the content of norms, is also opposed to the introduction of any moral element into legal science. Thus, the *Sollen* (the category of imputation), is the expression of the progressive rule by means of which an authorized organ can attach a sanction to a certain conduct. In this process no moral value, judgement, ideal or obligation is involved. The Ought refers only to the form of judgement of the science of law.

This Neo-Kantian inspired conception of the legal norm is also at odds with some positivistic legal theories. The standard Kelsenian argument against these doctrines is that they violate the gap between what is the case and what should be the case. They commit the Humean natural fallacy when they try to derive and "ought" from an "is". With the functional understanding of norms another criticism of positivist type doctrines opens up. Any characterization of the law in terms, for example, of plans for actions seems to be based on the method of abstraction, which is, as we saw in the first section, not apt for the job.[77] On the contrary, according to the Neo-Kantian/Kelsenian conceptual framework, scientific concepts are built in a functional mode. It is due to the fact that we already possess certain axioms or regulative principles that we can construe the content of the science of law, which is no other than legal norms. Hence, the *Sollen* is the *a priori* logical form of all possible norms, of the totality of legal experience.

The influence of Cassirer on Kelsen is twofold. On the one hand, both assume a dual perspective regarding the nature of scientific investigation. For the former,

> [...] all knowledge contains a *static* and a *dynamic* motive, and only in their unification is its concept realized [...] There is no act of knowledge, which is not directed on some fixed content of relations as its real object

[77] In this way, Scott Shapiro holds that since the common element of all legal norms is to be a plan to solve coordination problems in order to achieve aims in moral contested contexts, norms are to be defined as plans or plan-like. See Shapiro, Scott J., *Legality* (The Belknap Press of Harvard University Press, 2011).

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[ideal limit]; while, on the other hand, this content can only be verified and comprehended in acts of knowledge.[78]

So, the tasks of epistemology are to determine the form of these relations and how they are established. The first one is ontological, since it is prompted by the question what is knowledge. The second one is transcendental/methodological, it is directed to respond how is knowledge possible, what are the *a priori* conditions of any particular act of cognition. Kelsen holds that law can be characterized from a nomoestatic and a nomodynamic perspective. The science of law aims at describing the nature of legal norms and how they are created. The central notion of the former point of view is that of *Sollen*, while the core concept of the latter is that of empowerment (*Ermächtigung*). In a similar passage to the quoted from Cassirer, Kelsen affirms that legal theory has as its only purpose "to know and to describe its object. The theory attempts to answer the question what and how the law *is*, not how it ought to be".[79] Nomoestatics has to do with the what-question, while nomodynamics deals with the how-question.

On the other hand, Kelsen employs Cassirer's explanation of the history of scientific concepts in terms of a transition from a substantial to a functional conception, in his criticism of some tendencies in the science of law to transform what is only a function into a thing or substance. This happens when the state is defined as a psychosocial reality or "collective will". This abbreviated formula expresses the coincident content of a plurality of individual wills, but it does not refer to an existent supraindividual will. In this way, what is a condition of a specific conduct of particular individuals becomes an autonomous entity, what is a function is transfigured, by means of a hypostasis, into a substance which assumes the role of the real subject of the conduct.[80] A similar process takes place when the state, as a normative coercive order of human behavior, is considered to be the

[78] Cassirer, *op. cit.*, pp. 315 and 316.

[79] Kelsen, *Pure Theory*, p. 1.

[80] Kelsen, Hans, *Teoría general del estado* (first published in German 1925, trans. L.L. Lacambra, Editora Nacional, 1965), p. 12.

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individuals that coexist under this regulation instead of the order itself. Here again the attention is displaced from the ideal sphere of the order to the empirical realm of the individuals whose conducts constitute the content of the law. In other words, what is referred substitutes the reference, what is related is put in place of the relation. In sum, the function is abandoned for the substance.[81]

V. Conclusions

The Neo-Kantian movement sought to apply the method of the transcendental deduction to the cultural sciences (*Kulturwissenschaften*). The *oeuvre* of Hermann Cohen is the best sample of this impetus. Kelsen himself saw his own theoretical edifice as the transcendental deduction of the *a priori* categories of the science of law. The pure theory of law is insufflated with the the same intention of desubstantialization and elimination of ontological dualisms as the Kantian and the Neo-Kantian philosophy, especially that of the Marburg school.

I argued that Kelsen's structure of the legal norm can be formulated in terms of a Cassirerian functional concept without losing explicative power. On the contrary, I think this interpretation fits better with the idea that the *Sollen* is the methodological form peculiar to legal science,[82] than the characterization of the legal norm as the objective meaning of an act of will.

I also established the influence that the Neo-Kantian description of the history of scientific concepts as a transition from a substantial to a functional conception, and the doctrine of the static/dynamic perspective on scientific knowledge, had on the pure theory and how they served to criticize, for example, the tendency in legal science to turn into substances what are only functions.

[81] *Ibid.,* p. 123.

[82] Stanley Paulson traces back the notion of methodological form to the work of the Baden Neo-Kantian Heinrich Rickert. See Paulson, Stanley L., "A Justified Normativity Thesis in Hans Kelsen's Pure Theory of Law? Rejoinders to Robert Alexy and Joseph Raz" in Klatt, Matthias (ed.), *Institutionalized Reason: The Jurisprudence of Robert Alexy* (OUP, 2012), p. 109.

DOI: http://dx.doi.org/10.22201/iij.24487937e.2018.12.12449

VI. References

Cassirer E., *Substance and Function. Einstein's Theory of Relativity* (first published in German 1910 and 1921, trans. by W.C. Swabey and M.C Swabey, Dover Publications, 1953).

Cohen H., *Logik der reinen Erkenntnis* (Bruno Cassirer Verlag, 1922).

García Berger, M., *La teoría kelseniana de la normatividad. Orígenes y actualidad* (Fontamara, 2014).

Kelsen, H., *Der Soziologische und der Juristische Staatsbegriff. Kritische Untersuchung des Verhältnisses von Staat* (Scientia Verlag Aalen, 1962) 211-218.

Kelsen, H., *Teoría general del estado* (first published in German 1925, trans. L.L. Lacambra, Editora Nacional, 1965).

Kelsen, H., *Pure Theory of Law* (first published in German 1960, trans. M. Knight, The Lawbook Exchange, 2009).

Paulson, S. L., "Dos programas radicales de 'objetivización'. La influencia de Kant y los neokantianos en Hans Kelsen" in Castañeda, Felipe, Vicente Durán and Luis E. Hoyos (eds.), *Immanuel Kant: vigencia de la filosofía crítica* (Siglo del Hombre Editores) 243-277.

Paulson, S. L., "A Justified Normativity Thesis in Hans Kelsen's Pure Theory of Law? Rejoinders to Robert Alexy and Joseph Raz", in Klatt, Matthias (ed.), *Institutionalized Reason: The Jurisprudence of Robert Alexy* (OUP, 2012).

Shapiro, S. J., *Legality* (The Belknap Press of Harvard University Press, 2011).