

Foreshadowing *In Defense of Marxism*: Trotsky's Philosophical Notebooks

Trotsky's Philosophical Notebooks is one of the most important discoveries to emerge out of the wealth of material included in the Trotsky archives at Harvard. They were accidentally discovered by Philip Pomper while he was embarked on a project for a book about Lenin, Trotsky and Stalin. Pomper, a historian affiliated with Wesleyan University, had previously written several books on Russian revolutionary history. The Notebooks were translated and eventually published by Columbia University Press in 1986, with a lengthy introduction by Pomper and annotations in Russian by Yuri Felshtinsky. The volume is entitled **Trotsky's Notebooks, 1933-1935: Writings on Lenin, Dialectics, and Evolutionism**.

Trotsky had made mention of the material contained in these Notebooks in his **Diary in Exile**, when he wrote in the entry dated May 16: "Today I wrote a little about the interrelationship between the physiological determinism of brain processes and the 'autonomy' of thought, which is subject to the laws of logic" (p. 119). Trotsky went on to complain about not having sufficient knowledge or time to devote to "a big and serious work" on the subject and it is clear that he abandoned the project. However, neither in his own published writings nor in research about him was there any further indication of what had become of the notes he had already written, and the common assumption prior to the opening of the archives was that they had been lost. Pomper came across them while looking through some notebooks that previously had been believed to contain only material for a biography of Lenin that Trotsky had once planned to write.

Inevitably, comparisons will be made of Trotsky's Notebooks to the more extensive Philosophical Notebooks of Lenin as well as to the recently published Philosophical Notebooks of the chief theoretician of the Bolsheviks, Nicolai Bukharin.¹ We will not attempt any such comparisons here. It is sufficient to note that whereas all these works are worthy of study, Trotsky's Notebooks have been largely neglected since they were first published in 1986. This situation should be nothing less than a scandal among those who claim adherence to Trotsky and Trotskyism. It is our hope that in publishing this essay along with a few selections from the Notebooks, we will encourage renewed interest in this work.

The importance of these Notebooks lies in their display of Trotsky's interest in a wide range of theoretical issues that had vexed the Marxist movement almost from its inception. Inside the Notebooks one finds some intriguing notes on Hegel's **Science of Logic** and dialectics, Darwin and evolutionary theory, particularly as it relates to dialectical philosophy, and a series of brilliant, although too brief, jottings on Freud and

¹ Lenin's Philosophical Notebooks are included in Volume 38 of his Collected Works.

<http://www.marxists.org/archive/lenin/works/1914/cons-logic/index.htm>

Bukharin's Philosophical Notebooks were recently published with the title, **Philosophical Arabesques**, Monthly Review Press, 2005.

the relationship of the unconscious to dialectical philosophy and to history. The Notebooks are just that – notes that Trotsky made for his own study – in some cases as an aid for a future publication, in other cases for his own edification. They should certainly not be taken as Trotsky's final considered opinion on any issue. However, that caveat being noted, the thoughts expressed in the Notebooks are in almost all cases completely in harmony with Trotsky's thinking in his published writings. At the same time, Trotsky explores some topics in greater depth than in his published writings, whereas other notes are rough diamonds that found a more fortunate expression once they were polished for publication. The Notebooks are in a sense a peek into the mental laboratory of one of the greatest geniuses of the last century. A careful consideration of the material in these notebooks will prove immensely rewarding to any serious student of Marxism.

Notes on Hegel and the dialectic

Whereas an explicit discussion of Hegel and his **Science of Logic** is very brief, the Notebooks are suffused with considerations about the dialectic on every page no matter whether the topic is Lenin, Darwinian evolution, Freud and psychoanalysis or the latest discoveries in physics. Pomper justifiably underlines this point in his insightful Introduction to the Notebooks. According to Pomper, and on this point we are in full agreement, Trotsky held to the notion throughout his life that careful attention to dialectics is a key component in the development of a revolutionary leader. Thus, in his notes on Lenin, Trotsky emphasizes that Lenin's dialectics had a "massive" character, able to encompass great social transformations, whereas the Menshevik leader Martov's dialectic had a very limited scope. Trotsky saw Martov as enamored of the twists and turns of political maneuvers while missing the fundamental changes taking place beneath the surface of political events and completely overlooking his own role as a possible catalyst in these events. In the Notebooks Trotsky writes that,

[Martov] sometimes very intelligently analyzed regroupings in the sphere of parliamentary politics, changes in the tendencies of the press, the maneuvers of ruling circles—insofar as all this was limited to ongoing politics, the preparatory stage for distant events or the peaceful conditions when only the leaders, deputies, journalists, and ministers of prewar Europe acted in the political arena, when the basic antagonists remained virtually unchanging.

Within these boundaries Martov swam about like a fish in water. His dialectic was a dialectic of derivative processes and limited scale, episodic changes. Beyond these boundaries he did not venture.

If Lenin embodied the dialectic of a revolutionary leader, then Martov embodied the dialectic of a clever journalist.

Trotsky and Eastman

As Pomper elsewhere notes in his Introduction, Trotsky was motivated to begin the studies on Hegel as a result of a series of acrimonious discussions with the American Marxist, Max Eastman. Eastman had corresponded with Trotsky and visited him during his exile on the Turkish island of Prinkipo in 1932. Although he was one of Trotsky's earliest supporters and the translator of his classic **History of the Russian Revolution**, he was also a pragmatist in the Deweyan mould and a bitter opponent of dialectics that he considered a relic of "animism" in philosophy. Trotsky on the other hand told Eastman as early as 1929 (as paraphrased by Pomper in his Introduction) that,

...he [Trotsky] knew of no case in thirty years in which an opponent of dialectical materialism had sustained a revolutionary commitment.

This was a theme to which Trotsky would return again and again. An insistence on the link between dialectics and revolutionary practice played a key role in Trotsky's polemics against Max Shachtman and James Burnham in 1939-1940 when the latter adopted Eastman's dismissal of dialectics during their factional struggle in the Socialist Workers Party. Those who minimize Trotsky's concern with dialectics are either ignorant or willfully blind. In fact, the very first line of Trotsky's first Notebook on Hegel is an obvious reference to Eastman and his ilk:

Those who repudiate "dialectics" consider it to be simply superfluous, a useless playing with thought. Positive science is enough!

Like John Dewey, Eastman wanted to exorcise the anathema, the "Hegelian Bacillus", from Marxism. Eastman joined the ranks of other pragmatist and positivist intellectuals whose debased understanding of Hegel led to rejection of dialectics.

Eastman saw in materialist dialectics a more urbane form of animism, a projection of Marx's chiliastic desires onto the plane of history. For Eastman, Engels, even more than Marx, was guilty of attributing human qualities to matter.² Eastman's attempt at "psychoanalyzing" Marxist philosophy paralleled other approaches in bourgeois intellectual circles. The Hungarian Sociologist Karl Mannheim issued a similar critique of dialectical materialism as a deification of human reason in matter, without scientific content. For Eastman, Mannheim, and other critics on the Left, Marxist philosophy was reduced from a scientific status to that of an "ideology", and the only way it could be saved and refounded on a more scientific basis was a thorough philosophical police action against "mystical" dialectics.

The tone of Trotsky's reply to Eastman can be gauged from the following memoir written by Eastman at the time of their quarrels in Prinkipo,

² John P. Diggins, **Getting Hegel out of History: Max Eastman's Quarrel with Marxism** *The American Historical Review*, Vol. 79, No. 1. (Feb. 1974), pp. 38-71.

Like many great men I have met he [Trotsky] does not seem altogether robust. There is apt to be a frailty associated with great intellect. At any rate, Trotsky, especially in our heated arguments concerning the 'dialectic,' in which he becomes excited and wrathful to the point of losing his breath, seems to me at times almost weak. He seems too small for the struggle. He cannot laugh at my attacks on his philosophy, or be curious about them – as I imagine Lenin would – because in that field he is not secure. He is not strongly based... Yesterday we reached a point of tension in our argument about dialectics that was extreme. Trotsky's throat was throbbing and his face was red; he was in a rage.³

Traces of Trotsky's visceral reaction to Eastman are evident in the emphasis Trotsky places on dialectics when working on his Notebooks several years later. Yet even if the quarrels with Eastman may have initially precipitated the notes on dialectics, there was a more fundamental motivation that was driving Trotsky back to a study of Hegel. What we are getting at is what Engels once called the driving historical forces that lay behind psychological motivations. And the historical forces that weighed heavily on Trotsky were the rise of the Stalinist bureaucracy and the series of uninterrupted defeats of the working class over the past decade, culminating in the assumption to power of Nazism in Germany. It was this new historical situation that was in the most fundamental sense behind Trotsky's desire to return to a study of the dialectic. We therefore find Trotsky reprising Lenin's plunge into Hegel's Science of Logic after the betrayal of the Second International and the beginning of World War I.

Like Lenin before him, Trotsky was trying to theoretically rearm, first of all himself, and second of all the revolutionary movement, for a struggle against the debasement suffered by Marxism at the hands of the Stalinist bureaucracy as well as at the hands of the left wing positivists and pragmatists represented by Eastman.

Psychoanalysis and the Dialectic

A significant section of Trotsky's Notebooks is devoted to a discussion of Freud and psychoanalysis, to which Trotsky displayed a great deal of sympathetic, if critical, appreciation throughout his life. The discussion of psychoanalysis emerges directly out of a consideration of dialectics in the following manner: Trotsky always considered that one of the key aspects of dialectics is its ability to explain a unity without reducing the different levels of a hierarchical, differentiated and unified structure to each other. Thus while recognizing the ultimate unity between Being and Thought, as a materialist should, Trotsky understood better than numerous contemporaries who were influenced by the vulgarized, Stalinist inspired version of "Marxism" emanating from Moscow in the 1930's (or the equally vulgar views of the positivist minded left wing intellectuals in the West), that one cannot reduce Thought to Being. As he says in his Notebooks,

The interrelationship between consciousness (cognition) and nature is an independent realm with its own regularities.

³ Quoted in Pomper, p.44. The original quotes are taken from notes Eastman wrote to himself at the time of these conversation and reproduced many years later in his autobiography, *Einstein, Trotsky, Hemingway, Freud and Other Great Companions* (New York: Collier, 1962), pr. 113.

From this and other fragments we can infer that the key theme that unites the notes on dialectics, psychoanalysis and evolution, is Trotsky's anti-reductionism. This theme is evident in the following remark: "The dialectic of consciousness is not ... a reflection of the dialectic of nature, but is a result of the lively interaction between consciousness and nature and - in addition - a method of cognition, issuing from this interaction." What Trotsky means by this is evident a few paragraphs later, when he invokes one of his favorite analogies - "Consciousness acts like a camera". The process at work in the mind (like the process at work in the camera) isn't identical to the process of the reality it is reflecting. To argue otherwise isn't materialism but rather Hegelian idealism: "Since cognition is not identical with the world (in spite of Hegel's idealistic postulation), dialectical cognition is not identical with the dialectic of nature."

The camera analogy demonstrates this point: still photography "tears from nature 'moments' [while] the ties and transitions among them are lost"; motion pictures are more like nature in their "uninterruptedness," but the latter is an illusion created by "exploit[ing] the eye's imperfection," i.e. by stringing together separate moments (or shots) with breaks between them too short for the retina to register. In other words, by a process of illusion, the camera produces a (more or less accurate) reflection of reality. Needless to say, the process (or dialectic) of consciousness must be a good deal more complicated. This brings Trotsky to the following conclusion: "Consciousness is a quite original part of nature, possessing peculiarities and regularities that are completely absent in the remaining part of nature. Subjective dialectics must by virtue of this be a distinctive part of objective dialectics - with its own special forms and regularities." There is, to put this another way, an important degree of autonomy to the processes of the mind.

Having established this point, Trotsky considers a familiar objection to it: "The brain is the material substrate of consciousness. Does this mean that consciousness is simply a form of 'manifestation' of the physiological processes in the brain? If this were the state of affairs, then one would have to ask: What is the need for consciousness? If consciousness has no independent function, which rises above physiological processes in the brain and nerves, then it is unnecessary, useless; it is harmful because it is a superfluous complication - and what a complication!" Thus, the essential problem with physiological approaches to psychology was that the latter only began where physiology left off. Consciousness "can be biologically and socially 'justified' only in the event that it yields vital results beyond those which are achieved by the system of unconscious reflexes. This presupposes not only the autonomy of consciousness (within certain limits) from automatic processes in the brain and nerves, but the ability of consciousness to influence the actions and functions of the body as well." Or, as Trotsky adds a little further on, in going from physiology to psychology, "we approach ... some sort of critical point, a break in the gradualness, a transition from quantity into quality: the psyche, arising from matter, is 'freed' from the determinism of matter, so that it can independently - by its own laws - influence matter." It is just because there is this qualitative "break" between psychology and physiology that all the physiological data in the world cannot tell us a 'jot' about feelings or thoughts.

Trotsky now turns to psychoanalysis, which, he notes, "in practice completely removes

itself from physiology, basing itself upon the inner determinism of psychic phenomena.” Because of this, Freud has often been accused of idealism, and it is true that psychoanalysts are frequently inclined to mystification. “But by itself the method of psychoanalysis, taking as its point of departure the ‘autonomy’ of psychological phenomena, in no way contradicts materialism. Quite the contrary, it is precisely dialectical materialism that prompts us to the idea that the psyche could not even be formed unless it played an autonomous, that is, within certain limits, an independent role in the life of the individual and the species.” This remarkable statement caps Trotsky’s argument: in effect what it says is that if psychoanalysis didn’t exist, Marxists would have had to come up with something very much like it. And while many Freudians would have vehemently denied any connection of their doctrine with the world outlook of Marxism, there was an important group of analysts, i.e. the Freudo-Marxists, who would have readily concurred with Trotsky’s analysis: the materialist and dialectical character of psychoanalysis was a major theme of their writing and Fenichel summed up their common position in the title of one of his essays: “Psychoanalysis as the Nucleus of a Future Dialectical-Materialistic Psychology.” Indeed, confirmation of this view of psychoanalysis can be found in as unlikely a source as Norman O. Brown, author of a well-known work which tried to meld psychoanalysis with mysticism, who noted how surprised he was to discover “Freud’s methodological affinity with the heretical tradition in logic that can be labeled dialectical.”⁴

This last point raises a question. If psychoanalytic theory is an illustration of the dialectic, then how could that supreme anti-dialectician, Max Eastman, use psychoanalysis to debunk the dialectic? But this is only a riddle if one considers that Eastman’s understanding of psychoanalysis did it justice. Eastman’s use of Freud against Trotsky and dialectics – that dialectics is a form of animism in philosophy - betrays a complete misunderstanding of Freud. For Freud, animism was not simply nonsense, but an early form of social practice that attempts to regulate man’s interaction with the world around him. In his discussion of animism in **Totem and Taboo**, Freud wrote,

Under the dominance of an animistic system it is absolutely essential that each rule and activity should receive a systematic motivation which we today call ‘superstitious’. But ‘superstition’, like ‘anxiety’, ‘dreams’, and ‘demons’, is one of the preliminaries of psychology which have been dissipated by psychoanalytic investigation. If we get behind these structures, which like a screen conceal understanding, we realize that the psychic life and the cultural level of savages have hitherto been inadequately appreciated.⁵

It is clear that for Freud animism is much more than mere superstition. It is part of what Erich Fromm called “the forgotten language”, as are dreams and the fantasies of young children. This dialectical grasp of animism contrasts sharply with Eastman’s one-

⁴ Norman O. Brown *Life Against Death*, p. xii.

⁵ Sigmund Freud, *Totem and Taboo*, “The Omnipotence of Thought”, p 162 , Translated by A. A. Brill, Routledge, 1919.

dimensional, Voltairean dismissal of animism as mere superstition.⁶ When applying the animism metaphor to dialectics, Eastman's dismissal is equally misleading. Dialectics, far from being a form of animism, encompasses the highest development of scientific conceptualization. There is however a grain of truth in saying that dialectics includes within it – in sublated form – a primitive concept of an organic whole in which the boundary between what is living and what is not is yet to be articulated. But that only indicates that the earliest, naïve form of the notion of a totality encompassing the whole of the natural world that predates even the dawn of philosophy in ancient Greece, is an embryonic version of science [Wissenschaft] which in its broadest sense implies the systematic cognition of the whole.

Evolution and the Dialectic

Trotsky emphasizes and repeats in several sections of his notes the importance he attributes to what Engels called the first law of dialectics, the transformation of quantity into quality. Pomper in his Introduction rightly notes that the emphasis on qualitative leaps and conflict leading to a new foundation is very much at one with Trotsky's "style" as an interpreter of dialectics and revolutionary leader. Every dialectical thinker emphasizes certain aspects of dialectics without denying their interconnection with other aspects. If Lenin's choice, emphasizing the interpenetration of opposites, as he did in his Notebooks on Hegel, says something about his leadership qualities, then there is equally some significance to Trotsky's emphasis on the conflict of opposites.

Trotsky's emphasis on conflict and qualitative leaps comes out very clearly in his remarks on Darwinism and evolution in these Notebooks. In fact, one can say that Trotsky is carrying on a not so hidden polemic against two types of interpreters of Darwinism. On the one hand there are those who, following the reformist model of Kautsky and the Second International, tend to see only quantitative change and progress, denying qualitative transformations and occasional catastrophes.

All evolution is a transition from quantity into quality. The very concept of gradual, slow development signifies the achievement of qualitative changes, yielding as a result new qualities.

On the other hand, Trotsky's anti-reductionist bent allowed him to take on the vulgar interpreters of Darwinism who would conflate conflict in nature – the struggle of each species for survival – with society and thereby deduce a hierarchically organized and class divided society having the character of a law of nature. Trotsky took on this myth of vulgar Darwinism in an essay written in 1925 where he wrote,

This brilliant biologist [Darwin], while showing how small quantitative deviations accumulate and yield a completely new biological 'quality,' in this way explaining

⁶ Voltaire, one of the key figures of the 18th century French Enlightenment, is famous for asserting that religion is merely the result of a deception carried on by the priests. To Voltaire religion was a form of "nonsense" rather than an alienated form of human social relations as it became for Feuerbach and for Marx.

the origin of species, applied without being conscious of it, the methods of dialectical materialism in the area of organic life. The Hegelian law of the transition from quantity to quality found in Darwin a brilliant, although a philosophically unenlightened application. At the same time we frequently find in Darwin himself, not to speak of the Darwinists, completely naïve and unscientific efforts to carry over the conclusions of biology to society. Interpreting competition as a 'variety' of biological struggle for existence – is like seeing nothing but mechanics in the physiology of mating.⁷

As the above remark shows, Trotsky was cognizant that the methods of Darwin were in part dialectical and materialist, but were at same time infused with ideological preconceptions, particularly when he drew analogies between nature and society. Darwin's theory remained, without dialectics, less concrete than it could have been. Trotsky generalized this evaluation of Darwin to the spontaneous work of scientists in general and noted that while scientists are often "unconscious dialecticians", they severely handicap themselves by abjuring a conscious study of philosophy and dialectics. Thus Trotsky writes, having in mind not only positivists like Eastman, but also many scientists who adopt a positivist stance,

To the representatives of positivism, with his limited point of view, we say that all the contemporary sciences ... use the law of dialectical thinking at every step just as the shopkeeper uses the syllogism or as Monsieur Jourdain uses prose: without ever knowing it. Precisely because of this the average scholar preserves many habitual traits resembling those of impermeable bulkheads, not posing those questions which should issue from the general movement of scientific thought, and cravenly ceases to draw general conclusions, when they call for a dialectical leap.

The Notebooks provide us with only a glimpse into Trotsky's thoughts on evolution, but a most intriguing one. There is for instance the following description of Catastrophes, a theme that was long dismissed as quackery and a return to pre-Darwinian theories of evolution until recent evolutionary theory revived Catastrophe theory with a vengeance.⁸

Catastrophes

Everything flows, but not outside [its] banks. The world is not "fluid," there are changes in it, the crystallization of durable (congealed) elements, although indeed not "eternal" ones. Then life creates its own banks for itself in order later to wish them away. The quantitative changes of matter at a given stage push against those congealed forms, which sufficed for its previous state. Conflict. Catastrophe. Either the old form conquers (only partially conquers), necessitating the self-adaptation of the conquered (partially) process, or the process of movement explodes the old form

⁷ Quoted by Pomper, p. 51. The original citation is from Trotsky, *Sochineniia*, 21:277-78.

⁸ It had been accepted dogma until recently that the major geologic features of the planet came about through gradual, accumulated changes over a vast period of time. This was, in a nutshell, the theory of uniformitarianism pioneered by Charles Lyell and later adopted by Darwin. It was supposed to have put to bed previous catastrophic theories as developed by Lyell's predecessor, Georges Cuvier. Recent discoveries, such as the K-T comet impact 65 million years ago that caused the mass extinction of dinosaurs and most of the mammals on the Earth, have revived catastrophic theories as well as the reputation of Lyell's much maligned predecessor, Georges Cuvier.

and creates a new one, by way of its new crystallizations from its wombs and the assimilation of elements of the old form.

A more developed version of this theme can be found in an essay Trotsky wrote years earlier on Karl Kautsky,

The Darwinian theory of the origin of species encompasses the entire span of development of the plant and animal kingdoms. The struggle for survival and the processes of natural and sexual selection proceed continuously and uninterruptedly. But if one could observe these processes with ample time at one's disposal – a millennium, say, as the smallest unit of measure – one would undoubtedly discover with one's eyes that there are long ages of relative equilibrium in the world of living things, when the laws of selection operate almost imperceptibly, and different species remain relatively stable, seeming the very embodiment of Plato's ideal types. But there are also ages when the equilibrium between plants, animals, and their geophysical environment is disrupted, epochs of geobiological crisis, when laws of natural selection come to the fore in all their ferocity, and evolution passes over the corpses of entire plant and animal species. On this gigantic scale Darwinian theory stands out above all as the theory of critical epochs in plant and animal development.⁹

What is this if not a remarkable anticipation of Stephen Jay Gould's and Niles Eldridge's paradigm shifting theory of punctuated equilibrium? The point of course is not that dialectics by itself is a substitute for the hard work of science, a point Trotsky himself acknowledges elsewhere in the Notebooks where he says "The dialectic does not liberate the investigator from painstaking study of the facts, quite the contrary: it requires it", but that the conceptual power of dialectics, in the hands of a genius like Trotsky, "... gives investigative thought elasticity, helps it cope with ossified prejudices, arms it with invaluable analogies, and educates it in a spirit of daring, grounded in circumspection."¹⁰

⁹ Trotsky, *Portraits, Personal and Political*, p. 30,

<http://www.marxists.org/archive/trotsky/profiles/kautsky.htm>

¹⁰ Trotsky's discussion of long periods of stability of a species when evolution seems to stand still which are then "punctuated" by what appear to be sudden transformations that give rise to a new species is a key point of the theory of punctuated equilibrium - a theory that angered many traditional Darwinists. The gradualist approach of the fundamentalist Darwinists did not leave room either for sudden transformations, or for the long periods of stability. Punctuated equilibrium also went against the grain of traditional geology which since the time of Lyell had denied the role of catastrophic changes. We now know that catastrophic environmental changes can lead to mass extinctions and the emergence in a brief time period of new species, even of an entire complex of new species. In order to turn Trotsky's insight into a scientific research project, one more thing is needed; seeing the connection between these long periods of stability interrupted by short periods of dramatic speciation events with the fossil record. When examined, this is exactly what the fossil record shows. In order to reconcile the evidence of the fossil record with his theory of constant yet gradual changes, Darwin and traditional Darwinists always assumed that there were "gaps" in the fossil record. It was only when Eldridge and Gould began to take seriously the idea that maybe the fossil record does indeed show the real history of speciation events that they came up with the theory of punctuated equilibrium.

Dialectics and the Flexibility of Concepts

Another aspect of Trotsky's understanding of dialectics that is notable is his emphasis on the fluidity of concepts. For instance, the following passage where he discusses how form and content "change places" provides an insight into the power of dialectical thinking and its sharp contrast with the method of conceiving opposition in terms of rigid antinomies.

The theory of revolutions

The logical antimony of content and form in this way loses its absolute character. Content and form change place. Content creates new forms from itself. In other words the correlation of content and form leads, in the last analysis, to the conversion of quantity into quality.

Here Trotsky touches on a theme – the flexibility of concepts – in which the intimate connection between dialectics and revolutionary practice comes to the fore. It is a theme that is at the heart of one of Lenin's last writings, penned during his final illness. Having in mind the theoreticians of the Second International, above all Kautsky, Lenin wrote,

They all call themselves Marxists, but their conception of Marxism is impossibly pedantic. They have completely failed to understand what is decisive in Marxism, namely, its revolutionary dialectics. They have even absolutely failed to understand Marx's plain statements that in times of revolution the utmost flexibility is demanded, and have even failed to notice, for instance, the statements Marx made in his letters — I think it was in 1856 — expressing the hope of combining the peasant war in Germany, which might create a revolutionary situation, with the working-class movement — they avoid even this plain statement and walk around and about it like a cat around a bowl of hot porridge.¹¹

We can add to Lenin's remarkable statement that Trotsky's theory of permanent revolution was a supreme example of revolutionary dialectics. Trotsky saw that the old boundaries drawn by theoreticians like Kautsky between the bourgeois and the socialist revolution were no longer operative in a simple linear progression. Elements of the bourgeois revolution could no longer be realized by the bourgeoisie and in turn became the responsibility of the working class and the socialist revolution. Recognizing that the Russian revolution would have this combined character as a direct result of the uneven development of world capitalism, Trotsky decisively redefined the relationship of the bourgeois revolution and the proletarian revolution. The one necessarily flowed into the other or it could not be realized at all.

This flexibility of concepts in dialectical thought is ironically the only quality that gained the approval of Max Eastman. Whereas Eastman considered dialectics thoroughly unscientific, he held that it could nevertheless play a positive role in the hands of someone like Lenin because it did not burden him with the dogmas of the past. In this vein, Eastman wrote,

¹¹ "Our Revolution", Lenin's *Collected Works*, 2nd English Edition, Progress Publishers, Moscow, 1965, *Volume 33*, (p. 476-80). <http://www.marxists.org/archive/lenin/works/1923/jan/16.htm>

The dialectical method with Lenin was simply a declaration of independence from the domination of fixed concepts. It was a metaphysical contraption by which he managed to defend his right to use thoughts naturally, in spite of an unnatural conception of what thoughts are.

...That is what dialectical thinking meant to Lenin. It meant flexibility – a maximum of flexibility, as opposed to the ‘pedantry’ of ordinary intellectualism. It meant that ideas should be handled as instruments of action, and not actions mechanically deduced from ideas.¹²

Eastman tried to fit the opposition to rigid antinomies characteristic of dialectics into the procrustean bed of Dewey’s instrumentalism and emphasis on process. This tropism was common even among those followers of Dewey who evinced some sympathy for the dialectic.¹³ Other, less sympathetic commentators of Lenin, saw in his conceptual flexibility nothing less than a form of Machiavellianism and Realpolitik. Virtually all the right wing accounts of Lenin, as well as most “left” accounts in fact reduce his entire career to the maneuvers of a single-minded and power-mad political figure, one who held no allegiance to principles of any sort.¹⁴ Needless to say such accounts of Lenin are not only an abomination from the standpoint of historical science, but a trivialization and gross distortion of an important philosophical issue.

Flexibility of concepts, when understood from the context of a dialectical philosophy, does not grant one license to embrace any idea willy-nilly, depending upon one’s subjective disposition. Rather, it contains the insight that the phenomena under investigation, out of their own inner dynamic, through determinate negation, transform into their opposites. To identify any process as undergoing such transformations however requires a careful study of its actual movement, unhampered by the “ossified prejudices” to which Trotsky alluded.

Trotsky as an Important Dialectical Thinker

One would have thought that the publication of Trotsky’s Notebooks more than twenty years ago would have elicited renewed interest in the theoretical side of Trotsky’s work. However such has not been the case. While Trotsky is justifiably remembered as a supreme man of action, the co-leader with Lenin of the Russian Revolution and the

¹² Max Eastman, *Marx and Lenin: The Science of Revolution* (New York:Bonis, 1927), 113-116.

¹³ Sidney Hook best represented those pragmatists who tried to reconcile Deweyan instrumentalism with the dialectic. He engaged Max Eastman in a series of public debates about the dialectic in the 1920s. In a review of Eastman’s book, Hook wrote,

“The fluidity of thing and fact and the changing context of judgment represent the heart of the dialectic, and not the antiquated terms in which Hegel dressed up the idea. Mr. Eastman may be surprised to learn that the dialectic – modified to be sure – appears in the instrumentalist logic [of Dewey].”

Sidney Hook, “Marxism, Metaphysics and Modern Science”, review of Marx, Lenin, and the Science of Revolution by Max Eastman, *Modern Quarterly* 4 (May-August 1928):388-394. Cited by Christopher Phelps in his biography of Hook, *Young Sidney Hook*, (Cornell University Press, 1997), p. 43.

¹⁴ Accounts of Lenin in this vein are too numerous to mention, but Robert Service’s, *Lenin: A Biography*, could stand as a typical representative of this genre.

architect of the Red Army, there is little recognition of his importance as a Marxist theoretician. Unfortunately, the publication of the Notebooks has done little to dispel that viewpoint. In sharp contrast to the excitement caused by the publication of Lenin's Philosophical Notebooks (Volume 38 of his Collected Works) in English in the early 1960's, there has been virtually no commentary on Trotsky's Notebooks. This silence facilitates the prejudices of contemporary left wing intellectuals who continue to minimize Trotsky's theoretical contributions. Slavoj Žižek is one such figure. In what is supposedly a sympathetic discussion of Trotsky's book, **Terrorism and Communism**, he simply takes for granted, without even arguing the case, that Trotsky's anticipation of the possibility of world revolution in 1919-1920 was an "illusion" exhibiting his "theoretical limitations". He embellishes on this thought in a footnote, where he writes,

Another more specific theoretical limitation is that Trotsky, not unlike Lenin, continues to oppose the 'good' (orthodox Marxist) early Kautsky to the late 'bad' renegade, not seeing how the seeds of his regression are all already there in his earlier 'orthodoxy'.¹⁵

Yet any careful reading of Trotsky's Notebooks would demonstrate that Trotsky's critique of the notion of "gradualism" contained in Darwin and fundamentalist Darwinists is at the same time a philosophical critique of Kautsky and the Marxism of the Second International. The quote we reproduced previously about the importance of catastrophes in the evolution of the earth and life forms is in fact excerpted from an essay on Kautsky which is then followed by the following explicit discussion of Kautsky's brand of Marxism,

Kautsky did not have this indispensable living experience of revolution. He received Marxism as a finished system and popularized it like the schoolmaster of scientific socialism. The flowering of his activity came about in the deep gulf between the routed Paris Commune and the first Russian revolution. Capitalism had developed with an omnipotent might. Workers' organizations grew almost automatically but the "final goal", that is the social-revolutionary task of the proletariat, became separated from the movement itself and maintained a purely academic existence. Hence Bernstein's notorious aphorism: "the movement is everything the final goal, nothing". As the philosophy of a workers' party this is nonsense and banal. But as a reflection of the real spirit of German social-democracy of the last quarter-century before the war Bernstein's dictum is very indicative; the everyday reformist struggle had acquired a self-sufficient character while the final goal was kept in Kautsky's department.¹⁶

It is true that, unlike Žižek's ahistorical blanket dismissal of Kautsky, Trotsky recognized that Kautsky made important contributions to Marxism in his earlier period. At the same time, is not the characterization of Kautsky as the "schoolmaster of scientific socialism" who "received Marxism as a finished system" not recognition of the fact, to quote Žižek, of "how the seeds of his regression are all already there in his earlier 'orthodoxy'"?

¹⁵ Slavoj Žižek, *Slavoj Žižek Presents Trotsky: Terrorism and Communism*, (Verso, 2007), p. 179n1.

¹⁶ Trotsky, *Portraits, Personal and Political*, <http://www.marxists.org/archive/trotsky/profiles/kautsky.htm>

A far more egregious example of the dismissal of Trotsky as a Marxist theoretician can be found in Kevin Anderson's study of Lenin's Philosophical Notebooks, **Lenin, Hegel and Western Marxism: A Critical Study**. Although Anderson's book was published in 1995, nine years after the publication of Trotsky's Notebooks, the latter are mentioned in passing only once in this book and there is no attempt to discuss their substance. What we find in Anderson's otherwise important study of Lenin's Philosophical Notebooks is a consistent denigration to the point of outright distortion of Trotsky's contributions to Marxist theory. Anderson wages his battle against Trotsky mostly in his footnotes as exemplified by the following remarks,

Trotsky's theoretical work after 1914 shows little development on the issue dialectics. Even when in exile during the 1930s, he never grappled seriously with Hegel or with the major works on Marxist dialectics published by then, which included Marx's **1844 Manuscripts**, Lenin's **Hegel Notebooks**, and Lukács's earlier publication, **History and Class Consciousness**. Trotsky's continued adherence to a crude form of scientific materialism is evident in his most philosophical work of the 1930s, now published as **Trotsky's Notebooks, 1933-1935: Writings on Lenin, Dialectics, Evolutionism**, trans. And with an introduction by Philip Pomper.¹⁷

The above is Anderson's sole reference to the existence of Trotsky's Notebooks and as can be seen, there is not the slightest attempt to address their content. Rather, one has the impression that the sole reason Anderson mentions the Notebooks at all is to obviate any objection that his dismissal of Trotsky's theoretical work ignored his Notebooks. With the Notebooks thus disposed of, Anderson simply puts forward the blanket assertion that Trotsky was an adherent of "a crude form of scientific materialism" and "never seriously grappled with Hegel or with the major works on Marxist dialectics published by then." As is evident from even a casual perusal of the Notebooks, the charge that Trotsky "never seriously grappled with Hegel" is patently false. Whether Trotsky ever read Lukács is not known, but there is good reason to believe that Trotsky was well acquainted with Lenin's Philosophical Notebooks. Pomper says the following on this subject,

Perhaps he was inspired by a reading of Lenin's philosophical notebooks, which were first published in 1929-31 in *Leninskii sbornik*, a multivolume serial devoted to the publication of Lenin's writings. Trotsky had almost a full run of the serial and possessed Lenin's notebooks among the volumes he had with him in exile. Trotsky might even have imitated (whether consciously or unconsciously) some of Lenin's distinctive multilingual annotations when he began his own notebook on Hegel.¹⁸

It is also inconceivable that Trotsky would not have read Marx's **1844 Manuscripts** when they were first published in Russian, although there is no concrete evidence about this assertion one way or the other. As to the charge that Trotsky was an advocate of "a

¹⁷ Kevin Anderson, *Lenin, Hegel and Western Marxism: A Critical Study*, (University of Illinois Press, 1995), p. 271n21.

¹⁸ Pomper, *Ibid*, p. 39.

crude form of scientific materialism”, perhaps Anderson should first confront Trotsky’s critique of Max Eastman’s positivism and scientism, his critique of orthodox Darwinism and Kautsky, his methodological anti-reductionism and his discussion of the need for “subjective dialectics” before making such a glib dismissal of Trotsky as a theoretician. Perhaps Anderson meant to point to Trotsky’s lifelong interest in the natural sciences? If an interest in the way in which physics and chemistry both vindicate dialectics and at the same time expose the limitations of scientists who are not consciously dialectical is an indication of “crude... scientific materialism”, then one must grant Anderson’s point.

Anderson’s charge of Trotsky’s lack of interest in dialectics takes on comical proportions in yet another footnote, where he cites his own earlier baseless assertions as proof of his accusation. Here it is:

Trotsky, who, as we have seen, had little interest in Hegelian dialectics, made a veritable theoretical category out of intuition.¹⁹

There follows a long quote from Trotsky’s **My Life** about the importance of intuition from the standpoint of revolutionary leadership, Trotsky’s point being that both theoretical work and “practical routine” are by themselves inadequate. A revolutionary leader must also be able to judge the situation and know when to break from routine. This rather ordinary statement about the inadequacy of book learning and routine is taken by Anderson to signify that Trotsky was an anti-theoretician who believed that some kind of mystical inner sense can be a proper guide in a revolutionary situation. Later in this note, Anderson reinforces his case with another quote from Trotsky,

Trotsky also applied this category [intuition] to Lenin, writing that for the latter, “materialist dialectics” was “necessary but not sufficient.” Lenin also “needed that mysterious creative power that we call intuition.” See Trotsky Lenin (New York: Blue Ribbon, 1925), p. 193. From the standpoint of Hegel’s Science of Logic, such thinking could be characterized as an example of Kantian dualism.²⁰

It is hardly necessary to comment on this misuse of quotations taken completely out of context. Anderson’s sophistry is notable only for its crudeness.

We are confident that anyone who reads Trotsky’s Notebooks from the standpoint of what is revolutionary in the dialectic will come away with a fuller appreciation both of Trotsky as a theoretician and of the importance of dialectics. To be sure Trotsky is not beyond criticism. There are areas that Trotsky did not explore in depth. One example for instance is in his discussion of the category of ‘determinism’. He writes,

Teleology and Determinism

All schools of subjectivism in one or another fashion are based on the contradiction between objective cause and subjective purpose. Determinism is the philosophy of objective causality. Teleology is the philosophy of subjective purposes. The attempt to set up a hostile opposition between them or to combine

¹⁹ Anderson, Ibid, p. 278n38

²⁰ Anderson, Ibid, p. 278n38

them eclectically is itself a product of philosophical ignorance. The purpose is a partial aspect of the cause. Teleology is only a special department of determinism.

To say that “subjective purpose” is only a special department of ‘determinism’ first of all begs the question of what is meant by ‘determinism’. If what is meant is that “subjective purpose” exhibits a law-like structure, then that is a statement with which we can agree as it leaves scope for what Trotsky calls elsewhere the “subjective dialectic”. We can also agree that there is a relationship between the “subjective dialectic” and the “objective dialectic”. Yet elsewhere Trotsky also says that

...the psyche, arising from matter, is “freed” from the determinism of matter, so that it can independently—by its own laws—influence matter.

The problem is that what is usually meant by ‘determinism’ is precisely the opposite of any notion that the psyche is “freed” from the determinism of matter. This is an area that requires much more thought, although Trotsky’s strong anti-reductionism saved him from the fate of many other Marxists who walked down the road of ‘determinism’ only to find the land of vulgar materialism.

It is undoubtedly true that Trotsky did not engage with Hegel’s Logic to the same depth that Lenin did in 1914. The evidence indicates that Trotsky’s methodical study of the Logic was broken off in the first section on the doctrine of Being. The reasons for that undoubtedly have to do with the difference in circumstances facing Lenin in 1914 and Trotsky in the 1930s. While great historical events pushed both men to a study of the dialectic during their respective periods of exile, the possibilities for completing that study differed. Trotsky had to divide his time to a host of concerns, not the least of which was the building of a new revolutionary international. He freely admits that he is not able to pursue the study of Hegel at one point as a result of his other responsibilities.

Yet for all that, Trotsky obviously thought that his study of Hegel and the dialectic was of abiding importance in his work of rebuilding the revolutionary movement after the betrayals of Stalinism. Therefore it is no surprise that much of what appears as fragmented notes here is later worked up into entire finished essays when Trotsky took on the Shachtman-Burnham faction in the Socialist Workers Party in 1939-1940. For Trotsky saw the evolution of this group of intellectuals who started out by disparaging the importance of dialectics, much as Eastman did, as confirmation of his belief that there is no case in which an opponent of dialectical materialism had sustained a revolutionary commitment. The Notebooks could in that light be seen as foreshadowing the great polemic with Shachtman and Burnham published as **In Defense of Marxism**.

We are including several selections from Trotsky’s Notebooks that discuss dialectics, evolution and psychology. We have retained Pomper’s original annotations to the notes in their proper sequence.

Excerpts from Trotsky's Notebooks, 1933-1935: Writings on Lenin, Dialectics, and Evolutionism Translated and Annotated by Philip Pomper

Excerpt 1

Hegel

See the topic L. [Lenin]

Those who repudiate “dialectics” consider it to be simply superfluous, a useless playing with thought. Positive science is enough! Does positive science therefore exclude pure mathematics and *logic*?¹

In fact, dialectics is related to logic (formal) as higher mathematics is to lower.

Hegel himself viewed dialectics precisely as logic, as the science of the forms of human cognition, but in Hegel these forms are the ones in which the world develops, in that in logical forms it is only [realizing] its material content. Dialectics is summarized by Hegel in a work called “Wissenschaft der Logik.”

For Hegel dialectics is a logic of broader dimensions—in space and in time—universal logic, the objective logic of the universe.

The negation of the concept in itself.

If we visualize the fabric of life as a complex piece of knitting, then *the concept*² can be equated with the separate stitches. Every concept seems to be independent and complete (formal logic operates with them this way), in reality every stitch has two ends, which connect it with adjacent stitches. If pulled at the end it unravels—the dialectical *negation* of a concept, in its *limitedness*, in its sham independence.

Some objects (phenomena) are confined easily within boundaries according to logical classification, others present [us with] difficulties: they can be put here or there, but within a stricter relationship—nowhere. While provoking the indignation of systematizers, such transitional forms are exceptionally interesting to dialecticians, for

¹ Trotsky no doubt has in mind not only Eastman and Dewey's school of pragmatism, but the English tradition of empiricism. He does not attempt to engage Bertrand Russell and “logical empiricism”, which deals with the issue he raises here.

² The word “concept” is the translation of “poniatie,” and the latter is the Russian translation of the German “Begriff.” The word “Begriff” is often translated as “notion” in English, but “concept” will be used here.

they smash the limited boundaries of classification, revealing the real connections and consecutiveness of a living process.

According to Hegel *being* and *thinking* are identical (absolute idealism). Materialism does not adopt this *identity*—it premises being to thought.

“abstract, tot unbewegend” (I, 43)³
Sehr gut!

The identity of being and thinking according to H[egel] signifies the identity of objective and subjective logic, their ultimate congruence. Materialism accepts the correspondence of the subjective and objective, their unity, but not their identity, in other words, it does not liberate matter from its materiality, in order to keep only the logical framework of regularity, of which scientific thought (consciousness) is the expression.

“in ihrer Wahrheit das ist in ihrer Einheit”
I, 43⁴
Sehr gut!

The doctrine of the teacher is taken up only in ready-made results, which are transformed into a pillow for lazy thought. Hegel on Kant and his epigones. (I, 44)⁵

From Kant to Hegel (from dualism to monism)

Kant: Reason is self-legislating, it constructs its tools of cognition (the categories) by itself; only the thing in itself is located outside of consciousness.

Hegel: But the thing in itself is only a logical abstraction, created by reason; consequently nothing exists aside from Reason.

Is it possible to say that Hegel's *absolute idealism* is a *self-legislating solipsism*?

The concept—is not a closed circle, but a loop, but you can also knot it. (this has been said once already!!)

Mikhailovskii⁶ and others deduce the triad⁷ from the *past*, *present* and *future*. There is a shadow of truth here, but only a shadow. Our conceptualizing reflects *processes*,

³ G.F.W. Hegel, *Wissenschaft der Logik* Georg Lasson, ed., in *Samtliche Werke* (Leipzig: Felix Meiner, 1923), vol. 3, erster Teil. The quotation is inexact in that a comma has been omitted after “tot.”

⁴ Ibid. A comma has been omitted after “Wahrheit”

⁵ Ibid., p. 44

⁶ N. K. Mikhailovskii (1842-1904), a leading Russian literary critic and one of the founders of the Russian school of subjective sociology during the late 1860s, became an object of scorn during the mid-1890s, when Lenin and other Marxists attacked theoretical founders of Russian populism

⁷ Here Trotsky has in mind the well-known Hegelian triad of thesis, antithesis, and synthesis.

transforming them into “*objects*.” Not every present is suitable for the formation of a concept; a certain *stabilization* of the process is necessary in order for an enduring representation of it to form. This act of consciousness is thereby a rupture with the past, which prepared the stabilization. Our concept of the earth, the “most durable” of our conceptions, the “most durable” of the objects of our everyday conceptions, the “most durable” of the objects of our everyday milieu, is based upon a total rupture with the revolutionary formation of the solar system. The concept is conservative. Its conservatism issues: a) from its utilitarian purpose, b) from the fact that the memory of a person, like that of humankind, is short.

Thus the triad does not at all correspond to an undifferentiated past, present, and future, but to the formative stages of the process,

Excerpt 2

The Second Notebook

a = a is only a particular case of the law
a ≠ a.

Dialectics is the logic of motion, development, and evolution.

Formal logic involves stationary and unchanging quantities: a = a. Dialectics retorts: a ≠ a. Both are correct. A = a at every given moment. A ≠ a at two different moments. Everything glows, everything is changing. What does logic express? The law of the external world or the law of consciousness? The question is posed dualistically, [and] therefore not correctly [for] the laws of logic express the laws (rules, methods) of consciousness in its active relationship to the external world. The relationship of consciousness to the external world is a relationship of the part (the particular, specialized) to the whole.

Logic involves unchanging qualities (a = a) and the fixed quantities of these qualities (25a). Dialectics is constructed on the transition of quantity into quality and the reverse.

The law of the transition of quantity into quality is (very likely) the fundamental law of dialectics.

In this sense dialectics is the logic of Darwinism (in opposition...to Linnaeus³⁶...), the logic of Marxism (in opposition to rationalistic, idealistic theories of the historical process), the logic of philosophical materialism (in opposition to Kantianism, etc.)

The dialectical relationship to quality signified an entirely new relationship to so-called moral values. Official, that is, bourgeois thought today still views justice, rights, honors, as absolute values, as higher criteria. Dialectical materialism razed to the ground the kingdom of idealistic mythology. It showed how imperceptible quantitative molecular changes in economics prepare the way for a radical change in moral criteria: the old values are transformed into their opposite, against them new values enter the scene, the carrier of which is a new class or stratum, not seldom a new generation of the [old] class itself. It is quite usual in philistine circles to accuse Lenin of *cynicism*, and this expresses precisely hostility to the dialectical worldview, a struggle for absolute values, [both] essential for covering up their] pitiful, barren, self-interested practice.

³⁶ Carolus Linnaeus (1707-1778), a Swedish botanist, created modern taxonomy. To Trotsky, he represents a static, ahistorical approach to nature.

Alexander III [in] the 1880s was much more confident and decisive in the defense of autocracy than his father. “The great reforms”—especially the *zemstvo*, the judiciary, the press—made it possible for the bureaucracy to distinguish the true strength of its enemies and allies. The balance proved to be a favorable one.

Dialectics

It must be recognized that the fundamental law of dialectics is the conversion of quantity into quality, for it gives [us] the general formula of all evolutionary processes—of nature as well as of society.

Cognition begins with the differentiation of things, with their opposition to each other, with a classification of their qualitative differences. The quantitative definitions operate with independent particulars, consequently they depend upon qualitative definitions (five fingers, ten years, 100 amperes).

Practical thought lives within these limits. For a cattle trader a cow is a cow; he is interested only in the individual qualities of its udder. From his practical point of view he is indifferent to the genetic links between the cow and an amoeba.

If we grasp the universe from the point of view of atomic theory, then it appears to us like a gigantic laboratory for the transformation of quantity into quality and the reverse.

It is possible to acknowledge this, but to fail to make it the fundamental principle of one's own thought. There are those who unite the Kant-Laplace worldview with biblical faiths or quasi-faiths and, while advertising themselves as Darwinists, believe in the higher principles, the moral innate in humanity.

The principle of the transition of quantity into quality has universal significance, insofar as we view the entire universe—without any exception—as the product of formation and transformation and not as the fruit of conscious creation.

Hegel himself undoubtedly did not give the law of the transition of quantity into quality the paramount importance which it fully deserves. Hegel relied upon the Kant-Laplace theory, but he did not yet know either Darwinism or Marxism. It is indeed sufficient to recall that the dialectician Hegel could consider the Prussian state the incarnation of the absolute idea.

Engels, following Hegel, called those who think in absolute and unchanging categories, that is, who visualize the world as an aggregate of unchanging qualities, metaphysicians.

In a more or less pure form “metaphysical” thinking exists perhaps only in savages. Among civilized people eclecticism holds sway. The laws of “evolution,” of “progress,” on the whole are recognized, but independent of them several absolute categories are accepted—in the area of economics (private property), in the politics (democracy, patriotism), in morals (the categorical imperative).

Anglo-Saxon thinking is at the present moment the preserve of empiricism.

In the English scholar's head, just as on the shelves of his library, Darwin, the Bible, stand side by side, without disturbing each other. Anglo-Saxon thinking is constructed according to the stem of the impermeable bulkhead³⁷. From this issues the most stubborn opposition in the conservative Anglo-Saxon world to dialectical thinking, which destroys all impermeable bulkheads.

"The transition into its opposite"

Vernunft wird Unsinn³⁸

Wohltat--Plage

To view phenomena according to their resemblance or opposition means to see them according to their *quality*.

The transition of quality into quantity and the reverse presupposes the transition of one quality into another.

See Freud.

In primitive languages, big and small, high and low, etc., are expressed by *one word*, and the opposition between big and small is expressed by gestures, intonations, etc. In other words language, at a time when it was being developed, had only a general character, converting opposing qualities into quantitative differences.

The very same thing applies to the concepts of sweet and bitter, and at a later time—to good and evil, wealth and poverty, etc.

In these abstract formulas we have the most general laws (forms) of motion, change, the transformation of the stars of the heaven, of the earth, nature, and human society.

We have here the logical (dialectical) forms of the transformation of one regime into another. But in such general form it is a matter only of possibility.

*The conversion of an abstract possibility into a concrete necessity*³⁹—also an important law of dialectics—is defined each time by a combination of definite material conditions? Thus, from the possibility of a bourgeois victory over the feudal classes until the victory itself there were various time lapses, and the victory frequently looked like a semivictory.

³⁷ The image of the impermeable or watertight bulkhead is taken from ship-building an area in which the Anglo-Saxons had traditionally enjoyed superiority. In this case, of course, Trotsky is using heavy irony.

³⁸ The quotation is from Goethe and is used in shorter form by Trotsky, *The History of the Russian Revolution*, Max Eastman, tr. (Ann Arbor: University of Michigan Press, 1932) 3 vol., I:94.

³⁹ For a possible source of this position, see I. Luppel, "Lenin v bor'be za dialekticheskii materializm," *Molodaia gvardiia* (1924), 2-3:355-56.

In order for a possibility to become a necessity there had to be a corresponding strengthening of some factors and the weakening of others, a definite interrelationship among these strengthenings and weakenings. In other words: it was necessary for several interconnected series of quantitative changes to prepare the way for a new constellation of forces.

The law of the conversion of possibility into necessity this leads—in the last analysis—to the law of the conversion of quantity into quality.

Catastrophes

Everything flows, but not outside [its] banks. The world is not “fluid,” there are changes in it, the crystallization of durable (congealed) elements, although indeed not “eternal” ones. Then life creates its own banks for itself in order later to wish them away. The quantitative changes of matter at a given stage push against those congealed forms, which sufficed for its previous state. Conflict. Catastrophe. Either the old form conquers (only partially conquers), necessitating the self-adaptation of the conquered (partially) process, or the process of movement explodes the old form and creates a new one, by way of its new crystallizations from its wombs and the assimilation of elements of the old form.

See in addition

[John Stuart] Mill #

The liberal (gradualist) conception of development,
progress

The theory of revolutions

The logical antimony of *content* and *form* in this way loses its absolute character. Content and form change place. Content creates new forms from itself. In other words the correlation of content and form leads, in the last analysis, to the conversion of quantity into quality.

Continue in relation to the other antinomies.

What is the aim of this? says the contemporary “positivist”: I can give an excellent analysis of the world of phenomena without these contrivances and pedantic subtleties. With equal justification a butcher will say that he can sell veal without restoring to the Aristotelian syllogism. To the butcher we would try to make clear that in reality he is always relying on the syllogism without knowing it; [that] if his trade is poor, then his personal ignorance cannot but affect it; but that, if he wants to set things up solidly, then he cannot avoid teaching his son the sciences, the composition of which includes the science of the syllogism (logic).

To the representative of positivism, with his limited point of view, we say that all the contemporary sciences [(at their head, those that involve matter, substance)] use the laws of dialectical thinking at every step, just as the shopkeeper uses the syllogism or as Monsieur Jourdain uses prose: without ever knowing it. Precisely because of this the average scholar preserves many habitual [traits resembling those] of impermeable bulkheads, not posing those questions which issue from the *general* movement of scientific thought, and cravenly ceases to draw general conclusions, when they call for a dialectical leap.

The dialectic does not liberate the investigator from painstaking study of the facts, quite the contrary: it requires it. But in return it gives investigative thought elasticity, helps it cope with ossified prejudices, arms it with invaluable analogies, and educates it in a spirit of daring, grounded in circumspection.

[Text of a newspaper clipping reporting Enrico Fermi's discovery of a new element.]⁴⁰

The example of Mendeleev,⁴¹ whose lack of dialectical method prevented him from recognizing the mutual transformability of the elements, despite the fact that his discovery of the periodic table of elements connected the quantitative differences among them to the quantitative differences of atomic weights.

⁴⁰ The article on Fermi entitled "Astonishing Discovery by an Italian Scientist" describes the announcement of Fermi's creation of a new element, uranium 93. Trotsky had long understood the implications of atomic theory and believed that the transmutation of elements by artificial methods signified greater human control over nature and access to the vast stores of energy within the atom. Trotsky also greeted new discoveries of this sort as confirmation of dialectical materialism. (I have not determined the source of the clipping, but the announcement of Fermi's discovery was carried in many newspapers on or shortly after June 5, 1934.

⁴¹ D.I. Mendeleev (1834-1907) discovered the relationships among the elements that led to his formulation of the periodic table of elements.

Excerpt 3

Lenin and Martov

If all contemporary thought is penetrated by elements of the dialectic, then this is even truer of the political thinking of the Mensheviks, who had passed through the school of Marxism and revolutionary events. But dialectics differ. Martov very subtly, in many cases, with great virtuosity commanded the dialectic. But this was a dialectic close to his thinking about phenomena in the intelligentsia milieu connected with the intelligentsia of the top stratum of the workers.

Martov sometimes very intelligently analyzed regroupings in the sphere of parliamentary politics, changes in the tendencies of the press, the maneuvers of ruling circles—insofar as all this was limited to ongoing politics, the preparatory stage for distant events or the peaceful conditions when only the leaders, deputies, journalists, and ministers of prewar Europe acted in the political arena, when the basic antagonists remained virtually unchanging.

Within these boundaries Martov swam about like a fish in water. His dialectic was a dialectic of derivative processes and limited scale, episodic changes. Beyond these boundaries he did not venture.

On the contrary, Lenin's dialectic had a massive character. His thought—his opponents often accused him of this—"simplified" reality, indeed swept aside the secondary and episodic in order to deal with the basic. Thus, Engels "simplified" reality when he defined the state as armed detachments of people with material appendages in the form of jails. But this was a *saving* simplification: true, insufficient in itself for an evaluation of the conjunctures of the day, it was decisive in the last historical analysis.

Lenin's thought operated with living classes as the basic factors of society and thus revealed *all* its power in those periods when the great masses entered the scene, that is, in periods of profound upheavals, wars, and revolutions. The Leninist dialectic was a dialectic for the large scale.

Although the fundamental laws of mechanics hold for all man's productive activity, in reality there is the mechanics of the watchmaker and the mechanics of Dneprostroy.⁴² Martov's thought was the thought of a watchmaker in politics. Lenin's thought worked on the scale of Dneprostroy. Is this a difference of a quantitative order? Quantity here passes over into quality.

The comparison with the watchmaker, however, has very conditional meaning. A watch's mechanism will live its self-contained life (so long as it is not ruined), and the watch's hands can correctly show the hour, even though the watchmaker is ignorant of the law of

⁴² Trotsky refers here to the huge hydroelectric project on the Dnepr in the Ukraine (1927-32)

the earth's motion around its axis. But the politics of a minor scale (internal groupings within parties, parliamentary games, etc.) maintains its relative independence while the (relatively) large factors, that is, classes, are unchanging. Martov's dialectic therefore yielded the more tragic misfirings in matters of a minor scale as well, the closer the approach of stormy class conflicts, of perturbations in the life of society. And since our entire epoch since the first years of the century became one of ever more grandiose historical perturbations, Martov's thought increasingly showed its weakness, turned dialectics simply into a screen for inner uncertainty, and fell under the influence of vulgar empiricists, like Dan.⁴³

To the contrary, Lenin's thought analyzed all the secondary phenomena, all the elements of the superstructure more penetratingly, the more immediately they depended upon the class movements that were occurring. From stage to stage Lenin's thought became stronger, more courageous, and at the same time subtler and more flexible.

Martov's mistakes were always and invariably mistakes *to the right* of historical development, they grew in frequency and in scope and soon outgrew the area of tactics and moved into that of strategy, and by virtue of that rendered nil the tactical resourcefulness and wealth of his initiatives.

Lenin's political mistakes were always *to the left* of the line of development, thus the farther [along the line of development], the rarer they became, the smaller the angle of deviation, the sooner they were recognized and corrected; by virtue of which the relationship between strategy and tactics achieved a higher and more perfect correspondence.

Materialist dialectics (beginning)

Dialectics is the logic of development. It examines the world—completely without exception—not as a result of creation, of a sudden beginning, the realization of a plan, but as a result of motion, of transformation. Everything that is *became* the way it is as a result of lawlike development.

In this, its fundamental and most general sense, the dialectical view of nature and humanity coincides with the so-called “evolutionary” view of nature, the view of the contemporary natural and social sciences, insofar as they genuinely deserve this designation. One needs only to note that the philosophical conception of the development of all existence, representing a courageous generalization issuing from the preceding development of science, emerged before Darwinism and Marxism and either indirectly or directly enriched them

We further will see that “evolution” as a general formula for the origins of the world and society is more amorphous, less concrete, with less content, than the dialectical

⁴³ F.I. Dan (1871-1947), a prominent Menshevik and close collaborator with Martov, was a leading proponent of “defensism” during the First World War. He was exiled in 1922 and died an émigré.

conception. Now it is quite enough for us that the dialectical (or evolutionary) point of view, consequently the suitable one, inevitably leads to materialism: the organic world emerged from the inorganic, consciousness is a capacity of living organisms depending upon organs that originated through evolution. In other words “the soul” of evolution (of dialectics) leads in the last analysis to matter. The evolutionary point of view carried to a logical conclusion leaves no room for either idealism or dualism, or for the other species of eclecticism.

Thus, “the materialist dialectic” (or “dialectical materialism”) is not an arbitrary combination of two independent terms, but is a differentiated unity—a short formula for a whole and indivisible worldview, which rests exclusively on the entire development of scientific thought in all its branches, and which alone serves as a scientific support for human praxis.

“The liberal conception of “progress”

Vestnik Evropy [Herald of Europe]⁴⁴, sixth year, second book, February 1871

#

Russia's commercial problems

The development of international trade links—to speak with the words of J. S. Mill—“being the chief guarantee of peace on the globe, serves as the great, solid security for the constant progress in ideas, institutions, and qualities of the human species.”

Transpose here what was said about Clemenceau⁴⁵, his attitude toward evolutionism, etc.

Note, how an egg “progresses” into a chicken.

The old sophism about the bald man⁴⁶ is the dialectical revelation of the unsoundness (= inadequacy) of formal categories.

Contrary to a photograph, which is the element of formal logic, the [motion-picture] film is “dialectical” (badly expressed)

Cognizing thought begins with differentiation, with the instantaneous photograph, with the establishment of terms—conceptions, in which the separate moments of a process are placed but from which the process as a whole escapes. These terms-conceptions, created by cognizing thought, are then transformed into its fetters. Dialectics removes these

⁴⁴ The reference is to a prominent liberal journal published in Russia (1866-1918).

⁴⁵ Georges Clemenceau (1841-1929), a leading member of the French Radical party, became premier and minister of war in 1917. Clemenceau's *In the Evening of Thought* (Boston: Houghton Mifflin, 1929) sets forth his views on evolution at considerable length.

⁴⁶ Trotsky probably had in mind the well-known paradox (aporia) attributed to the Greek school of thought at Megara (late 5th-early 3rd century B.C.).

fetters, revealing the relativity of motionless concepts, their transition into each other. (S. Logik, I, S. 26-27)⁴⁷

“We can investigate reality without the dialectic.”

In the same way that we can walk without [knowing] anatomy and digest food without [knowing] physiology.

Hegel's absolute idealism is directed against dualism—against the thing-in-itself (I, 28)⁴⁸ of dualism. Isn't the recognition of the reality of the external world, outside a cognizing consciousness and independent of it, a return to dualism? Not at all, for cognition is in no respect an independent principle for us, but a specialized part of the objective world (make precise).

The evolutionary point of view is not at all hostile to our reason (Engels). Therefore we must study evolutionary logic (dialectics). Eastman⁴⁹ scoffs at this.

Reason, which would be present at the most distant evolution of the earth, at the origin of the solar system and at the development in it of organic life, etc., and would be able to embrace these processes, would be so to speak, dialectical reason immanent at birth. But our human reason is nature's youngest child. To human memory nature offered not so much a picture of change, as repeating cycles, “the wind returns to its circuits.” Humanity itself is a consecutive succession of generations. Each generation starts the difficult work of cognition in a certain sense from the beginning. Within the boundaries of everyday praxis people are accustomed to dealing with unchanging objects. As a result of this innate, inherited, automatized [practice] there appears rational logic, which dismembers nature into autonomous and unchanging elements. The development of thought makes its way from vulgar logic to dialectics only on the basis of accumulated scientific experience, under the spur of historical (class) development.

Rationalism is an attempt to create a complete system on the basis of vulgar logic.

The chronology of evolutionism

The *Kant-Laplace* theory of the origins of the solar system⁵⁰

The dialectic of Hegel (after the French Revolution)

The theory of [Charles] Lyell (the evolution of the earth)⁵¹

⁴⁷ Hegel, *Wissenschaft der Logik*, erster Teil, pp. 26-27.

⁴⁸ *Ibid.*, p. 28

⁴⁹ Trotsky of course had in mind Max Eastman (1881-1969) and Eastman's attack upon dialectics.

⁵⁰ This theory was the product of the joint efforts of Immanuel Kant (1724-1804) and Pierre Simon Laplace (1749-1827). They believed the solar system was a product of nebular evolution—of the condensation of gases.

The theory of Darwin (the origin of species)
The theory of Marx

In this fashion the transition from thinking in static categories to thinking in [terms of] development traces its lineage to the epoch after the Great French Revolution, which was the last great, brilliant burst of courageous rationalism.

Kant earlier believed that logic had been perfected because, since the time of *Aristotle*, that is, over a period of two thousand years, it hadn't changed.

Hegel to the contrary saw in this the enormous backwardness of logic.

The essence of the matter is that the rules and methods of a narrowly practical, common or vulgar [mode] of thinking crystallized—entirely on the basis of praxis—and the theoretical work connected to it—very early, already in ancient times, and within the boundaries of this common thinking change was neither demanded nor tolerated. But precisely the growth and development of cognition on the foundation of Aristotelian logic prepared the way for its explosion.

The triad is the “mechanism” of the transformation of quantity into quality.

Historically humanity forms its “conceptions”—the basic elements of its thinking—on the foundation of experience, which is always incomplete, partial, one sided. It includes in “the concept” those features of a living, forever changing process, which are important and significant for it at a given moment. Its future experience at first is enriched (quantitatively) and then outgrows the closed concept, that is, in practice negates it, by virtue of this necessitating a theoretical negation. But the negation does not signify a turning back to tabula rasa. Reason already possesses: a) the concept and b) the recognition of its unsoundness. This recognition is tantamount to the necessity to construct *a new concept*, and then it is inevitably revealed that the negation was not absolute, that it affected only certain features of the first concept. The new concept therefore has by necessity a *synthetic* character: into it enter those elements of the initial concept, which were able to withstand the trial by experience + those new elements of experience, which led to the negation of the initial concept.

Thus, in the domain of thinking (cognition) as well, the quantitative changes lead to qualitative ones, and then these transformations haven't a [steady] evolutionary character but are accompanied by breaks in gradualness, that is, by small or large intellectual catastrophes. In sum, this also means that the development of cognition has a *dialectical character*.

The new “synthetic” concept in turn becomes the point of departure for a new trial, enrichment, verification, and for a new negation. This is the place of the triad in the development of human thought. *But what is its place in the development of nature?*

⁵¹ Sir Charles Lyell (1797-1875), a British geologist, made a major contribution to the formulation of modern evolutionism through his studies of rock strata and his work in paleontology.

Here we approach the most important problem of dialectical philosophy.

The interrelationship between consciousness (cognition) and nature is an independent realm with its own regularities.

Consciousness splits nature into fixed categories and in this way enters into contradiction with reality. Dialectics overcomes this contradiction—gradually and piecemeal—bringing consciousness nearer to the world's reality. The dialectic of consciousness (cognition) is not thereby a reflection of the dialectic of nature, but is a result of the lively interaction between consciousness and nature and—in addition—a method of cognition, issuing from this interaction.

Since cognition is not identical with the world (in spite of Hegel's idealistic postulation), dialectical cognition is not identical with the dialectic of nature. Consciousness is a quite original part of nature, possessing peculiarities and regularities that are completely absent in the remaining part of nature. Subjective dialectics must by virtue of this be a distinctive part of objective dialectics—with its own special forms and regularities. (the danger lies in the transference—under the guise of “objectivism”—of the birth pangs, the spasm of consciousness, to objective nature.)

The dialectic of cognition brings consciousness closer to the “secrets” of nature, that is, it helps it master the dialectic of nature too. But what does the *dialectic* of nature consist of? Where is the boundary separating it from the dialectic of cognition (a vacillating dialectical “boundary”)?

Consciousness acts like a camera: it tears from nature “moments” and the ties and transitions among them are lost; but the object of photography, the living person is not broken up into moments. Rather, motion-picture film gives us a crude “uninterruptedness” satisfactory for the retina of our eye and approaching the uninterruptedness of nature. True, cinematic uninterruptedness consists in fact of separate “moments” and short breaks between them. But both the former and latter are related to the technology of the cinema, which exploits the eye's imperfection.

Verify how this problem is treated by Lenin and Plekhanov.⁵²

Hegel himself spoke more than once about necessary concreteness, issuing from the immanent motion of “moments”—of motion which represents the direct opposite of an analytic procedure (Verfahrens), that is, of an action external in relation to the object itself (Sache) and innate in the subject. (I, 60).⁵³

⁵² G.V. Plekhanov (1856-1918) is considered to be the father of Russian Marxism. He began his revolutionary career as a populist movement over the strategy of terrorism. In emigration he converted to Marxism and became the leading figure in the Group for the Liberation of Labor in Geneva, Switzerland. He remained a leading theoretician after the formation of the RSDRP and the splits. Like the Mensheviks, to whom he was closer than to the Bolsheviks he opposed Lenin's seizure of power.

⁵³ Hegel, *Wissenschaft der Logik*, erster Teil, p. 60.

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The identity of *Being* (Sein) and *Nothingness* (Nichts), like the contradictoriness of the concept of the beginning, in which Nichts and Sein are united, seems at first glance a subtle but fruitless play of ideas. In fact, this “game” brilliantly exposes the failure of static thinking, which at first splits the world into motionless elements, and then seeks truth by way of a limitless expansion [of the process].

The role of the émigrés

All of the information about the West, including [what came] through the legal press (right up to the liberal [press]), came through them.

Legal and illegal Marxism

1905

Legal writers of Tsarist Russia not only did not say everything, they didn't think things through. In essence, they didn't express fully and often did not think through the main point. Remaining within the boundaries of legality, they emasculated their thought. The illegal press seemed to them “simplistic,” “fanatic,” “rectilinear.” But when the days of freedom began, it turned out that the undergrounders, the émigrés, swept the journalistic field. Only they knew how to write the language of the revolution. But this is the least of it: precisely from among the émigrés came the most talented journalists. This was no accident: politics calls for spirit, consequently, courage, and these qualities express themselves in style.

The identity of opposites

Little Paul says “donne!” both when he wants to take, and when he wants to give.

Excerpt 4

Why on a given stage of scientific thought in various areas is it necessary to put a theory “on its legs” (the presumption being that it has been standing on its head until that moment?)

Because humankind in its practical activity is inclined to view the entire world as a means, and itself as the end. Practical egocentrism (homocentrism)—is carried over into theory—turns the entire world structure on its head. From this issues the need for corrections (Kant-Laplace, Lyell, Darwin, Marx).

The brain is the material substrate of consciousness. Does this mean that consciousness is simply a form of “manifestation” of the physiological processes in the brain? If this were the state of affairs, then one would have to ask: What is the need for consciousness? If consciousness has no *independent* function, which rises *above* physiological processes in the brain and nerves, then it is unnecessary, useless; it is harmful because it is a superfluous complication—and what a complication!

The presence of consciousness and its crowning by logical thought can be biologically and socially “justified” only in the event that it yields positive vital results beyond those which are achieved by the system of unconscious reflexes. This presupposes not only the autonomy of consciousness (within certain limits) from automatic processes in the brain and nerves, but the ability of consciousness to influence the action and functions of the body as well. What kind of switches serving consciousness are there for achieving these goals? These switches clearly cannot possess a material character, or else they would be included in the chain of anatomic-physiological processes of the organism and could not play an independent role consisting of their prescribed functions. Thought operates by its own laws, which we can call the laws of logic; with their help achieving certain practical outcomes, it switches on the last (with more or less success) in the chain of our life activities.

It is well known that there is an entire school of psychiatry (“psychoanalysis.” Freud) which in practice completely removes itself from physiology, basing itself upon the inner determinism of psychic phenomena, such as they are. Some critics therefore accuse the school of Freud of idealism. That psychoanalysts are frequently inclined toward dualism, idealism, and mystification. Thus, Fr. Wittels (Freud, l’homme, la doctrine, l’ecole—French translation)⁵⁵ admonishes his teacher for not daring “depouiller contemplement l’ame de tout ce qui est organique” (207). Insofar as I know, this is a fact. But by itself the method of psychoanalysis, taking as its point of departure “the autonomy” of psychological phenomena, in no way contradicts materialism. Quite the contrary, it is precisely dialectical materialism that prompts us to the idea that the psyche could not

⁵⁵ The English translation of Wittels’ book is Sigmund Freud: His Personality, His teaching, and His School, Eden and Cedar Paul, tr. (New York: Dodd, Mead, 1924). It is possible that Trotsky’s remarks about Freud’s theory of primitive languages are based upon chapter 16, “Bipolarity.” There Wittels mentions Freud’s interest in the philologist Karl Abel’s theory of the antithetical sense of primal words and discusses the theory briefly.

even be formed unless it played an autonomous, that is, within certain limits, an independent role in the life of the individual and the species.

All the same, we approach here some sort of critical point, a break in all the gradualness, a transition from quantity to quality: the psyche, arising from matter, is “freed” from the determinism of matter, so that it can independently—by its own laws—influence matter.

True, a dialectic of cause and effect, base and superstructure, is not news to us: politics grows out of economics in order for it in turn to influence the base by switches of a superstructural character. But here the interrelationships are real, for in both instances the actions of living people are involved; in one instance they are grouped together for production, in the other—under the pressure of the demands of the very same production—they are grouped politically and act with the switches of politics upon their own production grouping.

When we make the transition from the anatomy and physiology of the brain to intellectual activity, the interrelationship of “base” and “superstructure” is incomparably more puzzling.

The dualists divide the world into independent substances: matter and consciousness. If this is so, then what do we do with the unconscious?

Additional Notes

Dialectics

The syllogism is absolutely correct only when it is a tautology, that is, when it is fruitless.

The syllogism is “useful” when...it is incorrect, that is, when it admits into concepts “clearance.”

The entire matter depends upon the permissible dimensions of “clearance.” Here is where dialectics begins.

The fundamental “cell” of dialectical thinking is the syllogism. But it [too] undergoes transmutation, changes, like the basic cells in various tissues of an organism change.

“Philosophy” = a toolmaking guild in relation to all the remaining guilds of science.

A toolmaking guild is not a substitute for production as a whole. In order to use a tool one has to know a special area of production (metal work, lathe work). When an ignoramus, armed with the “materialistic dialectic” tries to solve complicated problems in special areas intuitively, he inevitably makes a fool of himself.

On the other hand, the “specialized” scholar can do without a toolmaking guild, that is, can use a tool of his own making, but his work will clearly suffer from it (Darwin, Mendeleev, and [others]).

“Our Revolution” 1906
from *Kliachko*⁵⁶

Herzen⁵⁷ called Hegel’s philosophy the algebra of revolution. Dialectics is the logic of development. Logic (formal) is the dialectic of motionlessness. Logic is a particular case of the dialectic, when motion and change enter into the formula as “0.”

Cicero believed that between unquestionable truth and unquestionable falsehood there is a broad middle region of truth which depends upon the subject, on the person who is doing the reasoning:

Ista sunt ut disputantur
(a verbatim translation is
impossible) depends upon the
point of view

The “engineer” plays the very same universal role in the social constructions of M. Eastman and other Americans that Robinson Crusoe played in the constructions of bourgeois political economists.

People orient themselves toward ideas in two ways: treating them either as arbitrary, unreal shadows, standing outside the world of facts in their material conditionality, or as almighty “factors” which command reality. Both views are false. The idea is a fact in a chain of other facts.

“With Hegel the dialectic stands on its head. It has to be put on its feet in order to uncover the rational kernel under the mystical hull.” These words of Marx from the introduction to the second edition of *Das Kapital* (1873) more than once inspired critical wits to refine them.

But in essence the very same operation—to turn something over from its head and stand it on its feet—has been repeated in every area of human thought.

God created man.
Man created God.

The earth orbits around the sun.
The sun orbits around the earth.

⁵⁶ S.L. Kliachko (1850-1914) began his long revolutionary career in the 1870s as a member of the Chaikovskii circle in Moscow. He spent most of his life as an émigré and died in Vienna.

⁵⁷ A.I. Herzen (1812-1870), one of Russia’s earliest and most distinguished socialist thinkers, during his longer career as an émigré (1847-70) became an idol of the younger generation of radicals. His influence reached its height during the late 1850s and early 1860s when the journal *Kolokol*, published in London, both reflected and inspired the mood of those opposed to the Tsarist regime.

“To stand on its head...” Eastman scoffs at this. Nevertheless, science like art is full of such reversals.

1. Cosmology until Galileo established the interdependence between movements of the sun and earth. Galileo did not repudiate this dependence, but turned it on its head.
2. Pre-Darwinian biology established the expediency of the structure of species, the correspondence (suitability) of organs to the conditions of life. From this it wound up with a preconceived system. Darwin did not reject the “expediency,” the correspondence of organs, functions, environment, but turned the interdependence on its head. In this brilliant reversal lies the essence of Darwinism.
 - a. To support this, citations about Darwinism.
3. Mendeleev and his periodic system of elements. For him the indecomposable individualities entered certain mathematical relationships to each other. Subsequent developments in chemistry turned these mutual relationships on their head.

All evolution is a transition from quantity into quality. The very concept of gradual, slow development signifies the achievement of qualitative values with the help of quantitative change. This works decisively in all areas.

Darwin's natural selection, which leads to the creation of various plant and animal species, is nothing other than the accumulation of quantitative changes, yielding as a result a new qualities, a new species.

Whoever denies the dialectical law of the transition from quantity into quality must deny the genetic unity of plants and animal species, the chemical elements, etc. He must, in the last analysis, turn back to the biblical act of creation.

Teleological thinking

Tolstoy did not want to accept that he lived on this earth without a preset aim, like a bird that has fallen from its nest.

“It is important to recognize that god is the master and to know what he wants of me; but what he wants of me; but what he himself is, and how he lives, I will never know, because I am not his equal. I am the worker, he is the master.” (Tolstoy)

Teleology and Determinism

All schools of subjectivism in one or another fashion are based on the contradiction between objective cause and subjective purpose. Determinism is the philosophy of objective causality. Teleology is the philosophy of subjective purposes. The attempt to set up a hostile opposition between them or to combine them eclectically is itself a product of philosophical ignorance. The purpose is a partial aspect of the cause. Teleology is only a special department of determinism.

Darwinism

Everyone recognized the process of formation of *variations* by way of natural or artificial selection, but many categorically refused to recognize the very same process for the formation of *species*. As long as the transitional forms are there, the unity of a species seems stable. But should the transitional forms disappear, the varieties would become species.

--[Every process has its material or nonmaterial paleontology.]

Darwin's doctrine started as a theory of the origin of species and became a theory of the evolution of the organic world.

The zoological geography of Darwin and Wallace—thanks to evolutionary theory separated by a gulf from the zoography of Linnaeus, etc. (The role of paleontology)

The intermediate links have died out.

The history of language—is the paleontology of thought.

Along what lines did the *objections against Darwinism* proceed? The Dutch botanist De Vries,⁵⁸ the author of the so-called theory of mutations, tried to establish a *basic* distinction between the special features of variations and those of species, by virtue of which they could not cross from one to the other (But De Vries was an evolutionist all the same.)

Until Darwin the question about the origins of species was considered to be “the secret of secrets.”

Wallace on Darwin:

“I don't have...that inexhaustible patience for gathering a multitude of the most diverse facts, that surprising capacity to draw conclusions from those precise and rich physiological observations, that cleverness in designing a plan of experimentation and that gracefulness in execution, finally—that inimitable style—clear and at the same time cogent and precise—in a word, all those qualities that make Darwin a fully accomplished person...”⁵⁹

(apply to a characterization of Lenin—show the consistency of [his] qualities in various areas)

⁵⁸ Hugo De Vries (1848-1935), a Dutch botanist, whose theory of mutation evidently troubled Trotsky much as it troubled other dialecticians. Apparently Trotsky objected to the idea that variations could not acquire the status of species. Trotsky's approach, which presupposed an accumulation of small changes, differed from the theory of mutations, and he seemingly rejected this path to speciation. For the reaction of other Marxists to De Vries, see Diane B. Paul, “Marxism, Darwinism, and the Theory of Two Sciences,” *Marxist Perspectives* (Spring 1979), 2:125-26.

⁵⁹ The quotation from Alfred Russell Wallace is in Russian, and Trotsky did not cite the work from which he took it. I present Wallace's original version below. Trotsky's stylistic changes and use of ellipses account for the differences in the two English texts.

“Far abler men than myself may confess, that they have not that untiring patience in accumulating, and that wonderful skill in using, large masses of facts of the most varied kind,—that wide and accurate physiological knowledge,—that astuteness in devising and skill in carrying out experiments,—and that admirable style of composition, at once clear, persuasive and judicial,—qualities, which in their harmonious combination mark out Mr. Darwin as the man, perhaps of all men now living, best fitted for the great work he has undertaken and accomplished.

A.R. Wallace, *On Natural Selection* (London: Macmillan, 1870), pp. iv-v.

Dialectics

Wallace—not only a Darwinist but a scientist who independently arrived at the theory of the evolutionary origin of species (among them, humanity), spent more than a little effort to adduce evidence that there was an impassable barrier between human beings and animals in the area of intellect and morality, in other words, evidence for the divine origin of the “soul.”

Wallace makes the same leaps in relation to the transitions from inorganic to organic matter and the appearance of consciousness.

Evolution does not permit bargains: you either have to admit it or reject it.

Every reaction is bound to repudiate transformism.

National-Socialism cannot be reconciled with Darwinism.