

Articoli/3

«Machine à contingence»: Bergson's Theory of Freedom in *L'évolution du problème de la liberté*

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L'évolution du problème de la liberté is a course in the history of philosophy. While the historical expositions are fascinating, what makes the course important is the fact that these lectures try to translate the feeling of freedom into a theory. In fact, by studying these lectures, one sees that Bergson defines freedom in four ways. Overall, the essay constructs the logic that organizes these four definitions. It reconstructs Bergson's theory of freedom in *L'évolution du problème de la liberté*. Bergson's theory of freedom is first of all subjective; freedom is the feeling that we are the author of our own actions. The feeling is validated by the fact that consciousness was not made extinct by evolution. Once validated, then certain arguments have to be defeated: the argument for the excluded middle; this is the Megarian School argument. Then, the argument, exemplified by Kant, that the entire universe is subject to mathematical, mechanical necessity has to be defeated. In conjunction with this belief, the belief that the sciences are unified must be defeated. Finally, we must assert freedom as creation. In addition to Kant's idea of universal, mathematical necessity, Kant saw something true in freedom: he saw that when we decide to act, we produce an action, which is unforeseeable.

In *L'évolution du problème de la liberté*, Bergson states that the problem of freedom consists in the relation of action to knowledge. Action is always based on individual and personal choice, which is creative, while knowledge always seeks mechanical necessity, which is mathematically determined¹. In other words, the problem of freedom is the problem of a contradiction between freedom and necessity, where freedom would seem to invalidate necessity and where necessity

¹ H. Bergson, *L'évolution du problème de la liberté*, Paris 2017. Hereafter cited with the abbreviation EPL. I consulted the following books while composing this essay: C. Baka, Okpobé, *Élan vital et mystique dans la pensée d'Henri Bergson*, Strasbourg 2016; N. Yala Kisukidi, *Bergson ou l'humanité créatrice*, Paris 2013; M. Cariou, *L'atomisme. Gassendi, Leibniz, Bergson et Lucrece*, Paris 1978; Ead., *Bergson et le fait mystique*, Paris 1976; K. Ansell Pearson, *Philosophy and the Adventure of the Virtual: Bergson and the Time of Life*, London 2002; F. Worms, *Introduction à Matière et mémoire de Bergson*, Paris 1997; C. Riquier, *Archéologie de Bergson. Temps et métaphysique*, Paris 2009.

would leave no room for freedom. As Bergson says, «il s'agit d'expliquer comment il est possible que par un certain côté l'homme obéisse aux lois de la nature et que par un autre côté il s'en distingue»². In other words, «La question est de savoir, si dans ce mécanisme [...] se placer la liberté. Toute la question est là»³. The answer, for Bergson, consists in finding a way to reconcile freedom with necessity; it consists in finding a place within mechanism for freedom. Bergson wants freedom and mechanism to coexist⁴. In order to reach this solution of reconciliation, compatibility, or coexistence, it is necessary to attenuate necessity, by showing that necessity is not absolute – there is contingency in nature or matter. At the same time, one must attenuate freedom, by showing that freedom is not absolute – freedom takes the contingency in nature as its support. Thus, in *L'évolution*, Bergson defines freedom as «la liberté telle qu'elle existe chez l'homme [...] est une contingence doublée de raison, de réflexion»⁵.

L'évolution du problème de la liberté is a course in the history of philosophy. While the historical expositions are fascinating – Bergson says repeatedly that such and such a philosopher did not actually write this, but the idea is in the background of what he wrote – what makes the course important is the fact that these lectures try to translate the feeling of freedom into a theory. The lectures attempt this translation, even though, as Bergson says in *Les données immédiates*, the feeling of freedom is «undefinable»⁶. In fact, by studying these lectures, one sees that Bergson defines freedom in four ways. First, «ma liberté [est] précisément le concours de ces éléments [l'inclination, la décision], tous nécessaires»⁷. Second, there is the definition we just saw: «la liberté telle qu'elle existe chez l'homme [...] est une contingence doublée de raison, de réflexion»⁸. Third, «on entend par 'liberté' la création de certaines actions absolument imprévisibles, d'action qui ajoutent quelque chose aux conditions où elles sont données»⁹. And, fourth, «l'essentiel de notre liberté [est ce qui] se traduit à un moment par un acte donnée, et à tous les moments en somme par des actes données»¹⁰.

Overall, the essay which follows, constructs the logic that organizes these four definitions. It reconstructs Bergson's theory of freedom in *L'évolution du problème de la liberté*. Bergson's theory of freedom is first of all subjective; freedom is the feeling that we are the author of our own actions. This feeling or consciousness guides the rest of Bergson's theory¹¹. The feeling is validated by the

² EPL, p. 183.

³ Ivi, p. 303.

⁴ Ivi, p. 229.

⁵ Ivi, p. 118.

⁶ H. Bergson, *Essai sur les données immédiates de la conscience*, in Id., *Œuvres*, Édition du Centenaire, Paris 1959, p. 144 (also p. 132-133).

⁷ EPL, p. 159.

⁸ Ivi, p. 118.

⁹ Ivi, p. 109.

¹⁰ Ivi, p. 337.

¹¹ For a complete description of this feeling, see H. Bergson, *Histoire de l'idée de temps. Cours au Collège de France 1902-1903*, Paris 2016, p. 238.

fact that consciousness was not made extinct by evolution. Once validated, then certain arguments have to be defeated: the argument for the excluded middle; this is the Megarian School argument. Then, the argument, exemplified by Kant, that the entire universe is subject to mathematical, mechanical necessity has to be defeated. In conjunction with this belief, the belief that the sciences are unified must be defeated. Finally, we must assert freedom as creation. In addition to Kant's idea of universal, mathematical necessity, Kant saw something true in freedom: he saw that when we decide to act, we produce an action, which is unforeseeable.

In order to reconstruct this logic, the essay proceeds in three steps. First, we shall examine the theories of necessity that Bergson gathers from the history of philosophy. In particular, we shall examine, as we just mentioned, the Megarian School argument for absolute necessity. The Megarian argument, Bergson says, is the sole one against freedom. Second, we shall examine Bergson's presentation and criticism of Kant's theory of freedom. As Bergson says, we must start with Kant, since Kant extracts both the quintessence of knowledge and the quintessence of action. The third step will assemble all of Bergson's arguments for contingency in nature. Importantly, Bergson limits the law of the conservation of energy. To conclude, we shall examine Bergson's theory of freedom itself. Of course, life plays a large role in Bergson's theory of freedom. As we shall see, Bergson theorizes that, because of life, freedom is "une machine à contingence" (a contingency machine), hence the title of this essay. Like the steam engine, the contingency machine works on force¹². It needs a trigger to open the force. The trigger for freedom in Bergson is an existential crisis. At the very end, we shall make one more point about *L'évolution du problème de la liberté*, which will underline the course's importance.

1. Mathematical, Mechanical Necessity

The belief in absolute, rigorous, and universal necessity starts with the ancients, in fact, with the Megarian School. Bergson says that «Il n'y a pas d'autre argument que celui-là [l'argument de l'École de Mégare] contre la liberté»¹³. This is the argument of the excluded middle. These philosophers argue that, given two contrary propositions relative to the future, one of them is necessary¹⁴. In other words, if we take two propositions about the future, where one asserts and the other denies the assertion, one of the two propositions is true. For instance, and this is Bergson's example, the propositions would be: I am going for a walk at 4 o'clock tomorrow and I am not going for a walk at 4 o'clock tomorrow. For

¹² Bergson speaks of the steam engine both in *L'évolution créatrice* and *Les deux sources*: H. Bergson, *L'évolution créatrice*, in Id., *Œuvres*, Édition du Centenaire, Paris 1959, pp. 651-652; H. Bergson, *Les deux sources de la morale et de la religion*, in Id., *Œuvres*, Édition du Centenaire, Paris 1959, p. 1235.

¹³ EPL, p. 104.

¹⁴ Ivi, p. 101.

the Megarians, one of the two propositions about taking a walk is necessarily true. I might not know right now which proposition is true, but one of the two propositions is true right now. If I go for a walk at 4 o'clock tomorrow, then this proposition is the true one. If I do not go for a walk tomorrow, then the other proposition is the true one. «De toute manière», as Bergson says, «l'une des deux propositions aura été vrai»¹⁵. The conclusion is that the future is determined from the moment of uttering the two propositions. The model for this argument clearly comes from mathematics. This sort of proposition – $2+2=4$ or $10 \times 100=1000$ – «est vrai de toute éternité»¹⁶. While Chryssipus will provide a «subtle response» to the Megarians' argument, he provides the definition of necessity we find in the Megarian School: «ce qui exclut en effet la croyance au libre arbitre, c'est ce qui est vrai de toute éternité, par exemple: $2+3=5$ [...]. Ce qui s'exprime par une proposition éternellement vrai est nécessaire»¹⁷. Its negation is necessarily false.

The primary modern example, for Bergson, of absolute, rigorous, and universal necessity – a necessity based on an eternally true proposition – is Spinoza¹⁸. In Spinoza, unlike in Descartes, thought and extension are expressions of God, since God is infinite and eternal¹⁹. Bergson compares the expressive relation to geometry²⁰. The idea of a circle can be expressed in two ways. First, it can be expressed by a figure, the drawing of a circle on the blackboard. But then also, this same circumference can be expressed by an algebraic equation. The drawn circle and the equation «disent exactement la même chose». Bergson concludes, «Posez l'idée du cercle et nécessairement vous posez le cercle-figure et le cercle-équation»²¹. Thus, as Bergson says in *L'évolution créatrice*, «tout est donné»²².

Spinoza writes of course within the development of modern science. In the modern period, this logical, mathematical necessity expands, according to Bergson, without restriction to include all of nature and life. Unlike the ancients, according to Bergson, who thought knowledge consists in knowledge of forms, the moderns believe that knowledge is knowledge of relations²³. In fact, that modern science is a science of relation is one of the «leitmotifs», as Bergson says, of the entire course on the evolution of freedom²⁴. Thus, instead of ancient science, which concerns genera and species, modern science concerns laws. A law, as Bergson defines it, is a stable relation between objects or phenomena

¹⁵ Ivi, p. 102.

¹⁶ Ivi, p. 107.

¹⁷ Ivi, p. 157.

¹⁸ Cfr. H. Bergson, *Essai sur les données immédiates*, cit., p. 136.

¹⁹ EPL, p. 252. Bergson's reading of Spinozistic expressionism is the exact opposite of Deleuze's reading. See G. Deleuze, *Spinoza and the le problème de l'expression*, Paris 1968, pp. 153-169.

²⁰ EPL, p. 253.

²¹ *Ibid.*

²² H. Bergson, *L'évolution créatrice*, cit., p. 526. See also EPL, p. 365.

²³ EPL, p. 329.

²⁴ *Ibid.*

within time and space or a constant relation among variables. Again, unlike the ancients who had to transport themselves to a supersensible region in order to elevate themselves to the eternal, the moderns discover in the sensible world stable and eternal relations, which are the very skeleton of phenomena²⁵. Being determined by laws, nature becomes an immense machine²⁶. Thus, we have mechanical necessity, which states that the material universe consists in a system of material points, which act and react on each other so that these reciprocal actions and reactions are the exclusive consequence of the respective positions of these points in relation to one another²⁷.

Here, Bergson has in mind the law of gravity. However, the primary law of nature that Bergson considers is the law of the conservation of energy, which results, for example, in thermodynamic laws²⁸. The law says that, when a change happens somewhere, it is necessary that another change happen somewhere else, which complements the first change²⁹. In other words, the law says that there is a fixed quantity of energy in the universe, which passes through a multitude of states while remaining the same quantity³⁰. (The limited quantity of natural energy explains why humans are not gods although Bergson thinks that we should strive to become gods. We shall return to this point at the very end). In any case, if we admit the law of the conservation of energy, then the entire universe becomes calculable. Therefore, here, as in *Les données immédiates*, Bergson says that a superhuman intelligence, having an infinite mathematical ability, and one which knows the situation, the speed and the direction of all the particles in the material universe, would be able to foresee and predict everything that would happen³¹. The law of the conservation of energy leaves no place for contingency. With universal, mathematical, mechanical necessity, there is no room for freedom.

2. The Quintessence of Knowledge and the Quintessence of Action: Kant

Through modern science, as we just saw, the necessary causal chains of nature becomes excessive and radical. Similarly, Bergson argues, the concept of freedom in the modern age becomes excessive and radical³². This modern, dual radicality brings us to the Kantian solution to the problem of freedom. In fact, Bergson says that «il n'est possible de ne pas partir» with the Kantian solution to the problem of freedom. If the problem of freedom is the relation of knowledge

²⁵ Ivi, p. 246.

²⁶ Ivi, p. 231.

²⁷ Ivi, p. 163.

²⁸ H. Bergson, *L'évolution créatrice*, cit., pp. 700-701.

²⁹ EPL, p. 153.

³⁰ Ivi, p. 232.

³¹ Cfr. H. Bergson, *Essai sur les données immédiates*, cit., p. 121.

³² EPL, p. 311.

and action, Bergson states that Kant has extracted both the «quintessence» of knowledge and the «quintessence» of action³³. Bergson first turns to knowledge or science in Kant. As Bergson says, «Kant a formulé l'hypothèse de la nécessité impliquée dans son mécanisme universel avec la plus grande rigueur, avec le plus haute précision»³⁴.

The starting point of *The Critique of Pure Reason*, according to Bergson, is the failure of other modern philosophers (for example, Spinoza and Leibniz) to explain the success of modern science, to explain why mechanism works. Where earlier modern philosophers had appealed to something outside of nature, God, to explain why mechanism works, Kant places the principle of nature within nature. Kant's «grande invention» – and this makes his solution to the problem of why modern science is successful «très neuve, très profonde»³⁵ – is that there is a «trait d'union» between physics and mathematics³⁶. Physics is a domain carved out of mathematics. Kant shows that mathematical judgments are synthetic a priori judgments just as judgments of nature are synthetic a priori judgments. Reasoning about numbers, magnitudes, and figures results in conclusions about objects because mathematics for Kant are determinations in space and time³⁷. Then, as is well known, Kant makes the forms of space and time determinations of our sensibility: «l'espace et le temps n'existent qu'en nous et pour nous, certains conceptions nécessaires de notre faculté de percevoir»³⁸. Everything that is knowable for us must pass through «ce prisme», «un filtre», or «un verre coloré», of space and time. Consequently, our mathematical knowledge is applicable to things perceived. Turning from the transcendental aesthetic to the transcendental logic, Bergson states that the categories of the understanding unify and systematize the material determined by the forms of space and time in our sensibility³⁹. By means of the category of causality, the understanding links phenomena to phenomena, objects to objects, resulting in «une unité absolument cohérente et systématique de la nature»⁴⁰. Through this unity, science is able to have an unshakeable confidence in itself⁴¹. This unity is the quintessence of knowledge.

When Bergson turns to the question of action in Kant, he seems to have in mind the third antinomy of *The Critique of Pure Reason*. Bergson's descriptions, however, seem to be more appropriate to Fichte⁴². In any case, Bergson claims that Kant does not assert human freedom, but he allows for its possibility.

³³ Ivi, p. 329.

³⁴ Ivi, p. 323.

³⁵ Ivi, p. 321.

³⁶ Ivi, p. 317.

³⁷ In a parenthesis, Bergson contests Kant's equation of space with time (*ibid.*).

³⁸ Ivi, p. 318.

³⁹ Ivi, p. 319.

⁴⁰ *Ibid.*

⁴¹ Ivi, p. 320.

⁴² At this point in his career, Bergson seems to be concerned only with *The Critique of Pure Reason*. However, by the time of *Les deux sources*, he seems more concerned with *The Critique of Practical Reason* (Id., *Les deux sources de la morale et de la religion*, cit., p. 1048). However, in the

Freedom is possible because of the difference between the phenomenal world and the noumenal thing-in-itself. Freedom would be possible, according to Bergson, because freedom could lie behind the phenomena of nature. Given Kant's explanation of science, all of what appears to us is determined necessarily or mathematically. If I consider one of my actions, it takes place in space and time. Therefore, my action is explained by the event that preceded it, and that event was determined by the one that preceded it, and so on. However, as Bergson presents Kant's conception, if I consider all of my actions, from the beginning to the end, it is possible that my actions were sent out into the phenomenal world «en bloc»⁴³. While the phenomenal world is causally determined, this freedom would be a different kind of causality. Freedom would be a causality *sui generis*, which «consiste à créer purement et simplement [...] tel qu'on est»⁴⁴. Since it precedes the forms of time and space, this act of *self-creation* would be an in-temporal act⁴⁵. While, as we shall see in a moment, Bergson objects to Kant's theory of freedom, he also says that «la conscience nous dit qu'il y a quelque chose de vrai dans cette conception de la liberté»⁴⁶. Kant's conception of freedom has some truth to it because it corresponds to the feeling of freedom. Truly, the quintessence of action is creation⁴⁷. In fact, Bergson defines freedom as «la création de certaines actions absolument imprévisibles, d'action qui ajoutent quelque chose aux conditions où elles sont données»⁴⁸.

Bergson has two principal objections to Kant's conception of freedom. «La grosse difficulté», «la difficulté interne, insurmountable» is: how can freedom so understood come to be inserted into the mechanism of nature without breaking nature's unity⁴⁹? As we just saw, for Bergson, Kant's concept of freedom is an in-temporal act by means of which the intelligible self (not the empirical self) posits itself or creates itself. This act then projects into time a series of actions or conducts, which are new facts introduced into the determinate and necessary connections of nature. These facts therefore have to find a place within the natural order. The act would have to find a gap in the connections or a place not occupied by necessary connections⁵⁰. However, since nature, for Kant, forms an absolute unified and consistent system, there is no empty place. Consequently, as Bergson says, «cette liberté est illusoire»⁵¹. In other words, individual or personal freedom, the freedom of a Peter or a Paul, of someone who exists in nature, is not possible in Kant. Only an impersonal or general freedom is possible, the

1893-1894 course on morality, Bergson already mentions the example of the deposit. See H. Bergson, *Leçons d'esthétique. Leçons de morale, psychologie et métaphysique*, Paris 1992, p. 109.

⁴³ EPL, p. 324.

⁴⁴ *Ibid.*; p. 334.

⁴⁵ *Ivi*, pp. 325, 336. Bergson suggests that Kant's idea of freedom derives from that of Plato, in the myth of Ur, where souls choose the life they will live on earth (*ivi* pp. 324, 85-86).

⁴⁶ *Ivi*, p. 336.

⁴⁷ *Ivi*, p. 118.

⁴⁸ *Ivi*, p. 109.

⁴⁹ *Ivi*, pp. 326, 334, 325.

⁵⁰ *Ivi*, pp. 326, 334.

⁵¹ *Ivi*, p. 334.

freedom of human consciousness in general, or: «il n'y a plus des libertés, il y a une liberté, c'est la liberté de l'être»⁵². Bergson's objection means that there must be contingency *within* nature.

Bergson's second objection to Kant's conception of freedom is that Kant gives "trop beaucoup" to freedom and "trop peu" to freedom⁵³. Kant, according to Bergson, grants *too much* to freedom insofar as he thinks that we absolutely and entirely create ourselves. This claim is too much since we sense that there are obstacles to our actions and that the nature of our character does not come from ourselves. We must take account of psychological flaws and hereditary, moral flaws. In short, we are not the complete authors of our character, as Kant's conception of freedom implies. Kant grants *too little* to freedom insofar as he thinks that, once we chose our character in this in-temporal choice, once we have chosen, as it were, a formula for our lives, everything, every action seems to be given within this formula. However, as Bergson says, «si notre liberté est réelle, il faut qu'il y ait à certains moments au moins de notre existence des possibilités absolues de choisir, des points de bifurcation où nous avons le choix entre deux or plusieurs aiguillages différents et cela indépendamment de quoi ce soit donné»⁵⁴. In other words, to a large degree, we are subjected to our character, but there are certain moments when we can absolutely overturn our character. As Bergson concludes, «l'essentiel de notre liberté [est ce qui] se traduit à un moment par un acte donné, et à tous les moments en somme par des actes données»⁵⁵.

3. Contingency in Nature

Only if there is contingency in nature are we able to have these possibilities of choice, which translate themselves at a given moment into action. Bergson asks, how is contingency introduced into nature without suppressing natural or mechanical necessity? In order to answer this question, Bergson must defeat the one sole argument against freedom. As we saw, the Megarians argued that, if we take two propositions about the future, where one asserts and the other denies the assertion, one of the two propositions is necessarily true. The conclusion is that there is no contingency. The heart of the matter, for Bergson, is that the Megarians conceive truth on the basis of truths that seem to be eternal, like $2+3=5$. Yet the question is: how do we define truth? According to Bergson, a true assertion is one that conforms to what exists, to reality⁵⁶. Two propositions, one about the present, the other about the past are true because they correspond to

⁵² Ivi, p. 335.

⁵³ Ivi, pp. 336-337.

⁵⁴ *Ibid.*

⁵⁵ Ivi, p. 337. In the 1902-1903 course on time, Bergson says that «le problème de la liberté [...] a toujours été, en somme, le problème du déroulement du temps» (H. Bergson, *Histoire de l'idée de temps*, cit., p. 237).

⁵⁶ EPL, p. 105.

what is. In particular, reminiscent of *Matière et mémoire*, Bergson claims that the past is what most exists since it is irrevocable and indestructible⁵⁷. Thus when I ask whether an assertion I make about the future, like “tomorrow, I will take a walk,” is true or false, this question «n’a pas de sens, parce que c’est demander si cette proposition est conforme ou contraire à ce qui existe et que demain n’existe pas encore, n’existe maintenant»⁵⁸. Therefore, a proposition relative to the future is neither true nor false, since truth and falsehood mean conformity to what is, and the future does not yet exist. The proposition about the future, however, will become true or false when the future happens. This future conformity, for Bergson, is the source of the illusion of necessity concerning propositions about the future. I transport myself in thought forward to the moment when the proposition will be true or false, and then I conclude that the proposition is true or false today and from all eternity. Bergson calls the Megarians’ logic «sophism»⁵⁹.

As we anticipated, Chryssipus, for Bergson, responds to the Megarians’ argument in «une manière extrêmement subtile»⁶⁰. Bergson stresses that to believe in freedom is to believe that more than one action is possible. For Chryssipus, the possible is that which is produced when there is no impediment to it being produced⁶¹. Bergson interprets this definition by means of vision: the possible is what would have been able to be produced, if we *see* no impediment to it being produced. In other words, we see that other actions were able to be produced because nothing blocked them from being produced. Therefore, even if my action is absolutely determinate, I see that other actions were possible. My action is produced in such a way that another action was possible. This possibility of another action is precisely contingency. Now, it is possible that someone would say, as Bergson pursues Chryssipus’ argument, that this vision of other possible actions is only an appearance. You are only imagining or believing in contingency. From the moment, your action was produced, the challenge to contingency would go, another action was not able to be produced⁶². The other imagined action would be conceived as a contradiction of what you actually did. Bergson reconstructs Chryssipus’ response to the Megarian sophism in this way. We have already seen Chryssipus’ definition of necessity; there are absolute necessities, like $2+3=5$. However, when we speak of our actions, we do not undergo this sort of necessity. The contrary of the action we did does not result in a contradiction or an absurdity. As the Stoics would say, all of what I do today was determined by destiny, that is, by the “sympathy” of all the parts of the

⁵⁷ *Ibid.* Cfr. H. Bergson, *Matière et mémoire*, in Id., *Œuvres*, Édition du Centenaire, Paris 1959, p. 284.

⁵⁸ EPL, p. 105.

⁵⁹ *Ivi*, p. 106.

⁶⁰ *Ivi*, p. 157.

⁶¹ *Ibid.* Bergson discusses this idea of the possible in the first introduction to *La pensée et le mouvant*: H. Bergson, *La pensée et le mouvant*, in Id., *Œuvres*, Édition du Centenaire, Paris 1959, p. 1264.

⁶² EPL, p. 157.

universe with themselves. Nevertheless, if what I do today were not done, then the entire world, from the beginning to the end, would be different – *but not negated or destroyed*. Other possible actions are not excluded necessarily.

Here, Bergson adds in Leibniz's doctrine of contingency, which, he says, is «tout à fait original»⁶³. In fact, Bergson thinks that Leibniz adopts the subtle reasoning of Chryssipus. Like the Megarians, and Chryssipus, Leibniz defines necessity as that of which the contrary implies a contradiction⁶⁴. Thus, the contrary of the sum of a triangle's three angles making two right angles is absurd; the contrary is an impossibility. However, if I say that Cesar crossed the Rubicon, the contrary proposition – Cesar did not cross the Rubicon – is not contradictory. The contrary is possible, or, as Leibniz would say, it is «compossible»⁶⁵. Consequently, «franchir le Rubicon, est une action contingente, une action qui n'est pas nécessaire, encore qu'elle soit déterminée et certaine»⁶⁶. This is indeed subtle reasoning. All it shows is that, even if I am determined (by destiny or fate) to behave in a certain way, other possible behaviors were possible since the other possible actions do not form a contradiction with the one I actually do. I can think or form a non-contradictory idea of possible actions. If contingency lies in the fact that other possible actions are conceivable, then the one I am destined to do is contingent.

Bergson presents one more argument from Chryssipus and Leibniz. It too is subtle. For Bergson, to believe in freedom is also to believe that we are the authors of our actions⁶⁷. To be the author of our actions «is to feel» (*c'est sentir*) that our actions emerge naturally from the sensible and intellectual states in which we find ourselves⁶⁸. In other words, to be the author of our actions is to sense that the actions emerge from the inclinations that we find ourselves with and from the decision that we make. Thus even though the inclination is determined and the decision is determined (by destiny or fate), and even though the action that emerges from them naturally is determined, I am still the author of my actions – in a word, I am free – because the action emerges from the elements that constitutes my will, that is, inclination and decision. We call actions voluntary, as Bergson says, when they «semblent conformes à nos volontés [...], émanant de nous, les actions conformes à notre assentiment»⁶⁹. Bergson presents the same argument making use of Stoic terminology. There are «things destined» and «other things destined with» them, «fatalia et confatalia». Let us suppose that an action has been entirely determined by destiny; here, I do not feel myself to be free. However, as Bergson stresses, the action is not the only

⁶³ Ivi, p. 290.

⁶⁴ *Ibid.*

⁶⁵ Bergson thinks that Chryssipus anticipates Leibniz's reasoning (see *ivi*, pp. 157-158). He also thinks that Chrysippus anticipates Leibniz criticism of "the lazy sophism" in the *Theodicy* (see *ivi*, pp. 159-160).

⁶⁶ Ivi, p. 291.

⁶⁷ Ivi, p. 159.

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

thing determined; my inclination and my decision (my judgment or assent) are also determined. The inclination and the decision are connected to the fated action by *confatalia*. Then I feel free, since «ma liberté [est] précisément le concours de ces éléments, tous nécessaires»⁷⁰. Notice that Bergson here provides another definition of freedom: freedom is the «competition», «cooperation», or «participation» (*concours*) of all the elements, which are themselves determined by prior causes.

As we saw with Kant, the problem of freedom becomes more radical when science conceives nature or the universe as a unified and mathematical system. Modern science sees the entire universe in terms of a great mathematics, which turns the mechanism of nature into a machine in which everything works perfectly and in which there is no «play» (*jeu*) between the gears⁷¹. Deviating from Kant, and the entire modern tradition, Bergson questions whether the universal and unified conception of science is definitive⁷². In fact, for Bergson, the whole question of freedom lies in this question. He answers: «Je ne le crois pas par la raison très simple que depuis Kant ce n'est pas dans cette direction que la science paraît s'être orientée»⁷³. Instead of going in the direction of greater and greater unity, in the 19th century, science, according to Bergson, starts to fragment. With the 19th century, new sciences develop such as history, social science, psychology, and biology⁷⁴. All of these sciences are based on the practical hypothesis of freedom. And in fact, even if the scientists say that eventually we shall discover a mechanism for these areas, they proceed in these sciences as if biology, psychology, social science, and history are independent of the physico-chemical sciences and from this universal algebra.

Bergson's argument against the law of the conservation of energy also challenges this mathematical view of the universe⁷⁵. We recall that the law says that, when a change is produced somewhere, another change happens elsewhere which complements the first. Bergson's argument has two parts. First, he argues that what is in question in science is *never a thing* that conserves itself under the diversity of its manifestations⁷⁶. What is conserved is not a thing but a certain number which remains constant – a sum or total -- between the actual energy of the system and the different forms the energy takes. Like all numbers, this number is a measurement, which implies that we obtain it in large part by means of convention. Bergson concedes that this convention might be grounded

⁷⁰ *Ibid.*, my emphasis.

⁷¹ Ivi, p. 297.

⁷² Ivi, p. 343.

⁷³ *Ibid.*

⁷⁴ *Ibid.*

⁷⁵ These arguments are re-presented in a brief form in H. Bergson, *L'évolution créatrice*, cit., pp. 700-701.

⁷⁶ EPL, pp. 232-233 (here p. 232). Bergson argues that there is not some «je ne sais quoi force fluide» under the manifestation. This comment seems to contradict what he says elsewhere in the course when he speaks of two kinds of force, natural and spiritual (ivi, pp. 205-206). I think the two kinds of forces or energies is important for explaining the finitude of the élan vital in *L'évolution créatrice*. See the Conclusion.

in nature. Nevertheless, he argues that it is still not a thing that is conserved; it is a number. Moreover, to assert the conservation of a thing is no longer to do science but to do metaphysics. Second, Bergson argues that scientists only ever apply the law of the conservation of energy to closed systems, like those studied in chemistry and physics⁷⁷. The data drawn from these systems implies that the law of the conservation of energy is restrained and limited. However, to pass from these closed systems to the entire universe – *and to life* – in other words, to generalize the law to the whole living universe is only a hypothesis. Just as the assertion of a constant thing undergoing changes is no longer physics but metaphysics, the generalization of the law of the conservation is no longer a scientific law but an *a priori* structuring the certain but very restricted results given in experiments⁷⁸.

There are historical precedents for Bergson's argument against the law of the conservation of energy. Both Epicurus and Descartes claim that there is contingency in nature, and yet, the contingency does not break with mechanical necessity⁷⁹. In order to see the novelty of the Epicureans, we must start with the Stoics. For the Stoics, according to Bergson, the universe is generated from «un seul sens, une seule signification», the *logos*. (The Stoics anticipate the idea of expressionism in Spinoza). The universe, then, is a discourse, which unfolds, and which arrives at an endpoint⁸⁰. For the Stoics, the one sole meaning of the whole («du tout») is absolutely determined and given in advance, and it therefore determines each part of the discourse: each sentence, each word, and in each word the syllables, the letters, and the accents⁸¹. For Bergson, necessity in the Epicureans is the reverse of that found in the Stoics. While for the Stoics necessity descends from the whole to the elements, for the Epicureans, necessity goes up from the elements to the whole. Here there is no one meaning or signification of the whole. Instead of a unified meaning descending down to the letters of the words, there are only letters of the alphabet. The letters are thrown throughout space and they encounter each other by means of chance or accidentally. While we might then read the meaning off the chance encounters, the meaning is not necessary; only the elements are necessary⁸². The letters of the alphabet are really atoms. And, the chance encounters are what Epicurus calls the «clinamen» (*paranklinein, déclinaison*). The atoms are able «to swerve» right or left, or up and down. For Epicurus, even if the movement of the atoms is determined by a law or destiny, «il peut [...] à un certain moment, oblique, executer un mouvement transversal [...] il peut dévier très légèrement de la ligne

⁷⁷ Ivi, p. 153.

⁷⁸ Ivi, p. 235. Bergson makes a similar argument in *Matière et mémoire*, cit., pp. 336-337.

⁷⁹ EPL, p. 169.

⁸⁰ Ivi, p. 151.

⁸¹ Ivi, p. 165.

⁸² *Ibid.*

qu'il a à suivre»⁸³. This deviation in the path of the atoms suggests that there is something like a caprice of the atoms⁸⁴.

According to Bergson, Descartes has a similar theory of necessity and contingency. Bergson notes that, in *The Principles of Philosophy* (paragraph 36, Part II), Descartes argues that nature always has the same quantity of movement. Here Descartes anticipates the law of the conservation of energy⁸⁵. Like the law of the conservation of energy, Descartes's law of the conservation of movement is that, if there is more movement in one point, there will be less in another point⁸⁶. If we maintain the law of the conservation of movement rigorously, then everything would be calculable. However, Bergson stresses that Descartes does not draw the conclusion of universal necessity. Later, in *The Principles of Philosophy* (paragraph 41, Part II), he argues that there is a difference between the movement of a thing and its determination toward one side rather than another. The direction of the movement is contingent. The direction is based on a choice; it is based on the will, on reason and reflection. Thus we have the definition of freedom with which we started in the Introduction: «la liberté telle qu'elle existe chez l'homme...est une contingence doublée de raison, de réflexion»⁸⁷.

4. Conclusion: "Machine à Contingence"

In this third section on contingency in nature, we have identified four definitions of freedom. Here they are. First, «ma liberté [est] précisément le concours de ces éléments, tous nécessaires»⁸⁸. Second, there is the definition we just saw: «la liberté telle qu'elle existe chez l'homme [...] est une contingence doublée de raison, de réflexion»⁸⁹. Third, «on entend par 'liberté' la création de certaines actions absolument imprévisibles, d'action qui ajoutent quelque chose aux conditions où elles sont données»⁹⁰. And, fourth, «l'essentiel de notre liberté [est ce qui] se traduit à un moment par un acte donné, et à tous les moments en somme par des actes donnés»⁹¹. There is, I think, a kind of logic to these definitions. Constructing the logic will provide us with Bergson's theory of freedom.

The first definition of freedom, «le concours», indicates that Bergson's theory of freedom is subjective. Perhaps, the definition must be subjective so that necessity and mechanism do not absorb freedom. For Bergson, freedom is a

⁸³ Ivi, p. 167.

⁸⁴ H. Bergson, *L'évolution créatrice*, cit., p. 508. Here Bergson speaks of the «caprice» of the direction of tendencies in life.

⁸⁵ EPL, pp. 234-235.

⁸⁶ Ivi, p. 234.

⁸⁷ Ivi, p. 118.

⁸⁸ Ivi, p. 159.

⁸⁹ Ivi, p. 118.

⁹⁰ Ivi, p. 109.

⁹¹ Ivi, p. 337.

feeling. As he says, freedom is given «dans le *sentiment* que nous avons de notre action s'accomplissant, *sentiment* simple, indécomposé, indécomposable»⁹². As a given feeling, freedom, for Bergson, is equivalent to consciousness. Throughout *L'évolution du problème de la liberté*, Bergson appeals to «le témoignage de la conscience»⁹³. Bergson makes one powerful argument to support him taking seriously the testimony of consciousness. It is an evolutionary argument. If all the actions of living beings were automatic and determined by the conditions in which they happen, then a long time ago «conscience aurait disparu de ce monde comme tout ce qui est inutile»⁹⁴. Since consciousness among living beings has not disappeared, it must have some utility. Consciousness is useful since it is the seat of decision-making. It is the seat of the will⁹⁵.

The second definition is less subjective. The crucial, foundational truth, for Bergson, is that there is something intermediary between necessity and impossibility. In other words, there is contingency in nature. Bergson's argument in support of the claim that contingency exists in nature has two parts. On the one hand, there is Bergson's counter-argument against the sole argument against freedom, the argument of the Megarian School. This ancient argument – the excluded middle argument – is the sole argument because it presupposes that truth is defined on the basis of eternal truths, logical or mathematical truths, the denial of which truths results in a contradiction. As we saw, Bergson's argument against the Megarian School argument depends on conceiving truth temporally (not eternally) so that assertions about future action are neither true nor false. The assertions *become* true when the action happens. Freedom, as Bergson says, is «certainement non pas illogique, mais extralogique»⁹⁶. However, Bergson also relies on the arguments from Chryssipus and Leibniz. We can assume, as the Stoics did, that all of what I do today was determined by destiny, in other words, all of what I do today was pre-determined to happen. Nevertheless, if what I do today were not done, then the entire world, from the beginning to the end, would be different – *but not negated or destroyed*. Other possible actions are not excluded necessarily. Similarly, we have Leibniz' idea of compossibility. The conclusion based on Bergson's counter-argument to the Megarics logic, on Chryssipus' definition of the possible, and on Leibniz's idea of compossibility is clear: there is something *intermediary* between necessity and impossibility. As Bergson says, «Croire à liberté, croire au libre arbitre, croire à contingence, c'est imaginer qu'il y a quelque chose intermédiaire entre la nécessité et l'impossibilité»⁹⁷. Or as he says in the second definition of freedom: «la liberté telle qu'elle existe chez l'homme [...] est une contingence doublée de raison, de réflexion»⁹⁸.

⁹² Ivi, p. 68 (my emphasis); see also p. 116.

⁹³ Ivi, pp. 116, 337.

⁹⁴ Ivi, p. 116.

⁹⁵ This argument anticipates the essay, *La conscience et la vie*, in H. Bergson, *L'Énergie spirituelle*, cit., pp. 817-823.

⁹⁶ EPL, p. 101.

⁹⁷ Ivi, p. 255.

⁹⁸ Ivi, p. 118.

The second part of Bergson's argument in support of the claim that contingency exists in nature concerns modern science. As we saw in the discussion of Kant, the quintessence of knowledge is the hyphen between mathematics and knowledge. Modern science sees the entire universe in terms of a great mathematics which unifies and systematizes natural phenomena. As we saw, Bergson argues that the development of new sciences in the nineteenth century indicates a fracturing of the unity of the sciences. Unlike the physical sciences, these sciences, especially biology, are based on the practical hypothesis of freedom. We also saw that Bergson tries to limit one of the principal scientific laws, the law of the conservation of energy. Bergson argues that what is question in science is never a thing that conserves itself under the diversity of its manifestations. What is conserved is a not a thing but a certain number which remains constant. In fact, to assert the conservation of a thing is no longer to do science but to do metaphysics. Moreover, Bergson argues that scientists only ever apply the law of the conservation of energy to closed systems, like those studied in chemistry and physics. To pass from these closed systems to the entire universe posits an a priori, which experiments have not yet verified.

Here, Bergson takes up the historical arguments of Epicurus and Descartes. While the amount of energy or movement is a finite quantity, the swerves the atoms take and the directions the movements take are contingent. But, most importantly, Bergson provides an image for their arguments. This is the image of the bridge⁹⁹. If we count the number of people who travel everyday over the same bridge, we discover that everyday there is roughly the same number. Yet, as Bergson stresses, no one of these particular people was obliged to go over the bridge so that there is something accidental or contingent about the crossing. Each person has been able to go over the bridge «par simple caprice». In addition, all the whimsical trips – or «swerves», to use Epicurus' word – over the bridge compensate for the whims of all of those who did not travel over the bridge. We have here an average or a regularity. In other words, we have a statistical law, which express regularities under which there are irregularities. Bergson concludes, «Les lois de nature seraient quelque chose de ce genre»¹⁰⁰. This conclusion is more than an image. Bergson concludes that, resembling statistical laws, the laws of nature allow for irregularities. Our freedom, as Bergson says, takes advantage of the irregularities, and thereby passes through the meshes of necessity¹⁰¹.

For Bergson, the irregularities of nature occur wherever there is life. The "thesis" of *L'évolution du problème de la liberté* is that we do not find contingency in all of nature or in the entire universe; we find contingency only in living nature: «Là où commence la vie, là aussi, croyons-nous, commence le champ de la contingence»¹⁰². It is through life that Bergson avoids the internal difficulty with saw with Kant. Freedom is inserted into nature through living beings. Life is the

⁹⁹ Ivi, p. 169.

¹⁰⁰ *Ibid.*

¹⁰¹ Ivi, p. 237.

¹⁰² Ivi, pp. 114, 109.

intermediary between necessity and impossibility. Bergson asks us to imagine a world in which there would be no living beings; imagine the material world as strictly material¹⁰³. In this world, there would be no contingency; everything would be subject to absolute necessity and ineluctable physical laws¹⁰⁴. Nothing new would happen in this world without life.

However, for Bergson, matter «suppose une force, une cause, une volonté, si vous voulez, une volonté qui s'introduit dans cette manière, un je ne sais quoi»¹⁰⁵. This is an obscure, but important, comment about the presupposition of matter. Perhaps echoing what we saw about Kant's conception of freedom, Bergson seems to mean that material events require a first cause. Unlike Kant's eternal freedom, Bergson's first cause is temporal; it is life, or as Bergson says in *L'évolution créatrice*, «l'élan vital»¹⁰⁶. Life introduces this “je ne sais quoi,” which wants to obtain, from matter, actions, which introduce into the world something absolutely new. Bergson of course refers to his usual example of the production of a work of art¹⁰⁷. But, he also speaks of the absolutely new as the production of a machine. This force wants to construct machines, «machines à contingence»¹⁰⁸. A living being is a «contingency machine». If we think of a living being, clearly processes like digestion are strictly determined by its conditions. However, according to Bergson, and here he follows what he showed in *Matière et mémoire*, in living beings with a nervous system and especially with a brain, there is self-consciousness, which allows for choice and therefore contingency¹⁰⁹. Within a living being therefore there is mechanism but also contingency. This idea of a contingency machine is, for Bergson, is the exact reverse of modern mechanism¹¹⁰. This machine creates the unforeseeable; it produces anti-mechanical or extra-mechanical actions.

Bergson seems to locate the contingency machine in the brain¹¹¹. While this discussion is not clear, his description seems to be based on the distinction between natural energy and moral or spiritual force, “l'énergie spirituelle” of Bergson's 1919 book¹¹². In cerebral phenomena, according to Bergson, there are points where energy accumulates; he seems to mean natural energy – or «une puissance matérielle»¹¹³ – like brain chemistry, whose reactions are necessary. These potential, natural energies form a system. These potential energies in the brain then, according to Bergson, wait for a signal or trigger to become actual. When the trigger is pressed, the release of the natural energy is like an explosion.

¹⁰³ Ivi, p. 114.

¹⁰⁴ Ivi, pp. 109, 114.

¹⁰⁵ Ivi, p. 110.

¹⁰⁶ H. Bergson, *L'évolution créatrice*, cit., pp. 571-578.

¹⁰⁷ EPL, pp. 118-119; H. Bergson, *La pensée et le mouvant*, cit., p. 1342.

¹⁰⁸ EPL, pp. 110, 115.

¹⁰⁹ H. Bergson, *Matière et mémoire*, cit., pp. 315-316.

¹¹⁰ EPL, p. 68.

¹¹¹ Ivi, pp. 238-239, 205-206.

¹¹² H. Bergson, *L'Énergie spirituelle*, cit., p. 825.

¹¹³ EPL, p. 205.

The force of the pressure on the trigger can be very small in relation to the potential force of the explosion. For Bergson, freedom or the human will is something like a power for unleashing energy¹¹⁴. Like the difference between the small amount of force for the trigger and the large force of the explosion – Bergson says that him speaking of an explosion is only a metaphor¹¹⁵ – the spiritual energy of the will can start out small and then increase itself. This augmentation means that, while a natural force's quality and magnitude are given, the quality and magnitude of moral force are not given¹¹⁶. In other words, the natural energy on this planet or in this body is finite, while spiritual energy is infinite. But strictly, Bergson says, «il n'y a pas de peu, ni de beaucoup»¹¹⁷. The increase of spiritual energy lies in intensity. Its intensity is unlimited. In contrast to natural forces, whose intensity is not determined by the direction the force takes, the intensity of moral force comes from its direction. If the will adopts a direction by chance or by accident, its force is neutralized. In contrast, if the will decides for one definite direction, then the force of the will, for Bergson, «se multipliera indéfiniment»¹¹⁸. This multiplication of spiritual energy seems to be, for Bergson, the source of creativity.

But, keeping in mind the idea of a contingency machine, we see that the mechanical side is the natural energy stored up and released, while the contingency lies in the direction the spiritual energy takes (following Epicurus and Descartes). The fourth definition of freedom explains the contingency of the direction. The fourth definition of freedom states that «l'essentiel de notre liberté [est ce qui] se traduit à un moment par un acte donnée, et à tous les moments en somme par des actes données»¹¹⁹. What is important in this definition is the phrase «à un moment». In *L'évolution du problème de la liberté*, freedom, for Bergson, is the choice among different paths. However, he qualifies this comment by saying that «je ne dis pas que ce choix soit continuellement, constamment propose à notre action»¹²⁰. Instead, «peut-être la liberté est-elle localisée surtout à certains moments de la durée et en certaines crises de notre existence»¹²¹. This crisis, for Bergson, is «le problème posé à l'action»¹²². This problem might be one that requires an invention¹²³. But more likely, Bergson has in mind the problem which causes one to change one's character, something like what Bergson calls, in *Les deux sources*, «résistance à résistance»¹²⁴. It is the experience of willfully resisting the closedness of one's own society that gives «spiritual energy» the

¹¹⁴ Ivi, p. 238.

¹¹⁵ *Ibid.*

¹¹⁶ Ivi, pp. 205-206.

¹¹⁷ Ivi, p. 206.

¹¹⁸ *Ibid.*

¹¹⁹ Ivi, p. 337 (my emphasis).

¹²⁰ Ivi, p. 335.

¹²¹ *Ibid.*

¹²² *Ibid.*

¹²³ On invention in Bergson, see my forthcoming, *Intelligence and Invention: The Three Aspects of Virtuality in Bergson*, in A. Lefebvre (ed. by), *Interpreting Bergson*, Cambridge 2018.

¹²⁴ H. Bergson, *Les deux sources*, cit., p. 991.

direction of the openness to all humanity. The problem is how to open a closed society, and no one can predict how that problem will be solved.

We can summarize the steps by which Bergson develops his theory of freedom in *L'évolution du problème de la liberté*. First, we must show that the feeling of freedom is valid so that it can serve as the orientation for the theory of freedom. Second, the Megarian reasoning must be defeated: actions that are compossible do not contradict one another. Third, the modern, scientific idea that nature is unified must be defeated. The law of the conservation of energy is limited to closed systems, while the universe is an open system. In addition, since the 19th century, sciences have restricted their domains, recognizing that there is no one, unified, mathematical nature. (Scientists would probably contest this claim today.) Fourth, we must recognize the role of life in the material world; life introduces contingency, and novelty, something unforeseeable, into nature. As Bergson's third definition of freedom says, «on entend par 'liberté' la création de certaines actions absolument imprévisibles, d'action qui ajoutent quelque chose aux conditions où elles sont données»¹²⁵.

We need to make one more point which will underline the importance of *L'évolution du problème de la liberté*. In *L'évolution créatrice*, Bergson says that «tout paraît que cette force [la force immanente à la vie] est finie, et qu'elle s'épuise assez vite en se manifestant»¹²⁶. Nowhere in *L'évolution créatrice* does Bergson explain this finitude of force or energy. However, in *L'évolution du problème de la liberté*, as we just saw, Bergson distinguishes between two kinds of force, natural and spiritual. Because life is introduced into nature or into the material world, it undergoes natural force. Natural force, for Bergson, is finite. Natural force or energy is subject to the law of the conservation of energy. However, within the universe, and recall that Bergson limits the law of the conservation of energy, there is also life and its spiritual energy. Spiritual energy is infinite. While the human will in Bergson might be divine, as in Descartes, we are not gods. We are not gods because we are determined by the limited natural energy found on our resistant planet. Because we are not gods, we humans have to make the decision, as Bergson commands us, whether we want «vivre seulement, ou fournir en outre l'effort nécessaire pour que s'accomplisse, jusque sur notre planète réfractaire, la fonction essentielle de l'univers, qui est une machine à faire des dieux»¹²⁷.

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¹²⁵ EPL, p. 109.

¹²⁶ H. Bergson, *L'évolution créatrice*, cit., p. 616 (also p. 710).

¹²⁷ H. Bergson, *Les deux sources*, cit., p. 1245.