# GREEN CRIMINOLOGICAL CONCERNS & PHILOSOPHICAL BELIEFS by

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### Abstract

### **GREEN CRIMINOLOGICAL CONCERNS & PHILOSOPHICAL BELIEFS**

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The purpose of this research project was to test the philosophical argument that people who maintained a dualistic mindset or sustained a belief in the existence of the soul would be less concerned with environmental crime. A survey was collected from a sample of 332 individuals at the University of Texas at Arlington in Arlington, Texas. The survey asked individuals to select on a likert scale how concerned they were with environmental harm. Preceding these, individuals were asked to answer either yes, no, or I don't know on questions concerning their philosophical beliefs, looking for indicators of dualistic thinking and a belief in existence of the soul. These questions were analyzed using independent-samples t-test and chi-squared test for association to see if a statistically significant difference or association existed. The findings from the analyses indicated, overall, no statistically significant difference or association for environmental crime, and the independent variable, questions indicating dualistic thinking or a maintained belief in the existence of the soul. Additional

independent-samples t-test were performed, looking to see if a statistically significant difference existed for the level of concern for environmental crime particular individuals had in the following categories: gender, college major, religion, and parents' highest level of education. An increased level of concern for environmental crime was observed in females, students majoring in biology, and individual's whose parents earned a college degree. No statistically significant difference existed for the level of concern for environmental crime between Christians and non-religious individuals.

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### Chapter 1

#### Introduction

The philosophical beliefs that individuals possess shape their understanding of the world around them. It is a force whose mechanics goes relatively undiscovered by most of the public, and their beliefs are largely held to be "my beliefs," generated predominately within their own faculties of reason, rather than within the philosophers and theologians that originated them.

The role that philosophical belief has on influencing action, and upon which actions they influence, has gone largely unnoticed. It is not viewed to be the role of the criminologist to explore these factors of influence, nor do most philosophical writings normally go beyond traditional speculative thought to survey the extent these beliefs have on the influence of action. The failure of these two disciplines to meet and overlap has produced a perpetually increasing rift to form between them. This has caused much of the unexplored terrain between them to be completely undiscovered, and any researcher with an ample skill set in these two fields may find themselves in the fortunate position to uncover many previously held beliefs as outdated or simply incorrect and in need of atonement.

It becomes difficult to grasp the complexity of a problem when its prevalence is unknown, and its effects, when conjoined with other beliefs, are uncharted. Among traditional crimes, those included in green criminology fall outside the traditional scope of criminological investigation (Stretesky, et al.,

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2013). This becomes a problem because environmental crime or green crime that manifest in the form of: deforestation, animal rights, water pollution, hazardous waste, and air pollution, may pose one the greatest threats to humanity; however, there appears to be a disconnect between that which will cause insurmountable harm and that which populates the minds and airwaves of America. Much of these disconnects can and should be blamed upon the media and the dispersion of corporate propaganda within its boundaries. These slowly percolating environmental crimes are ones which remain concealed, forgotten, and faintly heard within criminology and other disciplines.

Criminologists do not view the environment as a traditional area of study for the occurrence of crimes and their effects (White, 2008). This is an egregious error on the part of criminologist and universities who neglect to include this enormously crucial sub-discipline in their writings and teachings. Understandably so, by the measure of the uninformed public, crimes must have an immediate victim to be considered worthy and worthwhile of study; unless the crime can be linked to the act of victimization, it remains difficult to determine the sequence of cause and effect; many green crimes suffer from this very problem. One example that demonstrates the problem of conforming to this linear logic is that of water contamination, which can lead to years passing between the crime being committed, and the observable effects the crime has on the victims. Another example, which can easily establish a problem with this archaic model, is that of nuclear catastrophes, which do not show evidence of a victim until, in most cases, years have elapsed. The total count of those victimized by large scale radiological events, such as Chernobyl, and the parties responsible for the engineering, building, and misuse of such facilities are not evident for many years, and in some cases, are incalculable. Yet, these disasters slip through the lens of the criminologist and their writings. For the public to overlook such catastrophe is to be expected, however, academicians are trained to see through the blindness that fogs public perception, intentionally by third parties or unintentionally, in other areas of content and must do the same for this subdiscipline. Moreover, green crimes that effect wildlife, the environment, ecosystems, or the planet itself, are incapable of providing the concreteness of details (time, type, and amount) that many criminologists have become so reliant upon. This makes the challenge more difficult; for few pieces of evidence may result from even a large-scale, illegal operation.

Additionally, in many cases of large scale harm, criminologist may find themselves: judge, jury, and executioner in determining the legality of a situation. This is an indispensable position of moral responsibility that traditional criminologists may not feel comfortable with, but they must strengthen their skills of moral judgment to cope with the overwhelmingly complex and political problems of the 21<sup>st</sup> century. Assuming a crime is only defined as something illegal by definition and to not include "...what can be said to constitute the greatest sources of harm from an ecological perspective" (White, 2008), is no longer acceptable logic and may lead to mankind's ultimate disintegration; the

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role of moral activism must supersede corporately lobbied laws and archaic codes of conduct. Green criminology has "...a responsibility [to the planet] that extends to human and non-human life" (White, 2008, p.11). This is the role that philosophy must play alongside criminology.

In order to begin to address the problems which are studied within green criminology, criminologists must survey the level of understanding the general population holds and must study the philosophical ideologies which lead them to that plane of belief. This understanding will guide criminologist to a larger translation as to what beliefs are held by the public organically and which beliefs are inorganic, created for the public to consume out of fear and to prevent change from originating among Americans. Before we are able to unmask this philosophical foundation, we must begin with understanding how far ideology reaches into our actions, and how these beliefs answer more comprehensive questions into the nature of reality. For assurance of the importance of the philosophical beliefs and their impact upon our actions, we must look no further than criminological theory itself; much of which is based on the philosophical writings of many past philosophers, many times without credit being applied.

Drawing from ecofeminist theory, this research will attempt to test the long held, yet quantitatively untested, philosophical assumption by many ecofeminists: the environment is viewed in a binary fashion, which impacts the actions of those who hold the viewpoint and affects an individual's belief in the seriousness of environmental (green) crime. According to ecofeminist theory, this binary

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formulation in thinking is the belief that western thought is structured, in the minds of the majority, in such a way that it categorizes the world into two, contrasting pairs of ideas or entities (Plumwood, 1993). Examples of these pairs include: body and soul, mind and body, nature and culture, self and other, male and female (Plumwood, 1993).

Rorty (1979), theorized that "...intuitions which lie behind Cartesian dualism are ones which have a historical origin" (p. 10). This would indicate that the origin of dualistic thought did not necessarily come through a religious institution, but has been passed down through the ages from an unknown source, and, therefore, falls outside of purely religious belief. Moreover, dualistic thinking could exist in an individual without a religious background or belief. This would go against many of the eco-feminist philosophical hypotheses that religion is situated at the center of the debate. Furthermore, it is assumed, rather than scientifically proven, that a philosophical or religious belief in dualism is primary and indispensable in the minds of those who are responsible for the destruction of the environment, even if their role is passive complicity. If these speculations are made without adequate research to substantiate their validity, then this is a dangerous claim to religious institutions as a whole. Research outlined in this thesis attempts to put this claim to the test, using quantitative analysis.

Testing the philosophical belief in dualism will provide philosophers and criminologists additional information in formulating theory and policy in the pursuit of preventing crimes against nature and creating a sustainable environment. Testing long-held beliefs regarding the effects of dualistic thinking may assist in guiding policy reform and educational practices.

Three possible findings of this quantitative research become apparent.

- A correlation exists between dualistic thinking and people's negative beliefs regarding environmental crime.
- A correlation exists between dualistic thinking and people's positive beliefs regarding environmental crime.
- No correlation exists between dualistic thinking and people's beliefs regarding environmental crime.

If a correlation exists between dualistic thinking and people's beliefs regarding environmental crimes, then we must pursue measures to mitigate such environmental harm that may include those outlined in ecofeminist theory. If dualistic thinking is found to have no correlation to people's beliefs regarding environmental crime, we must contemplate abandoning these thoroughly articulated concepts and work towards developing a new understanding behind the philosophy that drives environmental action or inaction. Furthermore, if no correlation is discovered, this research may assist in guiding philosophers and green criminologists into a new direction for environmental discourse. This would include finding an acceptable, philosophical belief that may lie at the heart of inaction, in order to find a rhetorical solution to the growing problems of the environment that may, hopefully, develop into political reform surrounding green criminology. Regardless, action should not be taken until ideas hypothesized are quantitatively measured for accuracy. As green criminologist, White (2008) stated, "[p]hilosophy is always the driver of action..."

### Chapter 2

### Literature Review

Dualism is the philosophical belief in the separation of the mind and the body or the existence of the soul as distinct and detached from the body. Important debates, including immortality, freedom, and the existence of God, are at the center of dualism. This is why it holds first place among the most important and long debated philosophical and theological discussions of human history. Later, philosophers expanded the idea of dualism or dualistic thinking to include issues regarding feminism and the environment. The latter being the primary focus of this research. However, providing a brief history of dualism will be of great use in understanding environmental arguments presently. Philosophers Smith and Jones (1986) write, regarding immortality and freedom, "...it hardly needs to be argued that it is worth embarking on a philosophical scrutiny of what normally goes unexamined in our everyday ways of thought about ourselves and each other" (p. 5).

Dualism, as a philosophical and theological idea, has a long, expansive history. The complete history is beyond the scope of this project. However, the paragraphs below cover the important aspects of each philosopher's contribution and provide discussion of important, major figures and their philosophical ideas, as well as a few minor figures who have created rhetorical summarizations which the reader may find helpful for clarification of the major points.

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Pythagoras, known for his mathematical theorem, born in 570 B.C., is arguably the first known philosopher to teach of the existence of a soul and the belief in dualism; however, we have no reason to believe that the general idea was not present in earlier figures' minds and it is even discussed in Homer's Odyssey. To Pythagoras's followers, "...the most important of philosophy was that which taught of man, of the nature of the human soul and its relations with other forms of life and with the whole" (Guthrie, 1962, p. 182). At this time in history, "Mathematics was a religious occupation and the decad [the number ten] a holy symbol" (Guthrie, 1962, p. 152-153). Guthrie, a classical Greek scholar from the University of Cambridge, wrote that "Pythagoras himself taught the transmigration of souls..." (Guthrie, 1962, p. 166) and that there was "...incontrovertible positive evidence" of Pythagoras's teachings on "...religious doctrines of immortality and transmigration..." (Guthrie, 1962, p. 188). According to some researchers, "...transmigration tells the story [of] myriad wandering souls, each migrating from body to body along a path of recurrence amid the becoming of All" (Luchte, 2009). Pythagoras, according to some, also articulated a "...return of the soul to its divine source..." (Luchte, 2009). It also should be mentioned that there exist great similarities between the teachings of Buddha with regard to reincarnation and that of Pythagoras's idea of transmigration (Luchte, 2009).

Plato, perhaps the most influential, ancient philosopher on western thought and thinking, born in 428 B.C., shared the belief that the mind and the body were distinct entities; this idea is evident in several of his dialogues, including *Phaedo*, where it was said that "...in every point of view the soul is the image of divinity and immortality, and the body of the human and mortal. And whereas the body is liable to speedy dissolution, the soul is almost if not quite indissoluble" (Jowett, 1911). It is also evident in *Plato's Republic*, where he presented that "[t]he argument for immortality seems to rest on the absolute dualism of soul and body. Admitting the existence of the soul, we know of no force which is able to put an end to her" (Jowett, 1892).

Aristotle, born in 384 B.C., student of Plato, had a different view of dualism than the philosophers that preceded him; in his teachings, he indicated that bodies could be classified in two ways: living and non-living (Owens & Catan, 1981). Soul is a feature, according to interpretations of Aristotle's work, "...that characterizes a living body..." (Owens & Catan, 1981).

René Descartes, born in 1596, is credited by many philosophers as arguably being the most influential modern philosopher that perpetuated the idea of dualism. The perpetuation was furthered, even into contemporary thought, through his philosophical work written in 1641: *Meditations on the First Philosophy*. Descartes was a deep thinker and a religious man; in his later years, he wrote *Meditations on the First Philosophy*, which became a seminal philosophical work, much discussed and written about from its creation until the present day.

Descartes wrote that he always "...considered that the two questions respecting God and the soul were chief of those that ought to be demonstrated

by philosophical rather than theological argument" (Descartes & Haldane, 1911). Descartes considered faith alone in God and the immortality of the soul to be enough for the faithful (Descartes & Haldane, 1911); however, he speculated that, in order to convince nonreligious people, the use of "natural reason" must be employed through philosophical inquiry (Descartes & Haldane, 1911). That is the stated aim of his meditations.

As one philosopher noted, "Descartes displaced, so to speak, the axis of philosophy. To the ancients and to the scholastics (theology excepted) the thinking mind appeared inseparable from the universe, regarded as the object of its thought, just as the soul itself was conceived to be the 'substantial form' of the living body" (Veitch & Lévy-Bruhl, 1903).

Philosopher Gilbert Ryle, born 1900, wrote *The Concept of Mind* in 1949. This work was largely viewed, by many philosophers, as closing the debate surrounding dualism in favor of materialism against idealism. In his writings about the concept of dualism, Ryle (1949) insists that "Descartes left as one of his main philosophical legacies a myth which continues to distort the continental geography of the subject" (p. 8). He continues by stating about the existence of the soul that "[t]his traditional dogma is not only not self-evident, it is such a welter of confusions and false inferences..." (Ryle, 1949).

Philosopher Rorty, born 1931, speculated what many other philosophers have: that "...intuitions which lie behind Cartesian dualism are ones which have a historical origin" (Rorty, 1979, p. 10). Rorty has written about the mind body juxtaposition in his book, *Philosophy and the Mirror of Nature*; in attempting to clarify the debate between materialism and idealism with an analogy, Rorty (1979) wrote, "[w]hat exactly is the difference between misdescribing something like a star and misdescribing something like a pain? Why does the former seem obviously possible and the latter unimaginable?" (p. 85) Rorty (1979) continued, "[i]t is as if man's Glassy Essence, the Mirror of Nature, only became visible to itself when slightly clouded. A neural system can't have clouds but a mind can. So minds, we conclude, cannot be neural systems" (p. 86-87).

Smith and Jones (1986) wrote that the question of dualism seeks to remedy "...three problems which must have occurred to most people in reflective moments. First, can we ever really know what someone else is thinking or feeling? Second, are we ourselves something quite distinct from our bodies, so that we may possibly survive bodily death? And third, are we really free to act as we choose, or are our actions determined by casual factors outside our control, such as our environment or physical make-up?" (p. 4)

The question of dualism is intrinsically linked to the idea of free will, because if "[t]he working assumption of the sciences is that human behavior can in principle be explained without any reference to non-bodily entities.." then isn't "...the idea of free will an illusion? If what [people do] is explicable in physical terms by means of scientific laws, it seems to follow that [people are] casually determined to behave [and are not] really free to do otherwise" (Smith & Jones, 1986, p.4). If this is the case, and our criminal justice system is formulated on such philosophical understandings, "...how can we reasonably hold [people] responsible..." for their actions? (Smith & Jones, 1986, p.4). It is not difficult to see the problem and controversy with such a claim, and the reason why the debate over dualism is one of the oldest philosophical disagreements in history.

It is well known, but still may require mention, that the concept of dualism has a long history in western and eastern religions. It is assumed that most readers should be somewhat familiar with them and would, therefore, not require a review of such writings. It is a topic that has dominated many of the religious teachings and writings of the last 2,000 years and beyond.

This detachment or separation is not present just in the philosophical argument between the mind and body, but is argued to dominate many different facets of Western thinking. This opposition is argued by feminist theory to exist between man and woman (Plumwood, 1993). Philosopher and activist, Plumwood (1993), outlines this binary "distortion" in thinking and applies it to ecofeminist theory in an attempt to formulate why the environment is viewed as the "other," and as something opposed to "human." Ecofeminist theory formulates a hypothesis that extends the dualistic thinking, to explain the separateness from nature, and the anthropocentric (human centered) thinking that accompanies this thought (Plumwood, 1993). Ecofeminism attempts to explain "...the relationship between the patriarchal oppression of women and the human domination of non-human nature" (Madsen, 2000).

One of the primary reasons for a discussion of philosophy to exist within the realm of criminology is in the origin of criminology. This should come as no surprise, as many well educated people from the past had read, at the very least, many philosophers' seminal works. This is evident in the origins of the first Great Books list created by Thomas Jefferson for friends who asked him for reading recommendations; these philosophical works were considered classics, and were much more widely read in the past than they are today. Many criminological theories have their roots in philosophical writings and are based upon the teachings of numerous philosophers.

Plato and Aristotle are certainly credited, by many, as being the originators of the philosophy of science; however, Descartes, once again, should receive due attention for laying the framework for the philosophy of science in its modern conception. The philosophy of science has evolved into sociology and criminology of modern times. Descartes was "...the first [individual] to write to use doubt, not to destroy, but to build up [an argument]" (Descartes & Rawlings, 1901). According to Descartes, he was signaled, through a dream or vision, by "...the Spirit of Truth, who appeared to him therein, [and] wished to show him the treasures of all the sciences" (Descartes & Rawlings, 1901). Accordingly, Descartes held that in order to pursue the revealed truths, "... he would need extraordinary help from heaven and to be more than man" (Descartes & Rawlings, 1901). Decartes "...resolve[d] to accept nothing at second hand and without examination..." (Descartes & Rawlings, 1901). It should also be noted that, at the time Decartes formulated his system of doubt, he treated "...religious truths as outside the sphere of inquiry" (Descartes & Rawlings, 1901). These are the origins of Descartes's system of doubting to reveal truths which led to a modern philosophy of social science.

Drawing from the teachings of Descartes, Auguste Comte, born 1798, is credited with the creation of the science of sociology "...to elevate the study of social phenomenon to the positive state" (Mill, 1865). However, Comte attributes the real founder of sociology to Aristotle (Mill, 1865). Philosophers "...had a full conviction that social phaenomena conform to invariable laws, the discovery and illustration of which was their great object as speculative thinkers" (Mill, 1865). Up until this time, "...those philosophers did not get so far as M. Comte in discovering the methods best adapted to bring these laws to light" (Mill, 1865). Comte's research and writings were trying to enable sociology "...to be conceived as a co-ordinated and coherent body of doctrine" (Mill, 1865). The number of individuals influenced by Comte's research and writings are vast; they include: Karl Marx, Friedrich Nietzsche, and Émile Durkheim.

Philosopher Thomas Hobbes, born in 1588, is a crucial figure in shaping several prominent sociologists and criminologists. As many historians have noted, Bentham's "...chief ideas and methods are to be found in Hobbes and Locke, but especially in the former" (Graham, 1919). Additionally, Hobbes's influence is apparent in Edward Ross's *Social Control: A Survey of the Foundations of Order* and is admitted by Travis Hirschi in interviews he has given as the source of the idea of social control. Hirschi stated, "It seems to me obvious in Durkheim and especially Hobbes. Control theory is inherent in an attempt to solve the problem of order" (as cited in Cullen, et al., 2011, p. 307).

Criminology has a history of looking at philosophical writings, which in some cases, are mere conjectures, and applying the rigorous process of quantitative research to test what is hypothesized in the writings for evidence of validity. The redundancy employed in the social science, in many cases, falls just short of utilizing the scientific method when drawing upon a wide array of disciplines, as criminology is allowed to do, instead of being tied to a single one, such as in the case of psychology. Quantitative research is the closest tool which a criminologist can employ when studying a subject as complex as a human being; duplicating the results in another study, as required for the scientific method, would indicate that all methods of control used in the first study are repeatable, and that has yet proved impossible, due to the complexity of each subject and conditions which accompany it.

Green criminology is an emerging field within criminology which has been studied academically for twenty years. Green criminology is "...the study of environmental harm, environmental laws and environmental regulation by criminologists" (White, 2008). Additional definitions include environmental crime, law, victimization, and justice (Nurse, 2013). The intention of green criminology is "...to try to predict and to prevent disaster and degradation from happening, since these are capable of destroying specific life forms and, indeed, life on the planet generally" (White, 2008, p. 8). Green criminology studies and researches "...social and environmental issues... relating to poverty, health, indigenous people's rights, exploitation of nonhuman nature, corporate business misdealings, [and] state corruption..." (White, 2008, p. 9-10). A multidisciplinary approach is recognized as necessary when studying environmental harm (White, 2008, p. 10).

The debate surrounding the issue of green criminology is in the origin of the perceptions that individuals hold regarding the seriousness of environmental crime and the punishment that should accompany it. Ecofeminist theory hypothesizes that perceptions about the environment are linked to an individual's philosophical belief in dualism (Plumwood, 1993). Ecofeminist or environmental philosophy literature has not directly tested this argument. Green criminology, as a social science, is in the appropriate position to test such a hypothesis and pursue the results.

Additionally, questions pertaining to environmental crime perceptions and beliefs, and a possible connection existing to someone's philosophical notions, has not been researched. As green criminologist, White (2008) said, "[e]nvironmental issues are interpreted through the lens of philosophy..." Therefore, given the importance that philosophical beliefs have on individuals, usually without their knowledge of how strong such inherent thoughts can affect their actions, exploring the linkage between philosophy and green criminology presents a unique opportunity for both disciplines to broaden the landscape of thought and bring about an understanding of how philosophy shapes crime.

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### Chapter 3

### Research Question & Methodology

This research tested the hypothesis that a philosophical belief in dualism (soul and body or nature and culture as distinct entities) affects an individual's concern for environmental crime or green crime. This research also tested the hypothesis that a belief in the existence of the soul that is separate from the body affects an individual's concern for environmental crime or green crime. Additionally, this research tested the hypotheses that gender, college major, religion, and parent's highest level of education affects an individual's concern for environmental crime or green crime.

The hypotheses are stated as such:

 $H_1$  = There is a correlation between an individual's belief in dualism and their concern of environmental crime or green crime.

 $H_2$  = There is a correlation between an individual's belief in in the existence of the soul that is separate from the body and their concern of environmental crime or green crime.

 $H_3$  = There is a correlation between an individual's gender and their concern of environmental crime or green crime.

 $H_4$  = There is a correlation between an individual's college major and their concern of environmental crime or green crime.

 $H_5$  = There is a correlation between an individual's religion and their concern of environmental crime or green crime.

 $H_6$  = There is a correlation between an individual's parents highest level of education and their concern of environmental crime or green crime.

This research project tested the philosophical assumption, maintained in ecofeminist theory, that people who hold a dualistic mindset will, as a result of this belief in dualism, be statistically, significantly less concerned with environmental crime or crimes committed against nature.

This research collected data, through the use of surveys, that was analyzed quantitatively from several classes of junior and senior level students in three disciplines at the University of Texas at Arlington in Arlington, Texas. These disciplines were: criminology and criminal justice, biology, and political science.

The proposed design of this research is a non-experimental design, looking for a relationship between the dependent and independent variables through the generation of Independent-samples t-tests and chi-square test for association, utilizing SPSS software.

Data for this research project was collected from students at the University of Texas at Arlington, in person, utilizing surveys that were distributed and collected from ten junior and senior level classes in three different departments: Criminology and Criminal Justice, Biology, and Political Science.

A sample size of at least N=120 students per discipline was sought; however, this was not possible from the political science department. The political science department was too small to meet this subject requirement. N=123 students were surveyed in the Criminology and Criminal Justice Department; N=125 students were surveyed in the Biology Department; N=84 students were surveyed in the Political Science Department. The study was restricted to surveying only junior or senior level classes, within each department, to try and limit the acquisition of surveys from students within each class discipline being studied and not from other departments within the university. The research project originally intended to compare surveys from three different departments to see if biases existed for students of one department but not from another. Non-probability, convenience sampling was utilized for this research project, based on convenience and availability of students at the University of Texas at Arlington.

The survey was categorized into three sections: controls, environmental questions (DV), and philosophical questions (IV). Control questions were designed to create a profile from the person completing the survey, to further understand the answers they select in the environmental and philosophical sections.

The control questions were:

- 1) What is your age?
- 2) What is your ethnicity?
- 3) What is your marital status?
- 4) Do you have any children?

- 5) What is your intended major in college?
- 6) Do you have any military experience?
- 7) What religion do you most identify with?
- 8) What is the highest level of education either of your parents achieved?
- 9) Did you grow up primarily in a rural, urban, or suburban environment?

The first ten environmental questions (dependent variables) utilized a likert scale asking participants to rank how concerned they were about the statements on a scale from one to five, with one being not concerned at all and five being very concerned. The last question utilized a likert scale asking participants to rank how strongly they agreed with the question, with one being strongly disagree and five being strongly agree. The first two questions within this category were in essence the same with one using the phrase "crimes committed against nature" and the second asking about "crimes that harm the environment." This was done to assist with gaining information on how green criminological terminology could impact an individual's responses. The third question asked participants about their concern regarding the production and disposal of products. This question was asked to test the knowledge and concern individuals have of the production and disposal of harmful components in the products we buy, consume, and dispose of. E-waste could fall under this question. The next seven questions were adopted from a Gallop poll on environmental concerns.

The environmental questions were:

- 1) I am concerned about crimes committed against nature
- 2) I am concerned about crimes that harm the environment
- 3) I am concerned about pollution of drinking water
- 4) I am concerned about pollution of rivers, lakes, and reservoirs
- 5) I am concerned about contamination of soil and water by toxic waste
- 6) I am concerned about air pollution
- 7) I am concerned about the loss of tropical rain forests
- 8) I am concerned about the extinction of plant and animal species
- 9) I am concerned about the greenhouse effect or global warming

The third section of the survey asked philosophical questions (independent variables), requesting the participant to answer questions with yes, no, or I don't know. The questions were designed to measure if an individual maintained a dualistic mindset and if they believed in the existence of a soul that is separate from the body. Simply asking about a belief in the separation of the mind and body, although adequate for the hypothesis testing, did not seem substantial enough to presume dualistic thinking; as a result, questions were formulated from philosophical writings to observe dualism in more than one belief.

The philosophical questions analyzed for this research project were:

- 1) I believe a person's mind and body are two distinct entities
- 2) I believe in a soul that is separate from the body

- 3) I believe men and women are similar in their thinking and actions
- 4) I believe that people can be classified as either good or evil
- 5) I believe that answers given or opinions spoken are either true or untrue
- 6) I believe civilization is the mastery of nature

For this research project, 10 classes were surveyed, comprising N=332 participants; 4 Criminology and Criminal Justice classes (N=123); 2 Biology classes (N=125); 4 Political Science classes (N=84). The same information is presented in Table 1-1.

Class	Frequency	Percent	
CRCJ 3338	27	8.1	
CRCJ 3370	35	10.5	
CRCJ 4301	44	13.3	
CRCJ 4340	17	5.1	
BIOL 3454	86	25.9	
BIOL 3427	39	11.7	
POLS 3308	39	11.7	
POLS 4392	12	3.6	
POLS 4331	24	7.2	
POLS 4303	9	2.7	
Total	332	100.0	

Table 1-1 Classes Surveyed

In the sample, 28.6% of the individuals intended major was Criminology and Criminal Justice (N=95), 36.4% of the individuals intended major was Biology, 18.1% of the individuals intended major was Political Science, 0.9% of the individuals intended major was Chemistry (N=3), 3.9% of the individuals intended major was University Studies (N=13), and 12% of the individuals selected Other (N=40). The same information is presented in Table 1-2.

Major	Frequency	Percent	
CRCJ	95	28.6	
BIOL	121	36.4	
POLS	60	18.1	
CHEM	3	.9	
US	13	3.9	
Other	40	12.0	
Total	332	100.0	

Table 1-2 Intended Major in College

The youngest individual in the sample (N=325) was 18 and the oldest was 50. The mean average of the sample was 23.36 years old. Out of the original sample, seven did not answer the question of how old they were. In the sample, surveyed individuals were 42.8% male (N=142) and 57.2% female (N=190). In the sample, individuals were 35.2% Caucasian (N=117), 30.4% Hispanic (N=101), 13.0% African American (N=43), 13% Asian (N=43), 7.2% other (N=24), and 1.2% missing (N=4). The same information is presented in Table 1-3.

### Table 1-3 Participant's Ethnicity

Ethnicity	Frequency	Percent
Caucasian	117	35.2
Hispanic	101	30.4
African American	43	13.0
Asian	43	13.0
Other	24	7.2
Missing	4	1.2
Total	332	100.0

In the sample, individuals were 86% single (N=286), 12% married (N=40), 1.5% divorced (N=5), and 0.3% missing (N=1). The same information is presented in Table 1-4.

Status	Frequency	Percent	
Single	286	86.1	
Married	40	12.0	
Divorced	5	1.5	
Missing	1	.3	
Total	332	100.0	

Table 1-4 Participant's Marital Status

In the sample, 89.5% of the individuals did not have children (N=297) and 10.5% of the individuals had children (N=35).

In the sample, 28.6% of the individuals intended major was criminology and criminal justice (N=95), 36.4% of the individuals intended major was biology (N=121), 18.1% of the individuals intended major was political science (N=60), 3.9% of the individuals intended major was University Studies (N=13), .9% of the individuals intended major was chemistry (N=3), and 12% of individuals intended major was other (N=40). The same information is presented in Table 1-5.

Table 1-5	Participant's	Intended Major
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Major	Frequency	Percent
CRCJ	95	28.6
BIOL	121	36.4
POLS	60	18.1
US	13	3.9
CHEM	3	.9
Other	40	12.0
Total	332	100.0

In the sample, 93% of the individuals did not have any military experience (N=309) and 6.9% of the individuals did have military experience (N=23). In the sample, individuals were 41% Christian (N=137), 25.3% Catholic (N=84), 0.9% Mormon (N=3), 6.6% Muslim (N=22), 0.9% Hindu (N=3), 2.4% Buddhist (N=8), 7.2% atheist (N=24), 13.3% agnostic (N=44), 0.6% other, and 1.5% were missing (N=5). The same information is presented in Table 1-6.

Religion	Frequency	Percent
Christian	137	41.3
Catholic	84	25.3
Mormon	3	.9
Muslim	22	6.6
Hindu	3	.9
Buddhist	8	2.4
Atheist	24	7.2
Agnostic	44	13.3
Other	2	.6
Missing	5	1.5
Total	332	100.0

Table 1-6 Participant's I	Religion
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In the sample, 12.3% of the individuals reported that their parents earned less than a high school diploma (N=41), 13.3% of the individuals reported their parents earned a high school diploma (N=44), 27.1% of the individuals reported their parents had some college (N=90), and 13.9% reported that their parents earned a graduate degree (N=46). The same information is presented in Table 1-7.

Education level	Frequency	Percent	
< high school diploma	41	12.3	
High school diploma	44	13.3	
Some college	90	27.1	
College degree	111	33.4	
Graduate degree	46	13.9	
Total	332	100.0	

Table 1-7 Highest Level of Education Parents Achieved

In the sample, 14.5% of the participants reported growing up in a rural environment (N=48), 29.4% reported growing up in an urban environment (N=98), 54.2% reported growing up in a suburban environment (N=180), and 1.8% were missing (N=6). The same information is presented in Table 1-8.

Environment	Frequency	Percent
Rural	48	14.5
Urban	98	29.5
Suburban	180	54.2
Missing	6	1.8
Total	332	100.0

Table 1-8 Environment Participant's Primary Grew Up

In the survey, individuals were asked, on a scale from one to five, how concerned they were with twelve questions regarding green crime (DV). The first two questions were, in essence, asking the same question, how concerned the individual was with crimes against nature and crimes that harm the environment. The phrase, crimes against nature, is used as the definition for Green Criminology (White, 2008). Both questions were asked to determine how the selection of the vocabulary influenced the participant's decisions. This research would assist in answering the question if using the phrase crimes committed

against nature would be understood or agreed with as clearly as crimes that harm the environment. When the sample was surveyed and answered the question: "I am concerned about crimes against nature," the mean average of individual responses was 3.60 (N=332) on a scale from 1 to 5. When the sample was surveyed and answered the question: "I am concerned about crimes that harm the environment," the mean average of individual responses was 3.86 (N=332) on a scale from 1 to 5. The same information is presented in Table 2-1.

Table 2-1 Environmental Crime Concern

Environmental crime questions	N	Mean
I am concerned about crimes committed against nature	332	3.60
I am concerned about crimes that harm the environment	332	3.86

The survey contained 7 questions regarding the environment (DV) that were formulated and asked in a gallop poll. These questions could be considered "standard" environmental questions, and because they ask about concern for harm to the environment, they are classified as a green criminological concern and studied by green criminologist.

The 7 questions asked were:

 "I am concerned about pollution of drinking water." The mean average of individual responses was 4.31 (*N*=332) on a scale from 1 to 5.

- "I am concerned about pollution of rivers, lakes, and reservoirs." The mean average of individual responses was 4.18 (*N*=331) on a scale from 1 to 5.
- "I am concerned about contamination of soil and water by toxic waste." The mean average of individual responses was 4.08 (*N*=332) on a scale from 1 to 5.
- "I am concerned about air pollution." The mean average of individual responses was 4.07 (*N*=331) on a scale from 1 to 5.
- "I am concerned about the loss of tropical rainforests." The mean average of individual responses was 3.85 (*N*=330) on a scale from 1 to 5.
- "I am concerned about the extinction of plant and animal species." The mean average of individual responses was 4.04 (*N*=332) on a scale from 1 to 5.
- 7) "I am concerned about the greenhouse effect or global warming" The mean average of individual responses was 3.76 (*N*=331) on a scale from 1 to 5.

The same information is presented in Table 2-2.

Environmental questions I am concerned about	Frequency 332	<u>Mean</u> 4.31
pollution of drinking water I am concerned about pollution of rivers, lakes,	331	4.18
and reservoirs		

Table 2-2 Environmental Concern Mean

Table 2-2-Continued

I am concerned about contamination of soil and water by toxic waste	332	4.08
I am concerned about air pollution	331	4.07
I am concerned about the loss of tropical rainforests	330	3.85
I am concerned about the extinction of plant and animal species	332	4.04
I am concerned about the greenhouse effect or global warming	331	3.76

The individual responses indicate the highest level of concern for the pollution of drinking water and for the pollution of rivers, lakes, and reservoirs, and the lowest level of concern for the loss of tropical rainforests and the greenhouse effect or global warming. Overall, concern is generally expressed over the neutral response of 3, on a scale from 1 to 5.

In the last section of the survey, philosophical questions (IV) were asked to individuals in order to evaluate if their philosophical beliefs impacted their concerns for green crime or environmental crime (DV). In the sample, 48.2% of the individuals answered "yes" to the question, "I believe a person's mind and body are two distinct entities" (N=160), 33.4% of the individuals answered "no" (N=111), and 17.5% of the individuals answered "I don't know" (N=58). The same information is presented in Table 3-1.

Table 3-1	Philosophical	Question 1
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Mind and body are two distinct entities	Frequency	Mean
yes	160	48.2
no	111	33.4
l don't know	58	17.5
Missing	3	.9
Total	332	100.0

In the sample, 61.1% of the individuals answered "yes" to the question, "I believe in a soul that is separate from the body" (N=203), 19.9% of the individuals answered "no" (N=66), and 16.9% of the individuals answered "I don't know" (N=56). The same information is presented in Table 3-2.

Soul that is separate from the body	Frequency	Mean
yes	203	61.1
no	66	19.9
l don't know	56	16.9
Missing	7	2.1
Total	332	100.0

Table 3-2 Philosophical Question 2

In the sample, 40% of the individuals answered "yes" to the question, "I believe men and women are similar in their thinking and actions" (N=133), 50.6% of the individuals answered "no" (N=168), and 5.4% of the individuals answered "I don't know" (N=18). The same information is presented in Table 3-3.

Table 3-3 Philosophical Question 3

Men and women are similar in their thinking	Frequency	<u>Mean</u>	
and actions			
yes	133	40.1	
no	168	50.6	

Table 3-3–Continued

I don't know	18	5.4	
Missing	13	3.9	
Total	332	100.0	

In the sample, 50.6% of the individuals answered "yes" to the question, "I believe people can be classified as either good or evil" (N=168), 41.9% of the individuals answered "no" (N=139), and 6.9% of the individuals answered "I don't know" (N=23). The same information is presented in Table 3-4.

People can be classified	Frequency	<u>Mean</u>
as either good or evil		
yes	168	50.6
no	139	41.9
l don't know	23	6.9
Missing	2	.6
Total	332	100.0

Table 3-4 Philosophical Question 4

In the sample, 51.8% of the individuals answered "yes" to the question, "I believe that answers given or opinions spoken are either true or untrue" (N=172), 35.8% of the individuals answered "no" (N=119), and 11.7% of the individuals answered "I don't know" (N=39). The same information is presented in Table 3-5.

Table 3-5 Philosophical Question 5

Answers given or opinions spoken are either true or untrue.	Frequency	Mean	
yes	172	51.8	
no I don't know	119 39	35.8 11.7	
Missing Total	2 332	.6 100.0	
	22		

In the sample, 34.9% of the individuals answered "yes" to the question, "I believe civilization is the mastery of nature" (N=116), 41.0% of the individuals answered "no" (N=136), and 23.5% of the individuals answered "I don't know" (N=78). The same information is presented in Table 3-6.

Civilization is the mastery	Frequency	Mean
<u>of nature</u>		
yes	116	34.9
no	136	41.0
l don't know	78	23.5
Missing	2	.6
Total	332	100.0

Table 3-6 Philosophical Question 6

## Chapter 4

## Findings

Out of the ten environmental crime questions asked in the survey (DV), a subscale construct was created of the mean for each individual's answers who participated in the survey and a score was generated. Figure 1 reflects the mean average of the subscale construct of each individual. The reason a subscale construct was created was to simplify the likert scale's answers and to create a continuous variable from the likert scale in order to analysis the data using an independent-samples t-test.

The environmental crime questions that were used to make the subscale construct were:

- 1) I am concerned about crimes committed against nature
- 2) I am concerned about crimes that harm the environment
- I am concerned with how the environment is affected by the products I purchase, discard, or recycle
- 4) I am concerned about pollution of drinking water
- 5) I am concerned about pollution of rivers, lakes, and reservoirs
- 6) I am concerned about contamination of soil and water by toxic waste
- 7) I am concerned about air pollution
- 8) I am concerned about the loss of tropical rain forests
- 9) I am concerned about the extinction of plant and animal species
- 10)I am concerned about the greenhouse effect or global warming

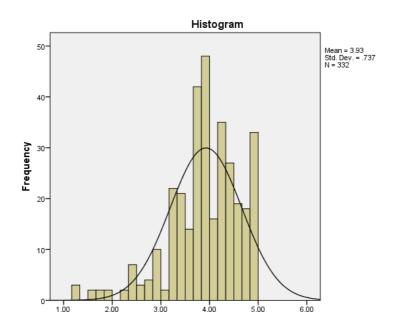


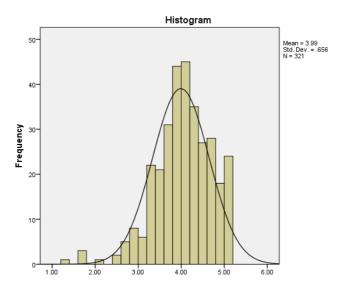
Figure 1-1 Concern for Environmental Crime

In the first statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of the independent variable; another way of stating this: does a difference in the mean exists for questions regarding concern for environmental crime between individuals who "believe a person's mind and body are two distinct entities" and those that do not? An independent-samples t-test was used to calculate whether the scores on the dependent variable (environmental crime concern) are different in the two independent groups (belief and disbelief in mind and body as distinct entities) being analyzed. The following assumptions must be considered when performing this type of statistical test:

- 1) One dependent variable that is measured at a continuous level
- 2) One independent variable that consists of two categories
- Independence of observation or no relationship between the groups themselves
- There should be no significant outliers in the two groups of the independent variable
- 5) Your dependent variable should be approximately normally distributed
- 6) There is an assumption of homogeneity of variances

Six outliers were discovered when the boxplot was generated. The six individuals were numbered: 53, 158, 177, 180, 204, and 265 from the data set. The mean score for the outliers from the subscale created of the individual's concern for environmental crime were far lower than the sample mean. The outlier's means were: 1.80, 1.90, 1.20, 2.20, 2.20, and 1.20, respectively. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Five outliers were discovered when the second boxplot was generated. These were removed from the data set as well, bringing the total number of removed cases to eleven. A third boxplot was generated in SPSS, and there were no outliers in the data, as assessed by the inspection of

the boxplot for values greater than 1.5 box-lengths from the edge of the box. Figure 2 was generated to reflect the changes from the removal of the outliers:





There were 152 individuals that reported they believe a person's mind and body are two distinct entities and 108 individuals that reported they did not believe a person's mind and body are two distinct entities. 58 Individuals reported they did not know and 3 individuals left the answer blank. These 61 cases were categorized as missing.

An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between individuals who believed a person's mind and body are two distinct entities and individuals who do not believe a person's mind and body are two distinct entities. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each level of the independent variable, "I believe a person's mind and body are two distinct entities," were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independentsamples t-test is fairly robust to deviations from normality. There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .377). Concern for environmental crime was virtually the same for individuals that believed a person's mind and body are two distinct entities (M = 4.09, SD =0.57) compared with individuals who did not believe a person's mind and body are two distinct entities (M = 4.02, SD = 0.61), not a statistically significant difference, M = 0.07, 95% CI [-0.08, 0.21], t(258) = 0.897, p = 0.371, d = .11. There was no statistically significant difference between means (p > .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

In the second statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of the independent variable: concern for environmental crime between individuals who answered yes to the question, "I believe in a soul that is separate from the body," and those who answered no to the question, "I believe in a soul that is separate from the body." There were 203 individuals that answered yes to the question, "I believe in a soul that is separate from the body," and 66 individuals responded no to the question, "I believe in a soul that is separate from the body." Additionally, 56 individuals reported, "I don't know," and 7 individuals left the answer blank. These 63 cases were categorized as missing. An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between individuals who believed civilization is the mastery of nature and individuals who did not.

Returning to our original dataset, a boxplot was generated and 9 outliers were discovered: The nine individuals were numbered: 53, 91, 158, 177, 180, 204, 259, 265, and 270. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 4 outliers was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 13. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each level of the independent variable, "I believe in a soul that is separate from the body," were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples ttest is fairly robust to deviations from normality. The assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances (p = .000). Concern for environmental crime was virtually the same for individuals that believed in a soul that is separate from the body (M = 4.08, SD = 0.53) compared with individuals who did not believe in a soul that is separate from the

body (M = 3.96, SD = 0.75), not a statistically significant difference, M = 0.12, 95% CI [-0.08, 0.32], t(86.765) = 1.201, p = .233, d = .186. There was no statistically significant difference between means (p > .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

In the third statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of the independent variable: concern for environmental crime between individuals who answered yes to the question, "I believe men and women are similar in their thinking and actions," and those who answered no to the question, "I believe men and women are similar in their thinking and actions." There were 133 individuals that answered yes to the question, "I believe men and women are similar in their thinking and actions," and 168 individuals responded no to the question, "I believe men and women are similar in their thinking and actions." Additionally, 18 individuals reported, "I don't know," and 13 individuals left the answer blank. These 31 cases were categorized as missing. An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between individuals who believed men and women were similar in their thinking and actions and individuals who did not.

Returning to our original dataset, a boxplot was generated and 12 outliers were discovered: The twelve individuals were numbered: 12, 53, 79, 91, 94, 158, 159, 177, 180, 265, 270, and 332. The outliers were removed from the data set,

as some research suggests, and a new boxplot was generated in SPSS. Additionally, 2 outliers were discovered when the second boxplot was generated. These were removed from the data set as well, bringing the total number of removed cases to 14. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each level of the independent variable, "I believe men and women are similar in their thinking and actions," were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is fairly robust to deviations from normality. There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .329). Concern for environmental crime was virtually the same for individuals that believed men and women are similar in their thinking and actions (M = 4.07, SD = 0.56) compared with individuals who did not believe men and women are similar in their thinking and actions (M = 3.99, SD =0.63), not a statistically significant difference, M = 0.09, 95% CI [-0.05, 0.23], t(285) = 1.201, p = 0.231, d = .071. There was no statistically significant difference between means (p > .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

In the fourth statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of the independent variable: concern for environmental crime between individuals who answered yes to the question, "I believe people can be classified as either good or evil," and those who answered no to the question, "I believe people can be classified as either good or evil." There were 168 individuals that answered yes to the question, "I believe people can be classified as either good or evil," and 139 individuals responded no to the question, "I believe people can be classified as either good or evil." Additionally, 23 individuals reported, "I don't know," and 2 individuals left the answer blank. These 25 cases were categorized as missing. An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between individuals who believed people can be classified as either good or evil and individuals who did not.

Returning to our original dataset, a boxplot was generated and 10 outliers were discovered: The twelve individuals were numbered: 53, 91, 94, 158, 177, 204, 259, 265, 270, and 332. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. A second boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each level of the independent variable, "I believe people can be classified as either good or evil," were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is

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fairly robust to deviations from normality. There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .876). Concern for environmental crime was virtually the same for individuals that believed people can be classified as either good or evil (M = 3.92, SD = 0.62) compared with individuals who did not believe people can be classified as either good or evil (M = 4.06, SD = 0.62), not a statistically significant difference, M = -0.13, 95% CI [-0.28, 0.01], t(295) = -1.861, p = 0.064, d = -.217. There was no statistically significant difference between means (p > .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

In the fifth statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of the independent variable: concern for environmental crime between individuals who answered yes to the question, "I believe that answers given or opinions spoken are either true or untrue," and those who answered no to the question, "I believe that answers given or opinions spoken are either true or untrue." There were 172 individuals that answered yes to the question, "I believe that answers given or opinions spoken are either true or untrue," and 119 individuals responded no to the question, "I believe that answers given or opinions spoken are either true or untrue." Additionally, 39 individuals reported, "I don't know," and 2 individuals left the answer blank. These 41 cases were categorized as missing. An independentsamples t-test was conducted to determine if there were differences in the level

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of concern for environmental crime between individuals who believed that answers given or opinions spoken are either true or untrue and individuals who did not.

Returning to our original dataset, a boxplot was generated and 11 outliers were discovered: The eleven individuals were numbered: 12, 53, 87, 94, 158, 177, 204, 258, 259 265, and 332. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 1 outlier was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 12. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each level of the independent variable, "I believe that answers given or opinions spoken are either true or untrue," were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is fairly robust to deviations from normality. The assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances (p = .032). Concern for environmental crime was virtually the same for individuals that believed that answers given or opinions spoken are either true or untrue (M = 3.98, SD = 0.64) compared with individuals who did not believe that answers given or opinions spoken are either true or untrue (M = 4.09, SD = 0.52), not a statistically

significant difference, M = -0.11, 95% CI [-0.25, 0.03], t(269.721) = -1.609, p = 1.09, d = -.192. There was no statistically significant difference between means (p > .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

In the sixth statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of the independent variable: concern for environmental crime between individuals who answered yes to the question, "I believe civilization is the mastery of nature," and those who answered no to the question, "I believe civilization is the mastery of nature." There were 116 individuals that answered yes to the question, "I believe civilization is the mastery of nature," and 136 individuals responded no to the question, "I believe civilization is the mastery of nature." Additionally, 78 individuals reported, "I don't know," and 2 individuals left the answer blank. These 80 cases were categorized as missing. An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between individuals who believed civilization is the mastery of nature and individuals who did not.

Returning to our original dataset, a boxplot was generated and 10 outliers were discovered: The ten individuals were numbered: 53, 87, 94, 158, 177, 180, 204, 259, 265, and 332. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 1

outlier was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 11. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each level of the independent variable, "I believe civilization is the mastery of nature," were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is fairly robust to deviations from normality. There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .216). Concern for environmental crime was virtually the same for individuals that believed civilization is the mastery of nature (M = 3.95, SD = 0.66) compared with individuals who did not believe that civilization is the mastery of nature (M = 4.08, SD = 0.56), not a statistically significant difference, M = -0.12, 95% CI [-0.28, 0.03], t(239) = -1.585, p = .114, d = -.204. There was no statistically significant difference between means (p > .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

IV	DV	Results
Mind and body are two distinct entities	Concern for environmental crime - subscale construct	No statistically significant difference ( $p > .05$ )
Soul that is separate from the body	Concern for environmental crime - subscale construct	No statistically significant difference ( $p > .05$ )

Table 4-1 Independent-Samples T-Test Results for Philosophy

Table 4-1-Continued

Men and women are similar in their thinking and actions	Concern for environmental crime - subscale construct	No statistically significant difference ( $p > .05$ )
People can be classified as either good or evil	Concern for environmental crime - subscale construct	No statistically significant difference ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern for environmental crime - subscale construct	No statistically significant difference ( $p > .05$ )
Civilization is the mastery of nature	Concern for environmental crime - subscale construct	No statistically significant difference ( $p > .05$ )

In the seventh statistical analysis performed in this series, an

independent-samples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of gender in the control variable: "What is your gender?" There were 142 individuals that reported their gender as male and 190 individuals that reported their gender as female. An independent-samples t-test was conducted to determine if there was a difference in the level of concern for environmental crime between males and females.

Returning to our original dataset, a boxplot was generated and 12 outliers were discovered: The twelve individuals were numbered: 87, 91, 94, 158, 177, 204, 251, 259, 265, 270, 290, and 332. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 1 outlier was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 13. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each category of the control variable, "What is your gender?" were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is fairly robust to deviations from normality. The assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances (p = .002). Concern for environmental crime was higher for female participants (M = 4.15, SD = 0.67) than males participants (M = 3.82, SD = 0.67), a statistically significant difference, M = -0.33, 95% CI [-0.46, -0.19], t(242.488) = -4.751, p = .000, d = -.548. There was a statistically significant difference between means (p < .05); therefore, we must reject the null hypothesis and accept the alternative hypothesis.

In the eighth statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of intended major in the control variable: "What is your intended major in college?" There were 95 individuals that reported their intended major in college was criminology and criminal justice and 121 individuals that reported their intended major in college was biology. An independent-samples t-test was conducted to determine if there was a difference in the level of concern for environmental crime between criminology and criminal justice majors and biology majors. All other categorical

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selections for the control variable were removed for this analysis. Returning to our original dataset, a boxplot was generated and 7 outliers were discovered: The seven individuals were numbered: 53, 91, 94, 158, 177, 204, and 290.

The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 1 outlier was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 8. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for each category of the control variable, "What is your intended major?" were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is fairly robust to deviations from normality. There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .793). Concern for environmental crime was higher among individuals who reported their intended major as biology (M = 4.21, SD = 0.56), compared with individuals who reported their intended major as criminology and criminal justice (M = 3.86, SD = 0.57), a statistically significant difference, M = -0.35, 95% CI [-0.50, -0.19], t(206) = -4.397, p = .000, d = -.614. There was a statistically significant difference between means (p < .05); therefore, we must reject the null hypothesis and accept the alternative hypothesis.

In the ninth statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between the two different categories of religion in the control variable: "What religion do you most identify with?" There were 137 individuals that reported they identified as Christian and 68 individuals reported they identified as either atheist or agnostic. An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between these two groups of individuals. For this statistical analysis, the two categories, atheist and agnostic, were recoded into one group. All other categorical selections, excluding those mentioned above, for the control variable were removed for this analysis. Returning to our original dataset, a boxplot was generated and 7 outliers were discovered: 53, 91, 177, 259, 265, 270, and 332. The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 2 outliers was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 9. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. Concern for environmental crime scores for the two categories of the control variable, "What religion do you most identify with?" were not normally distributed, as assessed by Shapiro-Wilk's test (p < .05). The test was continued because the independent-samples t-test is fairly robust to

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deviations from normality. There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .665). Concern for environmental crime was virtually the same for individuals who reported identifying as Christian (M = 3.95, SD = 0.65) compared with individuals who reported identifying as either atheist or agnostic (M = 4.09, SD = 0.65), not a statistically significant difference, M = -0.14, 95% CI [-0.33, 0.05], t(194) = -1.442, p = .665, d = -.217. There was not a statistically significant difference between means (p < .05); therefore, we must reject the alternative hypothesis and accept the null hypothesis.

In the tenth statistical analysis performed in this series, an independentsamples t-test was conducted to find if there was a mean difference in the dependent variable between two different categories of the control variable: "What is the highest level of education either of your parents achieved?" There were 85 individuals that reported their parents achieved less than a high school diploma or a high school diploma and 111 individuals reported their parents achieved a college degree. An independent-samples t-test was conducted to determine if there were differences in the level of concern for environmental crime between these two groups of individuals. For this statistical analysis, the two categories, less than a high school diploma and high school diploma, were recoded into one group. All other categorical selections, excluding those mentioned above, for the control variable were removed for this analysis. Returning to our original dataset, a boxplot was generated and 8 outliers were discovered: 53, 91, 94, 158, 180, 265, 270, and 332

The outliers were removed from the data set, as some research suggests, and a new boxplot was generated in SPSS. Additionally, 3 outliers was discovered when the second boxplot was generated. It was removed from the data set as well, bringing the total number of removed cases to 11. A third boxplot was generated in SPSS and no outliers were discovered. There were no outliers in this data, with the statistical test that was conducted, as assessed by the inspection of the boxplot. The concern for environmental crime scores for the two categories of the control variable, "What is the highest level of education either of your parents achieved?" were normally distributed, as assessed by Shapiro-Wilk's test (p < .05). There was a homogeneity of variance, as assessed by Levene's test for equality of variances (p = .111). Concern for environmental crime was slightly higher for individuals who reported their parents' highest level of education as a college degree (M = 4.13, SD = 0.53) compared with individuals who reported their parents' highest level of education was less than or equal to a high school diploma (M = 3.95, SD = 0.63), a statistically significant difference, M = -0.18, 95% CI [-0.35, -0.13], t(183) = -2.123, p = .035, d = -.308. There was a statistically significant difference between means (p < .05); therefore, we must reject the null hypothesis and accept the alternative hypothesis.

IV	DV	<u>Results</u>
Gender	Concern for	A statistically significant
	environmental crime -	difference ( $p < .05$ )
	subscale construct	
Major	Concern for	A statistically significant
	environmental crime -	difference ( $p < .05$ )
	subscale construct	
Religion	Concern for	No statistically significant
	environmental crime -	difference ( $p > .05$ )
	subscale construct	
Highest level of	Concern for	A statistically significant
education for parents	environmental crime -	difference $(p < .05)$
	subscale construct	

Table 5-1 Independent-Samples T-Test Results for Control Questions

For the next series of analysis, a chi-square test for association was performed to test for association between two variables. The dependent variable, "I am concerned about crimes committed against nature" was recoded from a five-point likert scale into two variables: the lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed from the data set. After recoding the variables, 47 individuals were not concerned about crimes committed against nature, 203 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.

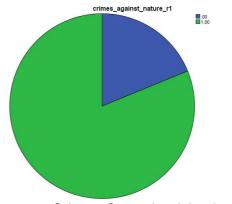


Figure 2-1 Crimes Committed Against Nature

The first statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about crimes committed against nature" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with crimes committed against nature and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .087$ , p = .768.

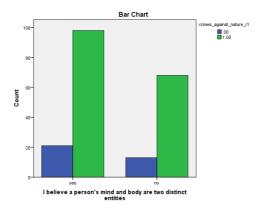


Figure 2-2 Mind and Body are Two Distinct Entities

The second statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about crimes committed against nature" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes committed against nature and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .113$ , p = .737.

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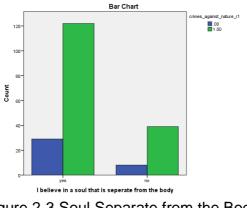


Figure 2-3 Soul Separate from the Body

The third statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about crimes committed against nature" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes committed against nature and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 2.266$ , p = .132.

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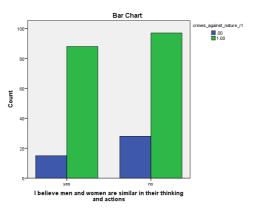


Figure 2-4 Men and Women Similar

The fourth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about crimes committed against nature" against the independent variable: "I believe people can be classified as either good or bad." The independent was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes committed against nature and the belief that people can be classified as either good or bad. All expected cell frequencies were greater than five. There was a statistically significant association between concern about crimes committed against nature and the belief that people can be classified as either good or bad,  $\chi^2(1) = 4.164$ , p = .041. There was a slight association between crimes committed against nature and the belief that people can be classified as either good or bad,  $\chi^2(1) = 4.164$ , p = .041. There was a slight association between crimes committed against nature and the belief that people can be classified as either good or bad,  $\varphi = 0.134$ , p = .041.

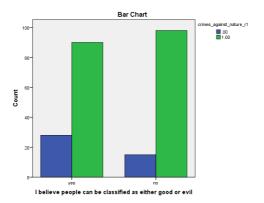


Figure 2-5 People are Either Good or Evil

The fifth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about crimes committed against nature" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes committed against nature and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was a statistically significant association between the two variables,  $\chi^2(1) = 5.498$ , p = .019. There was a moderately strong association between crimes committed against nature and the belief that people can be classified as either good or bad,  $\varphi = 0.158$ , p = .019.

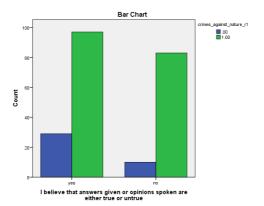


Figure 2-6 Opinions Spoken are Either True or Untrue

The sixth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about crimes committed against nature" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes committed against nature and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .036$ , p = .849.

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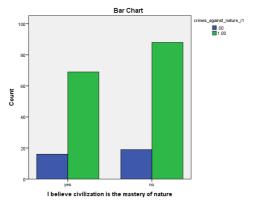


Figure 2-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about crimes that harm the environment" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 27 individuals were not concerned about crimes that harm the environment, 244 individuals were concerned about crimes that harm the environment, and 61 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.

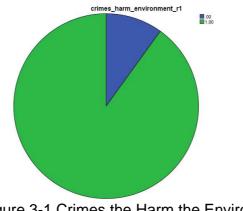


Figure 3-1 Crimes the Harm the Environment

The seventh statistical analysis performed in the second next series analyzed the dependent variable: "I am concerned about crimes that harm the environment" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with crimes committed against nature and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .460$ , p = .497.

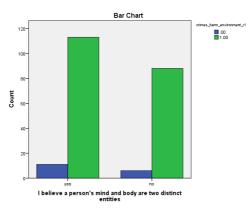


Figure 3-2 Mind and Body are Two Distinct Entities

The eighth statistical analysis performed in the second next series analyzed the dependent variable: "I am concerned about crimes that harm the environment" against the independent variable: "I believe I believe in a soul separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes that harm the environment and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.087$ , p = .767.

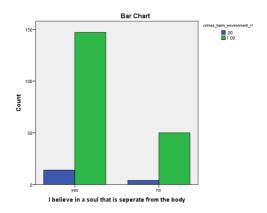


Figure 3-3 Soul Separate from the Body

The ninth statistical analysis performed in the second next series analyzed the dependent variable: "I am concerned about crimes that harm the environment" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes that harm the environment and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .227$ , p = .634.

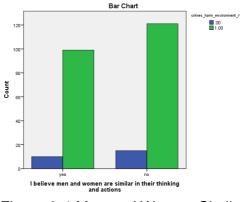


Figure 3-4 Men and Women Similar

The tenth statistical analysis performed in the second next series analyzed the dependent variable: "I am concerned about crimes that harm the environment" against the independent variable: "I believe people can be classified as either good or bad." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes that harm the environment and the belief that people can be classified as either good or bad. All expected cell frequencies were greater than five. There was a statistically significant association between the two variables,  $\chi^2(1) = 4.883$ , p = .027. There was a slight association between concern for crimes that harm the environment and the belief that people can be classified as either good or bad,  $\varphi = 0.139$ , p = .027.

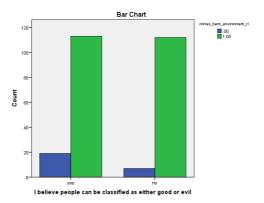


Figure 3-5 People are Either Good or Evil

The eleventh statistical analysis performed in the second next series analyzed the dependent variable: "I am concerned about crimes that harm the environment" against the independent variable: "I believe answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes that harm the environment and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.833$ , p = .176.

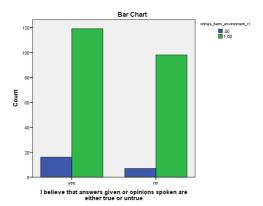


Figure 3-6 Opinions Spoken are Either True or Untrue The twelfth statistical analysis performed in the second next series analyzed the dependent variable: "I am concerned about crimes that harm the environment" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about crimes that harm the environment and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.092$ , p = .761.

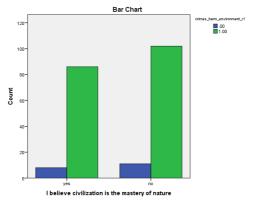


Figure 3-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 49 individuals were not concerned with how the environment is affected by the products I purchase, discard, or recycle, 184 individuals were concerned with how the environment is affected by the products I purchase, environment is affected by the products I purchase, discard, or recycle, 184 individuals were concerned with how the environment is affected by the products I purchase, discard, or recycle, and 99 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.

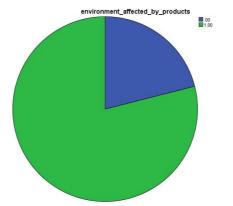


Figure 4-1 Environment is Affected by Products

The thirteenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with how the environment is affected by products that are purchased, discarded, or recycled and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .051$ , *p* = .821.

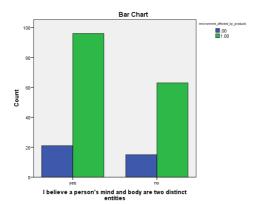


Figure 4-2 Mind and Body are Two Distinct Entities

The fourteenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with how the environment is affected by products that are purchased, discarded, or recycled and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = .046$ , p = .830.

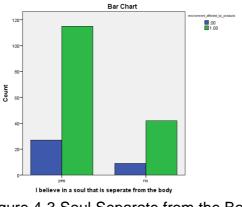


Figure 4-3 Soul Separate from the Body

The fifteenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with how the environment is affected by products that are purchased, discarded, or recycled and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.201$ , p = .273.

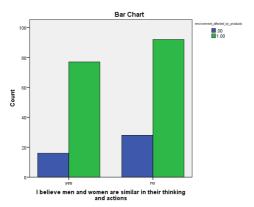


Figure 4-4 Men and Women Similar

The sixteenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with how the environment is affected by products that are purchased, discarded, or recycled and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.855$ , p = .173.

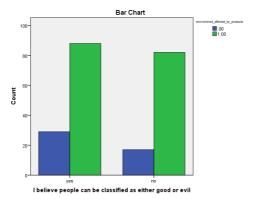


Figure 4-5 People are Either Good or Evil

The seventeenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with how the environment is affected by products that are purchased, discarded, or recycled and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.658$ , p = .417.

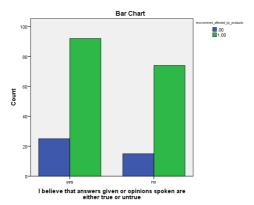


Figure 4-6 Opinions Spoken are Either True or Untrue The eighteenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned with how the environment is affected by the products I purchase, discard, or recycle" against the independent variable: "I believe that civilization is the mastery of nature." The independent

variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern with how the environment is affected by products that are purchased, discarded, or recycled and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.000$ , p = .998.

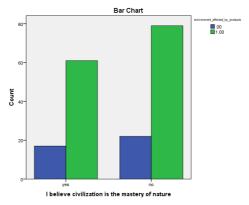
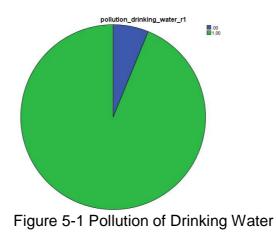


Figure 4-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about pollution of drinking water" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 19 individuals were not concerned about pollution of drinking water, 288 individuals were concerned about pollution of drinking water, and 25 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.



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The nineteenth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of drinking water" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of drinking water and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.252$ , p = .616.

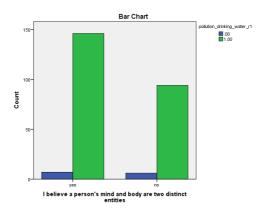


Figure 5-2 Mind and Body are Two Distinct Entities

The twentieth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of drinking water" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of drinking water and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.586$ , p = .208.

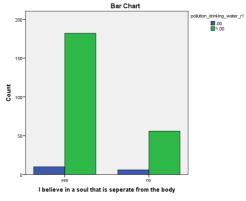


Figure 5-3 Soul Separate from the Body

The twenty-first statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of drinking water" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of drinking water and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.022$ , p = .312.

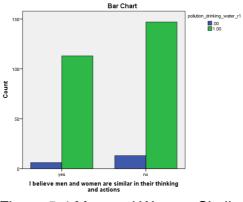


Figure 5-4 Men and Women Similar

The twenty-second statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of drinking water" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of drinking water and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.516$ , p = .473.

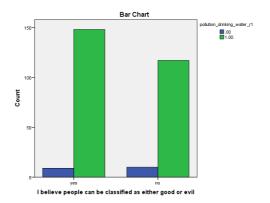


Figure 5-5 People are Either Good or Evil

The twenty-third statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of drinking water" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of drinking water and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.136$ , p = .286.

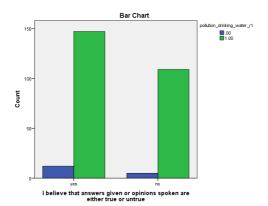


Figure 5-6 Opinions Spoken are Either True or Untrue The twenty-fourth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of drinking water" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of drinking water and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 2.020, p = .155.$ 

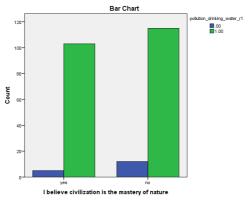
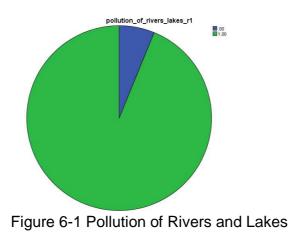


Figure 5-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about pollution of rivers, lakes, and reservoirs" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 18 individuals were not concerned about pollution of rivers, lakes, and reservoirs, 273 individuals were concerned about pollution of rivers, lakes, and reservoirs, and 40 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.



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The twenty-fifth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of rivers, lakes, and reservoirs" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of rivers, lakes, and reservoirs and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.717$ , p = .190.

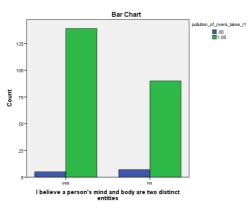


Figure 6-2 Mind and Body are Two Distinct Entities

The twenty-sixth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of rivers, lakes, and reservoirs" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of rivers, lakes, and reservoirs and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.755$ , p = .385.

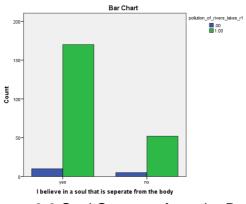


Figure 6-3 Soul Separate from the Body

The twenty-seventh statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of rivers, lakes, and reservoirs" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of rivers, lakes, and reservoirs and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.299$ , p = .585.

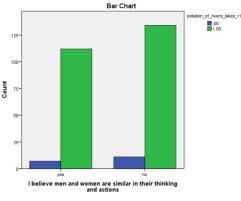


Figure 6-4 Men and Women Similar

The twenty-eighth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of rivers, lakes, and reservoirs" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of rivers, lakes, and reservoirs and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.346$ , p = .557.

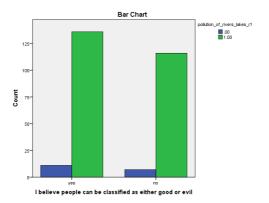


Figure 6-5 People are Either Good or Evil

The twenty-ninth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of rivers, lakes, and reservoirs" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of rivers, lakes, and reservoirs and the belief that answers given or opinions spoken are either true or untrue. Not all expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 3.216$ , p = .073.

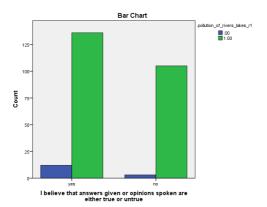


Figure 6-6 Opinions Spoken are Either True or Untrue

The thirtieth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about pollution of rivers, lakes, and reservoirs" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about pollution of rivers, lakes, and reservoirs and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.029$ , p = .865.

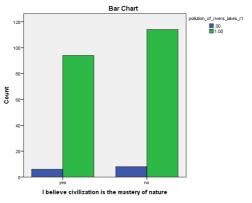


Figure 6-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about contamination of soil and water by toxic waste" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 26 individuals were not concerned about pollution of rivers, lakes, and reservoirs, 259 individuals were concerned about pollution of rivers, lakes, and reservoirs and 47 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.

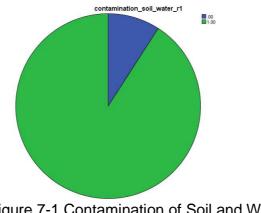


Figure 7-1 Contamination of Soil and Water

The thirty-first statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about contamination of soil and water by toxic waste" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about contamination of soil and water by toxic waste and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.968$ , p = .325.

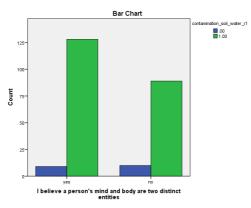


Figure 7-2 Mind and Body are Two Distinct Entities

The thirty-second statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about contamination of soil and water by toxic waste" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about contamination of soil and water by toxic waste and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.130$ , p = .718.

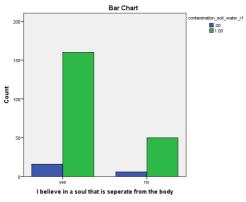


Figure 7-3 Soul Separate from the Body

The thirty-third statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about contamination of soil and water by toxic waste" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about contamination of soil and water by toxic waste and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.745$ , p = .388.

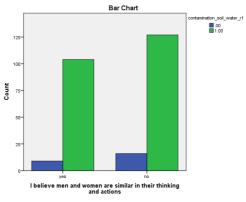


Figure 7-4 Men and Women Similar

The thirty-fourth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about contamination of soil and water by toxic waste" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about contamination of soil and water by toxic waste and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.167$ , p = .683.

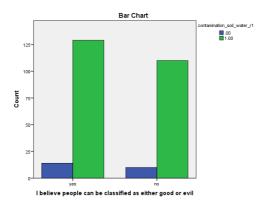


Figure 7-5 People are Either Good or Evil

The thirty-fifth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about contamination of soil and water by toxic waste" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about contamination of soil and water by toxic waste and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 2.045$ , p = .153.

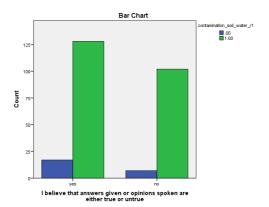


Figure 7-6 Opinions Spoken are Either True or Untrue

The thirty-sixth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about contamination of soil and water by toxic waste" against the independent variable: "I believe that civilization is the mastery or nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about contamination of soil and water by toxic waste and the belief that civilization is the mastery or nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.210$ , p = .647.

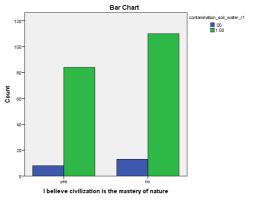


Figure 7-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about air pollution" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 24 individuals were not concerned about air pollution, 264 individuals were concerned about air pollution, and 43 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.

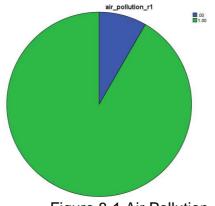


Figure 8-1 Air Pollution

The thirty-seventh statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about air pollution" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about air pollution and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 3.282$ , p = .070.

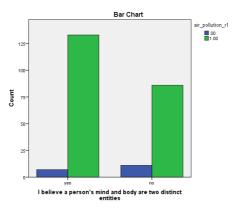


Figure 8-2 Mind and Body are Two Distinct Entities

The thirty-eight statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about air pollution" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about air pollution and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.279$ , p = .598.

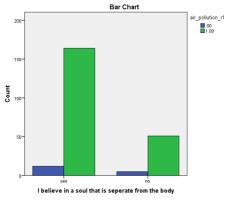


Figure 8-3 Soul Separate from the Body

The thirty-ninth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about air pollution" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about air pollution and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.107$ , p = .293.

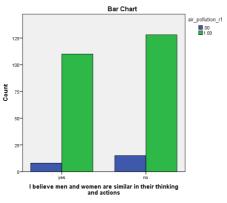


Figure 8-4 Men and Women Similar

The fortieth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about air pollution" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about air pollution and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.001$ , p = .978.

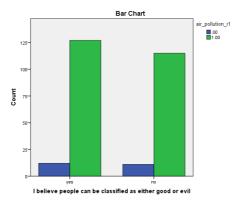


Figure 8-5 People are Either Good or Evil

The forty-first statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about air pollution" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about air pollution and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.007$ , p = .935.

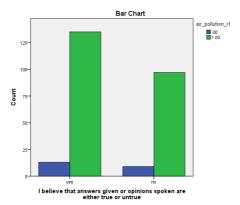


Figure 8-6 Opinions Spoken are Either True or Untrue

The forty-second statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about air pollution" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about air pollution and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) =$ 1.093, p = .296.

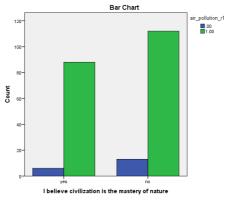
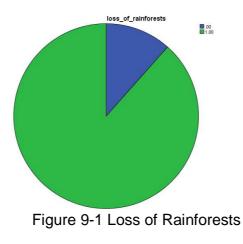


Figure 8-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about the loss of tropical rain forests" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 28 individuals were not concerned about the loss of tropical rain forests, 214 individuals were concerned about the loss of tropical rain forests, and 88 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.



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The forty-third statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the loss of the tropical rain forests" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the loss of the tropical rain forests and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 2.759$ , p = .097.

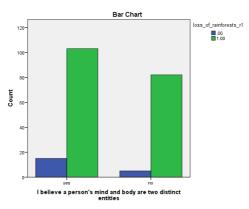


Figure 9-2 Mind and Body are Two Distinct Entities

The forty-fourth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the loss of the tropical rain forests" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the loss of the tropical rain forests and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.200$ , p = .655.

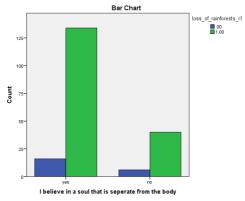


Figure 9-3 Soul Separate from the Body

The forty-fifth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the loss of the tropical rain forests" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the loss of the tropical rain forests and the belief that men and women are similar in their thinking and actions. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.660$ , p = .198.

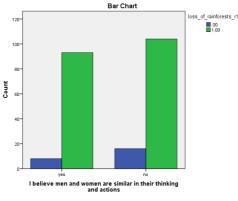


Figure 9-4 Men and Women Similar

The forty-sixth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the loss of the tropical rain forests" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the loss of the tropical rain forests and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.874$ , p = .350.

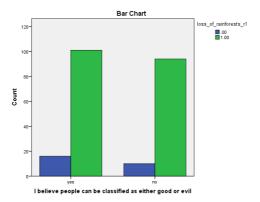


Figure 9-5 People are Either Good or Evil

The forty-seventh statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the loss of the tropical rain forests" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the loss of the tropical rain forests and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.886$ , p = .347.

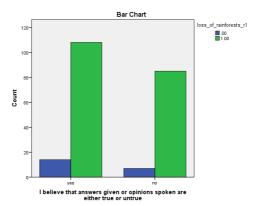


Figure 9-6 Opinions Spoken are Either True or Untrue

The forty-eighth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the loss of the tropical rain forests" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the loss of the tropical rain forests and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.552$ , p = .457.

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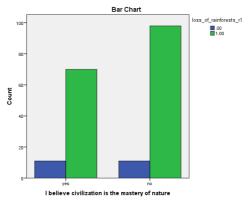


Figure 9-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about the extinction of plant and animal species" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 25 individuals were not concerned about the extinction of plant and animal species, 253 individuals were concerned about the extinction of plant and animal species, and 54 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.

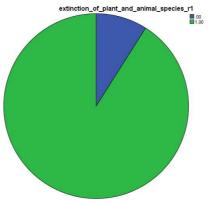
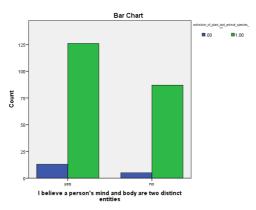


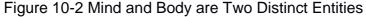
Figure 10-1 Extinction of Plant and Animal Species

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The forty-ninth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the extinction of plant and animal species" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the extinction of plant and animal species and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.183$ , p = .277.





The fiftieth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the extinction of plant and animal species" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain

only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the extinction of plant and animal species and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 2.828$ , p = .093.

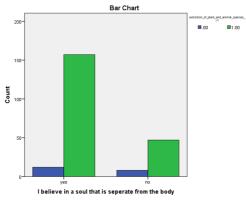


Figure 10-3 Soul Separate from the Body

The fifty-first statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the extinction of plant and animal species" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the extinction of plant and animal species and the belief that men and women are similar in their thinking and actions. All expected 105

cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.585$ , p = .444.

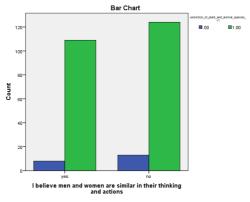


Figure 10-4 Men and Women Similar

The fifty-second statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the extinction of plant and animal species" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the extinction of plant and animal species and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.564$ , p = .453.

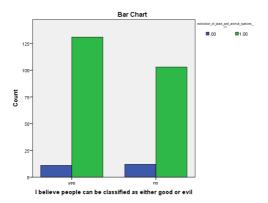


Figure 10-5 People are Either Good or Evil

The fifty-third statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the extinction of plant and animal species" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the extinction of plant and animal species and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.029$ , p = .865.

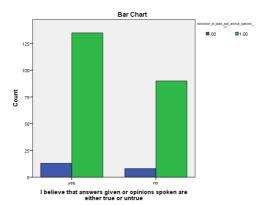


Figure 10-6 Opinions Spoken are Either True or Untrue

The fifty-fourth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the extinction of plant and animal species" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the extinction of plant and animal species and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.022$ , p = .882.

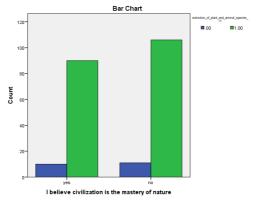
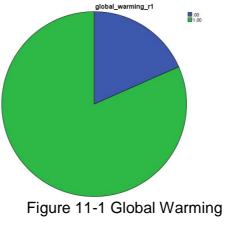


Figure 10-7 Civilization is the Mastery of Nature

This series of analysis was continued; the dependent variable, "I am concerned about the greenhouse effect or global warming" was recoded from a five-point likert scale into two variables: The lowest two levels of concern on the likert scale were recoded as 0, the highest two levels of concern on the scale were recoded as 1 and the neutral level was removed. After recoding the variables, 48 individuals were not concerned about the greenhouse effect or global warming, 213 individuals were concerned about the greenhouse effect or global warming, and 70 individuals were neutral when asked the question and were subsequently removed from the data set for this analysis.



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The fifty-fifth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the greenhouse effect or global warming" against the independent variable: "I believe a person's mind and body are two distinct entities." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the greenhouse effect or global warming and the belief that a person's mind and body are two distinct entities. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.215$ , p = .643.

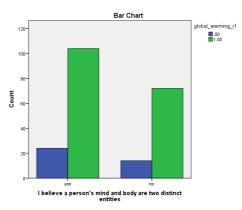


Figure 11-2 Mind and Body are Two Distinct Entities

The fifty-sixth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the greenhouse effect or global warming" against the independent variable: "I believe in a soul that is separate from the body." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the greenhouse effect or global warming and the belief in a soul that is separate from the body. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.009$ , p = .924.

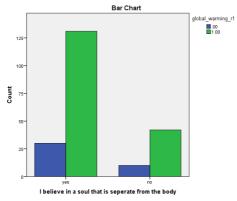


Figure 11-3 Soul Separate from the Body

The fifty-seventh statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the greenhouse effect or global warming" against the independent variable: "I believe men and women are similar in their thinking and actions." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the greenhouse effect or global warming and the belief that men and women are similar in their thinking and actions. All expected cell 111

frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.129$ , p = .288.

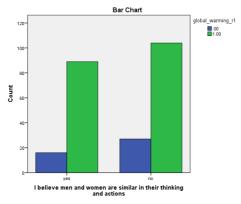


Figure 11-4 Men and Women Similar

The fifty-eighth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the greenhouse effect or global warming" against the independent variable: "I believe people can be classified as either good or evil." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the greenhouse effect or global warming and the belief that people can be classified as either good or evil. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.766$ , p = .184.

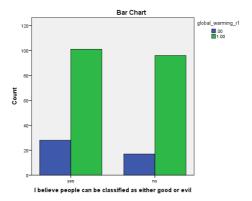


Figure 11-5 People are Either Good or Evil

The fifty-ninth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the greenhouse effect or global warming" against the independent variable: "I believe that answers given or opinions spoken are either true or untrue." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the greenhouse effect or global warming and the belief that answers given or opinions spoken are either true or untrue. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 1.537$ , p = .215.

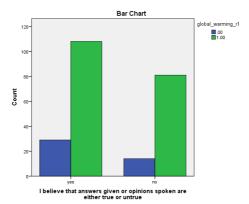


Figure 11-6 Opinions Spoken are Either True or Untrue

The sixtieth statistical analysis performed in the second series analyzed the dependent variable: "I am concerned about the greenhouse effect or global warming" against the independent variable: "I believe civilization is the mastery of nature." The independent variable was recoded so that it would contain only dichotomous responses. The categorical selection of "I don't know" was removed for this analysis.

A chi-square test for association was conducted between the variables measuring concern about the greenhouse effect or global warming and the belief that civilization is the mastery of nature. All expected cell frequencies were greater than five. There was not a statistically significant association between the two variables,  $\chi^2(1) = 0.001$ , p = .979.

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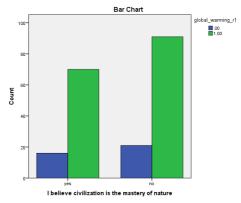


Figure 11-7 Civilization is the Mastery of Nature

Table 6-1 Chi-square Test For Association Results

IV Mind and body as distinct entities	<u>DV</u> Concern for crimes committed against nature	<u>Results</u> No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern for crimes committed against nature	No statistically significant association ( $p > .05$ )
Men and women similar in their thinking and actions	Concern for crimes committed against nature	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern for crimes committed against nature	A statistically significant association ( $p < .05$ )
Answers given or opinions spoken are either true or untrue	Concern for crimes committed against nature	A statistically significant association ( $p < .05$ )
Civilization is the mastery of nature	Concern for crimes committed against nature	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern for crimes that harm the environment	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern for crimes that harm the environment	No statistically significant association ( $p > .05$ )

Men and women similar in their thinking and actions	Concern for crimes that harm the environment	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern for crimes that harm the environment	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern for crimes that harm the environment	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern for crimes that harm the environment	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern with how the environment is affected by the products I purchase, discard, or recycle	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern with how the environment is affected by the products I purchase, discard, or recycle	No statistically significant association ( $p > .05$ )
Men and women similar in their thinking and actions	Concern with how the environment is affected by the products I purchase, discard, or recycle	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern with how the environment is affected by the products I purchase, discard, or recycle	No statistically significant association ( $p > .05$ )

Answers given or opinions spoken are either true or untrue	Concern with how the environment is affected by the products I purchase, discard, or recycle	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern with how the environment is affected by the products I purchase, discard, or recycle	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about pollution of drinking water	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about pollution of drinking water	No statistically significant association ( $p > .05$ )
Men and women similar in their thinking and actions	Concern about pollution of drinking water	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern about pollution of drinking water	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern about pollution of drinking water	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about pollution of drinking water	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about pollution of rivers, lakes, and reservoirs	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about pollution of rivers, lakes, and reservoirs	No statistically significant association ( $p > .05$ )

Men and women similar in their thinking and actions	Concern about pollution of rivers, lakes, and reservoirs	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern about pollution of rivers, lakes, and reservoirs	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern about pollution of rivers, lakes, and reservoirs	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about pollution of rivers, lakes, and reservoirs	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about contamination of soil and water by toxic waste	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about contamination of soil and water by toxic waste	No statistically significant association ( $p > .05$ )
Men and women similar in their thinking and actions	Concern about contamination of soil and water by toxic waste	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern about contamination of soil and	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	water by toxic waste Concern about contamination of soil and water by toxic waste	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about contamination of soil and water by toxic waste	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about air pollution	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about air pollution	No statistically significant association ( $p > .05$ )

Men and women similar in their thinking and actions	Concern about air pollution	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern about air pollution	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern about air pollution	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about air pollution	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about the loss of tropical rain forests	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about the loss of tropical rain forests	No statistically significant association ( $p > .05$ )
Men and women similar in their thinking and actions	Concern about the loss of tropical rain forests	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern about the loss of tropical rain forests	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern about the loss of tropical rain forests	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about the loss of tropical rain forests	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about the extinction of plant and animal species	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about the extinction of plant and animal species	No statistically significant association ( $p > .05$ )

Men and women similar in their thinking and actions	Concern about the extinction of plant and animal species	No statistically significant association ( $p > .05$ )
People can be classified as either good or evil	Concern about the extinction of plant and animal species	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern about the extinction of plant and animal species	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about the extinction of plant and animal species	No statistically significant association ( $p > .05$ )
Mind and body as distinct entities	Concern about the greenhouse effect or global warming	No statistically significant association ( $p > .05$ )
Soul separate from the body	Concern about the greenhouse effect or global warming	No statistically significant association ( $p > .05$ )
Men and women similar in their thinking and actions	Concern about the greenhouse effect or global warming	No statistically significant association ( $p > .05$
People can be classified as either good or evil	Concern about the greenhouse effect or global warming	No statistically significant association ( $p > .05$ )
Answers given or opinions spoken are either true or untrue	Concern about the greenhouse effect or global warming	No statistically significant association ( $p > .05$ )
Civilization is the mastery of nature	Concern about the greenhouse effect or global warming	No statistically significant association ( $p > .05$ )

#### Limitations

Data gathered from this type of research would best be analyzed using a logistic regression. However, this type of analysis is beyond the expectation for this research project and would require additional proficiency in testing procedures and interruption of data, when performing such tests, than is currently held by the student who conducted this research. As a result, the dependent and independent variables were only analyzed through the generation of individual-samples t-tests and chi-square test for association, utilizing SPSS software.

# Implications

Research in the area of green criminology is new and uncharted. This study fulfills a preliminary look at how personal, philosophical beliefs impact an individual's concern for environmental crime. It has largely been established that an individual's philosophical beliefs affects many facets of their life. While this is without question true, determining which philosophical beliefs impact concern for environmental crime is quite unknown and requires the scrutiny of quantitative research before certainty can be established.

A totality of factors, as complex as the human mind itself, formulate the philosophical beliefs that an individual holds. Research must be conducted, rather than inferred, to prove what factors are responsible for the level of concern an individual may have regarding environmental crime. If laws are to be enacted and polices written, research into the reasoning behind concern, or lack of, for environmental crime is crucial in establishing points of argumentation for why concern for a specific problem should be elevated.

Terminology used to describe environmental harm may play a significant role in how documents are written, including policies. In this research, the same question, regarding concern for environmental harm, was asked two different ways to individuals surveyed; the resulting answers varied, somewhat widely, among certain individual's responses. Additionally, individuals surveyed were more concerned with environmental harm that pertained to water, specifically drinking water. Alternatively, the environmental harm individuals were least concerned with was that of global warming.

#### Chapter 5

#### Conclusion

Research into green criminology or environmental crime is a necessary prerequisite in understanding and accounting for some of the largest crimes perpetrated around the world that have serious implications and cause longlasting harm. Allowing the discipline to branch out into different directions and incorporate sub-fields like green criminology is necessary for the creation of policy and laws to stop and prevent crimes from being committed against nature, as these are some of the most serious offenses and even threaten the human race itself.

In evaluating the existing literature relating to this study, it has been shown that the prevailing belief among certain theorist is that a dualistic mindset is the root cause, or at least a significant factor, for an individual's lack of concern for environmental harm. This hypothesis lacks the appropriate data to support this claim. Research conducted in this study provides a basis of knowledge for exploring such claims; however, the overwhelming majority of preliminary tests that were conducted show no statistically significant difference or association exist between individuals who possess a dualistic mindset or believe in the existence of the soul and those that do not. The research needed to make such a claim, such as the existence of the soul is a contributing factor as to why certain individuals have less concern for environmental crime, does not exist and is merely speculation without merit. However, more research is needed to formulate how and to what extent our philosophical beliefs shape our concern for environmental harm, and further research is needed to explore additional facets of our philosophical beliefs for evidence as to what extent these holdings affect our overall criminological concerns.

As explored in the research conducted in this study, there were statistically significant differences or associations between individuals surveyed and individual qualities or characteristics, such as gender, that did have an impact on their level of concern for environmental crime. It may be discovered that previous hypotheses that believed an association existed between environmental harm and a dualistic mindset or a belief in the soul did not account for these, and surely, many other factors that make up the complexity of the human belief system. It is also imaginable that personal biases and prejudices, possibly held against religion, have prevented past research from looking at the totality of an individual's belief system without focusing on the specific views which they have been conditioned to see or desire to find. "It has been well said that we do not see things as they are, but as we are ourselves. Every man looks through the eyes of his prejudices, of his preconceived notions. Hence, it is the most difficult thing in the world to broaden a man so that he will realize truth as other men see it" (Curry, 1891).

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## **Biographical Information**

Alexander Allen Anderson graduated high-school from Anderson Private School, a private school in Fort Worth, Texas focused on the education of gifted and talented students. Alexander Anderson graduated in 2012 from the University of Texas at Arlington with a bachelor's degree in University Studies: a degree which allowed him to select three areas of study. Through the multiplicity of subjects he studied while earning this degree, he became inspired to continue his education, pursuing criminology and criminal justice. In 2015, Alexander Anderson graduated from the University of Texas at Arlington with a master's degree in Criminology and Criminal Justice. Concurrently, while earning his master's degree, Alexander Anderson also pursued a secondary level social studies teaching certificate.

Alexander Anderson is interested in criminology, philosophy, and education. He is interested in pursuing research into the field of green criminology, which is the study of crimes committed against nature. Alexander Anderson plans to continue his university learning and research on the doctoral level.

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