

Cinema as Dialectic

From *Marxism and Film* - Zabel

Cinema is an art of motion. It distinguishes itself from still photography through the creation of an illusion of motion by means of the transition from one image to another. For a long time, film theorists thought the illusion was the result of the “persistence of vision,” and even now it is not uncommon to find this idea in introductory texts on film. According to the theory, each image projected on the movie screen is supposed to linger on the viewer’s retina long enough to overlap with the succeeding image, thereby creating a hybrid image that is the vehicle of the illusion of motion. As early as 1912, however, the founder of Gestalt psychology, Max Wertheimer, demonstrated the fallacy involved in this theory. The retina does not record images in a way analogous to photographic film. Instead, it transmits messages, by way of the optic nerve, to interior structures of the brain, where the messages are processed.¹ There is no visual image at all until the processing takes place. Even now, the causes of the illusion of motion are not well understood, but that is a problem for neuroscience, not for Marxism. Whatever its causes, the illusion of motion is itself something real, and it is what distinguishes the art of cinema from the other plastic arts. It is also what makes Marx’s theory of dialectic relevant to film, since dialectic is first and foremost a theory of motion, transition, and other forms of change. Sergei Eisenstein was the first filmmaker to recognize this in his writings on dialectical montage. We are going to discuss those writings in relation to Eisenstein’s films in the second chapter of this book. But in order to understand dialectical montage, it is first necessary to understand dialectic.

Like most philosophical concepts in circulation in the West, dialectic originated in ancient Greece. It first appeared in Socratic circles, where it referred to the practice of philosophical disputation. As such, dialectic involves two parties to a theoretical dispute. The first party states his position and develops an argument in its support, and the second party produces a critique of that argument, designed to show that it involves some hidden contradiction that refutes the original position. Two of the basic concepts involved in later versions of dialectic are present in this, its initial appearance – those of negation and contradiction. The second party to the dispute negates the position of his opponent by demonstrating the contradiction internal to it. It is apparent, then, that the Socratic version of dialectic lacks the aspect of positive development that would later become central to its Hegelian and Marxist versions. This is because Socrates was interested only in refutation. He had no affirmative doctrine to teach, but claimed only the superiority that came from recognition of his own ignorance. His dialectic is purely negative in that its purpose is to deflate the pretensions of those social authorities (generals, legal scholars, religious experts, Sophists, and so on) who claimed to have positive insight into the nature of the Good.

Ancient dialectic had a parallel development in the Eleatic school, most famously in Zeno’s paradoxes of motion. The founder of the school, Parmenides, had announced the radical thesis that the world is false as it appears to the senses because it involves the illusion of change. Since only being is and nonbeing cannot be, there is no vacant space into which anything could move, no distinction of parts – in which this part *is not* that one – that would allow them to be rearranged, and no possibility that anything could cease to exist. Change is impossible, since its idea involves the inadmissible

presupposition that nonbeing actually exists. Zeno's purpose in his paradoxes is to defend his master's, Parmenides' thesis by demonstrating another contradiction involved in the assertion that motion is real. The contradiction consists in the fact that, for motion to be possible, it would be necessary to traverse an infinite series of spatial points in a finite time. The runner, Achilles, for example, must reach midpoint after midpoint in the journey toward his goal. However far he has traveled, there is always another midpoint to reach between his current location and his destination, and so it is impossible to reach the goal. Like the Socratic dialectic of argumentation, the Eleatic dialectic of motion ends in a negation without content. There is no positive result, but merely the refutation of an initial position, in this case, the position that motion is something real.

Plato was the first philosopher to give dialectic a productive and cumulative twist. In the *Republic*, he says that philosophical knowledge must reverse the procedure of mathematics, which begins by assuming the truth of some "hypothesis" (or, as we would now say, some postulate), and then proceeds to reach conclusions deductively. By contrast, the role of dialectic is to mount from hypothesis to superior hypothesis, from deductive postulate to the conditions of its truth, until the philosopher finally arrives at the form of the Good, which is the source of all Truth and Being (Plato 1991, Book VII 533c and d). But the conception of a positive dialectic in the *Republic* competes with the dialectical exercises in Plato's later dialogue, the *Parmenides*. Placed by Plato into the mouth of Parmenides, these exercises have no positive result, but simply show the contradictory implications that follow from the proposition that "the One is," as well as the proposition that "the One is not." With the exception of a sequel in Neoplatonism based on the positive dialectic described in the *Republic*, this inconsistency is where ancient dialectic ends.

When Kant revived dialectic in the eighteenth century in his *Critique of Pure Reason*, it was with the nugatory results of ancient dialectic in mind. The purpose of the book's chapter on "Transcendental Dialectic" is to establish that the theses of metaphysics are incapable of demonstration. Kant shows that each of two contrary metaphysical theses – say that the world had a beginning in time, and that it had no beginning in time – can be validly proved. But since it is not possible for both to be true, this involves us in a contradiction. Kant's approach here is similar to Plato's in the *Parmenides*, though his purpose is the anti-Platonic one of demonstrating that metaphysical assertions cannot be forms of knowledge. No thesis about reality as it is in itself, apart from the conditions of possible experience, can survive the acid of dialectical dissolution.

Hegel was the first philosopher since Plato to claim a positive role for dialectic, and this claim was far more consistently and fully developed than that of Plato himself. First of all, Hegel rejected the idea that contradiction is a form of refutation. In his view, what Zeno actually demonstrated with his paradoxes of motion is not that motion is unreal because it is contradictory, but conversely, that contradiction is real in the form of motion (Hegel 1976, 440). In terms of the paradox of Achilles, for example, it is not the case that the runner fails to reach his destination because he keeps on reaching points midway between the destination and the place he is at. The simple fact is that Achilles *does* reach his destination. But this must mean that motion *is* Zeno's contradiction as something objectively real, or, differently stated, that the contradiction is expressed in the motion through which Achilles finally reaches his goal. For Hegel, far from being empty,

contradiction is “the root of all movement and vitality” (Hegel 1976, 439).

The step taken by Hegel is a momentous one because it seems to put him at odds with the most fundamental law of logic, that of non-contradiction. Logicians have demonstrated that, from the conjunction of two contradictory statements, the truth of every possible statement follows. Not just the discourse of the philosopher, but any discourse at all, becomes meaninglessly inconsistent once we admit contradiction. This would seem to put Hegel in a bind. Either he must give up the dialectical principle of real, existing contradiction, which lies at the center of his philosophy, or he must accept that the principle turns his philosophy into hopeless nonsense.

This point has been a topic of debate ever since Hegel’s dialectic first appeared publicly in mature form in his *Phenomenology of Spirit* of 1807. One thing seems clear. Hegelian contradiction cannot be identical with logical contradiction as conceptualized in the traditional logic of statements. If it truly is “the root of all movement and vitality,” and not the annihilation of all meaningful discourse, then contradiction as Hegel thinks of it must have some other meaning. But what?

One way to approach this problem is to think of contradiction in relation to time. We might reason in the following way. If time were not real, then contradictory states would exist simultaneously, all of them concentrated into the punctual moment of an eternal Now. The oven would be hot and it would not be hot, it would be raining in southern California and it would not be raining in southern California, and so forth. In other words, the law of non-contradiction would be violated. But, since time is real, these contradictory states are assigned to different moments, different temporal “locations.” Traditional logicians would say that this need for differential assignment signifies that the law of non-contradiction holds. Hegel, on the other hand, would say that the existence of change over the course of time means that contradiction is real; in other words, that it is in order to resolve the contradiction that the differential assignment of states occurs, and the process of change transpires.

Unfortunately, this strategy will not work. If we return to the paradox of Achilles, and focus on a given moment in the course of the runner’s journey, we can see that Achilles must both occupy a specific location at that moment, and also be beyond that location. If he were simply *in* the location, then he would never be able to move from it, and if he were simply *beyond* the location, then he would never occupy any position in space at all. Achilles is able to move only because he both occupies a given location *and* is already beyond it at every moment in the course of his run. Thus we cannot avoid the coexistence of contradictory properties by assigning them to different moments in time, because the contradiction is reproduced in any moment we choose.

The dialectical solution is simply to bite the bullet and accept the fact that contradictions are real, in the sense that the conflicting poles of the contradiction exist at one and the same time. They are implied by one another, or, as Engels will later say, they “interpenetrate.” But this very acceptance gets us out of our difficulty. The contradiction is in the world, rather than in our talk about the world (Bhaskar 1991, 110). There is nothing self-nullifying about the description of an actually existing contradiction. Our language can remain free of the formal contradictions traditional logic warns us against, and consistently describe the real contradictions of a world that is always in transition. There is no conflict between the logician’s law of non-contradiction, and the Hegelian principle of contradiction. They apply to different orders: one to the order of discourse,

and the other to the order of reality. For Hegel, reality is a dynamic process and can only be comprehended as such. Hegel's dialectic is not primarily a logic of statements, but a logic of things, or, better yet, a logic of processes. Its primary field of application is not what people say, but how reality changes.

Hegel's second dialectical principle is his unique contribution to philosophy, the principle of the negation of the negation. We have seen that all earlier forms of dialectic involve negation, whether of an original discursive thesis, a dialectical postulate, or "hypothesis," or the presupposition that motion is real. But Hegel's principle of the negation of the negation goes beyond this. He reasons that, if the negation of an initial state produces a positive result, then the negation of that negation produces a positive result of a higher order. Hegelian dialectic is not only positive, it is cumulative and progressive.

We have been thinking only in the most general terms, but the devil is in the details – the Mephistophelean devil of Goethe's *Faust* who says of himself, by way of introduction, "I am the spirit who negates." Hegel's brilliance as a philosopher lies not so much in his general dialectical principles as in the detailed and subtle way he applies them in accounting for transitions between different states.ⁱⁱ To take the initial transition of his philosophical system, the *Science of Logic* begins with the concept of Being, which appears at first to be the richest of all concepts, since anything and everything has Being (Hegel 1976, 82–156). But when we examine the concept more closely, we see that what appeared to be the richest of ideas is in fact the most vacuous. When we say that something has Being, we have said Nothing about it at all, Nothing that lends the thing we are speaking about a definite nature. So we are referred from the concept of Being to the concept of Nothing as its true meaning. We have arrived at our first negation, and our first internal contradiction. Being and Nothing are the same. But now we shift our focus from the concepts themselves to the process of *transition* from the first to the second. Being has become Nothing. But the idea of Becoming is new. Thus the negation of Being as Nothing does not end in vacuity; it produces a new content. In Becoming, the opposition between Being and Nothing is superseded (*aufgehoben*) in the technical sense that it is preserved in its transcendence. The concept of Becoming includes suspended within itself the opposition between Being and Nothing that gave it birth, and without which it would have no meaning.

In the second transition of the *Science of Logic*, we encounter our first example of a negation of the negation. The concept of Becoming, on Hegel's account, involves the idea of something that becomes something. Water becomes ice, the acorn becomes an oak, and so forth. The outcome of Becoming is always some definite thing. The concept of Becoming thus gives way to the concept of Determinate Being (*Dasein*). If Becoming is a result of the negation of Being, and Determinate Being a result of the negation of indeterminate Becoming, then Determinate Being is a result of the negation of the negation. The negation of the negation does not return us to our starting point, as though we had put two minus signs in front of a number. It produces a new content that is the cumulative result of the negations of each concept that preceded it. In the *Science of Logic*, we proceed in this fashion from concept to concept by way of negation and the negation of the negation, until we finally arrive at the Absolute Idea that includes all earlier concepts as "moments," or aspects, of its own self-expression.

Marx is a critic of Hegel's dialectic, but he does not reject the concepts of internal

contradiction, negation, the preservation of negated content in superseded form, or the idea of dialectic as a cumulative process. The problem with Hegel's dialectic, from Marx's point of view, is its idealist character. The problem is most apparent in the transition Hegel makes from the *Science of Logic* to the second division in his *Encyclopedia of Philosophical Sciences*, the *Philosophy of Nature*. As we have seen, the *Science of Logic* culminates in the Absolute Idea. But how does the Absolute Idea make the transition from logical abstraction to the Idea's first concrete illustration in the manifold phenomena of Nature?

Hegel gives his answer to this question at the end of the *Science of Logic*. The "transition" from the Absolute Idea to Nature is no transition at all, since every transition in logic only arrives at yet another logical determination:

The passage is therefore to be understood here rather in this manner, that the Idea *freely releases* itself in its absolute self-assurance and inner poise. By reason of this freedom, the form of its determinateness is also absolutely free – the externality of space and time existing absolutely on its own account without the moment of subjectivity. (Hegel 1976, 843)

The emergence of Nature is the result of an act of freedom on the part of the Absolute Idea. Feuerbach had already criticized Hegel's account of this passage as nothing more than a philosopher's version of the Christian doctrine that God creates the world *ex nihilo* through his own free decision. In the *Manuscripts* of 1844, Marx endorses Feuerbach's view that Hegel's philosophy is "religion rendered into thought" (Marx 1976, 172). But he also sees in Hegel the beginnings of a dialectic liberated from theology, which is to say, from any reference to a Being that transcends humanity and nature.

Marx claims that Hegel made real advances in the *Phenomenology of Spirit*, the introduction to his philosophical system, by adopting the standpoint of modern political economy:

He grasps *labor* as the *essence* of man... Labor is man's *coming-to-be for himself* within *alienation*, or as *alienated* man (Marx 1976, 177).

The problem, however, is that Hegel understands labor only as "abstract mental labor," i.e. as the labor of the person who thinks. From this point of view, nature is necessarily misunderstood as a product of thinking, or, in Hegel's language, as a self-externalization of the Absolute Idea. For Marx, Hegel's *Phenomenology* is a genuine advance in that it grasps "the dialectic of negativity as a moving and generating principle" (Marx 1976, 177). But in identifying labor with purely mental activity, Hegel fails to understand it as the activity of man as an objective, natural being. As a consequence, he also fails to understand the true character of alienation, which lies, not in the fact that human beings objectify themselves in the product of their work (as natural beings they *must* do so), but rather in the fact that such objectification occurs under specific (and alterable) social conditions, resulting in the loss of the object and its conversion into an alien force.

In Marx's critique of Hegel's dialectic, we can see the theme of the division of labor

as the root of ideology operating a year in advance of its explicit articulation in the *German Ideology*. From the viewpoint of the later text, Hegel's dialectic is ideological in that it uncritically presupposes the division between mental and manual labor, while blissfully occupying the mental side of that divide. In this sense, we might also say that Hegel's dialectic rests on a fundamentally *non-dialectical* foundation, since it grasps only one side of the contradiction that underlies it. Marx does not proceed in the *Manuscripts* to work out what a defensible version of dialectic would look like, except to say that it would adopt the true standpoint of human self-creation, that of the reciprocal relationship between the humanization of nature and the naturalization of humanity.

Marx does not take up the theme of the meaning of dialectic again until the publication of the second edition of *Capital*, Volume 1, nearly three decades later. At this point, his main task is not to criticize dialectic, but to defend it against the contemporary crop of German philosophers who rejected it in its entirety.

The mystifying side of Hegelian dialectic I criticized nearly thirty years ago, at a time when it was still the fashion. But just as I was working at the first volume of *Capital*, it was the good pleasure of the peevish, arrogant, mediocre *epigono*i who now talk large in cultured Germany, to treat Hegel in the same way as the brave Moses Mendelssohn in Lessing's time treated Spinoza, i.e., as a "dead dog." I therefore openly avowed myself the pupil of that mighty thinker... (Marx 1992, 102-103).

Marx contrasts his version of the dialectic with the Hegelian one:

My dialectical method is not only different from the Hegelian, but is its direct opposite. To Hegel, the life process of the human brain, i.e., the process of thinking, which, under the name of "the Idea," he even transforms into an independent subject, is the demiurgos of the real world, and the real world is only the external, phenomenal form of "the Idea." With me, on the contrary, the ideal is nothing else than the material world reflected by the human mind, and translated into forms of thought (Marx 1992, 102).

This passage was to create considerable epistemological difficulty for later Marxists, since its use of the word "reflection" seems to endorse a naive copy theory of knowledge. Lenin in particular was misled by this. But Marx is not trying to develop an epistemology in this text. Instead he is articulating his criticism of Hegel in terms very similar to those of the 1844 *Manuscripts*. Hegelian dialectic is idealist in that it makes the Absolute Idea the demiurge of the real world. However:

The mystification which dialectic suffers in Hegel's hands, by no means prevents him from being the first to present its general form of working in a comprehensive and conscious manner. With him it is standing on its head. It must be turned right side up again, if you would discover the rational kernel within the mystical shell (Marx 1992, 103).

In his essay, "Contradiction and Overdetermination," Althusser made this passage

the theme of one of his most important contributions to Marxist thought by questioning the meaning of the mixed metaphor in which Marxist dialectic involves an act of “turning” Hegel’s dialectic “right side up,” and an extraction of its “rational kernel” from “the mystical shell” (Althusser 1970). The conclusion he arrives at is that this peculiar operation of inversion-extraction leaves little of Hegel’s dialectic intact. Both Hegel and Marx operate with concepts of the totality, which it is the purpose of dialectic to fathom. But Hegel’s is an “expressive totality,” while Marx’s is a “structural” one. For Hegel, the whole of his system is present in every contradiction as its inner essence. Every stage of the dialectic is an organic expression of the Hegelian system as a whole, or, differently put, a manifestation of the Absolute Idea at a particular phase in its development. But Marx’s conceptualization of society on the architectural model of foundation and superstructure is quite different. It is the idea of a totality of heterogeneous levels connected by the causal relation of “determination in the last instance” by the foundational level. The facts of history are not expressions of an organic whole, but rather the results of an intersection of causal factors, determined in the last instance by the conflict, or as we now must say, the contradiction, between the forces and relations of production. In the context of this insight, Althusser introduces the theme of the overdetermination of contradiction with reference to Lenin. Lenin accounted for the outbreak of revolution in backward Russia instead of the advanced capitalist nations of the West with his theory of the weakest link. Russia was that point in the chain of imperialist nations at which the greatest number of contradictions converged: those between workers and capitalists in heavy industry; between peasants and landowners in the countryside; between the most advanced industrial enterprises in the world and the most medieval relations in the rural areas; between the Tsarist autocracy and the demands for shared power of the big bourgeoisie; between imperialist war and the desire for peace; between a backward clergy and an advanced intelligentsia; and so on. The condensation of these contradictions at a single point – for which Althusser appropriates the Freudian term “overdetermination” – is what broke the Russian link in the imperialist chain. According to Althusser, like the concept of structural causality, the concept of the overdetermination of contradiction is nowhere to be found in Hegel’s dialectic. The two ideas, however, comprise a uniquely Marxist understanding of the nature of dialectical change.

On the whole, Althusser’s argument is persuasive, but with two provisos. The first is that there is more continuity between Hegel’s dialectic and that of Marx than Althusser admits. Whether the dialectic is expressive or structural, it involves the idea that contradiction and negation are responsible for change, and that change is cumulative in character. The fact that change is cumulative does not mean that it is teleological; that it is determined by a pre-given end. Althusser is correct when he rejects the notion that history, for Marx, is guided by the realization of a final condition. Althusser’s definition of history as a “process without a goal” captures Marx’s intention well, at least to the extent that it distinguishes between the materialist dialectic and any form of teleology. But the Marxist dialectic is cumulative nonetheless, and its cumulative character is assured by what Marx identifies as the refusal of human beings to give up advances in their ability to satisfy their needs: “the main thing is not to be deprived of the fruits of civilization, of the acquired productive forces” (Marx 1963, 122). Without that refusal to go backward willingly, there would be no conflict between forces and relations of

production, and the foundation of “structural causality” would crumble. The second proviso is that, without the idea of determination in the last instance, the concept of overdetermination can easily lead to a “post-Marxist” or “postmodernist” view which, in the name of a celebration of difference, sees history as the result of the unordered interaction of multiple diverse forces. Althusser exhibited a tendency in this direction, asserting at one point that “the lonely hour of the ‘last instance’ never arrives” (Althusser 170, 113). But this is to give up any meaningful version of Marxist dialectic.

Marx, on the other hand, was convinced of the underlying causal primacy of the contradiction between the forces and relations of production, a contradiction that must eventually explode in periods of social revolution. This revolutionary conception is finally what defines dialectic for Marx. We turn again to the preface to the second edition of the first volume of *Capital*:

In its mystified form, dialectic became the fashion in Germany, because it seemed to transfigure and to glorify the existing state of things. In its rational form it is a scandal and abomination to the bourgeoisie and its doctrinaire professors, because it includes in its comprehension and affirmative recognition of the existing state of things, at the same time also, the recognition of the negation of that state, of its inevitable breaking up; because it regards every historically developed social form as in fluid movement, and therefore takes into account its transient nature not less than its momentary existence; because it lets nothing impose upon it, and is in its essence critical and revolutionary (Marx 1992, 103).

The mystified form of dialectic that transfigures and glorifies the existing social order is that of Hegel, at least in the period of his maturity. The thesis that Hegel articulates in the *Philosophy of History*, and that Francis Fukuyama revived immediately following the collapse of the Soviet Union, is that history has come to an end (Fukuyama 1992). This does not mean, of course, that nothing will ever transpire again, but rather that historical change will never produce a new form of social organization, since the existing condition of society – capitalism and representative government – is the one in which human freedom has finally come to full expression. The thesis of the end of history is linked to Hegel’s idealism, since the Absolute Idea sets out on an excursion that returns to its starting point, because that starting point, properly understood, always included its destination in the first place. History is the unfolding of a content that was implicit in its beginning. There is nothing new under the sun. The Hegelian dialectic moves in a circle from which it never deviates and in which beginning and end are indistinguishable. The achievement of Absolute Knowledge is no more than the recognition that this is so. It is a cognitive acquiescence in the state of things as they are and even as they have been in the past, the abandonment of the “ought” that impotently condemns the existing state of affairs, and the recognition that “what is rational is actual, and what is actual is rational” (Hegel 1952, 10).ⁱⁱⁱ

For Marx, on the other hand, there is no end to history. In the *Economic and Philosophic Manuscripts* of 1844, he says that even communism is not the end, and suggests that yet other forms of social organization lie beyond it (Marx 1976, 146). For Marx, history has no *telos*, no final condition toward which it is heading. In *The German*

Ideology, he tells us that the later social form is not the reason why the earlier social form came into existence, and that it is only from the perspective of the present that the past seems to be a preparation for its own arrival (Marx 1970, 57-58). History has no end that orders its multitude of events, but it does have a direction. That direction is the one prescribed by the advance of the productive forces of society – human knowledge and skill as well as technology – which is in turn the result of people’s refusal to abandon their hard-won triumphs over scarcity and the realm of necessity. Nothing guarantees the success of that human project. On the contrary, as Engels points out in *Dialectics of Nature*, in the long run it is bound to fail (Engels 1977, 62). The universe began without humanity and it will end without it. The development of the productive forces will cease when the species those forces belong to no longer exists. Until that day, however, the human attempt to conquer natural and social necessity, scarcity, and avoidable suffering, and thereby enter into the realm of genuine freedom, is the only thing that gives our species a direction and a meaning.

For Marx, the dialectic of human history is open-ended; it is a spiral, not a circle. It even sometimes reverses direction, since a phase of the class struggle may end, as Marx says in *The Communist Manifesto*, “in the common ruin of the contending classes” (Marx and Engels 2012, 35) and a consequent regression in the level of the productive forces (as it did, for example, with the Fall of Rome and the onset of the Dark Age). But as long as humanity continues to exist, its dark ages will come to an end, and people will find the main thread of their history once again. Marx is certainly an heir to the Enlightenment idea of progress, but in him that idea has a tragic overtone. One of his most brilliant dialectical insights is that “history progresses by its bad side,” since the productive forces have developed at the expense of uncountable numbers of people who have been condemned to poverty, humiliation, and exhausting labor (Marx 1963, 121). That is the condition that socialists and communists struggle to end. But if they are successful at some point in the future, their success will bring to a conclusion, not the history of our species, but its pre-history, the long period in which we have been unable to control the forces we have unleashed. According to Marx, this means that, for the first time, we will make our history consciously instead of experiencing it as a fate that befalls us. The achievement of this consciousness does not mean, as it does for Hegel, that the Absolute Idea will return to itself in us as Spirit. Consciousness is only one of the powers of humankind, and, like all such powers, it is limited. The human species does not take the place of the Absolute that Hegel believed he had found. Marx’s dialectic proceeds in full awareness of our irremediable contingency and finitude.

Marx intended to produce an article explaining dialectic in two or three pages, just as soon as the pressure of his work on *Capital* permitted, but he never got around to writing the piece. The task fell to Engels, as he attempted to convey the nature of the dialectic to the workers’ movement in the aftermath of Marx’s death. Given the fact that Engels was not writing for philosophers, it is understandable that the idea of dialectic underwent simplification at his hands. In the *Dialectics of Nature, Anti-Duhring, Ludwig Feuerbach and the End of Classical German Philosophy*, and related writings, Engels accomplished three tasks that were to have a far-reaching influence on the subsequent history of Marxism. He drew a distinction between idealist and materialist “worldviews” (*Weltanschauungen*), while identifying Marxism as a dialectical version of materialism;^{iv} he developed the thesis that there is a dialectic of nature as well as a dialectic of society;

and he identified three “laws” of the dialectic.

The first innovation was the one that was the most unfortunate in its historical consequences. Marx had never sought to develop a “worldview,” that is, a comprehensive conception of the nature of the world as a whole. His theoretical project lay, rather, in the development of a materialist theory of history, especially the part of that theory concerned with understanding the capitalist mode of production. He described his project as a “scientific” endeavor, but this meant above all that it was open to criticism and reevaluation. Like any science, it had to meet the highest standards of theoretical consistency and explanatory power, and it was open to refutation and revision in part by means of empirical test. Such testing, of course, is far different and more complicated than the experimental tests of the physical sciences, but the main point remains. The materialist science of history is open and non-dogmatic. The “dialectical materialist worldview” by contrast is a settled dogma, and it came to play a role very similar to the role played by dogma in church denominations. It served to distinguish between the faithful and the heretics, a function that finally became the province of a kind of “socialist” priesthood, in the form of the upper echelons of the Party bureaucracy. This, of course, was never Engels’ intention. He wanted to present the workers’ movement with a view of the world that was easily understood, and that would draw a line between that movement and its class enemy. The fact remains, however, that he took the first step in the creation of an orthodoxy that, in the Stalinist period, would be defended by the equivalent of burning at the stake.

Though Engels’ project to develop a dialectical theory of nature was not shared by Marx, Marx was aware of Engels’ efforts, and there is no evidence that he objected to them. If dialectic is an expression of the fluid, dynamic, and transitory character of its subject matter, then there would seem to be no reason to exclude a dialectic of nature from Marxism, provided that it remain as open to critical reformulation as the dialectic of human history. The question of whether the dialectic belongs only to society or to nature as well became a contentious topic in twentieth-century Marxism through the writings of Lukács and Sartre, both of whom argued that only society is dialectical. It does not appear that Marx would have agreed with them.

The three laws of dialectic that Engels identifies are:

The law of the transformation of quantity into quality, and *vice versa*;

The law of the interpenetration of opposites; and

The law of the negation of the negation (Engels 1977, 62).

We will consider the first law last, since it is the only one that does not figure prominently in Marx’s own discussions of dialectic.

The second law, that of the interpenetration of opposites, is a restatement of the concept of internal contradiction. The opposite poles of a dialectical contradiction do not simply coexist or oppose each another as external forces. They imply one another (they interpenetrate) and so constitute a unitary, dynamic formation, a conflictual whole caught up in a process of transition. This law is common to Hegel’s and Marx’s versions of dialectic.

The third law is also common to Hegel and the mature Marx. For both thinkers, the negation of the negation is the principle that ensures that dialectic has a progressively

developmental character, in which each stage both results in a new content, and preserves the contents of the stages that preceded it, though in superseded form. Although Marx sometimes appears to reject this law in his early, Feuerbachian, phase (endorsing instead, in the 1844 *Manuscripts*, Feuerbach's search for a "positive" foundation for philosophy), the later Marx came clearly to embrace the negation of the negation as a condition of the progressivity of dialectic, as is evident in the *Grundrisse*, *Capital*, and sundry reflections on the materialist theory of history.

By contrast, the first law does not play much of a role in Marx's thinking at all, and while it appears in Hegel, it is limited to only one phase of dialectical development. The law of the reciprocal transition between quantity and quality comes from the first of the three parts of Hegel's *Science of Logic*, "The Doctrine of Being," and specifically the section that discusses Quantity and Measure. As such, it is not a universal principle of Hegel's dialectic, which also includes the "Doctrine of Essence" and the "Doctrine of the Notion," in both of which the law plays no role. The general idea is easy enough to grasp. When quantity constitutes a progressively varying series, there are "nodal points" along the series in which gradual quantitative changes pass over into abrupt qualitative ones. An obvious example is that of water, which freezes at zero degrees Celsius and boils at 100 degrees. Between these nodal points, temperature can be raised or lowered without any qualitative change in the liquid state of the water. The reason why Engels elevates this principle to the status of a general law derives from his project to develop a dialectical theory of nature. The idea of a transition from quantity to quality and the reverse is especially useful in the physical sciences, most obviously in the science of chemistry. Since the dialectic of nature did not attract Marx's theoretical interest, there is no mystery why the first law receives no emphasis in his work. Still, in the adventures of the dialectic following Engels' death, the first law came to play an important role in conceptualizing the historical "nodal point" at which a slowly developing series of quantitative change explodes in the form of a qualitative, revolutionary leap into a new social and economic formation.

In any event, Engels' treatment of the dialectic, including the three laws, had a powerful influence on the more or less reformist thinkers of the Second International, and through them, on the revolutionary thinkers of the Third International, created in the aftermath of the October Revolution. But it would be wrong to assume that reflection on dialectic after Engels was confined to the memorization of a received catechism. Lenin, for one, studied dialectic in Marx's and Hegel's own writings, and made copious notes on the *Science of Logic*, which were published shortly after his death under the title, *Philosophical Notebooks* (Lenin 1976). The conceptual sophistication of the *Notebooks* throws into disarray the distinction that was commonly drawn in the West in the 1960s and 1970s between a crude Soviet Marxism, and the more philosophically respectable Hegelian Marxism of such thinkers as Lukács, Korsch, Gramsci, and Adorno. In fact, Lenin was the first "Hegelian Marxist," in that he took Hegel's dialectic seriously as a precursor of the dialectic of Marx (Anderson 1995).

Eisenstein was not a philosopher, but he read Engels, Marx, and Lenin. His dialectical theory and practice of montage represents an advance in the history of Marxism, for it is the first aesthetic version of the dialectic, or, more precisely, the first version of the dialectic as an artistic form. But if his theory is an impressive innovation, it is not an anomaly. It is continuous with the whole tradition of Marxist reflection on the

nature of dialectic. What made the theory possible in the first place was Eisenstein's experience with film as an art of motion, transition, and other forms of change. We will be considering that theory in detail soon.

ⁱ In explaining "appearances of motion" (*Bewegunderscheinungen*), Wertheimer writes, "... it is not sufficient to refer to purely peripheral processes involving the individual eye; there must be recourse to operations that lie behind the retina" ... (Wertheimer 1912, 246). My translation.

ⁱⁱ The well-known Hegelian, John N. Findlay, emphasized this point in his seminars on Hegel at Boston University, which I attended in the late 1970s.

ⁱⁱⁱ For Hegel, not everything that exists is "actual." When William Krug challenged Schelling to deduce Krug's pen from the general principles of his system, Hegel replied, in defense of his friend and collaborator at the time, that the deduction would be possible as soon as Krug's pen acquired any philosophical significance. For Hegel, what is actual is what has a place in the process through which the Absolute Spirit (the Absolute Idea as expressed in art, religion, and philosophy) returns to itself from its being-outside-itself. Yet, this does not mitigate the conformist element in Hegel's *Philosophy of Right*, because his purpose in the book is to demonstrate that the modern nation-state is the ultimate stage in the development of Spirit on the level of social and political life. It is not only actual and therefore rational; it is unsurpassable as well.

^{iv} Engels did not coin the term, "dialectical materialism." That was left to the early Russian Marxist, Georgi Plekhanov.