

KARL MARX AND CHARLES DARWIN:
AN ANALYSIS OF THE MARXIAN
EVOLUTIONARY IDEA

A Thesis
by
Charles R. Abernathy

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CHAPTER ONE
INTRODUCTION

In 1876, at the graveside eulogy of Karl Marx, Friederich Engels would issue a statement that has been the subject of a rather significant and longrunning debate. The controversial statement was one in which a comparison or parallel was drawn between the work and achievements of Karl Marx and those of Charles Darwin. Friederich Engels, who was perhaps Marx's closest and most intimate associate, proclaimed that "just as Darwin discovered the law of development of organic nature, so Marx discovered the law of development of human history."¹ The following discussion will be concerned with analyzing the basis and the rationale for such a comparison.

It was in the middle decades of the 19th century that two theories of biological and social development would be presented to the world as being explanations for the basis of fundamental change. Karl Marx's theory of development was applied to whole economic systems as well as to the individual development of man within each epoch of history that he described. In a

similar manner, Charles Darwin's theory of biological development serves as an explanation as to the evolutionary progression that occurs through the newly discovered process of natural selection. Upon an initial analysis, the two theories might appear to be only distantly related to one another since their application occurs in distinct areas. However, upon a more thorough examination it becomes apparant that there are a number of historical and theoretical links between these two theories of development that are worthy of examination.

Objectives of This Research

The purpose of this thesis will, therefore, be concerned with achieving a number of related goals. The most fundamental of these goals will be to sufficiently support the hypothesis that evolutionary development was an integral means of social change within Karl Marx's theoretical structure. It seems that the evolutionary aspects of Marxism are often ignored in many popular works on the subject of the nature of social change within theoretical Marxism. Instead, revolution is often viewed as being the sole means through which transformation occurs. For example, Robert Tucker writes that Marxism is at essence "a theory and program of revolution."² Consequently, revolution is often portrayed as the exclusive mechanism through which change occurs throughout history for Marx.

It will not be the author's purpose to downplay or ignore the revolutionary thrust of the writings of Marx. Revolution is certainly one of the more essential concepts of Marxist theory and the idea is almost always given its legitimate prominence in any treatment of his writings. However, this does not necessarily mean that the theory of revolution negates the examples of evolutionary development that are clearly written about. It would seem possible to have a theory of revolutionary change without totally excluding the possibility of an evolutionary progression occurring within the same process. Stated simply, the author will assert that an evolutionary process is at work in the historical and economic theories of Karl Marx, and that this process culminates in the revolutionary transformation of society.

A related goal will be to draw parallels between the evolutionary aspects of Marx's writings and the evolutionary process that Charles Darwin would study and write about with regards to biological species. This is an interesting and logical comparison and will serve the purpose of complementing the more fundamental goal stated previously. Even Karl Marx seemed to have recognized a theoretical relationship between his own theories and those of Charles Darwin. Shortly after reading the Origin of Species in 1860, Marx would write

to Friederich Engels that "it is this book which contains from the point of natural history, the foundation of our theory."³

And finally, coupled with this theoretical comparison will be a more general analysis of the writings of Karl Marx in which a specific reference is made to Darwin and his theory of evolution. This effort will be concerned with the known references to Darwin in the letters and manuscripts of Marx.⁴ Also, Marx's impression of Darwin's evolutionary theory will be examined through the reflections and written correspondence of those individuals who personally knew Karl Marx. The purpose of this is to complement the theoretical comparison and to arrive at some understanding of the manner in which Marx viewed his own theories in relationship to Darwin's theories.

It is important to realize that this effort has much broader implications than the simple comparison of two historically significant theories. For example, the attempted implementation of the theories of Marx would be greatly influenced by a more evolutionary or developmental interpretation. The primary historical example of this influence occurred in 1706 when the Mensheviks and Bolsheviks split because of ideological differences. It is well known that the Menshevik Party strongly believed that the Marxist revolution could

take place only after the Russian state had advanced completely through the capitalist stage of development.

Another impact of the Darwin-Marx relationship and the influence of evolution is evident from the accepted interpretation of biological science within the Soviet Union. Conrad Zirkle, in Evolution, Marxian Biology, and the Social Scene, explains that the current Soviet interpretation of Marx's attitude towards Darwin and evolution has the most profound influence on the manner in which scientific inquiry is conducted in that state.⁵ Zirkle explains that the most striking example of this occurred in 1948 when the Soviet Union outlawed the study of genetics because of the biological interpretation espoused by Engels and Marx almost a full century before.⁶

The idea of a more developmental approach to the implementation of Marxism and the Soviet Union's concept of Marxian Biology are but two possible implications related to the Marx-Darwin controversy. The impact of this relationship remains significant even to this day. While the following analysis is primarily relegated to a theoretical comparison, the ultimate historical impact cannot be ignored.

The Influence of Historical
Trends Prior to 1859

To begin with, it would seem logical to assert that Marx and Darwin were both products of the era in which they lived and wrote. Because of the similar nature of many aspects of their theories and the fact that both men produced their major works during the middle decades of the 19th century, the author will assert that similar historical and social forces affected the thinking and rationale of both individuals. Kapjl Mapke, in his major work entitled Karl Marx, states that the similar nature of these two theories cannot be regarded as a mere coincidence and that the two theories "interweave and reinforce each other."⁷ Quite simply, there were forces at work in the 19th century society which made the formulation of these two seemingly unrelated theories both logical and expected. These forces would include, among others, a new reliance upon the scientific method, the idea that progress was the natural outcome of history, and the idea that change takes place according to an evolutionary process.

Of course, beginning with the Age of Enlightenment there had been a clear progression or movement away from mystical or metaphysical explanations concerning unknown phenomenon in the world. The primary explanation for this movement is based upon the

formulation of the scientific method which was established by Francis Bacon and Reni Descartes in the 17th century. The idea was generally gaining acceptance at this time that in order to fully understand the nature of phenomenon one must rely on the process of observation, experimentation, and the rational formulation of a conclusion. This methodological framework gradually replaced the notion that natural and human history was the product of arbitrary occurrences or divinely inspired events.

The importance of this new reliance upon empirical inquiry and the scientific method to rationally explain unknown phenomenon cannot be overstated. It would not be unfair to characterize this movement towards scientific inquiry as being the major force at work since the advent of the Age of Reason advances in science, technology, medicine, and politics can all be attributable to the new reliance upon the scientific method. According to J.B. Bury, in The Idea of Progress, the 18th century is a period in which the idea of "a divine plan wrought out by the actions of men who are ignorant of it", was quickly losing validity to the notion that progress was directly related to human reason.⁸

A second major force that aided in laying the foundation for future advances in the 19th century is

the idea that progress and advancement are natural outcomes of the historical process. Robert Nisbet, in Social Change and History, explains that the feeling or the realization emerged that advances in 19th century society made this period of time superior or more advanced than any that had previously existed.⁹ One can contrast this with earlier periods in European history in which ancient Greece and Rome were looked upon as being the cultural and artistic highpoints of human civilization. Nisbet writes that up until the 17th century, the classical eras of Greece and Rome were seen as being superior to all civilizations that had existed since that time.¹⁰ Consequently, the belief existed that human society had degenerated since the classical era and the notion of historical progress was, therefore, not seen as being a historical fact.

Conversely, in the 18th century, many began to believe that progress did occur with the passage of time and that there was a higher level of development based upon a multitude of prior change and achievement. Nisbet writes that the intellectual greatness of Aristotle, Socrates, and other classical thinkers was not being challenged centuries later, but that it was generally recognized that knowledge is cumulative and is built upon all previous knowledge.¹¹ That is to say, that the cumulative effect of many centuries of

knowledge built upon what was known in the ancient world would lead to a continual progression or advancement in society. While this idea of progress may seem simple enough to us today, it was rather unique in the 18th century and has since led to changes in the manner in which history is viewed. The notion of progress is based on the assumption that man is advancing in a "definite and desirable direction" and infers that this process will continue indefinitely.¹² The implication is that a condition of general happiness will be reached which serves to create a logical element within the process of history.

The third prevailing trend or force that would greatly influence Marx and Darwin would be the concept of evolution. Popular perception has it that Darwin first utilized the idea of evolution and that it was solely a product of the 19th century. In reality, the theory of evolution had existed over a century before the publication of The Origin of Species and was widely accepted in many different areas of study and investigation. Of course, evolution refers to the idea that change occurs through a process of incremental adaptation. The important aspect of this idea is that the end-product is often a higher or more complex form than any that had previously existed. Also, it remains significant that these changes can be described as being

"automatic" or "mechanical" and are, therefore, the product of a natural process and not simply the outcome of fate or predestination.¹³

In Darwin, Marx, Wagner, Jacques Barzun further explains that many theorists predating Marx and Darwin wrote about evolution to varying degrees. These would include Lamarck, Vico, Turgot, Buffon, and Leibniz, as well as others.¹⁴ The view is presented by these individuals that man's environment and history itself is not static or regressive. In particular, it was being stressed that throughout history there is a naturally occurring force which dictates that progress will always occur as an end-product. This includes the idea that society and history are both dynamic. For example, Geoffrey Leibniz wrote about a process which Barzun describes as a perfecting principle. This principle, which was presented in 1697, simply states that any society will be as perfect as it possibly can be and that each successive period of time will exist on a higher, more advanced level.¹⁵ Although there are many problems and criticisms directed at Leibniz and these earlier evolutionary theorists, they are still very important in establishing the foundation for others to follow.

Therefore, it should be understood that the idea of evolution evolved to its present form and did not

simply spring forth in the middle of the 19th century. It was generally becoming accepted that change did occur in the nature of small, incremental advances that were continually and naturally at work throughout history. What was lacking before the mid-19th century was an explanation that adequately described the mechanics of the process.

The Historical Significance of Marx and Darwin

The importance of these historical trends with relationship to Darwin and Marx is the fact that both offered an explanation as to the development of biological and social forces based upon the logic of the scientific method. While evolutionary or developmental thought certainly existed prior to the middle of the 19th century, it was Darwin, Hegel, and Marx that popularized the concept by discovering the very essence of evolutionary change. For example, Vico first wrote about the concept of an evolutionary process at work in history a full century before Marx would later utilize the idea. Likewise, the foundations of the biological branch of science was being established by such individuals as Buffon, and Lamarck who had previously written about the evolutionary process as it is applicable to the biological sciences. However, these earlier theorists failed in adequately explaining

the actual mechanical process of evolution.

What was lacking up until the formulation of the theories by Marx and Darwin was an explanation as to the nature of the forces of change in society. According to J.B. Bury, it was certainly believed that progress occurred according to natural laws in a process which was mechanical or automatic and that was totally void of metaphysical explanations.¹⁶ Evolutionary thought and a belief in the logic of the scientific method permeated almost all serious scientific examination throughout the 18th and 19th centuries. However, attempts to discover or adequately analyze these fundamental forces within the context of science seemed to fail in offering a satisfactory explanation as to the mechanics of change.

The historical importance of Marx and Darwin lies in the fact that they offered seemingly complete and scientific explanations as to the nature of change in society. It seems certain that the culmination of this movement towards reason and rationalism and away from metaphysical explanations are found in the writings of these two individuals. Darwin's theory of natural selection and Marx's reliance upon the process of dialectics and economic materialism served to dispel explanations that were based upon faith or unseen forces. In fact, it is widely believed that Marx and Darwin had

served to eliminate "whatever has to do with God, spirit, idea, essence, being, or norm."¹⁷ The most basic comparison between Marx and Darwin is the fact that both are seen as being the logical culmination of an historical movement that dealt the "deathblow to teleology."¹⁸

Jacques Barzun writes that, "Darwin and Marx as scientists had seemingly made final the separation between man his soul."¹⁹ What is explicitly being implied by Barzun is that these two individuals developed comprehensive theories that explained the essence of change without relying upon notions of predestination or unseen forces. According to Stanley Hyman, in The Tangled Bank, much of the antagonism and conflict that these two ideas caused, both in the 19th century and at the present time, are because of the perceived irreconcilability with more traditional explanations for man's existence.²⁰ Even if one chooses to disbelieve the ideas of Marx and Darwin as being incorrect, the fact would still have to be acknowledged as to the increased reliance upon empirical study and investigation. The valuable idea to emerge from these two theories is the very general one that reinforces the notion that man can better understand himself and his environment through a reliance upon rational, empirical scientific investigation.

Concluding Remarks

The first comparison that can be formulated as existing between Marx and Darwin is the very general one that recognizes that similar historical factors affected both men. Clearly, both individuals were products of the 19th century and it is logical that these theories were formulated at this time. Edward O. Aveling in his pamphlet entitled Charles Darwin and Karl Marx: A Comparison, argues that it was no accident that Darwin's Origin of Species and Marx's The Critique of Political Economy were both published in the year 1859. Aveling states that:

A singular fact that the two books which were to revolutionize the biology, the economics, the whole thought, the whole life of the 19th century were both published in the same year. It was no accidental coincidence. No more than was the simultaneous discovery of oxygen by Priestly in England, Lavoisier in France, and Scheele in Sweden. These things are not accidents. They are the result of the steady evolution of human thought.²¹

CHAPTER TWO

CHARLES DARWIN AND THE ORIGIN OF SPECIES

It is within this previously described historical context that Marx and Darwin independently developed their respective theories of development. The purpose up until this point has been to illustrate that similar historical trends influenced the rationale of both individuals and the development of their theories. In beginning a more detailed analysis of the evolutionary nature of Darwin and Marx, two points become immediately apparent. First, the evolutionary nature of Darwin's writings are easily recognized and quite obvious. There would certainly be little debate or objection in characterizing Darwin's theory of natural selection in this evolutionary manner. Any problem that might exist would be in relation to characterizing Marxism as a theory with strong evolutionary elements. For this reason, more attention will be focused on Marx's theories and to attempt to place special emphasis on relating them to the ideas of Darwin.

It is also true that a similar condition or problem arises when one analyzes the impact that these

theorists had on one another. It is certainly the case that Karl Marx greatly admired Darwin and was very much interested in his biological theory of development.²² However, a similar influence and interest did not extend to Charles Darwin in relation to Marx's theory of political economy. Marx's son-in-law, Edward Aveling, explained that Darwin showed very little understanding of economics and had similarly little comprehension with regards to the theories of Marx and Engels.²³ Other authors have also noted that Darwin was quite narrow or superficial with regards to his range of knowledge. This necessarily means that the points presented here will be concerned with the impact of Darwin on Marx and not vice-versa.

There are historical examples that serve as an adequate illustration as to the nature of Darwin's lack of interest and understanding in the works of the political economists. Perhaps the best known historical example of this concerns the fact that Karl Marx sent Darwin a copy of the first volume of Capital complete with the following inscription: Mr. Charles Darwin/ On the part of his sincere admirer/ Karl Marx/ London 16 June 1873.²⁴ Although some have speculated that Marx did this in an attempt to increase the sales of his work in England it remains true that the act of sending manuscripts to prominent individuals was quite common.²⁵

What is significant about this occurrence is that Das Kapital was not read by the famous biologist. This is the case even though Darwin is directly mentioned in several instances in this work. To this day the book remains uncut and unread in Darwin's personal library in London.²⁶ Darwin did write Marx a letter of appreciation which further alluded to his own lack of understanding concerning the principles of economics and historical development. The letter reads as follows:

Dear Sir - I thank you for the honour which you have done me by sending me your great work on Capital; and I heartily wish that I were more worthy to receive it by understanding more of the deep and important subject of political economy. Though our studies have been so different, I believe that we both earnestly desire the extension of knowledge; and this in the long run is sure to add to the happiness of mankind.

I remain, dear Sir,
Yours faithfully,
Charles Darwin 27

Clearly then, it is true that Darwin recognized a superficial similarity in the nature of their work with regards to the fact that both were breaking new ground in the advances that were being made at that time. But Darwin clearly admits that his understanding of Marx's work is very limited and one could, therefore, conclude that Marx exhibited very little, if any, influence on Darwin. Although the letter is proper and respectful towards Marx, one can surmise from its content that the

avid interest that Marx and Engels exhibited towards Darwin's theories was not reciprocated by the famous Englishman.

Of course, this historical fact should be entirely expected. Historical evidence suggests that Darwin showed little interest in a wide range of study and was relatively narrow in the areas in which he chose to familiarize himself. It is also true that Darwin would have disassociated himself from Marx because of the atheistic thrust of Marx's theories. Although Darwin had "serious doubts" about Christianity, Stanley Hyman explains that he refrained from publicly bringing attention to this aspect of his own theory and purposefully tried to downplay or conceal his own doubts.²⁸ There were obvious reasons for this facade including the still formidable power of the 19th century Anglican Church and the strongly held Christian views of his wife and immediate family.

One final reason that Darwin did not familiarize himself with the work of Marx would be the radical nature of this theory. It has been pointed out that Darwin was radical, even revolutionary, in his approach to and discoveries in modern science. Needless to say, this radicalism would not extend to Darwin's social and political points of view.²⁹ Darwin had clearly emerged as a part of the establishment following 1857 and would

not have been interested in theories that advocated the total destruction of the nineteenth century English institutional system. For these reasons, even though Marx and Darwin resided within a few miles of one another they never personally met and their correspondence would prove to be very limited.

Natural Selection and Darwinian Evolution

And yet, it remains necessary to briefly discuss Darwin's contribution to the scientific community with the publication of The Origin of Species in 1859. While the impact of Marx upon Darwin is negligible, the reverse cannot be said to be true. Marx was very impressed with The Origin of Species and described it as the book that "contains the historical natural basis for our views."³⁰ For this reason, a brief examination of the fundamentals of "Darwinism" is necessary.

It has already been implied that much of what Darwin wrote about and much of what he continually labeled "my theory" in the original first edition had already been previously developed. Loren Eiseley in Darwin's Century writes that Darwin may or may not have realized the similar characteristics of his theory with earlier works on biological evolution.³¹ It is certainly true that Darwin never acknowledged a debt to these individuals who were so similar with regards to

the evolutionary theories that were previously developed.

In particular, Darwin's theoretical works are greatly influenced or at least closely associated with the earlier works of Buffon Lamarck, his own grandfather Erasmus Darwin, as well as others.³² It has been stated that the idea of an evolutionary progression had existed before 1859 and the publication of The Origin of Species and that Darwin was certainly aware of this historical movement. The importance of Darwin, without question, is the fact that he popularized the concept of evolution and that he adequately explained the actual process of change through the concept of natural selection. Many have commented on this "revolution in thought" and it is true that the notion of evolution had always been a "minority view" prior to 1859.³³ It was with the publication of The Origin of Species that the concept of evolution would begin to be viewed as a historical fact.

Darwin achieved this fact through the utilization of several concepts that aided him in explaining the actual process of evolution. Huxley further explains that Charles Darwin originally dealt with considerations of the manner in which biological change occurs and less with a theory of evolution in the original publication of The Origin of Species.³⁴ It is well known that the word evolution is not even used in this work by Darwin.³⁵

Instead, Darwin's primary focus is concerned with explaining how biological species adapt or change in a random occurrence of genetic mutations. It was asserted in The Origin of Species that those adaptations that were useful would remain as a new part of the organism and enable it to better survive through the well known concept of the struggle for existence. This very important theory is, of course, referred to by Darwin as natural selection.

Geoffrey Lewontin, an eminent evolutionary biologist described the tenets of Darwin's theory as being the recognition that different individuals within each species have different genetic and physical compositions.³⁶ Since there are fundamental differences in the makeup of these individuals it would necessarily be true that they would have distinct reproductive and survivability rates. And finally, Lewontin writes that there is a correlation between parents and offspring with regards to the genetic contribution that each makes towards future generations.³⁷ Those individuals with higher rates of survival will genetically transfer certain traits to any future offspring. Since the stronger or more fit organism would be most likely to survive it is only logical that Darwin believed that these more advantageous traits would be continually passed on.

As an explanation as to how change occurs, Darwin's theory of natural selection is basic to understanding the evolutionary movement that he would later write about in his other major work, The Descent of Man. Natural selection refers to genetic variations that enable individual species to unconsciously alter their fundamental composition or genetic makeup. Those variations that are advantageous will better enable the organism with the mutation to survive and to pass the new trait on to a new generation. Likewise, a trait that is harmful or of no use will probably not be passed on since the more superior organism would be more likely to survive at the expense of the weaker organism. Darwin would explain this by stating that "in all cases the new and improved forms of life tend to supplant the old and unimproved forms."³⁸

For Darwin, natural selection explains the means of modification or adaptation which allows a change or movement to occur within each species. It is true then that Darwin believed in "an innate tendency towards progressive development."³⁹ There are a number of other very important implications embodied within the theory of Natural Selection. The first and most obvious fact is that the organism has no conscious control over the type of change that may occur.⁴⁰ By reducing the cause of change to the process of natural selection,

Darwin explained fundamental change as being independent of the organism's will. Also, the process served to illustrate that nature has no overall purpose or will of its own and that forces of predestination or fate are not adequate explanations for biological change.

William Irvine in Apes, Angels, and Victorians explains that Darwin believed that variations occurred within a species in any one or combination of three basic forces. These forces would include unknown genetic forces and sexual selection, through the use and disuse of certain bodily functions, and changes induced by the environment.⁴¹ For example, domesticated fowl such as ducks or chickens have lost their ability to fly and this lost trait means that their offspring are also unable to fly. It was believed that this genetic variation was caused by the change in the environment that occurred when the animal was domesticated.⁴² Darwin believed that since the need to fly was lost in the process of domestication that the ability to do so would be lost in the process of sexual reproduction.

It is important to realize that Darwin developed the bulk of his theory before the popularization of the very important advances in the field of genetics by Gregor Mendel. It is also true that much of what Darwin utilized to explain change has since fallen into

disrepute. In particular, the idea that the amount of usage that a bodily function receives actually affects its genetic development is no longer viewed by scientists as being a determinant of biological change.⁴³ And yet, Darwin's reliance upon variation that occurs through the process of sexual reproduction and through genetic forces would prove to survive to this day as being the most logical explanation concerning fundamental biological change.

Another very important implication is that the theory of Natural Selection relies upon the notion of competition and struggle between different individuals within each species and also between entire species of animals. The well known phrases "struggle for existence" and the "survival of the fittest" would become the basis for understanding the actual progression in each species that Darwin believed occurred over time. Natural Selection is a theory which serves to explain change or variance as occurring in slow and incremental degrees. The manner in which the new variation would be passed on would be through the occurrence of sexual selection. Darwin believed that advancement or movement occurs because of this struggle for existence that is continually occurring in the natural world. Stated simply, those organisms with the most positive adaptations or traits will survive to pass those traits on to

the next generation while the weaker and less fit organisms will simply die out. This process ensures that the most positive traits will remain within the species gene pool and that undesirable traits and weaker members of the species will be eliminated.

The Influence of Thomas Malthus

P.M. Sheppard in Natural Selection and Heredity writes that Darwin was greatly influenced by Thomas Malthus and his study of demographic patterns and the manner in which this related to his own theories on struggle and conflict. In fact, Darwin gives credit to Malthus in the introduction of The Origin of Species for first giving him the idea of Natural Selection and this continual struggle for survival.⁴⁴ This relationship between Malthus and Darwin will become even more significant when Marx is later examined. This is true since much of Marx's criticism that is directed towards Darwin is based on this reliance upon Malthus. For reasons that will later become apparent, Marx very much loathed the Malthusian theory and strongly criticized him in his own writings. In particular, much of Marx's criticism that will appear to be directed at Darwin is actually a response to this perceived relationship concerning the reliance of Darwin on the writings of Thomas Malthus.

Malthus' theory on struggle is concerned with the realization that population growth, if allowed to continue undeterred, would increase exponentially or geometrically at a very high rate over a period of time. Conversely, Malthus believed that the food supply and the production of other basic commodities could continue to increase only at an arithmetic rate of production. With the occurrence of this phenomena, environmental conditions would quickly deteriorate according to Malthus' vision. Ultimately, with an increase in population there would be heightened competition between separate species and between individual organisms belonging to the same species for living space, nourishment, and other materials that would fall into increased demand.⁴⁵

It is important to realize that Malthus lived and wrote at the turn of the 18th century. Up until this point in history, the population of the world had remained relatively static since Medieval times. This minimal growth rate was maintained primarily because of the low survival rate of new born infants and the effects of disease, famine, and war. June Nickerson explains in Homage to Malthus that during the final decades of the 18th century the growth rate began to greatly increase for a number of reasons including advances in medicine. Nickerson writes that this

demographic transition is one of the primary reasons for the industrial revolution occurring in Europe at this time.⁴⁷

Of course, the implication of this alteration in demographics is that a condition of conflict and competition naturally arises for the limited available resources. Malthus was convinced that increases in wealth and social stability would not enable man to escape the inevitable chaotic condition of overpopulation. The major objection that Marx will have against Malthus and indirectly against Darwin, is that this theory serves as a justification for not aiding the poor and hungry and allowing disease and starvation to occur in order to hold down increases in population growth.

The idea of struggle and competition as operating to create change is, therefore, basic to any understanding of Darwin's theory of evolution. Darwin would write the following in The Origin of Species:

Every being, which during its natural lifetime produces several eggs or seeds, must suffer destruction during some period of its life, . . . otherwise, on the principle of geometrical increase, its numbers would become so inordinately large that no country could support the product. Hence, as more individuals are produced than can possibly survive, there must in every case be a struggle for existence, either one individual with another of the same species, or with the individuals of distinct species, or with the physical conditions of life.⁴⁸

The struggle for survival and the elimination of weaker forms of life is a process that has occurred since the beginning of time and will continue indefinitely. For this reason, struggle and competition would explain both prior development and future change. The significance of Darwin's reliance upon conflict and competition to create basic change will be re-examined within the context of Marx's writings at a later point.

Concluding Remarks

In concluding this brief examination of Darwin, a number of points should be raised concerning the impact of this theory on future generations. First of all, it is important to realize that Darwin's theory of natural selection has never been completely accepted by modern science. Thomas Bethell explains that many evolutionary biologists recognize that natural selection is not a complete explanation as to the actual process of evolution.⁴⁹ There are several problems with this theory such as the examples of organisms that do aid one another within their natural setting. Nevertheless, it would appear that natural selection has stood the test of time and is still seen by many as being the only logical and comprehensive explanation of this evolutionary movement that now exists.

And finally, it is obviously true that Darwin's idea that evolution occurs through natural selection and from accidental genetic variations has revolutionized the modern world. It was the explanation as to the specific manner in which fundamental biological change occurred that made Darwin and the publication of The Origin of Species unique and significant.

Without question, a new world view was ushered in and a new acceptance of evolutionary doctrines began to occur in the minds of individuals. After Darwin, it became fashionable to think in terms of evolution. In all branches of science, including geology, astronomy, biology, and the social sciences, individuals began to think in terms of change, adaptation, and evolutionary development. The importance of this revolution in thought cannot be overstated.

CHAPTER THREE
THE HISTORICAL EVOLUTIONARY INFLUENCES
ON KARL MARX

It is with this in mind that several of Marx's ideas and assertions will be examined. Again, the purpose of this examination will be to analyze the evolutionary aspects of Marxism that clearly do exist in his writings. The primary assertion in this effort will be concerned with adequately illustrating that Marx was influenced by the concept of evolution and that this is observable in his writings. It is believed by the author that this emphasis on evolution will not be misconstrued as being in conflict or contradictory to the revolutionary thrust of Marxism. To deny or downplay this revolutionary theory would be a fallacious exercise and a disservice. Marxism is clearly a theory of revolution. Marx even went so far as to say that "revolution is the driving force in history."⁵⁰

And yet, it would seem possible to formulate a theory of revolutionary change without totally excluding the possibility of an incremental progression being at work at the same time. The theory of

revolution does not necessarily negate or cancel out the examples of evolutionary development that are written about. Instead, the evolutionary aspects of Marxism should be seen as one component of a very complex theory that actually compliments the theory of revolution. For example, in The Eighteenth Brumaire of Louis Bonaparte, Marx stated that the "revolutionary point of departure" must first be created to be successful.⁵¹

The most fundamental assertion of this thesis will, therefore, be that these two forms of social change are both at work within theoretical Marxism. Stated simply, it is believed that the Marxian evolutionary progression culminates in the revolutionary transformation of society. An analysis of this period of evolutionary development and its relationship to the Marxian revolution will be more thoroughly examined at a later point.

For now, it is relevant to discuss those individuals and historical movements that exerted an influence on Marx with regards to this notion of a process of historical development. The very general historical trends that simultaneously influenced Marx and Darwin have been previously discussed and it becomes necessary to examine the more specific sources of Marx's notion of evolutionary development. It has also been clearly

stated that both Marx and Darwin borrowed many ideas from earlier philosophers. Many of the ideas that Marx wrote about had been previously espoused by Fourier, Owen, St. Simon, Ricardo, Adam Smith, as well as many others.⁵² The genius of Marx lies in his ability to pull together different aspects from a multitude of divergent theories and to place them all into the context of one major work. One can certainly trace the development of Marx's ideas and much work has been done to determine the earlier philosophers or scientists that should be given credit for having exerted an impact on the final theory that was developed.

The individuals that most influenced Marx with regards to the notion of an evolutionary or developmental process would include among others, Giambattista Vico, Montesquieu, and Hegel. It is certainly true that prior to the 18th century, history was viewed merely as a process of arbitrary occurrences that possessed no logic or clear methodological framework. In particular, the study of history was relegated to the analysis of individual rulers and leaders and certain cataclysmic events such as wars and revolutions. Of course, this form of historical analysis is often susceptible to a reliance upon fate or metaphysical explanations as being the determinant or the basis of change. It is also this type of historical analysis

that leads to the mere recording of events and a disregard for a more complete understanding of basic historical forces.

As was discussed in the first chapter, it is with the beginning of the 18th century that philosophers and scientists began to attempt to understand those fundamental forces that determined or created history. One can trace the early elements of the materialist interpretation of history beginning at this point. The notion of materialism would become one of the cornerstones of Marxism and is at its essence characterized by a rational and empirical understanding of all phenomenon without the reliance upon metaphysical forces or explanations.⁵³ Consequently, all forces or processes are the product of matter and energy. The basis of Marx's materialism is observable in his economic interpretation of history which proclaimed the supremacy of economic forces and economic relationships as being the greatest determinant of historical change.

It would seem that the simultaneous emergence of the materialist and the evolutionary viewpoints of social change in the 18th and the 19th centuries was not the product of chance. As will later become apparent, the idea of evolutionary change and a materialist understanding of the process should be viewed as two forces that are mutually interrelated.

This interrelationship is significant since the idea of evolution existed for centuries without a clear or logical explanation as to what caused the process of change to occur. The linking together of evolutionary change and a rationale or materialist explanation of the process would serve as the basis for the revolution in thought that would occur in the 19th century. Most notably, the fundamental link between Darwin and Marx is that both offered a materialist explanation in their respective fields of study with regards to the process of change.

Giambattista Vico and the Idea
of Evolutionary Historical
Development

One can trace the beginnings of an evolutionary and materialist view of history back to 1744 and the publication of Giambattista Vico's Scienza Nuova. It is certain that Marx had read this work and most definitely admired and was influenced by its content.⁵⁵ In particular, the importance of this relationship with regards to the ideas being presented here is that Vico was the first modern theorist to view the process of history in an evolutionary manner. Vico would describe the historical process or the movement of history as being comprised of distinct epochs that marked the development of civilization. These historical epochs would include the age of gods, the age of heroes, and

the age of man. This historical scenerio is significant in that it closely parallels Marx's explanation of historical development.

Lawrence H. Simon in Vico and Marx: Perspectives on Historical Development, writes that there are several important similarities that exist between the theories of these two individuals.⁵⁶ It is significant that both Marx and Vico viewed human history as the history of whole societies and both rejected the more traditional emphasis on the history of individuals. This fact will take on even more importance when Darwin is re-examined. Also, Lawrence explains that for both men history has a "logic" of its own and operates independently of human will or human influence.⁵⁷ Basically, both understood that there were greater forces at work that helped to determine or shape human history. And finally, both heavily emphasized the application of science and the scientific method to the study of history. That is to say, that Vico and Marx believed that those forces that determined history could be studied, explained, and understood.

G.W.F. Hegel and Dialectical Theory

While the basis for an evolutionary and materialist interpretation of history can be traced back to the writings of Vico it would be another philosopher that

would most influence Marx with regards to the notion of evolutionary historical development. It is generally conceded and widely recognized that G.W.F. Hegel is the individual who most influenced the direction and the writings of Karl Marx. It is common knowledge that Marx studied under Hegel and that his teachings did have a very significant impact on Marx's conception of history and his world view.⁵⁸ It is less often recognized that Hegel's theory of dialectical development can be viewed as a theory of evolution. While Marx and Hegel are almost always linked together because of Hegel's influence, it remains true that the evolutionary element and link between these two individuals is often ignored.

In particular, Hegel's conception of the dialectic and his Philosophy of History are both indispensable as rudimentary examples of the evolutionary elements in Marx's theory. These two principles are certainly the foundation upon which Marx builds his entire theory. One could argue that the combined views of biological evolution and a historical progression produced a new manner of analyzing history that was "constructed on evolutionary lines."⁵⁹ The following examination will include a brief overview of Hegel's conception of the dialectic. The following chapter will then analyze the basis for describing this concept in an evolutionary

manner and will begin to examine the basis of evolutionary thought within the writings of Marx.

The central element of Hegel's philosophy as related to Marx is, of course, the theory of Dialectical Materialism. Just as Darwin relied upon natural selection to explain the basis for change in biological species, so would Marx rely upon this idea to explain historical change. Hegel viewed the entire element of history as being a continual progression with change occurring logically and predictably. The manner in which change was described as occurring in social systems is through the concept of the dialectic and this idea becomes fundamental to any understanding of the evolutionary nature of Marxism.

In M.M. Bober's Karl Marx's Interpretation of History, it is explained that while Marx borrowed the idea of the dialectic from Hegel, it was, nonetheless, greatly altered by Marx.⁶⁰ Hegel utilized the concept to explain how change occurred in relationship to ideas and in the process of reasoning. Engels would later refer to dialectics as the highest form of reasoning.⁶¹ The dialectical progression for Hegel is one in which the end-product exists at a higher abstract level and that this improvement emerges from the thesis, antithesis, synthesis process that Hegel described. In Socialism: Utopian and Scientific,

Engels would write that the great merit of the Hegelian system is that "for the first time the whole world, natural, historical, intellectual, is represented as a process, as in constant motion, change, transformation, and development."⁶² Engels goes on to state that there is an inner law running through this process which he described as "the process of the evolution of man himself."⁶³ Hegel would also write that the basis of the dialectic is the idea that a progression occurs because of contradictions that are inherent in every idea, thesis, or concept.⁶⁴ This contradiction or conflict is described as being a struggle of opposites in which the end-product or the synthesis of a conflict is a new, higher form. Hegel believed that every concept had conflicting elements that would heighten as time progressed and that these contradictions would have to be reconciled. The process, which Engels would refer to as the negation of negation means that because of the existing contradictions a new idea or theory would emerge from the old.

This process is best understood by realizing that every concept has its opposite and that the two are interrelated for this reason. Any concept or idea that has been voiced or thought of necessarily has its diametrically opposed opposite or its antithesis. Engels would write extensively on this relationship by

observing dialectical phenomenon at work in nature. In Socialism, he writes that nature is proof that dialectics exists and this is related to the historical evolutionary process.⁶⁵ Using the polarity of molecules as an example, he writes that "upon closer investigation that the two poles of an antithesis, positive and negative, e.g., are as inseparable as they are opposed and despite all their opposition, they mutually interpenetrate."⁶⁶ Therefore, the means of explaining this progression is within the relationship of opposites and the idea of a mutual contradiction at work.

Hegel described the process more concretely by utilizing the concepts of the thesis, synthesis, and antithesis. The dialectic is a process of reasoning in which a basic premise is stated as being factual and is generally accepted (the thesis). However, according to the Hegelian process of the dialectic, forces are at work within this concept that will naturally bring about its alteration and demise. What occurs is that in this process an idea that is diametrically opposite is introduced and questions the original thesis. This newly formulated or stated idea is of course, called the antithesis. The antithesis is the exact opposite of the original thesis, but exists only because the previous thesis was accepted. As was explained in the

quote from Engels, the antithesis is a direct outgrowth of the thesis and the two are interrelated for this reason.

Of course, this process does not end with the simple advancement of a new theory or idea that emerges out of the previously accepted thesis. To leave it at this point would not be sufficient to explain the evolutionary progression that was described by Hegel. The new antithesis is the contradiction or the opposite of the thesis and there is at work a process whereby these two ideas clash and a new creation is developed that contains elements of both the thesis and the antithesis. What occurs is that a third idea, the synthesis, emerges out of the contradiction generated by the two opposing postulates. The synthesis is the logical outgrowth of the two stated opposites.

This new outgrowth contains elements from both ideas but is still markedly different from the other two. The synthesis is a new creation that has its roots traceable to the thesis and the antithesis. The important aspect of this process is that the synthesis should be seen as a progression over the previously existing thesis. Like Darwin's theory of natural selection, this process is a continual one. It is true that the Hegelian process never ends since the synthesis will become the new accepted idea in society. That is

to say, that the synthesis will become the thesis and the whole process will begin anew.⁶⁷

According to Carl Cohen, in Communism, Fascism, and Democracy, it is only within this never ending dialectical process that Marx, Engels, and Hegel believed that a clear understanding of the past and present development of the world could be attained.⁶⁸ The dialectic serves as the tool for understanding the historical development of the world and Hegel's "Philosophy of History". This historical perspective serves as the basis for Marx's theory of Historical Materialism, and Hegel actually described a historical progression very similar to what Marx would later write about. For Hegel there is a developmental process at work which throughout history has allowed a clear progression to occur. In Hegel's major work, The Philosophy of History, he states that, "if we cast a glance over the world's history generally, we see a vast picture of changes and transactions, of infinitely manifold forms of peoples, states, and individuals, in unresting succession".⁶⁹ This succession or transformation of society throughout human history is fundamental to the central thesis that Marx would later raise and it is the dialectic which is utilized to explain his interpretation of historical development.

Clearly then, it is important to state that a thorough understanding of Marx's theory of historical development is possible only through relating this phenomenon to the dialectical theories advanced by Hegel. While Marx certainly borrowed the notion of the dialectic from Hegel, he did, nonetheless, alter it in its application to his own theories. Engels refers to this difference in the well known statement that Marx had succeeded in turning the theories of Hegel "upside down".⁷⁰ The primary distinction being that Hegel could be described as an idealist while Marx would utilize the dialectic in what he perceived to be a more realistic manner. Engels would explain Hegel's emphasis on idealism by stating that "Hegel's dialectic of facts is only a reflection of reality and is concerned with the 'Idea'".⁷¹ According to Hegel, any prevailing idea or theory that was accepted would determine or influence reality within that society.

On the other hand, Marx believed that ideas were determined or created by the reality that existed at any point in time. For Marx, reality is composed of those elements that we can prove exist through our senses. Hegel believed that the dialectical progression took place in the minds of men and that this in turn influenced reality. Bober states that for Marx, "ideas are a reflection of reality" and not

vice-versa.⁷² Marx would describe his own interpretation of the dialectic as being "the rational Kernel within the mystical shell."⁷³

An understanding of this fact is fundamental to any analysis of theoretical Marxism. One could argue, like Marx did, that the two dialectical theories are opposites because of their differing emphasis. While the differences are important, it would seem that the similarities are at least as equally significant. Both individuals observed a developmental progression at work and described it in terms of a dialectical process in which contradiction creates a new, higher level of existence. Differences in describing what type of element goes through this progression is very significant but must not overshadow the more fundamental analysis of the process itself.

Concluding Remarks

As the primary focus of this thesis shifts to an analysis of the evolutionary aspects of Marxism and its subsequent relationship to Darwin, it remains significant to realize that the existence of this phenomenon within the theoretical structure of Marxism is a direct outgrowth of Hegelian dialectics. The goal up until this point has been to establish the historical conditions that made evolution feasible and relatively accepted in Europe during the 19th century. Also, the

foundations of Darwinian evolution and Hegelian dialectics have been presented. The emphasis will now shift to an even more direct examination of Marxian theory and evolution and it is believed that the relevance of the previously discussed ideas will become fully apparent.



CHAPTER FOUR

A GENERAL OVERVIEW OF MARXISM AS A THEORY OF EVOLUTION

An analysis of the specifics of the Marxian evolutionary idea and the influence of Hegel will be presented in the following pages. Again, the purpose being to examine the parallels that do exist between Darwin's theory of evolution and Marx's theory of a dialectical progression. It is important to state that every aspect of evolutionary development within Marxism cannot possibly be examined within the context of this work. Marx discusses the developmental process of the state, private property, money, the division of labor, of whole economic systems, and of the actual mentality of the human species. It will, therefore, be necessary to limit the discussion to a number of specific and exemplary aspects of evolution that are observable in his thought and writings.

The three examples of evolution that will be discussed in this work will be the utilization of dialectics, the theory of Historical Materialism, and the development of capital. These examples will provide the most representation and complete overview

possible within the limited context that is being maintained.

The Evolutionary Framework

In beginning this analysis it is necessary to sufficiently characterize the elements of evolutionary development. Taken together, the following four conditions will serve as a guideline for determining whether an evolutionary element exists within theoretical Marxism and also for establishing the foundation upon which comparisons can be formulated.

1. The evolutionary process is directly related to the idea of complexity and any new or future outgrowth can be seen as existing at a higher, more advanced level.
2. The process is one in which social change does occur in a slow and incremental process whereby the conditions are gradually created which ultimately culminate in the total transformation of the subject.
3. Any new or future form is directly related to the previous form that had existed. The future is inextricably related to the past since one emerged from the other and since a new form must be viewed as an outgrowth of the old.
4. And finally, social change is scientifically

explainable and is not the product of metaphysics or predestination.

Before beginning this analysis of Marxian evolution, a few points should be made concerning the evolutionary criteria previously described. It is most significant to recognize the fact that a portion of Darwin's writings concerning biological development have since fallen into disrepute. The primary problem is that Marx and Darwin both appear to pass value judgements regarding the process of change and movement. That is to say, that there are examples in the writings of both individuals in which the process is described in terms of a progression that inevitably leads to an improvement or a more desirable end-product. J.B. Bury in The Idea of Progress explains the problem with this outlook by stating the following:

Evolution does not necessarily mean applied to society, the movement of man towards a desirable goal. . . . It is neutral, scientific conception, compatible either with optimism or pessimism.⁷⁴

It remains important for the reader to recognize the fact that the very important criteria concerning the movement towards complexity is described as being the movement towards a desirable goal. As the previous quote adequately illustrates, modern scientists totally reject the idea that value judgements should be utilized to describe a scientific process such as

evolution. The four chamber heart of a mammal may be more complex or advanced than the two chamber heart of the amphibian, and yet, both adequately meet the needs of the organism and modern science would reject the idea that one can be described as being more positive.

Recognizing the discrepancies that do exist is important since comparisons and contrasts will be formulated between Marx and Darwin in the context of their 19th century writings. Understandably, the nature of this analysis may involve points that are no longer accepted by modern science. In the more general overview of Marxian evolution that will now be undertaken, the author will attempt to utilize a concept of evolution that is currently accepted and the emphasis will not yet be on the specifics of Darwinian evolution. Quite simply, the need arises to first illustrate that a more general evolutionary movement is at work within Marx's writings before advancing to the point of more specific parallels between the two theories.

Dialectics as a Theory of Evolution

At its fundamental essence, Marxism should be viewed as a theory of dialectics. In The Economic and Political Manuscripts of 1844, Marx states that Hegel had discovered the "abstract, logical, speculative expression for the movement of history."⁷⁵ The

existence of contradiction and the negation of the negation serve Marx as the most basic vehicle for social change. Still, it remains necessary to determine if Hegel's law of dialectics is homologous to a theory of evolution. The following examination of dialectics will be concerned with demonstrating that dialectics can be viewed in an evolutionary manner within the context of theoretical Marxism.

Again, Hegel's dialectic will serve as the basic tool for understanding and explaining the historical development of the world. The very superficial analogy can be made that the dialectic serves a similar purpose for Marx that natural selection would prove to serve for Darwin. Of course, it will be asserted that the theory and the utilization of dialectics is homologous to a theory of evolution by using the four criteria that were previously laid out. If dialectics proves to be similar in structure to a theory of evolution and if it is accepted as a fundamental tenet of Marxism then the initial step will have been taken to show that an evolutionary progression is observable.

The first and probably the most difficult point to make concerning Marxian evolution is the necessity to prove that change does occur in an incremental manner. This is true since Marx seems to describe social change as occurring in a slow and very gradual process as well

as by "leaps" or "jumps". Again, the argument will be made that Marx believed that both occur in history and that this fact is not necessarily a contradiction.

Another problem that is directly related to the one just stated is that some notion of what constitutes incremental social change must be given. Most evolutionary change is associated with a type of glacial change that is described in terms that are very slow. It is a fact that in The Descent of Man, Darwin describes certain periods of biological development that were "heightened" or more intense than other periods of the organism's development.⁷⁶ The problem is one in which Marxism cannot be described solely in terms of an agonizingly incremental transformation and also one that cannot be described solely in terms of a revolutionary type of change. For example, in Burning Darwin to Save Marx, Thomas Bethell explains that all evolutionary development (social and biological) is coupled with certain periods of "revolutionary activity".⁷⁷ In The Origin of Species, Darwin would clearly express the view that evolution will, at times, become more intense and proceed at a faster rate than is normally seen.

It might require a long succession of ages to adapt an organism to some new and peculiar line of life, for instance to fly through the air, but that when this had been effected, and a few species had thus acquired a great advantage over other organisms, a comparatively short time would be necessary to

produce many divergent forms, which would be able to spread rapidly and widely throughout the world.⁷⁸

The very important point is that evolution is characterized by incremental change but that it is not a contradiction to recognize certain periods of time within this process when change occurs more rapidly. This fact will be of assistance in analyzing the idea that Marxism can be viewed as a theory of revolutionary change with certain components that are incremental or gradual.

Recognizing this fact, an examination of the gradual or protracted process of social change within Marxism becomes necessary. Even as early as 1845-1846 with the writing of The German Ideology, it is evident that Marx was already leaning in this direction. Marx would state that the "social structure and the state are continually evolving".⁷⁹ The word choice used here clearly implies a process that is similar to the notion of a protracted developmental process. And yet, Marx would even more clearly state his opinion on social change by declaring that:

Evolution takes place naturally. . . . Futhermore it takes place very slowly. The various stages and interests are never completely overcome but only subordinated to the prevailing interest and trail along beside the latter for centuries afterwards.⁸⁰

It is clear then, that at even this early point in the development of Marx's theory that he did not

envision social change as occurring solely through revolution. This fact would remain an integral aspect of Marx's writings throughout his life. Ernest Mandel described the Marxian process of social change by stating the following:

It is the course of this evolution over thousands of years that phenomenon are produced which converging in a given place (Europe) at a given time (16th century) in a given juncture, bring about capitalist society.⁸¹

It is this process of historic and economic development that would ultimately culminate in the revolutionary transformation of society. In The Contribution to the Critique of Political Economy, Marx states that "at a certain stage of their development, the material forces of society come into conflict with the existing reality of production."⁸² Clearly then, the Marxian revolution is not a continual or perpetual phenomenon. As will be further examined, it is only after productive forces had fully developed that the radical and violent transformation from one social epoch to another would occur.

Thomas Bethell further explains that this is an entirely natural and expected relationship between a protracted or gradual process of development and a more rapid, revolutionary type of change.⁸³ Louis Dupre in The Idea of Historical Progression in Marx, writes that capitalism would never fully develop if it was disrupted

from the start by rebellions.⁸⁴ Marx also seemed to recognize that an attempted revolution could be premature and do more harm to the overall revolutionary movement if it was attempted haphazardly or at the wrong time. Marx certainly believed that the failure of the February Revolution of 1848 was due in part to the premature development of the revolutionary working class.⁸⁵ The fact that Marx wrote about a "revolutionary point of departure" is specifically in reference to the mutual relationship between the historical development of productive forces and the revolutionary transformation of society.⁸⁶

While it is difficult to determine what constitutes gradual or protracted social development, it would seem that Marx sufficiently treats the subject so that an analysis is possible. Any process of development that occurs over "thousands of years" and finally culminates in a new social epoch could certainly be characterized as incremental or gradual.

The second major point which must be examined is that this process of development leads inevitably towards a higher or more complex level of existence. The idea of an advancement or a movement towards a complexity within each species is certainly observable in the writings of Darwin. Of course, the ultimate movement towards a more complex or more fit species is

dependent upon the notion of competition and struggle. In The Descent of Man, Darwin would write that "Man, like every other animal, has no doubt advanced to his present high condition through a struggle for existence consequent on his rapid multiplication."⁸⁷ A similar axiom, which has since been coined "Dollos' Law", states that the process of biological evolution is irrevocable and is never played in reverse.⁸⁸

To a great extent, Marx would describe a process that is very similar to this biological principle. It remains significant that the Hegelian dialectical process is one in which a higher form emerges from the contradiction of the thesis and the antithesis that had previously existed. This idea, which Engels would label the transformation from quantity into quality, is fundamental in order to understand the directional aspect of Marxian development. Gustav Wetter explains this by writing that "Darwin is the proof that initially insignificant quantitative changes in plants and animals eventually laid by accumulation and inheritance to the formation of new species."⁸⁹

This fundamental characteristic of dialectics basically states that quantitative or numerical increases would naturally lead to qualitative change or a higher, more advanced level of existence. For Engels, this principle would be true of both biological and social

development. Marx would certainly utilize this concept in his theory of dialectical historical development. While this idea will be examined in more detail at a later point, it is important to state that the inevitable movement of history for Marx is one that culminates in a higher, more complex level of economic organization. Bertell Ollman would explain the nature of this process by stating that any particular "stage" or form of society is higher than another because it involves "a greater realization of human goals."⁹⁰

Consequently, the Hegelian and the Marxian dialectic can both be seen as movement towards a more advanced level of existence. Hegel's ultimate plateau or state of existence was the notion of the "Idea" while Marx's would be the future reality of a communistic economic epoch. In 1857, Marx would write that:

the bourgeoisie economy as the highest phase of development of an anterior historical process, furnishes the key for understanding the economy of past societies just as human anatomy contains a key to the anatomy of the ape.⁹¹

This quote clearly describes the inevitable historic movement towards complexity. When Marx discusses "progressive epochs" he is simply reiterating the fundamental tenet of an irreversible movement towards a higher form within the process of dialectics. For Marx, the process of history is the irrevocable and inevitable

movement towards the communistic mode of economic organization.

Therefore, the idea of a gradual type of development that culminates in a more complex level of existence is significant in order to understand the dialectical movement of history. However, it remains to be demonstrated that future forms are a direct outgrowth of previous forms of existence. This would be important since transformation or change does not totally eradicate all characteristics of the previous condition. In order to have either a biological form of evolution or a dialectical movement within history, this interrelationship between the past and future must be shown to exist. Just as man can currently examine fossil remains of primates that might be considered his ancestor, so Marx believed that he could analyze previous economic formations to discover the roots of the currently existing system.

The primary point expressed is that current or future historical movements or economic epochs will be a direct historical outgrowth of previous conditions. Again, this notion is directly related to the theory of dialectical development. As has been previously explained, Engel's law of the interpenetration of opposites states that the synthesis that emerges from the contradiction between the thesis and the antithesis

is directly related to these previous forms. This relationship would hold true even though the synthesis would essentially remain a new creation.

Bertell Ollman explains in his Alienation, that for Marx, "each social factor is internally related to its own past and future forms, as well as to the past and future forms of surrounding factors, capital, is what capital is, was, and will be."⁹² This notion is clearly observable in the writings of Marx. In the preface to The Critique of Political Economy, Marx would write that:

No social order ever disappears before all the productive forces for which there is room in it have developed, and new, higher relations of production never appear before the material conditions of their existence have matured in the womb of the old society.⁹³

It is important then, that new societies and historical movements are created in "the womb" of previously existing conditions. Just as an organism's evolutionary stages can be seen as being interrelated, so can Marx's view of historical development be similarly analyzed. By recognizing that present systems contain "the seeds" for future societies a relationship between the present and the past can be established. In Capital, Marx would write that "the nation that is more developed industrially only shows to the less developed, the image of its own future."⁹⁴

Evolution and the Scientific Method

Finally, it is necessary to explain the process of evolution scientifically. The notion of an evolutionary progression had been voiced centuries before Darwin would popularize the idea in 1859. In particular, this evolutionary process prior to "Darwin's discovery" was most often described in terms of fate, predestination, or metaphysics. The significance of Darwin and Marx is that both attempted to understand and explain the actual process of change through the utilization of science. It is with this in mind that Frederick Engels stated that these two individuals dealt the "deathblow" to the teleological viewpoint of the world. Quite simply, it is not sufficient to state that evolutionary change is observable without also offering an explanation as to the mechanics of the process.

Marx attempted to explain the process of change through an empirical analysis of world history. Marx and his followers strongly believed that the scientific method could be applied to the historical process through the utilization of the economic or materialist interpretation of history. As has been previously examined, this concept is characterized by the recognition that economic relationships or "reality" influences all other socio-economic relationships. For Marx, the

human species would essentially be the product of those economic conditions and economic relationships that were historically present at any given point in time. Marx would explain this by stating the following: "It is not the conscious of men that determine their being, but on the contrary, their social being that determines their consciousness."⁹⁵ Marx reasoned that his theories were scientific because he was describing what would inevitably occur in the future while previous utopian writers had described what ought to be.

Yet, to what degree Marxism can in fact be labeled a science is very controversial and highly debated. Max Eastman in Marxism: Is It Science?, strongly argues that Marxism is not empirical since the inevitable movement towards communism is preordained and irreversable.⁹⁶ This author's point of view suggests that in making predictions concerning the future economic and historical development of the world that Marx re-enters the realm of an irrational and metaphysical outlook. It is within this context that Marxism has at times been described in terms that are applicable to present day religious organizations. In this point of view, the future epoch of communism simply replaces God and the belief in the afterlife, and becomes heaven on earth.

It is most certain that Marx realized that he was on shaky ground with regards to predicting the future or describing the future economic organization of communism. In fact, very little is found in his works on this subject and the great bulk of his writings consist of an analysis of 19th century capitalist society. It would seem fair to state that a small portion of Marx's writings are vulnerable to the preceding claim but that a large portion of his theories can be described as simply being an economic analysis of capitalism. It is enough to state that Marx saw the need and attempted rationally and empirically to study and explain the movement of history without relying upon more traditional explanations that were commonly used in the mid 19th century period. Even in this limited regard, Marx would have to be characterized as being unique.

Concluding Remarks

A general analysis reveals that there are elements within Marx's theory that can be seen as being evolutionary. This very fundamental analysis will serve as the foundation upon which parallels will later be drawn between Marx and Darwin. The most basic point of this comparison being that the dialectical movement of history for Marx and the evolutionary movement within biological species is, at a very general level, homologous.

It will also be shown that significant differences do exist between the two theories and that few individuals, Marx included, actually considered the two theories to be identical. Still, the similarities cannot be ignored and a general comparison can be formulated between dialectics and evolution.

In his major work entitled From Hegel to Marx, Sidney Hook states that the dialectic "is nothing more than the science of universal law, of motion in nature, human society, and thought."⁹⁷ Therefore, according to this view, dialectics is applicable to both human society and to those conditions that exist in nature. It is with this in mind that Engels would write the following in his work entitled Anti-Duhring:

An exact representation of the universe, of its evolution, and that of mankind, as well as of the reflection of this evolution in the human mind, can therefore only be built up in a dialectical way.⁹⁸

Recognizing that dialectics and Darwinian evolution both explain change in an incremental manner involving movement towards greater complexity is quite significant. Zbigniew Jordan would succinctly comment on this subject by stating that "in a certain sense, dialectical means the same as evolutionary."⁹⁹

CHAPTER FIVE

A SPECIFIC EXAMINATION OF MARXISM AS A THEORY OF EVOLUTION

A very general overview reveals that there are examples of an evolutionary influence on the writings of Marx. It is necessary to examine more specific examples of this phenomenon in order to help clarify the ambiguity that a general overview usually presents. For this reason, Marx's theory of Historical Materialism and the development of capital were chosen to serve as more specific or concrete examples of evolution within Marxism. Since Marx's theory of Historical Materialism is an extension of the application of dialectics it is only logical that this subject be analyzed. The development of capital will serve as an even more specific example of this evolutionary process and is also very representative of Marx.

The Example of Historical Materialism in an Evolutionary Context

It is clear that the primary emphasis with regards to the developmental process within Marx's writings is in relationship to the theory of Historical Materialism. This theory, which is well known and widely written about, contains the essence of the Marxian

evolutionary idea. Of course, Marx studied history quite extensively and observed that there were distinct epochs that marked different periods of history since the beginning of time. In The Contribution to the Critique of Political Economy, Marx would write that "in broad outlines, Asiatic, ancient, feudal, and modern bourgeoisie modes of production can be designated as progressive epochs in the economic formation of society."¹⁰⁰ For Marx, the final epoch would be the future emergence of communism.

Briefly stated, the unique contribution that Marx formulates is his assertion that economic and productive forces determine and shape the very existence of any social system. Marx would write that the "mode of production of material life determines the social, political, and intellectual life process in general."¹⁰¹ Consequently, Marx believed that the type of productive activity that man is engaged in would be the key to completely understanding world history. This concept, which would be entitled the Materialist or Economic Interpretation of History, states that economic conditions and economic relationships will totally shape each type of society that Marx described.

This would mean that all of history is understood only through this idea of economic determinism. For example, in feudal society it would be the relationship

that existed between the land-owning nobility and the landless serfs and peasants. All aspects of feudal society are understood only through this economic interaction. Similar relationships exist in each of the other epochs that predate communism. In Marx's slave society the primary factor was the existence of slaves and slave owners, and in the capitalist stage of development it would be the economic relationship between the bourgeoisie and the proletariat. Marx would state that:

In the social production of their life, men enter into definite relations that are indispensable and independent of their will, relations of production which correspond to a definite stage of development of their material productive forces. The sum total of these relations of production constitutes the economic structure of society . . . The mode of production of material life conditions the social, political, and intellectual life process in general.¹⁰²

There are a number of other important implications besides this emphasis on the primary of economic forces within each of the social epochs that Marx described. There are several characteristics of this developmental process in history that are significant to the thesis being presented. First, it is significant that basic social and political change occurs because of a naturally existing conflict and antagonism within each society. The nature of the conflict would be based upon the fact that in any society there are acute and irreconcilable differences between those who have

economic wealth and power and those who have none. Contradiction is again the force that causes change to occur. In The German Ideology, Marx would write that there always exists a contradiction between the interests of the separate individual and the communal interest.¹⁰³

For example, in Marx's slave society change would ultimately occur because of the antagonism that would exist between slaves and slave owners. Likewise, in the feudal stage of economic organization the primary conflict would arise between those who controlled the land and the feudal estates and those who lived off the land but did not own it. And finally, in the capitalist epoch conflict would arise between those who owned and controlled capital or the means of production and those who were economically powerless. The significance of these social divisions is quite evident in the well-known opening lines of The Communist Manifesto in which Marx would state the following:

The history of all hitherto existing society is the history of class struggles. Freeman and slave, patrician and plebian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed . . . The modern bourgeoisie society that has sprouted from the ruins of feudal society has not done away with class antagonisms. It has but established new classes, new conditions of oppression, new forms of struggle in place of the old ones.¹⁰⁴

It is this conflict or struggle between opposing interests within each society that causes fundamental

change to occur.

Marx's theory of historical development includes several other important characteristics that will serve to clarify this emphasis on evolution. First, it is important to understand that each described social epoch is seen as being an advancement or a progression over any previously existing social epoch. Marx clearly recognized that the bourgeoisie mode of production "had created more massive and more colossal productive forces than have all preceding generations together."¹⁰⁵ Marx often described the process as one in which man was becoming "fully human" or that would finally lead to his "full emergence from the animal kingdom."¹⁰⁶

The ultimate example of the notion of a naturally occurring advancement within history is evident when Marx describes the future condition of the final epoch of communism. A very typical statement by Marx is that man living in a communist social system "will have the positive power to assert his true individuality."¹⁰⁷ He would continue this line of reasoning by declaring that "only in community with others has each individual the means of cultivating his gifts in all directions, only in community, therefore, is personal freedom possible."¹⁰⁸ In describing the process of history that predates communism as being "anterior to man," it is

clear that this epoch stands at the apex of the historical developmental process.¹⁰⁹

Directly related to this notion of a natural progression in history is the notion that all social epochs must fully develop before this total transformation would occur. It is likewise important that Marx believed that nations must progress fully through each epoch in the order that he described it. This point, which is of political and social relevance to modern Third World and preindustrialized nations, holds that it is necessary to proceed fully through feudalism into the capitalist stage and finally emerge into socialism. It would not, therefore, be possible to skip the capitalist stage of industrialization and proceed directly from feudalism into socialism, according to Marx.

In the preface to The Critique of Political Economy, Marx would write that it is only after a "certain stage of their development (that) the material productive forces of society come into conflict with the existing relations of production."¹¹⁰ It was only when this point of development was finally reached that Marx believed that the epoch of social revolution would begin. Marx states this most succinctly when he declared that:

No social order ever perishes before all the productive forces for which there is room in it

have developed . . . The bourgeoisie relations of production are the last antagonistic form of the social process of production . . . at the same time the productive forces developing in the womb of bourgeoisie society create the material conditions for the solution of that antagonism. This social formation brings, therefore, the pre-history of human society to a close.¹¹¹

The preceding quote would seem to adequately illustrate that Marx believed that it was necessary to progress fully through each social epoch. Also, Marx believed that each epoch was an outgrowth of the preceding system. A common expression or line of thought is that the bourgeoisie society "had sprouted from the ruins of feudal society."¹¹² Ultimately, this system would also be replaced by the communist stage of organization. This transition is possible only because the capitalist epoch serves to "simplify the class antagonisms."¹¹³ By reducing the class structure to two contradictions or opposing classes, capitalism makes possible the transition into a classless future existence.

Of course, this transformation takes place only through the violent revolutionary overthrow of the bourgeoisie mode of production. The dialectical relationship between the bourgeois and proletariat necessarily dictates that the two groups are irreconcilable and cannot possibly coexist. This fact would seem to be beyond debate. However, it would also be true that the period of revolutionary activity would

be possible only after extensive periods of evolutionary development that created the point "of revolutionary departure."¹¹⁴ Marx would elaborate on this idea in the preface to Das Kapital:

And even when a society has got on the right track for the discovery of the natural laws of its movement and it is the ultimate aim of this work to lay bare the economic law of motion of modern society - it can neither clear by bold leaps nor remove by legal enactments the obstacles offered by the successful phases of its normal development¹¹⁵

To a great extent, it would seem that the more general framework that was formulated in chapter four would remain consistent with the concrete example of Historical Materialism. In other words, the application of the dialectic to the process of historical change and historical development would support a similar evolutionary analysis. We have seen that Marx clearly viewed this process as being protracted, directional, and one in which present, past, and future forms of economic organization are directly interrelated. It is significant that these conditions would remain consistent within the theoretical analysis of the dialectic and in the application of this theory to historical conditions. The final important element that was examined is that Marx rationally explains the process of historical change through the utilization of economic materialism and the irreconcilability of class antagonisms.

The Example of the Development
of Capital in an Evolutionary
Context

And yet, it is within Marx's analysis of the development of capital and the emergence and decline of capitalism that the existence of an evolutionary influence is most clearly observable. It is fair to say that a major portion of Marxist theory is an examination of the intricate economic laws of capitalism and the factors that precipitated its ascendancy and that would ultimately cause its destruction. Therefore, utilizing this specific example of the development of capital becomes both useful and logical for a number of reasons. It is useful primarily because of the clarity in which evolution and revolution can be seen as working together within this context. The illustration is logical because of the centrality of the concept to Marxist theory and the concise and consistent description of the rise and fall of capitalism that Marx gives in his writings.

It should again be stated that the specific example of the development of capital should be viewed within the context of what has been previously discussed. In particular, the dialectic was described as a very general and fundamental theory that is the basis for change within the Marxian framework. It has been shown that it is not at all unreasonable to view

the dialectic as a theory of social evolution. The next step was to briefly examine the application of the dialectic to Marx's ideas concerning historical change. The major point being that the evolutionary element is consistent even when the theoretical is applied to the actual development of history. And finally, the example of the development of capital serves as an even more specific and concrete example of the manner in which Marx viewed evolutionary development. The primary point being that an examination of the very general and vague notion of dialectical historical development is relatively consistent with the more specific notion of the development of capital with regards to the concept of evolution.

Since Marx lived and wrote during the period of heavy industrialization in England it is logical that this subject would occupy such a central position within his writings. Of course, his most noted work, Das Kapital, is almost exclusively an economic examination of capitalism as he viewed and analyzed its development in the mid-19th century. For Marx,

capital consists of raw materials, instruments of labour, and means of subsistence of all kinds, which are utilized in order to produce new raw materials, new instruments of labour, and new means of subsistence.¹¹⁶

It is important to realize that Marx's definition of capital is a very general one that includes any

commodity that possesses an exchange value. The somewhat unique addition that Marx makes is the realization that within the economic system of capitalism the sole purpose of capital is to create or generate increasing amounts of new capital.

Consequently, Marx believed that a commodity possessing exchange value was not within itself an example of capital. Instead, capital possesses the capacity to "maintain and multiply itself as an independent social power, that is, as the power of a portion of society, by means of its exchange for direct living labour power."¹¹⁷ This obviously implies that the increase and the existence of capital that is observable is totally dependent upon labor power and the ability to exchange this labor for raw materials, machinery, etc. Marx would clearly elaborate on this point by explaining that "capital presupposes wage labor; wage labor presupposes capital."¹¹⁸ This idea will remain central to the following examination of the development of capital within its evolutionary context.

To a great extent, the historical development and decline of capital and the economic system of capitalism remains one of the most clearly expressed examples of the mutual relationship between evolution and revolution within the writings of Marx. In The German Ideology Marx clearly expresses the prerequisites or the

foundation for the development of capital.¹¹⁹ This process of development is one that would extend from the 14th century through the 17th century. These historical conditions that enabled capitalism to emerge during this 400 year period are numerous but can still be viewed as consistently contributing to the decline of feudalism. Ernest Mandel in The Formation of the Economic Thought of Karl Marx, describes six basic points leading to the rise of capital that clearly parallel what Marx would write in The German Ideology.¹²⁰ The first and most basic being what Mandel describes as the primitive accumulation of capital which was accomplished primarily because of small increases in the birth rate and the movement of individuals to the cities and towns.¹²¹ It is with this idea in mind that Marx would write that "it is the development of the production of exchange values in the towns that make possible preparation for the predominance of capital."¹²²

This phenomenon coupled with enlarging markets and an increase in the demand for finished goods further spurred the process of development. Marx would note the importance of the discovery of a sea route to India, increased commerce, and the discovery of America as aiding in this respect.¹²³ In fact, Marx would clearly note the importance of mercantilism and the colonial system to the full emergence of capitalism in the 19th

century.¹²⁴ The historical occurrence of increased commerce and the establishment of colonies would eventually lead to a decline in feudal land rents and the breakdown of the entire feudal system.

The end result of this process of development and historical change would be the capitalist or the industrial revolution. The increased utilization of the division of labor and the creation of a larger surplus value would create a distinct class of individuals that would directly derive the economic benefits of capitalist society. It is true that the emergence of capital and the breakdown of feudalism would occur because of historical changes that would finally render the old system unmanageable and obsolete. This process would ultimately create the bourgeoisie class which can be defined as the new class of individuals that own or control the means of production within capitalist society. It remains important to remember that Marx asserted that economic relationships determined or influenced all others within each society. Therefore, the owners of capital would actually control or determine all other facets of life within this type of economic organization.

Again, the formation of this class should be viewed as being historically consistent with Marx's writings concerning earlier epochs. In these earlier

epochs there had always existed a small, separate class that had owned slaves or that had controlled the land depending upon the historical period. For Marx, these elements can be viewed as standards of wealth and power during these periods of time. Likewise, the development of capital during this centuries long process would create a group of individuals that would also control the primary standard of wealth within capitalism. It is also necessarily true that the system of capitalism would create the antithesis of the social class that possessed the wealth and power. This would, of course, be those individuals that owned no capital and that would have only their labor to offer as a means of subsistence and survival. This social group would be the proletariat or the working class. It is the formation of this dialectical relationship between two distinct and antagonistic social classes that would ultimately culminate in the revolutionary overthrow of capitalism.

There are a number of important points to emerge from an understanding of this process which would ultimately lead to the full development of capital and also to its revolutionary destruction. Although hardly an advocate of capitalism, Marx nonetheless recognized the advancements and the progress that this system had generated. It is certainly true that the

development of capital was viewed as an advancement over the feudal system of economic organization. Marx clearly noted the colossal wealth and industrial advancement that was the direct product of this system. It is also true that Marx viewed the development of capital as being the direct outgrowth of conditions that existed in the feudal ages. For example, Marx would often write on the relationship between the feudal system and the development of capital as he did in 1846 in a letter to P.V. Annenkov. Marx would write the following:

The privileges, the institutions of guilds and corporations, the regulatory regime of the Middle Ages, were social relations that alone corresponded to the acquired productive forces and to the social condition which had previously existed and from which these institutions had arisen. Under the protection of the regime of corporations and regulations, capital was accumulated, overseas trade was developed, colonies were founded. But the fruits of this men would have forfeited if they had tried to retain the forms under whose shelter these fruits had ripened. Hence burst two thunderclaps - the revolutions of 1640 and 1648. All the old economic forms, the social relations corresponding to them, the political conditions which were the official expression of the old society, were destroyed in England. Thus the economic forms in which men produce, consume, and exchange, are transitory and historical.¹²⁵

This lengthy quote illustrates that Marx viewed the development of capital in terms of an interrelationship between the past, present, and future as well as in terms of progress and advancement. And yet, it is

certainly the element of time that most strongly suggests that Marx viewed the process of history in an evolutionary manner with regards to the emergence and decline of capitalism. Marx recognized that the existence of capitalism in mid-19th century Europe was the product of centuries of economic and social development that enabled this form of organization to come into being. While it is true that Marx recognized the importance of the revolutions of 1640 and 1648 in aiding this process it would seem irrational to characterize these revolutions as being solely responsible for the decline of feudalism.

Instead, centuries of change, conflict, and economic expansion culminated in the emergence of a new form of economic organization. The preceding quote adequately illustrates the fact that this is in fact the manner in which Marx viewed all historical change. The essence of the relationship between evolution and revolution within Marxist theory is that the culmination of centuries of incremental change and transition is to be found in the Marxian revolution. Moreover, it is certainly true that Marx believed that historical conditions had to be met before the period of revolutionary activity would begin within any particular social epoch. For example, in The Tactics of Social Democracy, Frederich Engels would write the following,

with regards to the attempted revolution in France.

If even this mighty army of the proletariat has still not reached its goal, far from winning victory by one mighty stroke, it has slowly to press forward from position to position in a hard tenacious struggle, this only proves, once and for all, how impossible it was in 1848 to win social transformation by a simple surprise attack.¹²⁶

Concluding Remarks

It is true then that revolutionary action was not alone sufficient as an explanation concerning historical change. An examination of the emergence and decline of capital most clearly exemplifies the mutually dependent relationship between revolution and evolution, within Marxist theory. In his writings, Marx would maintain that a peaceful transition from one historical epoch to another would be impossible because of the antagonistic relationship that would always exist in a system composed of social classes. Marxism is a theory of revolution. However, this is not the only form of social change at work within this theory. Marx would state that "a radical social revolution is connected with certain historical conditions of economic development."¹²⁷ As we have already seen, these historical conditions and the notion of dialectical change can be viewed as evolutionary. The following chapters will examine the nature of the concept of Marxist historical evolution in relationship to the evolutionary writing and theories of Charles Darwin.

CHAPTER SIX

KARL MARX AND CHARLES DARWIN: THE HISTORICAL RECORD

It was in the year 1859 that the major theoretical works of Marx and Darwin would simultaneously be published. Darwin's Origin of Species and Marx's Critique of Political Economy both serve as examples or explanations as to the nature of change in, respectively, the biological ecosphere and in the realm of political economics. It is again important to consider the hypothesis submitted in the first chapter that similar historical conditions are responsible for the two works being published at this time and that their simultaneous publication was "no accident".¹²⁸ Instead, the two works should be viewed as the logical outcome of the relatively new reliance upon the scientific method, the notion of progress, and the concept of evolution. It will be the purpose of this chapter to examine the basis for a Darwin-Marx comparison through an analysis of the written historical record. The following chapter will then undertake the task of comparing and contrasting the actual theories presented by these two individuals.

Marx's Initial Comments on
The Origin of Species

The first individuals to recognize and comment on the relationship between these two theoretical works were certainly Friederich Engels and Karl Marx. Engels seems to have read The Origin of Species upon its publication in November, 1859. In a letter to Marx, dated December 11, 1859, Engels would write the following statement concerning the impact of Darwin upon the field of natural science and biology.

Indeed, Darwin - whom I am reading at this very moment, is truly famous. One aspect of telcology had not so far been developed, but this has now occurred. Up to now, no such grandiose attempt has been made to demonstrate a historical development in nature, let alone with such success. Of course, one must put up with the crude English method.¹²⁹

Engels' admiration for Darwin is readily apparant. Quite certainly, Engels recognizes that just as Marx has attempted to explain the process of historical change in an empirical manner, so has Darwin made a similar attempt with regards to the natural sciences. It is clear that Engels accepts the theories of Darwin and objects only to Darwin's weakness as a writer.

Marx read The Origin of Species the following year in 1860 and seems to have drawn similar conclusions from the work and to have been equally impressed. On December 17, 1860, Marx would write the following to Engels concerning The Origin of Species.

. . . In my time of trial (illness) during the last four weeks - I have read all sorts of things. Among others, Darwin's book on Natural Selection. Although it is developed in a crude English way, this is the book that contains the natural-history foundation for our viewpoint.¹³⁰

A subsequent and even more revealing statement concerning Darwin was issued by Marx on January 16, 1861 in a letter to Ferdinand Lassalle. Marx would write that:

. . . Darwin's book is very important and serves me as a natural-scientific basis for the class struggle in history. One has to put up with the crude English method of development, of course. Despite all deficiencies, not only is the death-blow dealt here for the first time to "teleology" in the natural sciences but its rational meaning is empirically explained . . .¹³¹

It is clear then that Marx and Engels accepted the theories presented by Charles Darwin in 1859 and even viewed his publication as complementing their own works. It is important at this point to examine the nature of this effect or the impact that The Origin of Species actually had on Marx and Engels. There can be little doubt that it did have a tremendous impact on both of them. For example, John Spargo, in Karl Marx: His Life and Work, writes that for months after reading The Origin of Species, Marx spoke of nothing but the importance of Darwin's work.¹³² Spargo quotes Marx as declaring that "his (Darwin's) wonderful work makes my own absolutely impregnable."¹³³ The hypothesis that Marx enthusiastically greeted The Origin of Species in written correspondence and in personal conversation is easily defensible.

The Impact of The Origin of
Species on Marx

The question immediately arises as to the actual impact that Darwin's work had on the economic theories of Marx and Engels. In other words, did Darwin's theory of natural selection and evolution merely complement the theoretical works of Marx and Engels, or did this work actually cause Marx to rethink or alter his own theories. The question posed is especially significant in order to arrive at a full understanding of the extent or the depth of any possible historical or theoretical links between these two individuals. There are writers and scholars who unequivocally state that after Marx read The Origin of Species in 1860 that a substantial change does take place in his own outlook and theories. Typical among them is Nicholas Lobkowitz in Marx and the Western World, who writes that after 1860 the notion of evolution replaces the "spontaneous generation" of which Marx had earlier written.¹³⁴

This line of thought maintains that prior to 1860 Marx viewed economic and social change as being more haphazard or abrupt and less influenced by a logical evolutionary form of development. Lobkowitz asserts that Marx viewed the historical process in a more developmental or evolutionary manner after 1860 and that Darwin's work exerted a great change in the

thought of Karl Marx. There are several problems with the theory that evolution became an intricate part of Marxist theory only after 1860 and the reading of The Origin of Species. Examples of the process of historical evolution are certainly observable as early as 1845-46 with the writing of The German Ideology.¹³⁵ It is true that every reasonably educated individual during this period of time was already familiar with the theory of evolution decades prior to 1860. Marx's clearest and most profound statement of this fact would come in 1857 in his work entitled The Grundrisse. Marx would write that:

. . . the bourgeoisie economy as the highest phase of development of an anterior historical process, furnishes the key for understanding the economy of past societies, just as human anatomy contains a key to the anatomy of the ape . . . the intimations of higher development among the subordinate animal species can only be understood after the higher development is already known.¹³⁶

It is the case, then, that Marx had accepted evolution as a natural fact years before the publication of The Origin of Species. The one admission that Marx does make is that after reading Darwin's book he realizes that there is a history that is "anterior to man."¹³⁷ Prior to this Marx had maintained that the period of history had initially begun when man started working and producing. Since Marx maintained that economic relationships determined all of the characteristics of any society, it would be true that man would

have to exist as a laborer in order for the period of history to begin. The relatively simple acknowledgement is made by Marx that there is a historical period that precedes the existence of man as a laborer. It is Darwin's example of biological development that seems to have made Marx realize this fact.

Consequently, while one can assert that a degree of change does take place after Marx read The Origin of Species, it is not nearly as great as some would suggest. Marx does not suddenly accept evolution after 1860 because he had certainly already done so prior to this date. Instead, Darwin's work would influence Marx and Engels in a number of other very important ways. First, it would seem far safer to assert that Marx and Engels initially viewed The Origin of Species as complementing their own works. For it is true that Marx and Engels were continually analyzing different areas of study in an attempt to further verify their own works. Examples of this would include references to geogeny, geology, chemistry, and the biological sciences.¹³⁸ It is natural then that Marx and Engels would initially recognize certain similarities between their works and the new publication by Darwin. This would be true since Marx viewed history and all of society in a wholistic manner in which all of its different components would be intricately interrelated by the common theme of

economic determinism.

Subsequently, Marx commented that Darwin's theory of struggle and natural selection was similar to his own theory concerning the class struggle in history. An interesting example of this parallel between the theories of Marx and Darwin appeared in a letter to Engels written in 1862.

It is remarkable how Darwin recognizes among beasts and plants his English society with its division of labour, competition, opening up of new markets, 'inventions', and the Malthusian 'struggle for existence'. It is Hobbes bellum contra omnes, and one is reminded of Hegels' Phenomenology, where civil society is described as a 'spiritual animal kingdom' while in Darwin, the animal kingdom figures as civil society.¹³⁹

Another interesting example of a parallelism existing between Darwin and Marx can be found in Das Kapital in which Marx would state the following:

Darwin has interested us in the history of Nature's Technology, i.e., in the formation of the organs of plants and animals, which serve as instruments of production for sustaining life. Does not the history of the productive organs of man, of organs that are the material basis of all social organization, deserve equal attention?¹⁴⁰

The former reference most clearly suggests that Marx viewed capitalist society in a manner similar to that in which Darwin described the competition and struggle that predominated in the animal kingdom. The point being that there are parallels and similarities that Marx recognized between his own theories and Darwin's. The question as to whether these recognized parallels

can be viewed as being interrelated or applicable to one another is a different consideration. The idea of applying Darwin's theories directly to human history and human society is an interesting postulate that Marx addresses and that will be more thoroughly examined at a later point.

The Economic Link Between Capital
and The Origin of Species

Therefore, the first point to be made concerning the publication of The Origin of Species in 1859 is that it does exert some degree of influence on Marx and that it is initially viewed as complimenting their own works. A second point to be made is that it seems that Marx was affected by the success of The Origin of Species and the popularity and uproar that it generated amongst the European populace. Enrique Ureña in Marx and Darwin writes that Marx wished to establish a link or relationship between Das Kapital and The Origin of Species for reasons related to increasing the popularity of his own work.¹⁴¹ Ureña makes reference to as many as a hundred letters written by Marx in which a reference is made to the lack of interest that the general public was exhibiting towards his work and his strong desire to increase the sales of Das Kapital, especially in England. A typical example of one of these letters written to Ludwig Kugelmann is as follows:

. . . the completion of my second volume depends largely on the success of the first. This is necessary for me so that I can find a publisher in England and without the latter, my material conditions remain so difficult and disturbing that I can find neither time nor peace for its completion.¹⁴²

Because of the fact that his own work was not selling well and was not being seriously considered by the majority of English scholars, it is possible that Marx sought to link himself with Darwin, whose popularity and level of acceptance was undeniable. The greatest and best known example of this possibility is pointed out by Ureña but is no longer accepted as being a historical fact by the majority of scholars. For decades it has been asserted that Marx wished to dedicate a volume of Das Kapital to Charles Darwin. It was commonly believed that the proposed English version of Das Kapital would be the volume that Marx was referring to. Consequently, many works that have been published on the subject of Marxism make reference to the fact that Marx wished to dedicate a volume of Das Kapital to Darwin. This historical error seems to have been corrected by M.A. Fay in Marx and Darwin: A Literary Detective Story.¹⁴³ And yet, even though the proposed dedication of Das Kapital has been shown to be a myth, there remains other pieces of evidence that would suggest that the publication and the success of Darwin's work would influence Marx in several respects.

One excellent example of this appears in a letter written by Marx to Engels in 1867. In this letter Marx would most clearly state the fact that the theory of Historical Materialism possessed certain evolutionary elements and that there is an informal theoretical relationship between Marx and Darwin. The relevant passage appears as follows:

When (Marx) shows that, from an economic viewpoint, present society is pregnant with a new higher form, he is only showing from a social point of view the same gradual process of transformation as has been established by Darwin from a historic-natural viewpoint.¹⁴⁴

The preceding quote most certainly substantiates the point of view that future societies are direct outgrowths of present and past societies, and that this process of change occurs in a very incremental manner. This subject was most thoroughly discussed in chapters four and five. More importantly, Engels makes perfectly clear the belief that there is a similiarity in context as it is applied to the separate fields of economics and biological science. At no point does Engels assert that the conditions causing change in the social and biological realms are exactly synonomous. Instead, a similarity or homology can be said to exist between Darwin's ideas on development in the biological field of study and Marx's with regards to the study of economics. As we will later examine, both Marx and Darwin would strongly reject the notion that these

characteristics are absolutely identical and can be uniformly applied to both fields of study.

This quote by Engels also suggests that Marx wished to tie or link his own works to that of Darwin's. While one can merely speculate as to the rationale for Marx doing so, it is at least plausible that Marx hoped that his own work would be viewed in the same monumental light that The Origin of Species was to assume. It is therefore entirely possible that Marx hoped that his Das Kapital would claim the same response and popularity that Darwin's work had received and that he believed that pointing out the parallels that did exist between the two theories might aid him in achieving this goal. It is worthy to note that while Das Kapital could eventually lay claim to being one of the most historically significant works ever published, its sales would not increase to a substantial extent until after Marx's death in 1883.

The final example of Marx's admiration and interest in Charles Darwin would come in 1873 when Marx would send Darwin a copy of Das Kapital signed as his "sincere admirer."¹⁴⁵ It is true that Marx sent copies of his work to many people but the choice of Darwin at this time is an interesting one. One can speculate that Marx sent the copy of Das Kapital solely because he admired the works of Darwin and wished to express this

fact. One could also imagine that due to a lack of sales, the absence of the book being received in England by the press, and the initial failure to have the work translated into English that Marx was attempting to accomplish something else altogether. Although it is entirely speculation, it is possible that Marx hoped that Darwin would take notice of his work and bring some much needed attention to it. For it is certainly true that Darwin possessed the means to accomplish this if he desired to do so.

As was mentioned in the second chapter, Darwin sent Marx a courteous letter thanking him for the book, but admitted that he had little understanding of political economy and there was never again personal contact between these two individuals. This fact being true, even though they lived less than twenty miles from one another in England. For whatever possible reason, Darwin chose to refrain from becoming familiar with the theories presented by Marx and from becoming involved in any way in his endeavor to popularize Das Kapital. The book remains largely uncut and unread in Darwin's personal library to this day.¹⁴⁶

Concluding Remarks

In concluding this chapter, a number of points should be reiterated concerning this historical analysis of Marx and Darwin. The purpose of this chapter is

to arrive at some understanding of Marx's impression of Darwin and The Origin of Species. On this basic level, a number of generalizations can be made concerning Marx and Engels' reading of The Origin of Species. First, it is undeniable that Marx and Engels greeted Darwin's work with enthusiasm and acceptance. Both of them viewed The Origin of Species as being the rational and empirical explanation as to the nature of biological change and they recognized a similarity in methodology between Darwin's efforts and their own. Therefore, there are examples in which Marx and Engels refer to the similarities that do exist between the two theories of development.

Likewise, the question of the degree that The Origin of Species influenced Marx and Darwin was also examined. The historical record seems to show that very little, if any, change actually occurs in the theoretical works of Marx and Engels. The primary effect that this work had seems to be in the possible effort by Marx and Engels to tie themselves to Darwin's work because of the success that it had enjoyed.

It should be noted that there are several major problems that have been alluded to but have not been thoroughly discussed with regards to this relationship between Marx and Darwin. It should also be stated that there is disagreement as to the degree to which this

comparison can be made. Hence, the rationale for dividing this comparison between historical matters and theoretical. For it is true that the majority of the objections raised regarding such a comparison begins when one analyzes theoretical similarities between a subject dealing with the social sciences and matters dealing with the so-called "hard" sciences. It is true that Marx strongly objects to portions of Darwin's theory. These objections will be examined in the following chapter. However, it is also true that the historical record clearly shows that grounds exist to view Darwin and Marx in a similar and related manner.

CHAPTER SEVEN
THE THEORETICAL PARALLELS BETWEEN
MARX AND DARWIN

An analysis of the historical record conclusively reveals that Marx was interested in, and to some degree, influenced by the publication of The Origin of Species. This relationship between Marx and Darwin was noted by several late 19th century writers including Friederich Engels in Marx's graveside speech and Edward Aveling in Charles Darwin and Karl Marx: A Comparison. Other late 19th and early 20th century writers also picked up on this theme.¹⁴⁷ The comparison, or the linking together of Marx and Darwin is not totally unique. And yet, in the course of the research on this subject it seems that most of the references concerning Marx and Darwin are superficial at best and concerned primarily with the most obvious or basic of similarities. For this reason, the major theoretical comparisons and differences will be examined in some detail.

The two major comparisons between Marx and Darwin that are most often noted and of the most importance concerns the fact that both utilized evolution within

their works and both explain change through the utilization of science. Both of these general points have been adequately discussed. The somewhat unique addition being the examination of the evolutionary components of Marxism. The second point is, without question, the major and most noted comparison between these two writers and this has been discussed at length. Marx and Darwin both sought to explain the process of change in terms of phenomenon that could be rationally explained and scientifically proven. The "deathblow to teleology" is seen as being dealt with regards to fundamental change in the biological and social realms of existence.¹⁴⁸

The Specific Theoretical Comparisons

These two very general comparisons are the most significant and have been adequately dealt with in preceding chapters. The purpose of the following examination will be to analyze a few of the more specific comparisons that can be drawn between these two theories. A guiding thread throughout this chapter must be the question of the degree to which these comparisons can be applied to one another. In other words, were Darwin's biological laws applicable to human society for Marx and vice-versa. It is also important to note at the outset that there are several problems with the

comparison and several objections to Darwin's work that Marx makes, and these will likewise be examined.

The basis for the theoretical comparison has already been put forth in the analysis of the evolutionary aspects of Marxism in chapter four. Both Marx and Darwin relied upon a process of change that was incremental, directional, and in which future or present forms were inextricably linked to prior forms of development. Other, more specific theoretical comparisons would include the following five observations:

1. The basis for the process of change is dependent upon conflict and struggle in both theories.
2. The individual person or organism is de-emphasized at the expense of the group or the collective. For Darwin and Marx this would include the species and the social class respectively.
3. The process of change is irrevocable in both theories and there is no possibility of returning to a prior form of existence.
4. Chance variations may at certain times have an impact and become incorporated into the system as a new and essential component.
5. And finally, change occurs independently of the organisms will and a new form cannot consciously be created.

These five characteristics that are found in the writings of Darwin and Marx constitute a more specific framework through which similarities may be noted. It should be stated that these comparisons are best viewed as being parallels and not as being uniformly applicable to both independent theories. These comparisons are, for the most part, self-explanatory and several brief points will be made concerning each of them. The more important issue of any theoretical conflict will be examined immediately following this.

To begin with, it is true that the most fundamental of these five observations is the fact that Darwin and Marx both relied upon conflict and struggle in the daily existence of any organism to bring about basic social or biological change. For Marx, the nature of this conflict exists because of the predominance of the social class system and the fact that antagonisms exist that are irresolvable except through a course of the revolutionary elimination of social classes. Likewise, Darwin writes that natural selection occurs because of the competition that exists in the biological world. Jonathan Miller explains that "alternative versions of each variable gene are constantly competing with one another for representation in the next generation" and that any gene that receives an advantageous trait will experience reproduction at a higher rate than those organisms without the trait.¹⁴⁹ It was with this in

mind that Marx stated that Darwin's work contains the "historico-natural" basis for the class struggle. This subject will be re-examined at a later point.

It is also significant that Marx and Darwin both dealt with the group or the collective and downplayed the importance of each separate individual. This is not to say that each separate organism or individual was completely ignored but that they were viewed primarily in relationship with those that were socially or biologically similar. For Marx, it is understood and explained through the relationship of the bourgeoisie and proletariat social classes. The following quote by Marx is typical and adequately illustrates this fact.

Population is an abstraction if, for instance, one disregards the classes of which it is composed. . . . The separate individuals form a class in so far as they have to carry on a common battle against another class; otherwise they are on hostile terms with each other as competitors.¹⁵⁰

In a somewhat similar fashion, Darwin would utilize the species as the basis of his observation and analysis to explain how biological change occurs. Again, it is significant that the primary focus is on the manner in which change occurs within a biological species or more specifically, within a species gene pool. Friederich Engels would comment on the subject of Darwin's utilization of the species in The Dialectics

of Nature:

Darwin, in his epoch making work, set out from the widest existing basis of chance. Precisely, the infinite, accidental differences between individuals within a single species, differences which become accentuated until they break through the character of the species . . . which compelled him to question the previous basis of all regularity in biology, viz. the concept of species in its previous metaphysical rigidity and unchangeability without the concept of species, however, all science was nothing.¹⁵¹

The third point has to some degree been examined in the analysis of evolution in chapter four. Marx and Darwin do not allow for the possibility of an exact return to an earlier form of existence. Evolution is not reversible. Initially, Darwin seems to have concerned himself more with the idea of improvement or progress so that a comparison between these two theories as they existed in 1859 would clearly be legitimate. Both wrote about a continual process that would culminate in a higher level of social or biological existence. It is true that one of the major objections to the theory posed by Darwin in 1859 is the fact that adaptation could lead to regression as well as progress and Darwin certainly would later recognize this fact.

And yet, recognizing that regression is possible within biological evolution does not change the basis of the comparison. While regression is possible within evolution an exact return to a prior form of existence is not. George Simpson writes that even if an

organism within a species returns to a less complex level of existence it is still not the same organism that existed before.¹⁵³ This would be true for a number of reasons including the fact that the genetic mechanism determining the makeup of the organism would be vastly different from that which had previously existed.

Similarly, Marx wrote that the process of change was irreversible within economic systems. It is true that setbacks and defeats would be common within this process as was noted in his pamphlet The Civil War in France. The return to a previous form of economic organization would be impossible within the theoretical writings of Marx, and change must be viewed as being irrevocable and directional. For Marx, "new and higher relations of production" will continually come into existence and one only has to re-examine the basis of dialectical change (chapter three) to understand why this process is directional.¹⁵⁴ One potential problem that arises within this analysis is that the evolution of economic systems ends for Marx with the advent of communism and the elimination of social classes. While the evolution of the human race might indefinitely continue for Marx, it is true that the process ends with regards to the idea of historical development.

Another basic parallel between these two theories is that both incorporate the notion of chance occurrences into each respective theory. These occurrences being certain developments that simply transpire without any logical reason or explanation. It is important to note that this type of change fully differs from the notion of fate which attaches a metaphysical purpose to the final outcome of any given process. This being true even though both methods offer no explanation as to the exact manner in which change is brought about. The utilization of chance serves several basic purposes including the fact that there were occurrences that each theorist simply could not explain and this notion serves the purpose of rationalizing these unknown and unexplainable phenomenon.

The best known example of this concerns the fact that Darwin formulated his theories before the advancements in the field of genetics by Gregor Mendel. Darwin certainly pointed out the fact that sexual selection plays an important role in determining the makeup of the organism and in generating basic biological change. However, Darwin had little understanding of genetics and he, therefore, maintained that chance variations may become incorporated into the makeup of the organism if the variation is useful and aids the organism in survival. Gustav Wetter in Dialectical Materialism

points out that chance occurrences within Marx's writings are also observable and that if these occurrences are useful, will become incorporated into the system of economic organization. Wetter writes that the initial utilization of exchange value occurred solely because of chance but that it would later become an inherent part of the capitalist stage of economic development and organization.¹⁵⁵

A somewhat similar observation concerns the fact that these biological and social processes occur independently of the organisms or individuals conscious will. This fact further aids in the goal of explaining change without the utilization of purpose or fate. Change occurs because of fundamental laws that are rationally and empirically explainable. For Darwin, natural selection is the basis for biological change and an individual organism cannot consciously alter their own physical or genetic composition. The organism reproduces only if it survives and it can in no way consciously direct its own future development.

Likewise, Marx believed that economic relationships influenced the consciousness of individuals and that the future economic development of each society would occur independently of an individual's will. Marx would write that "it is not the conscious of men that determine their being, but on the contrary their social

being that determines their consciousness."¹⁵⁶ The social class and the relationship of each individual to the means of production would determine the consciousness of each individual. In The German Ideology, Marx wrote that men operate under "material limitations, presuppositions, and conditions (that are) independent of their will."¹⁵⁷ And yet, one must admit that this specific comparison is very tenuous, depending upon the particular interpretation that one wishes to make. For it is certain that men and animals differ in the fact that men possess the ability to consciously alter nature and their surroundings, and it is true that Marx and Engels recognized this fact.

Marx handles this potential problem in an interesting manner. Basically, he refers to a distinct period of human history that would exist up until the capitalist stage of economic development. Marx will always maintain that the consciousness of man is shaped by his economic relationship to the means of production and that the historical trend towards communism is inevitable in its conclusion. Consequently, Marx would describe the historical process as being one which would eventually lead to the attainment of class consciousness by the working class and the ability of this group to some degree to direct the course of human history. The total attainment of consciousness

and the ability to influence or direct the historical process will be realized for Marx when the social class system is finally eradicated. It is at this point that man would be described as being "fully human."¹⁵⁸

Potential Problems With This Hypothesis

It is true then, that certain theoretical similarities or parallels exist between these two seemingly different theories of change. The question as to the degree to which these theories are comparable or applicable to one another becomes an important consideration. The fundamental question being, are characteristics or phenomenon within nature applicable to human society and vice-versa. The initial response to this postulate might be to state that Marx and Engels accepted the notion of linking the social and the biological worlds in a common comparison. After all, Marx commented that Darwin's work was the "natural-historical" basis for the class struggle and Engels' major work, The Dialectics of Nature, is an attempt to verify the laws of dialectics in the natural world. So that, there is some reason to believe that Marx and Engels would have accepted this type of comparison.

One only has to read Lewis Feuer's The Darwin-Marx Correspondence as one example of a writer and scholar who believes that Marx accepts the notion of an

interrelationship between the social and the biological worlds.¹⁵⁹ The following quotes by Marx and Engels would seem to further substantiate this idea. In The Economic and Philosophic Manuscripts of 1844 Marx would write the following:

Natural science will in time incorporate into itself the science of man, just as the science of man will incorporate into itself natural science, there will be one science.¹⁶⁰

This quote serves as an adequate illustration of one example in which Marx views the historical and natural sciences as being interrelated. A somewhat similar idea was expressed by Friederich Engels when he would write on the relationship of the dialectic to the biological and social areas of existence. "Dialectic is nothing more than the science of universal laws of motion and evolution in nature, human society, and thought."¹⁶¹

Of course, it is true that any author that writes to the extent that Marx did has the possibility of contradictions arising within his own works. In other words, one can point to statements within Marxist literature that support or reject the proposition that there is a basis for a "naturo-historico" comparison. For example, the following statements would seem to reject the idea of treating the social and the biological worlds in a similar manner.

The writing of history must always set out from these natural bases and their modification in the course of history through the action of men. Men can be distinguished from animals by consciousness, by religion or anything else you like. They begin to distinguish themselves from animals as soon as they begin to produce their means of subsistence . . . human history differs from natural history in that we have made the former but not the latter.¹⁶²

It seems that there are individual statements by Marx that could be utilized in an attempt to further the Darwin-Marx comparison or to reject it. While there are grounds for those ideas as expressed by Feuer, it seems far more likely that Marx was at least skeptical of this type of approach. As will be seen, it would be far safer to claim that Marx and Engels studied and recognized parallels between the social and the biological worlds and sought to clarify or substantiate their own theories within the laws of nature.

Perhaps the best example of this hypothesis can be found in Friederich Engels' analysis of the conflict and struggle that takes place in nature for food and resources. It has been stated that this is one of the more important parallels between these two theories and that Marx described it as such in his writings. In The Dialectics of Nature one finds that conflict and struggle in the natural world does differ from that which takes place in the capitalist stage of economic organization and that the two types of conflict differ in several fundamental respects.¹⁶³ Engels' analysis

offers the clearest and most specific example of the fact that these comparisons are at best superficial in nature and are not meant to be exactly synonymous.

Engels writes that a basic struggle is the primary force that causes change to occur within each respective theory. The basis of this parallel has been previously discussed. While certain similarities do exist, Engels writes that there are fundamental differences and that "the transference of the laws of life from animal to human is impossible."¹⁶⁴ This is true for a number of reasons. Engels writes that the very essence of the conflict or struggle differs between these two theories. Engels would state that the struggle that exists within the natural or biological world is a struggle for the survival of each separate organism and the species. Conversely, within capitalist society, the struggle that ensues turns out to be a struggle for wealth and not a struggle for survival. This would be especially true amongst the bourgeoisie. An equally important point is made in The Dialectics of Nature and this concerns the fact that the struggle for wealth is "artificially and forcefully barred" by those individuals that have power and control the means of production and Engels correctly notes that nothing similar to this is observable in the natural world.¹⁶⁵

This specific point will turn out to be one of the more important assertions formulated in this thesis.

A historical and theoretical relationship does exist between Marx and Darwin and the subject is worthy of an indepth analysis. It must, however, be continually understood and re-emphasized that there are significant limitations to the exact degree to which these theories can be described as being related. Marx and Engels sought to prove or verify their own theories within nature but they did not view Darwin's work as an analogous description of capitalist society. This point will be returned to when Marx's views of the social-Darwinist movement are examined.

Marx's Criticism of Darwin

Besides this fundamental problem with regards to this comparison, it is also true that Marx was severely critical of Darwin in several important respects and this criticism sheds even more light on the fact that these two theories are not directly applicable to one another. The major and most noted objection concerns the relationship between the theories of Thomas Malthus and Darwin. As was noted in chapter two, Marx strongly opposed the theories of Malthus and held them in open contempt. Darwin would give credit to Malthus as being the source of his theory of natural selection and would state in the introduction to The Origin of Species that "the theory of natural selection is the doctrine of Malthus applied to the whole animal and vegetable

kingdom."¹⁶⁶ As will be seen, it is Darwin's attempt to link the social and biological worlds together that Marx and Engels disapprove of.

On the one level then, Marx opposes the Darwin-Malthus linkage simply because of his contempt for Malthus and the belief that his theories would become a justification or a rationale that would be utilized to suppress the lower classes. As was discussed in the second chapter, Malthus noted that disease, famine, and war were phenomenon that would serve the purpose of controlling the potential problem of human over-population. There were those individuals in 19th century European society that suggested that these forces should be allowed to occur undeterred in order to prevent dramatic increases in the rate of population expansion. Consequently, Marx objected in principle to Darwin giving credit to Malthus for giving him the idea of natural selection.

Gerratana Valentina in his article Marx and Darwin writes that Darwin also misapplied Malthus to his own theories and that Marx and Engels both recognized this mistake.¹⁶⁷ Valentina points out that while Darwin may have received the idea of the struggle for existence from Malthus, the larger and more important theory of the Malthusian geometric progression of populations is not related to, or necessary for, the formulation of

Darwin's theory. Marx would comment on this subject after re-examining The Origin of Species in 1862 when he writes the following:

I am amused at Darwin into whom I looked again, when he suggests that he applies the 'Malthusian' theory also to plants and animals as if the joke with Herr Malthus did not consist of the fact that he did not apply it to plants and animals.¹⁶⁸

Engels would similarly note that Malthus was unnecessary to Darwin and that the relationship is minimal between the two theorists:

Now Darwin would not dream of saying that the origin of the idea of the struggle for existence is to be found in Malthus. He only says that his theory of the struggle for existence is the theory of Malthus applied to the animal and plant world as a whole. However, great the blunder made by Darwin in accepting the Malthusian theory so naively and uncritically, nevertheless, anyone can see at the first glance that no Malthusian spectacles are needed to perceive the struggle for existence in nature.¹⁶⁹

What is interesting and noteworthy about this criticism is that it is reserved primarily for Malthus and Darwin is subjected to it only indirectly. By pointing out that Darwin had misunderstood and misapplied Malthus to his own theory of natural selection, it would appear that Marx and Engels are in effect protecting or supporting Darwin's writings. So that, while it is often noted that Marx was critical or doubtful of Darwin, it should be noted that much of the criticism is actually being leveled against Malthus.

The final and very important issue to take note of concerns the relationship between Marx and the rising

tide of social-Darwinism that was emerging following the publication of The Origin of Species. Again, it is true that the criticism expressed by Marx and Engels is not directed towards Darwin, but rather the application of Darwinist theories to the social environment. Neither Darwin or Marx should be viewed as ascribing to the theories of social-Darwinism. The strong criticism that is leveled against the social-Darwinists also invariably contributes to the discussion of the degree to which these two theories can be viewed as being similar.

In a letter to Ludwig Kugelmann, Marx would describe as "sheer nonsense" the attempt or the movement of the "bourgeoisie Darwinists" to link his own theory with that of Charles Darwin.¹⁷⁰ This statement is not a criticism of Darwin but rather an objection to the direct application of Darwinian thought to the social environment. Marx would again comment on this subject in a separate letter to Kugelmann that concerns comments made by Frederick Albert Lange, a German social economist and social-Darwinist:

Herr Lange sings my praises loudly, but with the object of making himself important. Herr Lange, you see, has made a great discovery. The whole of history can be subsumed under a single great natural law. The natural law is the phrase (in this application Darwin's expression becomes merely a phrase) 'the struggle for life,' and the content of this phrase is the Malthusian law of population, or, rather overpopulation. Thus, instead of analyzing the struggle for life as represented

historically in varying and definite forms of society, all that has to be done is to translate every concrete struggle into the phrase 'struggle for life,' and this phrase itself into the Malthusian 'population fantasy.' One must admit that this is a very impressive method for bombastic sham-scientific, pompous ignorance, and intellectual laziness.¹⁷¹

Concluding Remarks

Such quotes clearly illustrate the level of animosity that Marx held for Malthus and the new and emerging theory of social-Darwinism. Marx and Engels criticized the misuse of Malthus by Darwin and the usage of Darwinist principles by the "bourgeoisie Darwinists." These statements should not, however, be viewed as being a refutation of the theories of Darwin or a rejection of the earlier parallels that were made concerning the two theories by Marx and Engels. At no point does Marx reject the basic premise of natural selection and biological evolution as laid forth in The Origin of Species.¹⁷² The point that can be made concerning the stated criticism is that the relationship between the social and biological environments is tenuous for Marx. Taken together, the comments by Marx seem to suggest that verification of certain aspects of their theories could be found within Darwin's writings but that the two theories differ fundamentally and are not directly applicable to one another. This idea will be examined in more detail.

CHAPTER EIGHT
SUMMARY AND CONCLUDING REMARKS

Summary

The goal set forward in this work was to examine the basis and the rationale of the historical connection between Karl Marx and Charles Darwin. This relationship, which is widely recognized, is controversial in nature and highly debated in academic circles. The approach taken in this work begins with the point of view that a relationship does in fact exist. As we will soon see, this simple fact alone is believed to be a falsehood by some individuals. And yet, the primary objective was not to simply prove that a historical connection exists between these two 19th century theorists, but to also examine and define the exact nature of the relationship and to what degree it can be said to exist.

There were a multitude of considerations to make concerning the previously stated goal. First, it was necessary to examine the historical conditions that similarly influenced both individuals. The very simple fact that both men lived and wrote at a similar

location at a similar point in time is the initial clue that a common foundation does exist between these two works. Of course, this element is inconclusive by itself. An analysis of the major historical forces in the period of time prior to the formulation of these two theories does suggest that a similar influence on Marx and Darwin does exist. Both men were products of the 19th century. The new reliance upon the scientific method, the belief that progress was inherent within the process of history, and the concept of evolutionary change brought about revolutionary changes in human history. And, it is believed by the author that these three historical movements similarly affected Marx and Darwin and influenced the nature and the direction that both would take.

This fundamental goal is concerned with pointing out that the very foundation of this relationship is to be found in forces that were observable centuries before the birth of either man. It is believed by the author that ideas do not simply spring forth at a given point in time but are the creation of events and movements that precede and help to create new ideas and historical change. Therefore, this relationship does not begin in 1859 with the publication of The Origin of Species, but begins centuries before in the historical movements that helped to create the theories formulated in this specific year.

A second and related goal was the establishment of evolution as a fundamental and consistent force within both works. It was asserted by the author that the materialist and evolutionary basis is very significant and serves as the common thread running through both theories. The most frequently mentioned comparison is that Marx and Darwin sought to explain basic change in an empirical or scientific manner. What is not widely recognized is that the specific method of change contains striking parallels between the two theories. In particular, evolution can be viewed as existing within both theories and is the common mechanism that explains the actual process of change. The concept of biological evolution was strengthened by Darwin and the notion of historical evolution was reintroduced by Hegel and Marx.

There are two potentially significant problems with this evolutionary hypothesis that the author believes was solved within this work. First, it was pointed out that the controversial aspect of this hypothesis is that Marxism contains evolutionary components that are observable within his writings. For this reason, an evolutionary framework or definition was formulated and Marx's writings were examined in light of this conceptualization. Utilizing the theoretical notion of the dialectic and more specific or concrete examples such as Historical Materialism and

the development of capital, the evolutionary definition included an emphasis on incremental change that is directional. It is also important that present forms of development can be demonstrated to be direct outgrowths of previous forms of development. The application of the highly theoretical dialectic and the example of the process of historical change to this fundamental framework in chapter four clearly illustrates that evolutionary historical development is observable within Marxist theory.

This hypothesis was strengthened by the demonstration that evolutionary historical development and the more rapid example of revolutionary transformation can be viewed as working together and complementing one another within the same process of change. It was concluded within this work that Marx envisioned a process of protracted and directional development that would finally culminate in the revolutionary overthrow of the existing order. In other words, these two seemingly contradictory forces can co-exist because the process of historical change creates the antagonisms that will lead to the ultimate revolutionary conclusions. The analysis of Marxism as a theory in which an evolutionary process creates the final revolution is highly unique. It is this fact that partially separates this work from others that have analyzed the Darwin-Marx relationship.

The second potential problem involves a similar objection that could be raised regarding Darwin's writings. Many would agree that Marxian development and Darwinian evolution differ because Darwin's process is characterized by a glacial type of change and does not possess the more dramatic "leaps" or "jumps" that are inherent within Marx's writings. This problem was likewise dealt with. Biological evolution in general and Darwin's writings in The Origin of Species recognize periods of heightened change or revolutionary activity. The fact that biological change is not always incremental serves to strengthen the belief that long periods of gradual development can be coupled with shorter periods of rapid change.

Having established these fundamental points of comparison it was possible to progress to other more specific characteristics regarding this relationship. The sixth chapter was an examination of the written manuscripts, the correspondence that is available, and the testimony of those who personally knew Marx in an attempt to arrive at some understanding of Marx's attitude and opinion of Darwin's work, and to see if this work influenced Marx to any degree. There are several examples of scholars who have examined the written historical record concerning Marx and Darwin but most are not as thorough and vastly different

conclusions are often formulated. This work makes a number of assertions regarding this relationship that, when taken together, form a new and logical description of the manner in which Marx viewed Darwin. The most important of these concerns the fact that Marx and Engels were highly interested in this new work by Darwin and accepted the scientific methodology used to describe biological change. John Spargo's description of Marx as discussing nothing else but Darwin and evolution for a period of months vastly strengthens this claim.

It is believed by the author that Marx and Engels accepted the basic premise laid forth in The Origin of Species and sought a verification of their own laws of development and change within the biological sphere of existence. Marx's statement that "Darwin's wonderful work makes my own absolutely impregnable", is a striking example of this belief.¹⁷³ That is not to say, however, that objections were not raised. Marx and Engels pointed out the shortcomings and the pitfalls within The Origin of Species as they would have with any work that they happened to read. Darwin's mistaken reliance upon Malthus and the attempt by the Social-Darwinist's to directly link these two theories were cited as the major objections raised by Marx and Engels. It was pointed out that these objections were often times minor or only indirectly meant for Darwin.

A related goal to this analysis of the historical record was to examine the theoretical parallels that exist between the two works. If it is correct that Marx and Engels sought to verify their own works within Darwin's writings then it must be the case that similarities do in fact exist. We have already established similar historical influences, evolutionary change, and a reliance upon the scientific method to explain the process of change, as the foundation of this comparison. More specific comparisons between the two works include the fact that the basis for the process of change is dependent upon conflict and struggle and that the individual or organism is de-emphasized at the expense of the group or the collective. Other similarities include the irrevocability of change, the impact of chance variations, and the fact that this process occurs independently of the organism's will.

These comparisons are very significant and serve to complement the historical record that was previously noted. What is significant regarding these noted similarities is that they should be seen as parallels and not exact descriptions that are synonymous within both theories. The author strongly believes that Marx and Engels recognized the differences between the biological and the social realms of existence and did

not view biological evolution and historical development as synonymous. Engels' example of the difference between class conflict and conflict and struggle within the natural world serves as an excellent description of the recognized discrepancies between the social and biological worlds. This example, which appears in The Dialectics of Nature, clarifies the manner in which Marx and Engels accepted the premise put forth by Darwin while at the same time recognizing the distinctions that arise because of the differences between the social and biological environments. This is the only usage of this example that I know of and is very significant.

It is believed that the stated goal of defining the exact nature of the Darwin-Marx relationship was accomplished within the previously described approach taken in this work. It is true that several of the points made here have been raised in other works on the subject. This would be especially true of Marx's criticism of Darwin regarding his reliance upon Malthus and the emergence of the Social-Darwinists. However, the bulk of this work is clearly unique. The examination of Marxism and dialectics within the evolutionary framework that was formulated serves as the basis of the entire thesis and is the only such attempt utilizing this approach that I am aware of. Also, the majority of the interpretations concerning the

written record are my own except where it is otherwise noted.

The greatest significance of this work can be demonstrated from both an abstract basis or from a more practical perspective. Few individuals have been as widely researched and studied as have Karl Marx and Friederich Engels. For this reason alone, any addition to the body of knowledge that does exist is important simply because of the large degree of interest on this subject and because of Marx's tremendous influence on 20th century society. Therefore, from a theoretical point of view, any addition to the basic understanding or interpretation of such an influential individual is significant.

It would also be the case that the findings within this work would be significant regarding an empirical or practical application of Marxism. For example, Third World nations attempting to follow the "Marxist path" to social and political change would be influenced by the view that it is only at the point of "revolutionary departure" that the epoch of communism could be ushered in. Other points that might be raised concerning the application of these ideas would be the significance of the utilization of science and the relationship that exists between the biological and the social worlds. It is believed by the author

that this relationship between Marx and Darwin has ramifications that transcend the realm of mere theoretical debate.

Concluding Remarks

It is with great interest that Professor Terence Ball comments on this relationship by stating that "the Marx-Darwin connection can now be seen for what it is-- a myth, pure but far from simple and, one hopes, finally laid to rest."¹⁷⁴ This assertion is made primarily on the basis that the proposed dedication of Capital II by Marx to Charles Darwin has been proven to be a historical fabrication. The notion that Marx intended to dedicate a volume of Capital to Darwin is the most frequently mentioned item concerning the relationship between these two individuals. While it is true that such an overture by Marx strengthened the idea of an interrelationship between these two, it is also true that this entire historical movement does not hinge on the simple fact of whether or not Marx intended to dedicate this work to Darwin.

All would agree that a relationship exists between Marx and Engels or between Marx and Hegel, and yet, Marx never intended to dedicate this work to either of them. One can still point to numerous comments by Marx and Engels concerning Darwin's work and the fact that Marx did send Darwin a copy of his work Capital.

It is believed by the author that this relationship can be shown to exist on its own merit.

Professor Ball also asserts that Marx's "hostile dismissal of the Social-Darwinists" is additional proof that the Marx-Darwin relationship can now be seen as a historical fallacy.¹⁷⁵ This objection has likewise been dealt with. Marx objected to the direct application of Darwinist principles to the social environment. As was previously pointed out, Darwin also objected to the linking of his own theories in this manner. Simply because Marx objected to an aberrant outgrowth of Darwinism does not imply that Marx rejected the theory as put forward in The Origin of Species. If anything, Marx and Engels' comments on this work could be characterized as respectful and showing a genuine interest. The author believes that this interest stems primarily from the fact that Marx and Engels sought a verification of their own ideas within the laws of nature.

V.I. Lenin would succinctly and accurately address the issue of the Darwin-Marx relationship in his work What the Friends of the People Are and How They Fight the Social Democrats. Lenin would state the following:

It will now be clear that the comparison with Darwin is perfectly accurate: Capital is nothing but 'certain closely interconnected generalising ideas crowning a veritable Mont Blanc of factual material.' And if anybody has read Capital and contrived not to notice these generalising ideas,

it is not the fault of Marx, who, as we have seen, pointed to these ideas even in the preface. And that is not all; such a comparison is correct not only from the external aspect, but also from the internal aspect. Just as Darwin put an end to the view of animal and plant species being unconnected, fortuitous, 'created by God' and immutable, and was the first to put biology on an absolutely scientific basis by establishing the mutability and the succession of species, so Marx put an end to the view of society being a mechanical aggregation of individuals which allows of all sorts of modification at the will of the authorities and which emerges and changes causally, and was the first to put sociology on a scientific basis by establishing the concept of the economic formation of society as the sum-total of given production relations, by establishing the fact that the development of such formations is a process of natural history.¹⁷⁶

This quote is very important for both its content and because of the reputation of Lenin as one of the foremost experts on Marxist theory. Lenin points out that there is a common theme that is observable in both theories. One can surmise from the description of the two theories being similar from both an "external" and "internal" basis that Lenin considered the relationship to be more than superficial. Lenin points out that both Marx and Darwin dealt with groups or aggregates and explained the mechanical basis for the process of change. It is also pointed out that Marx and Darwin accomplished this feat within the framework of the scientific method.

The key to understanding the historical connection between Marx and Darwin for Lenin is that both studied processes of development and change. Lenin would again

restate this concept when he would write that the "idea of universal movement and change" was first put forward in 1848 by Marx and Engels and in 1859 by Charles Darwin.¹⁷⁷ Lenin never implies that these two theories are synonymous but only that a similarity or parallel exists between two separate examples of movement and change. It is unfortunate that Lenin did not expand on this idea to give an even more exact description of the relationship between Marx and Darwin. It is enough, however, to adequately illustrate that Lenin considered the basis for this historical relationship to be more than a mythological creation.

ENDNOTES

- ¹ Robert C. Tucker, The Marx-Engels Reader (New York: W.W. Norton, 1978), p. 681.
- ² Robert C. Tucker, The Marxian Revolutionary Idea (New York: W.W. Norton, 1969), p. 3.
- ³ Marx to Engels, December 19, 1860, in The Letters Of Karl Marx (New Jersey: Prentice-Hall, 1979), p. 139.
- ⁴ A complete listing of all references by Marx to Darwin is found in Enrique M. Ureña's "Marx to Darwin", History of Political Economy, Vol. 9 (Winter 1977), p. 554.
- ⁵ Conway Zirkle, Evolution, Marxian Biology and the Social Scene (Pennsylvania: University of Pennsylvania Press, 1959), pp. 5-13.
- ⁶ Ibid., pp. 5-8, 81.
- ⁷ Kapjl Mapke, Karl Marx: A Biography (Moscow: Progress Publishers, 1973), pp. 319-321.
- ⁸ J.B. Bury, The Idea of Progress (New York: Macmillan Press, 1932), p. 158.
- ⁹ Robert Nisbet, Social Change and History (London: Oxford Press, 1969), pp. 104-110.
- ¹⁰ Ibid., pp. 107-109.
- ¹¹ Ibid., p. 109.
- ¹² Bury, p. 5.
- ¹³ Julian Huxley, A Book That Shook the World (Pittsburgh: University of Pittsburgh Press, 1961), pp. 2-4.
- ¹⁴ Jacques Barzun, Darwin, Marx, Wagner (New York: Doubleday Press, 1958), pp. 38-55.

- ¹⁵Ibid., p. 39.
- ¹⁶Bury, p. 336.
- ¹⁷Maurisis De Tollengere, "Briefer Book Reviews", International Philosophic Quarterly, Vol. 15 (March 1975), p. 124.
- ¹⁸Ureña, p. 549.
- ¹⁹Barzun, p. 3.
- ²⁰Stanley Hyman, The Tangled Bank (New York: Atheneum Press, 1974), pp. 37-43.
- ²¹Edward Aveling, Charles Darwin and Karl Marx: A Comparison (London: Twentieth Century Press, 1897), p. 3.
- ²²John Spargo, Karl Marx: His Life and Work (New York: B.W. Huebsch Press, 1910), p. 200.
- ²³Aveling, p. 13.
- ²⁴Ralph Colp, Jr., "The Contacts Between Marx and Darwin", Journal of the History of Ideas, Vol. 35 (February 1974), p. 333.
- ²⁵Ureña, pp. 556-559.
- ²⁶F.J. Raddatz, Karl Marx: A Political Biography (New York: Little Brown and Co., 1978), p. 232.
- ²⁷Aveling, p. 11.
- ²⁸Hyman, p. 13.
- ²⁹George C. Dorsey, The Evolution of Charles Darwin (New York: Doubleday Press, 1927), pp. 257-271.
- ³⁰Marx to Engels, December 19, 1860, in The Letters of Karl Marx, p. 139.
- ³¹Loren Eiseley, Darwin's Century (New York: Doubleday Press, 1958), pp. 155-156.
- ³²Ibid., pp. 141-156.
- ³³Huxley, p. 1.
- ³⁴Huxley, p. 2.

- ³⁵Huxley, p. 1.
- ³⁶Mark Warren, "On Ball", Political Theory, Vol. 9 (February 1981), p. 260.
- ³⁷Warren, p. 260.
- ³⁸Cited in, Robert Nisbet's Social Change and History, p. 123.
- ³⁹Ibid., p. 123.
- ⁴⁰Barzun, p. 57.
- ⁴¹William Irvine, Apes, Angels, and Victorians (New York: McGraw Hill, 1955), p. 92.
- ⁴²Ibid.
- ⁴³Michael Rose, The Darwinian Revolution (Chicago: The University of Chicago Press, 1979), pp. 230-31.
- ⁴⁴Charles Darwin, The Origin of Species (Chicago: Encyclopaedia Britannica Inc., 1952), p. 7.
- ⁴⁵Asa Gray, Darwinia (Mass: Belknap Press, 1963), pp. 30-34.
- ⁴⁶June Nickerson, Homage to Malthus (New York: Kennikat Press, 1975), p. 9-12.
- ⁴⁷Ibid., p. 15.
- ⁴⁸Jonathan Howard, Darwin (New York: Hill and Wang, 1982), pp. 20-21.
- ⁴⁹Thomas Bethell, "Burning Darwin to Save Marx", Harpers, Vol. 277 (March 1978), p. 37.
- ⁵⁰Karl Marx and Friederich Engels, The German Ideology (New York: International Publishers, 1947), p. 29.
- ⁵¹Karl Marx, The Eighteenth Brumaire of Louis Bonaparte (New York: International Publishers, 1963), p. 19.
- ⁵²Barzun, pp. 142-155.
- ⁵³For an example of this see, Bertell Ollman, Alienation (Cambridge: Cambridge University Press, 1976), pp. 33-40.

- ⁵⁴Barzun, pp. 38-39.
- ⁵⁵Giorgis Tagliacozzo, Giambattista Vico (Baltimore: John Hopkins Press, 1969), p. 451, p. 463.
- ⁵⁶Lawrence H. Simon, "Vico and Marx: Perspectives on Historical Development", Journal of the History of Ideas, Vol. 42 (April 1981), p. 317.
- ⁵⁷Ibid., p. 317.
- ⁵⁸Sidney Hook, From Hegel to Marx (Michigan: University of Michigan Press, 1966), pp. 1-3.
- ⁵⁹Barzun, p. 48.
- ⁶⁰Mandel M. Bober, Karl Marx's Interpretation of History (New York: W.W. Norton, 1965), p. 29.
- ⁶¹Friederich Engels, Socialism: Utopian and Scientific (New York: International Publishers, 1935), p. 49.
- ⁶²Ibid., p. 49.
- ⁶³Ibid.
- ⁶⁴Bober, p. 30.
- ⁶⁵Engels, p. 47.
- ⁶⁶Ibid.
- ⁶⁷Bober, p. 32.
- ⁶⁸Carl Cohen, Communism, Fascism, and Democracy (New York: Random House Press, 1962), p. 33.
- ⁶⁹Ibid., p. 42.
- ⁷⁰Robert Tucker, The Marxian Revolutionary Idea, p. 6.
- ⁷¹Cohen, p. 49.
- ⁷²Bober, p. 29.
- ⁷³Robert Tucker, The Marx-Engels Reader, p. xxi.
- ⁷⁴Bury, p. 335.

⁷⁵Karl Marx, The Economic and Philosophic Manuscripts of 1844 (Moscow: Foreign Languages Publishing House, 1956), p. 146.

⁷⁶Bethell, p. 57.

⁷⁷Ibid.

⁷⁸Howard, p. 39.

⁷⁹The German Ideology, p. 13.

⁸⁰Ibid., p. 72.

⁸¹Ernest Mandel, The Formation of the Economic Thought of Karl Marx (New York: Monthly Review Press, 1971), p. 132.

⁸²Karl Marx, The Contribution to the Critique of Political Economy (New York: International Publishers, 1970), p. 21.

⁸³Bethell, pp. 37-38.

⁸⁴Louis Dupre, "The Idea of Historical Progress in Marx and Marxism", Yale Review, Vol. 69 (Autumn 1979), p. 41.

⁸⁵The Eighteenth Brumaire of Louis Bonaparte, pp. 17-23.

⁸⁶Ibid., p. 19.

⁸⁷Cited in Gerrantana Valentina's "Marx and Darwin", New Left Review, Vol. 82 (November 1973), p. 75.

⁸⁸George G. Simpson, Life: An Introduction to Biology (New York: Harcourt, Brace, and Co., 1957), p. 469.

⁸⁹Gustav Wetter, Dialectical Materialism (New York: F.A. Praeger Press, 1959), p. 323.

⁹⁰Ollman, p. 43.

⁹¹A Contribution to the Critique of Political Economy, p. 211.

⁹²Ollman, p. 17.

⁹³A Contribution to the Critique of Political Economy, p. 21.

⁹⁴Karl Marx, Capital (Moscow: Foreign Languages Publishing House, 1959), pp. 8-9.

⁹⁵A Contribution to the Critique of Political Economy, p. 21.

⁹⁶Max Eastman, Marxism, Is it Science? (New York: W.W. Norton, 1940), pp. 22-30.

⁹⁷Hook, p. 75.

⁹⁸Engels, p. 48.

⁹⁹Zbigniew A. Jordan, The Evolution of Dialectical Materialism (New York: Macmillan Press, 1967), p. 189.

¹⁰⁰The Contribution to the Critique of Political Economy, p. 21.

¹⁰¹Ibid., p. 20.

¹⁰²Ibid.

¹⁰³The German Ideology, p. 22.

¹⁰⁴Karl Marx and Friederich Engels, The Communist Manifesto (Chicago: Encyclopaedia Britannica, 1952), p. 419.

¹⁰⁵Ibid., p. 421.

¹⁰⁶Friederich Engels, Anti-Duhring (Moscow: Foreign Languages Publishing, 1947), pp. 420-21.

¹⁰⁷Karl Marx, The Holy Family (New York: International Publishers, 1956), p. 176.

¹⁰⁸The German Ideology, p. 74.

¹⁰⁹Nicholas Labokowicz, Marx and the Western World (London: University of Notre Dame Press, 1967), pp. 349-50.

¹¹⁰The Contribution to the Critique of Political Economy, p. 21.

¹¹¹Ibid.

¹¹²The Communist Manifesto, p. 419.

¹¹³Ibid.

- 114 The Eighteenth Brumaire of Louis Bonaparte,
p. 19.
- 115 Capital, pp. 8-9.
- 116 Karl Marx, Wage, Labour, and Capital (New York:
International Publishers, 1933), p. 28.
- 117 Ibid., p. 29.
- 118 Ibid., p. 32.
- 119 The German Ideology, pp. 8-13.
- 120 Mandel, p. 55.
- 121 Ibid.
- 122 Karl Marx, The Grundrisse (Berlin: Dietz-Verlag,
1953), p. 405.
- 123 The German Ideology, pp. 53-54.
- 124 Ibid., pp. 52-53.
- 125 Cohen, pp. 137-138.
- 126 Ibid., p. 562.
- 127 Ibid., p. 543.
- 128 Aveling, p. 3.
- 129 Marx and Engels, Selected Works, Vol. 40
(Moscow: Foreign Languages Publishing House, 1958),
p. 521.
- 130 Marx to Engels, December 19, 1860, in The
Letters of Karl Marx, p. 139.
- 131 Marx to Lassalle, January 16, 1861, in Marx
and Engels, Selected Correspondence (Moscow: Progress
Publishers, 1975), p. 115.
- 132 Spargo, p. 200.
- 133 Ibid.
- 134 Lobokowicz, p. 350.
- 135 The German Ideology, pp. 44-58.

¹³⁶Cited in Gerrantana Valentino's Marx and Darwin, pp. 63-64.

¹³⁷Lobokowicz, p. 349.

¹³⁸The best example of this is observable in Friederich Engel's The Dialectics of Nature.

¹³⁹Marx to Engels, June 18, 1862, in The Letters of Karl Marx, p. 157.

¹⁴⁰Capital, p. 341.

¹⁴¹Urena, pp. 557-559.

¹⁴²Marx to Kuglmann, October 11, 1867, in The Letters of Karl Marx, p. 237.

¹⁴³M.A. Fay, "Marx and Darwin: A Literary Detective Story", Journal of the History of Ideas, No. 39 (January 1978), pp. 133-146.

¹⁴⁴Cited in Enrique Urena's Marx and Darwin, p. 550.

¹⁴⁵Raddatz, p. 232.

¹⁴⁶Ibid.

¹⁴⁷See for example, Ludwig Buchner (1894), Darwinismas and Socialismas, and Ludwig Waltman (1899) The Darwinist Theory and the Socialists.

¹⁴⁸Karl Marx to Frederich Lassalle, January 16, 1861, in Marx-Engels Selected Correspondence, p. 115.

¹⁴⁹Jonathan Miller, Darwin for Beginners (New York: Pantheon Books, 1982), p. 172.

¹⁵⁰The German Ideology, pp. 48-49.

¹⁵¹Friederich Engels, The Dialectics of Nature (New York: International Publishers, 1940), p. 234.

¹⁵²Ibid., pp. 235-236.

¹⁵³Simpson, p. 469.

¹⁵⁴The Contribution to the Critique of Political Economy, p. 21.

¹⁵⁵wetter, p. 385.

- ¹⁵⁶The Contribution to the Critique of Political Economy, p. 21.
- ¹⁵⁷The German Ideology, p. 13.
- ¹⁵⁸See Friederich Engels Anti-Duhring (Moscow: Foreign Languages Publishing House, 1947), pp. 420-421.
- ¹⁵⁹Lewis Feyer, "Is the Darwin-Marx Correspondence Authentic?", Annals of Science, Vol. 32 (February, 1975), pp. 1-12.
- ¹⁶⁰Cited in Gerrantana Valentina's Marx and Darwin, p. 65.
- ¹⁶¹Anti-Duhring, p. 144.
- ¹⁶²The German Ideology, p. 7; Capital, p. 372.
- ¹⁶³The Dialectics of Nature, p. 208-210.
- ¹⁶⁴Ibid., p. 209.
- ¹⁶⁵Ibid.
- ¹⁶⁶The Origin of Species, p. 9.
- ¹⁶⁷Valentina, pp. 70-75.
- ¹⁶⁸Marx to Engels, January 18, 1862 in The Letters of Karl Marx, p. 157.
- ¹⁶⁹Cited in Gerrantana Valentina's Marx and Darwin, pp. 72-73.
- ¹⁷⁰Marx to Ludwig Kugelmann, December 5, 1868 in Colp's Marx and Darwin, p. 332.
- ¹⁷¹Marx to Ludwig Kugelmann, June 27, 1870 in The Letters of Karl Marx, pp. 273-274.
- ¹⁷²In a letter from Marx to Engels, (August 7, 1866), Marx does state that the newly published Origine et Transformations de L'Homme et des Autres Betes (1865) by Pierre Tremaux was a significant advance over Darwin.
- ¹⁷³Spargo, p. 200.
- ¹⁷⁴Terence Ball, "Marx and Darwin: A Reconsideration", Political Theory, Vol. 7 (November, 1979), p. 477.

175 Ibid.

176 V.I. Lenin, "What the 'Friends of the People' Are and How They Fight the Social Democrats" in Lenin, Collected Works, Vol. I, (Moscow: Foreign Languages Publishing House, 1954), p. 142.

177 V.I. Lenin, "Materialism and Empirico-Criticism" in Lenin, Collected Works, Vol. II (Moscow: Foreign Languages Publishing House, 1954), p. 421.



BIBLIOGRAPHY

Books

- Aveling, Edward. Charles Darwin and Karl Marx: A Comparison. London: Twentieth Century Press, 1897.
- Barzun, Jacques. Darwin, Marx, Wagner. New York: Doubleday Press, 1958.
- Bober, Mandel. Karl Marx's Interpretation of History. New York: W.W. Norton, 1965.
- Bury, J.B. The Idea of Progress. New York: Macmillan Press, 1932.
- Cohen, Carl. Communism, Fascism, and Democracy. New York: Random House Press, 1962.
- Darwin, Charles. The Origin of Species. Chicago: Encyclopaedia Britannica Inc., 1952.
- Dorsey, George. The Evolution of Charles Darwin. New York: Doubleday Press, 1927.
- Eastman, Max. Marxism, Is It Science? New York: W.W. Norton, 1940.
- Eiseley, Loren. Darwin's Century. New York: Doubleday Press, 1958.
- Engels, Friederich. Anti-Duhring. Moscow: Foreign Languages Publishing House, 1947.
- Engels, Friederich. Socialism: Utopian and Scientific. New York: International Publishers, 1935.
- Engels, Friederich. The Dialectics of Nature. New York: International Publishers, 1940.
- Gray, Asa. Darwinia. Massachusetts: Belknap Press, 1963.

- Hook, Sidney. From Hegel to Marx. Michigan: University of Michigan Press, 1966.
- Howard, Jonathan. Darwin. New York: Hilland Wang Press, 1982.
- Huxley, Julian. A Book That Shook the World. Pittsburgh: University of Pittsburgh Press, 1961.
- Hyman, Stanley. The Tangled Bank. New York: Atheneum Press, 1974.
- Irvine, William. Apes, Angels, and Victorians. New York: McGraw Hill, 1955.
- Jordan, Zbigniew. The Evolution of Dialectical Materialism. New York: Macmillan Press, 1967.
- Lenin, V.I. "Materialism and Empirio-Criticism", in Lenin, Collected Works, Vol. II.
- Lenin, V.I. "What the 'Friends of the People' Are and How they Fight the Social 'Democrats'", in Lenin, Collected Works, Vol. I. Moscow: Foreign Languages Publishing House, 1954.
- Lobokowicz, Nicholas. Marx and the Western World. London: University of Notre Dame Press, 1967.
- Mandel, Ernest. The Formation of the Economic Thought of Karl Marx. New York: Monthly Review Press, 1971.
- Mapke, Kapjl. Karl Marx: A Biography. Moscow: Progress Publishers, 1973.
- Marx, Karl. Capital. Moscow: Foreign Languages Publishing House, 1959.
- Marx, Karl and Engels, Frienderich. The Communist Manifesto. Chicago: Encyclopaedia Britannica, 1952.
- Marx, Karl. The Contribution to the Critique of Political Economy. New York: International Publishers, 1970.
- Marx, Karl. The Economic and Philosophic Manuscripts of 1844. Moscow: Foreign Languages Publishing House, 1956.

- Marx, Karl. The Eighteenth Brumaire of Louis Bonaparte. New York: International Publishers, 1963.
- Marx, Karl and Engels, Friederich. The German Ideology. New York: International Publishers, 1947.
- Marx, Karl. The Grandrisse. Berlin: Dietz-Verlag, 1953.
- Marx, Karl. The Holy Family. New York: International Publishers, 1956.
- Marx, Karl and Engels, Friederich. Selected Works. Moscow: Foreign Languages Publishing House, 1958.
- Marx, Karl. Wage, Labour, and Capital. New York: International Publishers, 1933.
- Miller, Jonathan. Darwin for Beginners. New York: Pantheon Books, 1982.
- Nickerson, June. Homage to Malthus. New York: Kennikat Press, 1975.
- Nisbet, Robert. Social Change and History. London: Oxford Press, 1969.
- Ollman, Bertell. Alienation. Cambridge: University of Cambridge Press, 1971.
- Raddatz, F.J. Karl Marx: A Political Biography. New York: Little, Brown and Co., 1978.
- Rose, Mechael. The Darwinian Revolution. Chicago: The University of Chicago Press, 1979.
- Simpson, George. Life: An Introduction to Biology. New York: Harcourt, Brace, and Co., 1957.
- Spargo, John. Karl Marx: His Life and Work. New York: B.W. Huebsch Press, 1910.
- Tagliacozzo, Giorgis. Giambattista Vico. Baltimore: John Hopkins Press, 1969.
- Tucker, Robert. The Marx-Engels Reader. New York: W.W. Norton, 1978.
- Tucker, Robert. The Marxian Revolutionary Idea. New York: W.W. Norton, 1969.

Wetter, Gustav. Dialectical Materialism. New York: F.A. Praeger Press, 1959.

Zirkle, Conway. Evolution, Marxism Biology and the Social Scene. Pennsylvania: University of Pennsylvania Press, 1959.

Periodicals

Ball, Terence. "Marx and Darwin: A Reconsideration." Political Theory, Vol. 7 (November 1979), pp. 469-483.

Bethell, Thomas. "Burning Darwin to Save Marx." Harpers, Vol. 257 (December 1978), pp. 31-38.

Colp, Ralph. "The Contacts Between Karl Marx and Charles Darwin." Journal of the History of Ideas, Vol. 35 (November 1974), pp. 329-338.

Dupri, Louis. "The Idea of Historical Progress in Marx and Marxism." Yale Review, Vol. 69 (Autumn 1979), pp. 33-43.

Fay, M.A. "Marx and Darwin: A Literary Detective Story." Journal of the History of Ideas, Vol. 39 (January 1978), pp. 133-146.

Feuer, Lewis. "Is the Darwin-Marx Correspondence Authentic?" Annals of Science, Vol. 32 (February 1975), pp. 1-12.

Simon, Lawrence H. "Vico and Marx: Perspectives on Historical Development." Journal of the History of Ideas, Vol. 42 (April 1981), pp. 317-331.

Tollenaere, Maritis. "Briefer Book Reviews." International Philosophic Quarterly, Vol. 15 (March 1975), pp. 123-124.

Urena, Enrique. "Marx and Darwin." The History of Political Economy, Vol. 9 (Winter 1977), pp. 548-559.

Valentina, Gerratana. "Marx and Darwin." New Left Review, Vol. 82 (November-December 1973), pp. 60-82.

Warren, Mark. "On Ball." Political Theory, Vol. 9 (February 1981), pp. 260-263.

Other Sources

The Letters of Karl Marx. New Jersey: Prentice-Hall,
1979.

Marx and Engels, Selected Correspondence. Moscow:
Progress Publishers, 1975.

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