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A DURKHEIMIAN SOCIOBIOLOGY?

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A thesis  
presented to  
the faculty of the Department of Sociology  
East Tennessee State University  
In partial fulfillment  
of the requirements for the degree  
M.A. in Sociology

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By  
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## ABSTRACT

### A DURKHEIMIAN SOCIOBIOLOGY?

As conceived by Durkheim, social facts set parameters on what is of sociological interest and subsequently how social phenomena are explained. This thesis reworks this theoretical concept to allow for biological explanations of some social phenomena. It by no means asserts that all social phenomena can be explained by biology, but it recognizes that biological explanations of human behavior are available and are of sociological interest. The argument agrees with the main thrust of Durkheim's defense of social facts, but his critique of utility, while insightful, is considered unnecessary to negate individual causality.

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## CHAPTER 1

### INTRODUCTION

Social phenomena *can* have a biological or evolutionary explanation and such an assertion *is compatible* with a Durkheimian perspective. If such an assertion holds, then the possibility of a Durkheimian sociobiology is conceivable.

Durkheim's *Rules of Sociological Method* (1895) establishes the theoretical anchor, i.e., “*social fact*”, and to what it refers. He argues that the nature of social phenomena is irreducible to other types of phenomena, in particular physiological and psychological. As a result Lukes (1972) claims that *Rules* distinguish the social from the biological, egoistic from altruistic, which are from there on perceived as analytically distinct types of facts.

Durkheim's seminal text is styled as a manifesto. This may account for the harsh negation of biological, psychological, or even philosophical accounts of society in his writing. It is a style often taken by Durkheim and is evident in other texts as well. Durkheim has been criticized for this by later theorists. Alpert (1961) notes, book 1 of *Suicide* overstates the case for social facts in its single-minded devotion to eliminating psychopathic, psychological, biological, and cosmic theories of suicide (1961:87). Gehke asserts Durkheim's claim falls apart in regard to social facts and their origin (1968:66-67).

#### Literature Review: An Evolutionary Critique

The scope of critiques available on Durkheim is enormous. Not only is the mere size intimidating, the subject matter is broad. This thesis is primarily interested in the evolutionary psychological critique of Durkheim's theory.

Recent critiques suggest biological causes of social behavior are invisible or irrelevant to the social sciences (Tooby & Cosmides 1992; Udry 1994). While giving conceptual closure to a

discipline, social fact as defined exclusively or predominately as a socio-environmental concept *limits* what can be of sociological interest. In contrast to Durkheim's perspective, critics assert that the evolutionary makeup of the individual is crucial to understanding social phenomena. By restricting the scope of social phenomena as irreducible to the individual, Durkheim undermines the importance of the individual in social causality and subsequently sidelines biological and psychological explanations as well.

Tooby and Cosmides (1992) define the Standard Social Science Model as the “view of the nature of social and cultural phenomena that has served for a century as the intellectual framework for the organization of psychology and the social sciences and the intellectual justification for their claims of autonomy from the rest of science (p. 23)”. Of course, Durkheim's “social fact” attempts to theoretically assert the autonomy of sociology. Therefore, Durkheim's *Rules* (1895) are directly tied to the Standard Social Science Model. In the *Rules*, Durkheim states: “individual natures are merely the indeterminate material that the social factors mold and transform ([1895]1932:105)”. While Tooby and Cosmides recognize the Standard Social Science Model has value, they believe that its theoretical principles serve to isolate it from the other sciences.

The problem with such criticisms is that they define a social fact in a *socio-environmental* manner and critique from this perspective. They miss an opportunity, however, to expand a very general concept. The point is that Durkheim's “social fact” is *not* necessarily contrary to evolutionary theory. It is true that “social facts” need reworking, but such a theory is not limiting and useless to the social sciences. Demonstrating that some social facts have an evolutionary explanation is a useful contribution to knowledge concerning the nature of social phenomena.

### Method: Content Analysis of Durkheim's First Seminal Work

This is a non-intrusive conceptual critique of Durkheim's account of social facts, i.e., a logical exposition and evaluation of Durkheim's claim to expand and defend the scope of his key concept. His *Rules of Sociological Method* (1895) will be the primary text of interest. Other relevant essays by Durkheim and contemporary evolutionary theorists (e.g. Hamilton, Trivers, Wilson, etc.) are discussed.

## CHAPTER 2

### SOCIAL FACTS

Durkheim defines a social fact as “every way of acting, fixed or not, capable of exercising on the individual an external constraint; or again, every way of acting which is general throughout a given society, while at the same time existing in its own right independent of its individual manifestations ([1895]1938:13)”. It [social fact] is a metaphysical force exerted upon the individual. He attributes three overlapping criteria essentially proving it as fact, i.e., a thing. They are its general character, its coercive action, and its independent existence. It is important to clarify that the general criteria are properties social facts have and display.

What exactly Durkheim is referring to when speaking of social facts is very general. At times, the term refers to society in general, other times it refers to smaller scale groups such as family, the Republican Party, etc. The definition allows for social facts to be both material (technology and institutions) and non-material phenomena (collective psychology). It can be a case of demographics (a nation’s birth rate) or collective representations (widespread belief in individual liberty). What is consistent is the conception of the social, which is fundamentally a relation of two as the unit of analysis at a minimum. It is individuals in association and interacting with each other. It is important to remember that Durkheim attempts to establish social facts as irreducible to individuals. Therefore, it is also something more than the sum of individuals in association. Social facts must be seen as distinct from their individual manifestations. Moreover, statistical rates provide evidence of such a method of analysis. It depends on there being individual cases but operates on the whole with individual cases grouped together as an average of individual cases. The social realities of marriage rates, suicide rates, divorce rates, birth rates, death rates, and so on are completely independent of their individual

manifestations. Social facts must be seen as things (ibid: 14). Statistics only illustrate the existence of social facts; it shouldn't be reduced to averages.

### The Criteria

According to Durkheim, constraint, or coercion, has its psychological basis in the supra-individual character of social phenomena. It is greater than the individual, therefore, more powerful and coercive. The individual has no other option but to conform in some manner to the pressure exerted by the existing social facts or face consequences. For example, civil codes or law illustrates the coercive character placed on individuals. They are restrictive in nature. Education is a continuous attempt to impose on the student certain perspectives, which he or she could not come to have in isolation from social phenomena. It is socialization.

It is important to note that the use of coercion is misleading. While this usage is certainly appropriate for some social facts, others do not imply coercion. They may very well be accepted without question or may even be useful to the individual. For example, speaking the same language will allow for more efficient interactions, or at least more efficient than speaking to one another in languages unknown to the other, assuming efficiency is a value.

Social facts are general due to the coercive character. The number of people subject to the same specific social facts will, accordingly, have similar values, beliefs, and ways of acting. Why is it that most Americans speak English or share similar core values? Durkheim suggests that the general character is a result of social facts' influence on the individuals' ways of acting and so on. They are general because they are collective, not collective because they are general<sup>1</sup>.

The third criterion is a culmination of the previous two criteria. Social facts are seen as independent of the individual manifestations that result. This solidifies the nature of Durkheim's

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<sup>1</sup> Durkheim states it this way to imply the social causality of social facts. He asserts that individuals' actions are not the cause of collective phenomena. Therefore, they are general because they are collective. The emphasis is on the causal direction of social phenomena.

social fact as strictly social phenomena. It is a metaphysical assertion, claiming social facts to be independent or external to the individual (mind/idea). Durkheim writes, “A thought which we find in every individual consciousness, a movement repeated by all individuals, is not thereby a social fact ([1938] 1895:6)”. It is the collective element Durkheim asserts is the focus of the social sciences not the individual incarnations. The nature of social facts is collective. The emphasis is that social facts cannot be reduced to individual analysis; it is a relation of two or more as a unit in and of itself. It is a distinct categorical classification.

## CHAPTER 3

### THE PROBLEM OF EMERGENCE

Durkheim asserts, “The determining causes of social facts should be sought among the social facts preceding it and not among the states of the individual consciousness ([1895]1938: 110)”. Social facts are *sui-generis*.

This statement is a sociological milestone. It provides the foundation for the science of sociology. Durkheim writes, “There can be no sociology unless societies exist and that societies cannot exist if there are only individuals” ([1897] 1979:38). Durkheim’s twofold objective: establish sociology as a science and defend the assertion that the subject matter of such a science is not reducible to the analysis of an isolated individual.

Durkheim’s model of causality is social determinism. He writes in his 1914 essay, for example, “We can say, therefore, with assurance and without being excessively dogmatic, that a great number of our mental states, including some of the most important ones, are of social origin. In this case, then, it is the whole that, in large measure, produces the parts...” ([1914] 1973:149). It is the influence social facts have on individuals that produce social behaviors (i.e. ways of acting, thinking, etc.). Therefore, culture is not the product of individuals. To the contrary, individuals’ ways of acting, believing, and so forth are a product of social facts. The functions of the individual are interpreted and defined by the social context.

Durkheim successfully defends the objective reality of social facts. For example, he states, “even when we have collaborated in their genesis, we can only with difficulty obtain even a confused and inexact insight into the true nature of our action and the causes which determined it” ([1895] 1938:xiv). Social facts have an individual component, but Durkheim, stresses that even in the event an individual is in some way causal to the emergence of social facts we must

not let such an effect overshadow the nature of social phenomena by asserting the individual is causal indefinitely. If the individual has an effect on social phenomena, it is not necessary to propose such facts originated from that source.

Placing social forces outside the individual, at first, appears not to be problematic. However, Durkheim writes, “Sociology...can be defined as the science of institutions, of their genesis and of their functioning” ([1895]1938:lvi). This leaves a major question unanswered: what is the *origin* and *genesis* of social facts? Durkheim assumes the existence of social phenomena as self-evident without accounting for the genesis of the group or social phenomena. He does not provide an adequate theory of how individuals associate at the aggregate level. He simply presumes such phenomena as his starting point.

While this theoretical model can account for various social behaviors, it does not provide an explanation concerning why individuals are disposed to behave in a social manner. In short, Durkheim’s theory of social facts needs a biological component that explains the genesis of social phenomena while at the same time avoiding individualistic explanations.

## CHAPTER 4

### THE PROBLEM OF UTILITY

Durkheim's positive argument emerges from a critique of a rival approach to the same problem, nineteenth century utilitarianism, which frames sociality as a by-product of individual utility. Utilitarian and rational choice theorists think of social behavior as directly benefiting individual interest and indirectly the interests of society. From such a viewpoint, social phenomena arise from individual utility and are measured by such means. Social facts are real. However, they are the product of individuals. In opposition to utilitarianism, Durkheim asserts "If society is only a system of means instituted by men to attain certain ends, these ends can only be individual, for only individuals could have existed before society" ([1895] 1938:97). If social facts can be explained by individual need and volition, then, as Durkheim writes, "it can be established just as easily that organic phenomenon can be explained by inorganic matter" (ibid:102).

Durkheim posits a methodological holism as the only way out of the Hobbsiean dilemma<sup>2</sup>. It is the conditions of the group that determine the conduct of individuals. Durkheim writes "*collective representations, emotions, and tendencies are caused not by certain states of the consciousness of individuals but by the conditions in which the social group in its totality is placed...* (ibid:105)". Durkheim sees the group as a unit of selection. Accordingly, the group level needs will produce individual behaviors. To Durkheim, social facts are collective phenomena and are far more complex and causally significant than the individual. Therefore, social facts cannot be adequately explained by individual-level analysis, i.e. the "whole is not

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<sup>2</sup> The Hobbsiean dilemma is known as the natural state of war between individuals. Sociality or lets say social facts (government, monarchy etc.) is a product of individual volition and utility and the only way out of a state of war, survival of the fittest.

identical with the sum of its parts” (ibid:102). The asocial/social dichotomy present in Durkheim’s theory is a crucial and indispensable concept.

Despite his opposition to utilitarianism, Durkheim does not provide a satisfactory alternative. He is quick to establish social facts as independent via their generality and coerciveness. For example, law cannot arise as the product of individual volition. Rather, it is to be seen as a product of social forces. We must presume a collective character before such things are even possible. In addition, we, as individuals, conform to social customs and laws that we did not create but only reaffirm. Sociality is a premise and not a product of our actions.

The negation of individual causality serves to isolate social facts from any other cause than itself. While this impedes a clear account of their genesis, social facts cannot be a product of the individual. However, there is no satisfactory account of the genesis of social facts connecting them to the human condition. Social facts are presented in such a way that they fail to have an organic character to them. For if they are not contingent on the individual, how did such phenomena come to be? Explaining the genesis of social facts is a major problem for Durkheim’s theory. His critique of utility is insightful and provides an indispensable dichotomy: social and non social phenomena.

#### Utility and Duty

Durkheim’s central thesis is that utility cannot account for the sense of obligation, constraint, and conformity imposed on the individual actor. Durkheim writes, “If society were only the natural and spontaneous development of the individual, these two parts of ourselves would harmonize and adjust without clashing or friction” ([1914]1973:162). Obligation or restriction placed upon the individual cannot merely be a product of individual reason or volition. The obligatory nature of social facts “cannot come from him, nor can it be explained by

what happens within him” ([1895] 1938:101). For example, laws or codes of conduct are restrictions that are rightfully external to the individual not the product of individuals. Similarly, the language one learns to speak is not usually by choice but through mimicry of an already established language group.

Durkheim speaks of a dual existence “we lead concurrently: the one purely individual and rooted in our organism, the other social and nothing but an extension of society” ([1914] 1973:162). Conflicts of interest between the desires and needs of individuals and those stressed by society are present. They may often be synonymous but often contradict. Accordingly, the individual is seen as selfish and morality is a rule based system stressed by society and enforced by a sense of duty. For example, the religious institutions and subsequent beliefs are saturated with a sense of duty and consequence\reward in regards to moral activity. Social behavior cannot be presumed to arise from individual selection and individual causality, which cannot explain the limiting, restrictive character of obligation.

If the unit of selection is the individual, one could deduce that the motivation to act socially is spurred by individual reward. If so, altruism is reduced to individual selfishness, suggesting egoism and altruism are not contradictory motives. How, then, can social behavior even be warranted at the individual level or even be referred to by such a nomenclature without appealing to social pressure exerted upon the individual to act socially. If egoism is altruism, then pro-social behavior is selfish. For example, if codes of conduct are not injected with cost to the individual actor in violation, would such behavior exist?

I agree with Durkheim. If the system of means (society and social behavior) is merely ends for the individual, then social facts in the form of collective organization can not exist, nor can we refer to it as society. If social facts are the product of individual attempts to satisfy self-

interest, it is nothing other than the sum of self-interested individuals. Morality, then, is reduced to the duty of the individual to his or herself and provides the basis for ethics/morality. While an element of individual utility is present in pro-social behavior, Durkheim sees pro-social behavior to benefit others, or simply not the individual exclusively.

### Durkheim's Conception of the Social: An Invalid Replacement of Utilitarianism

Durkheim recognizes that social facts have an individual component but problematically asserts that they have an *extra*-individual origin. Durkheim must logically assume a starting point, an axiom, so to speak. He writes, "Individual minds, forming groups by mingling and fusing, give birth to a being, psychological if you will, but constituting a psychic individuality of a new sort" ([1895] 1938:103). This association of individuals takes on the property of a collective entity. Accordingly, social phenomena depend and differ upon the way in which this association is arranged. "The first of all origins of all social processes of any importance should be sought in the internal constitution of the group" (ibid: 113). The quantitative aspect of the association Durkheim labels social morphology is essentially of a demographic character (macro-objective phenomena). Morphological facts produce evaluative representations (collective consciousness/representations), i.e., how the group comes to identify with itself (macro-subjective phenomena). It is the relation of social morphology and collective consciousness that produces social phenomena. In other words, when people are contained within a close geographic area, they produce a group that in some way must identify with itself.

Despite Durkheim's insight to the problem of utility and the nature of social phenomena, his theory makes a metaphysical move in anthropomorphizing society (i.e. "psychic individuality of a new sort") and giving this entity causal primacy in relation to social behavior. This move is difficult to defend when recognizing that society is dependent on there being individuals in order

to exist. But we can agree that the individual alone is not responsible for the existence of social facts.

In addition, social facts appear to be entirely relative. There is no ground for collective representations other than social morphology and a metaphysical assertion of a collective entity. The unanswered question, then, is why do individuals engage in social behavior or associate in the given manners. This is theoretically murky at best, unaccounted for at worst. If we move the level of analysis to the genetic, we can explain the relationship between individual and society while maintaining the general criteria of social facts.

## CHAPTER 5

### GENETIC SOCIAL FACTS: An Alternative Level of Analysis

Because of Durkheim's overwhelming concern with social solidarity and revulsion to anarchist tendencies within modern industrial society, he overstated the critique of utilitarianism. His explanation of the genesis of social facts depends heavily on the negation of utility and a metaphysical assertion of society as a "being", a collective entity. Durkheim failed to muster existing theoretical resources in utilitarianism. Fortunately, one does not have to negate utilitarianism to negate individual causality. Likewise, Durkheim rejected biological causes of social phenomena because he viewed them as exclusively individualistic phenomena implying a Hobbsian state of war between individuals. Biological facts were constant and given within each individual. Biological phenomena are equated to individual level phenomena and provide an inadequate explanation of social phenomena.

This conceptual collapsing of levels of analysis (social/asocial) with levels of causality (environmental/biological) only produces conceptual unclarity. Conceptually, biological/genetic phenomena are *not* exhaustively reducible to individual causality. Sociobiology is defined by Wilson (1975: 4) as the systematic study of the biological basis of all social behavior and such a perspective is compatible with the criteria of social facts.

In proposing that social facts be classified into two inter-related types, genetic and non-genetic, evolutionary theory becomes relevant to sociology. Suggesting an evolutionary sociology by no means diminishes the influence of social facts. It merely changes our perception of them.

The general range of behavior attributed to social facts is broad. A key question must be posed: can non-genetic environmental social facts explain all of the given ways of thinking,

acting, and believing? I find it reasonable to assert that some social phenomena can be attributed to socio-biological causes. Similar to non-genetic social facts, genetic social facts conceptually are not the opposite of social, nor are they exhaustively equal to the individual. This is a common misunderstanding in the social sciences. We can define genetic social facts as every way of acting that displays a coercive character, is general, and is conceptually a unit of analysis separated from individual analysis.

In the same manner that non-genetic facts can be social or asocial, genetic facts can also be social and asocial. For example, the specific language we learn is an example of a non-genetic social fact. If I learned to speak English and another speaks Spanish, the cause is the non-genetic social environment. It depends on the nation or country in which one was born. An example of an asocial non-genetic behavior is accidentally walking over a cliff. In this act, there is no social effect, just an individual lack of attention. This same dichotomy is also applicable to genetics. For example, a random genetic mutation is an asocial genetic fact. It happens in absence of a social environment. On the other hand, a genetic social fact can be exemplified by the theories of “inclusive fitness” (Hamilton, 1964) and reciprocal altruism (Trivers 1971). This biologically accounts, normatively, for the basic social unit, the kin group and non-kin interaction, which are present across the world.

Kin selection and reciprocal altruism best illustrate genetic social facts. They are theoretical models that provide an evolutionary explanation of social phenomena anchored in genetic analysis, not individual analysis. Inclusive fitness and reciprocal altruism posit that pro-social behavior is selected for and can explain familial bonds and cooperative action between non-related individuals.

The principle of kin altruism is that an individual can transmit their genes to the next generation by producing their own offspring or by assisting relatives of common descent. The benefit of such altruism is seen in reproductive success and the function of such cost to the individual is calculated by the degree of relatedness. The level of selection is genetic because the individual will suffer costs at the benefit of others who share similar genetic heritage. The individual, then, is not the unit of selection.

Cases of extreme altruism among related individuals or even milder forms can be explained by the theory of inclusive fitness. For example, the act of feeding and providing care for offspring can be seen as costs taken by the individual, reducing his or her degree of fitness or chances of individual survival. Hamilton's theory (1964) suggests that the degree of assistance will be mediated by the degree of genetic relatedness, ensuring that the genetic heritage will continue. This act of altruism is a social act, it involves more than just individuals, and it presumes sociality.

Suggesting that altruism among related individuals illustrates a genetic social fact is not exactly illustrating macro-level interaction. Non-kin relations represent collective phenomena more complex than can be explained by kin altruism. Reciprocal altruism (Trivers 1971) is a theoretical model that attempts to explain cooperative behavior between non-related individuals. It provides an evolutionary explanation for collective action.

We are not beginning from scratch when attempting to model reciprocal altruism. In other words, we do not have to resort to individual causality. Reciprocal altruism is not dependent on isolated individuals. For example, the theory of inclusive fitness implies that individuals are presumed to interact within social groups, i.e., the kin group. This posits the starting point of reciprocal altruism, a cooperative/collective environment.

DeWaal (1996) illustrates the contingencies of reciprocity as costly to the acting agent. There must be a time delay between the initial action and the return. Finally, giving is contingent on receiving. The first act appears to be the risky investment sense the certainty of reciprocating is unknown. However, such interactions occur within a social context, so some degree of familiarity must be assumed between non-kin relationships by the socio-geographic parameters.

The task within the debate of reciprocal altruism is centered on how non-related individuals cooperate, or what mechanisms are responsible for its continuation. The theoretical model assumes a cognitive psychological element, a content specific brain (in contrast to the blank slate), in the preference for and detection of reciprocating (altruistic) individuals, as well as cheaters (Tooby and Cosmides 1992; Crowley, Provencher, Sloane, Dugatikn, Spohn, Rogers, Alfieri 1996; Brown ,and Moore 2000). De Vos and Zeggelink (1997) suggest that cooperative individuals prefer and have the capacity to recall old-helping partners where the return appears to be evident, which they call the social strategy. It also entails the ability to communicate certain values such as delayed exchange and simultaneous exchange. In addition, the individual needs the ability to view costs and benefits as they are connected to survival and viability.

Bowles, Gintis, Boyd, and Fehr (2003) suggest that reciprocal altruism, while dependent on individual return, provides means for social solidarity through multi-level selection. The public goods model used by Bowles, Gintis, Boyd, and Fehr suggest that individuals engaged in cooperative environments will punish those who violate reciprocating norms of cooperation at personal costs. In other words, the individual will ensue more costs to let the violator know that he or she has violated a normative expectancy through coercive means. Group solidarity is benefiting from such actions taken by the acting agent as well as the individuals in future interactions.

Reciprocal altruism is modeled on a general tit for tat interaction. In general, social interaction is dependent on returns generated from investments. It is a mutual interest model that presumes a social environment. The unit of selection appears to be the genetic individual, who is interacting in a social environment expecting a return on investment of time or resources. The individual is engaged in a presumed or expected stable environment of mutual self-interest. Reciprocal altruism can account for the individual's motive to engage socially in cooperative environments. In such a model, individual selection and gene selection are collapsed. In this case the genetic individual is continuing to survive while the social character is also preserved through reciprocal altruism. It is a social act, it is the relation of two or more, and is a model of multi-level selection.

Reciprocal altruism is not merely a product of a rational mind constantly calculating the probability of return and cost. In addition to the rational process, there may also be an emotional aspect as well. De Waal (1996) suggests that we also have sympathy-related traits that prompt pro-social behavior. He cites numerous examples of primates engaging in altruistic behavior towards the recently injured and disabled. The ability to trade places with others in need suggest that there is another element involved in producing social behavior, empathy. If we examine the constructs of reciprocal altruism, we must be able to recognize someone in need of assistance. Therefore, the first act within reciprocal altruism must in some way be motivated by empathy, not simply a costs and returns model.

Evolutionary psychology provides the mediating level between genes and culture. It is evident that we are speaking of a content specific brain that in some respect is expecting a certain type of environment. In other words, there are learning predispositions or evolutionary expectant environments that the brain is oriented towards. While the psychological makeup provides the

means to attain a collective/cooperative environment, we must keep in mind that brains are a product of genes adapting to environments. Therefore, the psychological makeup of the individual is important, but the level of selection is the genetic not the individual. Ultimately, we are not reducing social phenomena to individual analysis.

What should be apparent is that there are levels of analysis within the non-genetic and genetic. Suggesting that social facts have a genetic component does not exhaustively assert that it is individualistic or non-social. Social phenomena can have a biological basis and this assertion is not dependent upon individual causality from a socio-biological perspective. Genetic social facts conceptually are not reducible to the individual. However, we must admit the individual is its vessel of action. This is true for non-genetic social facts as well.

We can provide explanations of social behavior and institutions from the genetic and non-genetic perspectives. However, I must specify in defense of non-genetic social phenomena that all social phenomena cannot be explained biologically. Regardless, genetic social facts meet the Durkheimian criteria of coerciveness, generality, and conceptual isolation from the individual<sup>3</sup>.

#### Explanation of Genetic Social Facts: Adaptations and Functional Analysis

As stated earlier, genetic social facts can be illustrated by the theories of inclusive fitness and reciprocal altruism. They can be approached as emotional and cognitive adaptations. In treating such phenomena as adaptations we subject them to evolutionary principles, i.e. the principle of survival. Therefore, adaptations are seen as the process by which evolution proceeds. There are both physiological and behavioral adaptations, i.e. species typical traits. Tooby and Cosmides (1992) define adaptation as “a system of inherited and reliably developing properties

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<sup>3</sup> Such an assertion rests on the assumption that genotypes underlie and contribute to pheno-typical and behavioral traits. Therefore, we can assume from this, genetic social facts would be coercive and general in that they provide given dispositions and behaviors.

that recurs among members of a species, that become incorporated into the specie's standard design because during the period of their incorporation, they were coordinated with a set of statistically recurrent structural properties outside the adaptation, in such a way that the causal interaction of the two produced functional outcomes... (p.61-62)". From an evolutionary standpoint, it makes sense to understand how certain physical adaptations better equipped certain species to their environments. From the same perspective, it is plausible to assert that certain behavioral characteristics are adaptations or species specific traits that ensure better chances of survival in the context of the environment. By environment I mean the context in which something occurs. Physical adaptations take place in a physical environment or to survival problems. There is also an intra-species environment in which certain social behaviors may arise and ensure survival in a social aspect. Therefore, genetic social facts should be explained as intra-species adaptations.

In order to explain certain evolutionary social facts, we must engage in functional analysis (reverse reasoning) to deduce what evolutionary problem the adaptation originated. In other words, adaptations take place due to certain survival problems, whether food gathering/hunting, or sharing. Therefore, genetic social facts should be explained in reference to the adaptive function they served and to what type of environment it is in response to. Social adaptations, then, are to be explained by their evolutionary function.

### Levels of Selection

E.O. Wilson writes, "Genes hold culture on a leash. The leash is very long, but inevitably values will be constrained in accordance with their effects on the gene pool ([1978] 2000:167)". Sociobiology sees the gene as the basic unit of selection, not the individual nor the group.

However, the individual and the group are also beneficiaries and difficult to delineate. In general, the genes' eye view appears to work on multiple levels.

Genetic material has two means of survival. They are the survival of the individual who can be seen as the carrier of such material, relative fitness. The other means for survival is the survival of relatives that carry replications of the genetic content. Dawkins ([1976] 1989) states, "There are two ways of looking at natural selection, the gene's angle and that of the individual. If properly understood they are equivalent". Neilson states it another way. "The individual organism has lost is theoretical centrality as the unit of evolution... In many cases where behavior benefits the genes are the same as those that benefit the individual, there is no difference between gene-level and individual-level selection (1994:269)". The survival of the individual will obviously ensure the survival of genetic material. This makes it easy to collapse the genetic level of analysis with the individual level of analysis.

One must caution, however, that this is not always the case. An altruistic act, for example, can be detrimental to the individual actor at the benefit of the group or others. Hamilton's theory of inclusive fitness (1964) serves as a good example of a genetic social fact. The theory of inclusive fitness implies that altruistic behavior (pro-social behavior) has a greater probability to occur among genetically related individuals providing a genetic explanation for the kinship group, which is a relation of two or more. The degree of genetic relatedness mediates altruistic behavior between related individuals. At the individual level of analysis, there is no payoff for the acting agent without appealing to the genetic element.

Theoretically, we can separate the genetic level from the individual level of selection. Social facts are the products of genetic individuals in relation to environments and arise because of utility, i.e., in the survival of genes. This is not to imply that individuals are merely tools for

the preservation of social facts (genetic and non-genetic), but we have to admit the individual's position is highly constrained by both genetic and non-genetic facts. As Wilson states, "In a Darwinian sense the organism does not live for itself. Its primary function is not even to reproduce other organisms; it reproduces genes, and it serves as their temporary carrier... (1975: 3)".

While this comes dangerously close to anthropomorphizing genes, it serves as a conceptual tool recognizing genetic causality in social behavior. Of course genes could not reproduce or even exist without an individual, and individuals without genes. There is a necessary relationship between the individual and his or her genes. What is an individual devoid of genetic content? What is genetics without an individual? This is a difficult dichotomy to make, but it is a conceptual clarification that illustrates the individual's placement in relation to social causality. The point is that genetic facts are not necessarily asocial or individualistic. Therefore, biological social phenomena are not based on individual analysis and provide an organic explanation of certain social phenomena. Durkheim would not reject the proposition that pro-social behavior can be explained genetically or evolutionarily. In any case, evolutionary causes of social phenomena can be classified and explained as social, as opposed to asocial or individualistic.

## CHAPTER 6

### CONCLUSION

Having established that evolutionary explanations of social phenomena are not reducible to asocial facts, the sociobiological theoretical paradigm that biological causes of social phenomena can be explained and known from an evolutionary framework must be of sociological interest.

Accordingly, adaptations are the mechanism by which evolution proceeds. Therefore, from such a framework, sociality can be seen as an adaptation. If genes are the unit of selection, then individual and social phenomena can be seen as adaptations for the survival of genes, which can imply utility for individuals and social phenomena. Therefore, we can say that genes allow for predispositions that ensure their survival.

If we interpret Durkheim's social fact in a socio-environmental perspective exclusively, then certain aspects of social phenomena may be missed under the assertion: biological is not social. If social phenomena are defined in such a way, we shouldn't grasp that we, as sociologists, maintain and hold the right to explain such phenomena by our own conception of it. To assert biological phenomena are not capable of producing social phenomena does just that. It asserts the Durkheimian social fact is only a socio-environmental phenomenon.

The concern of sociology, as Durkheim proposed, consists of social phenomena that are not reducible to an isolated individual. Collapsing the levels of analysis and mechanisms of transmission serves to isolate social phenomena from biological phenomena. If social phenomena are merely socio-environmental phenomena, then conditions of social phenomena at all levels are separated from the human condition.

If the standard social science model incorporates an evolutionary framework, it is not reduced to individual analysis. Supplementing social facts with an evolutionary theory serves to better equip sociology as a science. Whether or not the cause is genetic or non-genetic, social phenomena are the concern of sociology.

Sociobiology is seen as being concerned with the study and explanation of genetic social facts. While this certainly constitutes only a part of the sociological endeavor, it has tremendous capabilities to change the way certain social phenomena are perceived and explained, especially concerning collective action.

Sociobiology identifies two principle types of pro-social behavior: Hamilton's (1964) theory of inclusive fitness and Triver's (1971) model of reciprocal altruism. Such theoretical models explain social phenomena from a biological perspective and provide an explanation of social cohesion. Sociobiology explains prosocial behavior as an adaptive quality benefiting the survival of one's genetic content. While this may suggest that the individual is causal in some fashion to social behavior by collapsing the individual/genetic levels of analysis, it does not posit that the individual is the ultimate cause. However, the individual constitutes the vessel of survival and transmission. In other words, the individual is the beholder of adaptive traits.

If collective phenomena can be explained from an evolutionary perspective as adaptations, then the theories of inclusive fitness and reciprocal altruism can account for the genesis of certain social phenomena through selected behaviors and they can be seen in much the same way social facts are perceived: as coercive, general, and independent of the individual. Social phenomena such as kin grouping and social exchange reflect the underlying bio-psycho-social elements of the human condition.

Sociology, in a non-evolutionary perspective, has a problem accounting for collective action. The Durkheimian approach assumes such conduct is based on the influence of social facts molding individuals to act socially, which as previously discussed has problems accounting for the genesis of such facts. On the other hand, rational choice (utilitarian social theory) theory assumes individual utility maximization, which cannot account for collective action because there would be no certainty to maximize individual utility through collective goods at the individual level. Both approaches to collective action either fail to account for the genesis of the collective nature or cannot account for continued collective action.

A sociobiological approach to collective action seen as an evolutionary adaptation can provide an account of such social phenomena. Triver's (1971) and Hamilton's (1964) theoretical models can provide useful insights concerning the genesis and continued cooperative nature of social behavior. In general, if social phenomena are not contrary to biological/evolutionary phenomena, then sociology can approach certain theoretical problems with renewed interest from an evolutionary perspective. This move places sociology within the realm of the human condition providing a better angle to explain the continuity and utility of social behavior without reducing it ultimately to individual causality.

To separate such a complex phenomena into distinct non-related categories, such as social, biological, and psychological, only serves to hinder a cohesive analysis of the human social condition. Social phenomena presuppose biological and psychological phenomena. Therefore, social phenomena represent a complex set of variables, some genetic, some not. In such regard, sociology is unique in that it studies a phenomenon like no other, the relation of two or more bio-psycho-social individuals.

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