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Social Scientists' Conceptualization and Implementation of Research Ethics and Integrity

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SOCIAL SCIENTISTS' CONCEPTUALIZATION AND IMPLEMENTATION OF

RESEARCH ETHICS AND INTEGRITY

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE GRADUTE SCHOOL

IN CANDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

PROGRAM IN RESEARCH METHODOLOGY

BY

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CHICAGO, IL

MAY 2018

ACKNOWLEDGEMENTS

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For my parents, Tom and Phyllis,
who taught me there is never a wrong time to do the right thing.

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LIST OF ABBREVIATIONS

APA	American Psychological Association
ASA	American Sociological Association
CFR	Code of Federal Regulations
CITI	Collaborative Institutional Training Initiative
Co-Pi	Co-Principal Investigator
DC	District of Colombia
DNA	Deoxyribonucleic acid
DoH	Declaration of Helsinki
FFP	Fabrication, falsification and plagiarism
HHS	Department of Health and Human Services
IQ	Intelligence Quotient
IRB	Institutional Review Board
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer
LSD	Lysergic acid diethylamide
N	Number of participants
NAS	National Academy of Sciences
NIH	National Institute of Health
NPRM	Notice of Proposed Rule Making
OHRP	Office of Human Research Protection
OPHS	Office of Public Health and Science
ORI	Office of Research Integrity
PI	Principal Investigator
RCR	Responsible Conduct of Research
RCT's	Randomized control trials
US	United States
WMA	World Medical Association

ABSTRACT

The purpose of the current study is to identify core themes, values, and principles through which social scientists conceptualize and implement research ethics and integrity. Periods of rapid growth and interest in research ethics and integrity often coincide with significant scientific discoveries (e.g., mapping of the human genome) or scientific misconduct (e.g., Tuskegee studies). Even though research policies are being developed, they are done in a manner which does not maximize the opportunities to regulate ethics and integrity within social science research. The laws and programs aimed at mitigating acts of misconduct were originally intended for biomedical sciences, yet they are extended to the social sciences, which are rooted in different scientific philosophies, methodologies, and utility. I believe, from a methodological perspective, that ethical and integrity guidelines developed for biomedical sciences do not provide the optimal amount of guidance and protection for researchers and participants within the social sciences. The research question: *How do social scientists conceptualize and implement research ethics and integrity?,* was investigated using phenomenological methodology analyzed through an emergent feminist lens. Seven (*N*=7) social science tenure-track faculty who conduct human subjects research participated. Data yielded seven themes; discipline/academic culture, role of the researcher, data, IRB, resources, consequences, and research ethics/integrity. Results inform foundational research into the application of research ethics and integrity for social scientists and provide argumentative support for further inquiry.

CHAPTER ONE

SOCIAL SCIENTISTS CONCEPTUALIZATION AND IMPLEMENTATION OF RESEARCH

ETHICS AND INTEGRITY

Recent socio and political events have fueled ongoing conversations and debate regarding

research ethics and integrity in the social sciences. In the fall of 2015, the Department of Health

and Human Services (HHS) released proposed changes to the Common Rule (Department of

Health and Human Services, 2015), which are scheduled to start taking effect in 2018. Thus,

many researchers and regulators are considering their position and beliefs toward the oversight

of human subject's protection in social science research. Mark Israel (2015) states,

> Social scientists are angry and frustrated. Still. They believe their work is being
> constrained and distorted by regulators of ethical practice who neither understand social
> science research nor the social, political, economic and cultural contexts within which
> researchers work. In many countries…researchers have argued that regulators are
> imposing, and acting on the basis of biomedically driven arrangements that make little or
> no sense to social scientists (p. 1).

Historically, laws and programs aimed at mitigating acts of misconduct and protecting

human subjects were developed by, and for, biomedical researchers in response to a history of

questionable research practices within the biomedical community. The Hippocratic Oath (5th

century B.C.), the first known document containing guidelines for medical practices and

research, has been used as the foundation for all subsequent guidelines and regulations for both

biomedical and social science research (Annas & Grodin, 1992).

Current human subject's protection policies such as the Common Rule are intended for

both biomedical and behavioral research even though the research paradigms and methodologies

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within these disciplines vary both in research methods and philosophical assumptions. Biomedical research is typically conducted under a positivist or post positivist research paradigm. These paradigms call for rigorous, replicable, statistically based research such as that seen with true experimental designs and randomized control trials (RCTs). The social sciences do use post positivism, in addition to more fluid and flexible research designs specifically, critical, constructivist, and participatory paradigms. These paradigms are not necessarily intended for statistical analysis and replication. Much of the data are qualitative and are intended to present individual accounts of unique experiences. In these paradigms, the researcher has progressively more influence and interaction with the participants. The type and degree of influence the researcher may have is often related to the research question, design, data collection method and analysis. Additionally, extraneous variables and factors are harder to both identify and control. These variables, such as the environment in which the study takes place, cannot only affect the data, but also the well-being of the human subjects, institution, community, and population of interest.

My concern is that human subject's research policies are primarily developed from a positivist and post positivist perspective, then extended to researchers using critical, constructivist, and participatory paradigms. I believe, from a methodological perspective, that guidelines developed primarily for biomedical research are not able to provide the optimal type of guidance and protection for human subject's researchers and participants within all social sciences. Thus, the intent of my dissertation is to support this hypothesis by investigating *social scientists' conceptualization and implementation of research ethics and integrity in human subject's research.*

This question is of significance because human subject's research in the social sciences affects multiple parts of society and peoples' daily life. The research conducted by social scientists ranges across a broad array of topics including, but not limited to, education, health, race, religion, law, and politics. These topics are often highly emotionally charged and tap into issues which can greatly affect the way societies and governments function. The sometimes subjective, sensitive and emotional nature of these topics makes ethical and integrity concerns hard to proactively identify, define, and manage. The purpose of the current study is to develop an understanding of the different ways social scientists think about and manage the ethical and integrity concerns they face while conducting research in their respective field. Using qualitative methodology, participants were asked about (a) their background and identity as a researcher, (b) research interest, (c) conceptualization of research ethics and integrity, (d) implementation of research ethics and integrity, (e) consequences of misconduct and ethical violations, and (f) use of resources.

Research ethics and integrity is a convoluted and often subjective construct. The definition of ethics and integrity varies between and within disciplines. It is widely accepted that there is no one definition of how to practice human subjects research ethics as the parameters of integrity are typically based upon individual, professional, and disciplinary standards. The National Institute of Health (NIH) endorses the following definition: "Research integrity includes: the use of honest and verifiable methods in proposing, performing, and evaluating research; reporting research results with particular attention to adherence to rules, regulations, guidelines and; following commonly accepted professional codes or norms" (National Institutes of Health, 2013). In addition, the NIH also supports the shared values in scientific research as

outlined by Steneck in 2007, specifically, honesty – convey information truthfully and honoring commitments; accuracy – report findings precisely and take care to avoid errors; efficiency – use resources wisely and avoid waste, and objectivity- let the facts speak for themselves and avoid improper bias. The challenge to researchers and oversight organizations is the ambiguous language within these definitions, specifically, following commonly accepted professional codes or norms, objectivity, letting the facts speak for themselves, and avoiding improper bias (Steneck, 2007). The loosely defined constructs allow individual institutions and researchers to interpret the laws and guidelines in a manner best suited for the individual research project. While this can be a beneficial approach, it presents unique logistical and procedural challenges for protecting human subjects.

Professional codes and norms are often defined by professional associations such as the American Psychological Association (APA) and the American Sociological Association (ASA). These associations develop their codes based on past practices and emergent issues unique to their field of study. The problem is that research ethics and integrity laws and guidelines do not explicitly consider the unique idiosyncrasies of individual disciplines, research paradigms and methodologies. The guidelines are blanket statements which include flexible operational definitions allowing each discipline the opportunity to interpret and implement the guidelines in the manner which best fits each discipline. While this is a highly utilitarian approach, it functions on the assumption that researchers and professional associations are aware of the ethical and integrity concerns most relevant to their respective domains. This has the potential to produce a great deal of gray area, ambiguity and potential conflict for the application and oversight of research ethics and integrity within the social sciences.

Efforts are in place to help researchers address issues regarding ethics, integrity and misconduct. Programs such as CITI (Collaborative Institutional Training Initiative) and institutional-specific educational courses are critical components for researcher training and professional development. While these programs provide a valuable service, evidence suggests researchers are still struggling with the application of these concepts (Kalichman & Plemmons, 2007).

Within this chapter, I will provide (a) an overview of how research ethics and integrity policy was developed; (b) a brief history of notable past social science ethical violations; and (c) a synopsis of current research ethics training and education programs. Additionally, I will explain the differences in research paradigms and research methodologies, and how these can affect the oversight and application of research ethics and integrity. Subsequent chapters will address the research design, data collection, analysis, results, implications, and future directions for this line of inquiry.

CHAPTER TWO

HISTORICAL OVERVIEW OF RESEARCH ETHICS REGULATIONS

Throughout history, there have been numerous examples of researchers and experimenters pushing the boundaries of human decency in the name of scientific inquiry. Often only in cases of extreme ethical violations (e.g., 1932 Tuskegee syphilis study), or research misconduct (e.g., Wakefield's 1998 claim of a relationship between vaccinations and autism) does the issue of research ethics and integrity bubble into the sightline of the popular media and public. Due in part to a past and current day history of ethical violations and scientific misconduct within the research community (examples below), numerous international governing bodies have collaborated in establishing various sets of guidelines and principles.

Interestingly, policy makers rarely cite social science research as a motivation for expanding or refining regulations. This claim is based on evidence presented in the literature review and the following arguments. The regulations outlined below have been developed for research conducted under positivist and post-positivist paradigms such as those primarily used in biomedical research. While these paradigms are popular and essential, non-positivist based paradigms are becoming increasingly more common and expected. The following is a brief chronological history of documents, publications, and research studies that have been instrumental in the development of federal and international policies. This chronological history is a brief synopsis of an extensive timeline provided by Resnick, made available via the National Institute of Health (2014).

Pre-Nuremburg Codes and Regulations

The Nuremburg Code (1947) is frequently cited as the first widely accepted guideline for the protection of human subjects. However, there were several codes and guidelines in effect prior to its development. The oldest of these guidelines is the Hippocratic Oath developed for physicians sometime between 470-360 BCE. The Hippocratic Oath is a declaration that physicians will conduct their medical work using their best ability and judgment to do no harm to the persons which they are treating, avoid acts of corruption, and maintain privacy and confidentiality. The core themes of the Hippocratic Oath were carried over into other codes such as the Percival Code of Medical Ethics (1803), William Beaumont's text, Ethics of Human Experimentation (1833), American Medical Association Code of Ethics (1847), Claude Bernard's text on the Study of Experimentation (1865), the Prussian code of Human Experimentation (1900) and lastly the 1931 German Guidelines for Human Experimentation (Reich, 1995).

Each of these codes provides increasing degrees of protection to patients and research participants within medical practice and research. One of the more progressive and comprehensive guidelines was the 1931 German Guidelines for Human Experimentation. The guidelines identified 14 criteria which experimenters, researchers, and physicians were expected to follow when conducting experimentation on human subjects. These guiding principles delineated research from medical treatment and intervention, provided a description of what qualifies as "innovative therapy" and "scientific experimentation" and declared experimentation on person ages 18 and under "shall be prohibited if it in any way endangers the child or young

person" (Reich, 1995). Even though the guidelines were sound and reasonable, they were informally decommissioned when omitted from the 1947 Reich Legislation.

Nuremberg Code (1947)

The Nuremberg Code was developed upon the formal surrender of Germany at the end of World War II (1947), in light of the grievous human experimentation and research conducted under the Nazi regime on civilians and prisoners of war (Ghooi, 2011). The code, largely informed by the 1931 German Guidelines for Human Experimentation, "provided the first explicit international guidelines for the ethical treatment of human subjects in research" (Steneck, 2007). The Nuremburg Code was heavily influenced by three of the 1931 German Guidelines key points, specifically the need for unambiguous consent, protections for persons under 18 years of age, and the requirement of research protocols (Sass, 1983). The code "focused crucial attention on the fundamental rights of research participants and on the responsibilities of investigators" (Ghooi, 2011), and formally began conversations regarding concepts such as informed consent, coercion, beneficence and experimental protocol. Ten components summarize the main contributions of the code; that of voluntary consent, fruitful results, use of animal analogs, minimization of physical and mental injury, avoidance of death or disability, favorable risk-benefit ratio, adequate preparations and facilities for research participants, scientifically qualified experimenters, participants' rights to withdraw from a study, and willingness to terminate studies which bring about participant harm (Steneck, 2007).

Even though an international guideline had been established and theoretically enforced, the violation of these principals steadily occurred. Select examples of research misconduct in the United States alone include a University of Pennsylvania doctor who infected 200 women

prisoners with viral hepatitis (1950), a newborn baby who was rendered blind after a high-oxygen study at Brooklyn Doctor's Hospital (1953), and the US Army LSD (lysergic acid diethylamide) experiments (1953-1970) on enlisted soldiers (Sharav, 2015). These examples provide evidence for the violation of at least one of the aforementioned principles, first and foremost, that of informed voluntary consent. In these cases, and many others, the development and implementation of the Nuremberg Code had failed to effectively protect human subjects.

Declaration of Helsinki (1964)

The Declaration of Helsinki (DoH), a statement of ethical principles targeted towards physicians regarding medical research of human subjects, was originally developed by the World Medical Association (WMA) in 1964. The DoH differs from the Nuremberg Code by expanding protection to all medical research involving human subjects as opposed to solely experimentation, in turn differentiating basic research from clinical research. Primarily intended for physicians "the WMA encourages others who are involved in medical research involving human subjects to adopt these principles." The declaration contains many principles that have become part of today's best practices, recommendations and requirements.

The original declaration contained nine areas of ethical concerns which addressed the well-being of human subjects, the use of ethical standards, factors of consent, and investigator responsibility. One of the most significant contributions was the expansion of human subject's research protection to identifiable human material and data (e.g., DNA, personal information, medical records; WMA, 1964). Additionally, the DoH contains basic principles for all medical research and addresses issues related to "medical research combined with medical care." An updated 2013 version of the DoH expanded on the concepts which were identified in the

Nuremburg Code and initiated greater levels of protection for individuals engaging in biomedical

research. Notably, social and behavioral research protections were omitted from the declaration.

Beecher Report (1966)

Even though significant efforts had been put in place to oversee and regulate research

involving the use of human subjects, scientists were still engaging in unethical and morally

questionable behaviors. In 1966 Henry Beecher published a paper in the New England Journal

of Medicine, in which he brought to light a culture of exploitation, fabrication and falsification

within experimental medicine. The evidence Beecher presented included experimentation on

infants, withholding standards of care, and compromised informed consent. Some of these

infractions were conducted at the expense of multiple human lives.

Beecher (1966) investigated 50 published medical papers, and discovered that only two

made any mention of consent. Those that did provide consent did not make any efforts to

explain the worst-case scenario of participating in the proposed research. This behavior was

attributed to "thoughtlessness and carelessness" on the part of the researchers (p. 368). Beecher

also discussed 22 examples of biomedical experimentation which violated patients' rights.

Compromised consent and withholding of effective treatments were found in experiments on US

service members, hospital patients, "charity patients," juvenile detainees, "metal defectives," and

children ages three and a half months to 18 years of age.

Beecher (1966) sums up his findings with a call to action from both journal editors and

scientific investigators declaring that improperly collected vulnerable data should not be

published, hoping this restriction would discourage scientist from unethical experimentation (p.

372). Beecher claimed the responsibility of scientists to be "intelligent, informed, conscientious,

compassionate, responsible investigator[s]" is crucial to the research process and is an expectation of all of those who engage in human subject's research (p. 372). He continued to say "an experiment is ethical or not at its inception; it does not become ethical *post hoc* - ends do not justify means. There is no ethical distinction between ends and means" (p. 372). The Beecher publication drew much needed attention to the practices of biomedical researchers, facilitated conversations in the scientific community, and diverted greater amounts of attention toward the need for scientists to behave in an ethically and morally just manner.

Heller Publication (1972)

On July 25, 1972, Jean Heller of the Associated Press published a piece on the 1932 Tuskegee Syphilis study released in both Washington, DC and New York, NY. The article shed light on a 40-year study conducted on rural southern African-American men who were known to be infected with syphilis so scientists could document racial differences in the disease process (Heller, 1972). The publication led to public uproar regarding the unethical factors at play. In 1973, the Assistant Secretary of Health and Scientific Affairs appointed an Ad Hoc Advisory Panel to investigate the issue and the United States Congress held a review of a controversial experiment.

It was discovered that the goal of the Tuskegee Syphilis study was to document racial differences in the natural disease process of syphilis. The study, proposed to last for only six months, ended up being conducted for nearly 40 years. Six-hundred African-American males residing in and around the town of Tuskegee, Alabama were recruited. Participants in the experimental group ($n = 399$) were known to be previously infected with the sexually transmitted disease, syphilis, whereas those in the control group ($n = 201$) were not. Although penicillin had

been proven an effective treatment for syphilis in 1947, the researchers continued the experiment

and all members of the experimental group were denied both knowledge and access to the

appropriate standards of care. This resulted in a continuation of the disease and the transmission

of the disease to the men's sexual partners and children (Centers for Disease Control and

Prevention, 2013).

A congressional review held in 1973 determined that the "volunteer" participants were

never fully disclosed as to the true purpose of the study, denied the standard of care, and were

prohibited from exiting the study on their own free will. A class-action lawsuit on behalf of the

participants and families was filed with the US government but the case never went to trial as a

$10 million settlement was reached out of court. Upon the completion of the review, Congress

moved forward and approved the National Research Act of 1974, the first human subjects

legislative act in 10 years.

National Research Act (1974)

In the wake of evidence presented in the Beecher report (1966), Heller publication

(1972), and Tuskegee congressional review (1973), the National Research Service Award Act of

1974, better known as the National Research Act, was developed to address several key issues

facing the research community. Notably, this was the first legislative piece to explicitly make

mention of social and behavioral research practices in addition to biomedical research. The three

declarations of the act put emphasis on the quality of scientists and institutions, financial support

for the training of biomedical and behavioral researchers, and the role of graduate programs in

training scientists (National Research Act, 1974). Thus, the US government began providing

federal awards to biomedical and behavioral research institutions to support both research

endeavors and the training of graduate students at Federal, non-Federal, public, and non-profit private institutions (Section 472, National Research Act, 1974). Other clauses put emphasis on evaluating and recommending changes for the training of scientists, especially for the recipients of the federal awards (Section 473, National Research Act, 1974). Additionally, the National Research Act (Section 201, 1974) required the development of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1974-78).

The commission was comprised of scientists from various disciplines specifically; medicine, law, ethics, theology, the biological, physical, behavioral and social sciences, philosophy, humanities, health administration, government, and public affairs. The initial objectives of the commission were to establish basic ethical principles for human subject's research, develop researcher guidelines, and recommend administrative actions to support ethical biomedical and behavioral research. These objectives were informed by past acts of misconduct and developed with specific concerns in mind. The authors were to consider boundaries between biomedical and behavioral research, risk-benefit ratio, participant selection, informed consent, and management of Institution Review Boards (IRB's; Section 202, National Research Act, 1974).

The National Research Act also called for the initiation of the National Advisory Council for the Protection of Subjects of Biomedical and Behavioral Research. The Council had a similar composition of those in the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research with the stipulation that no person may have an appointment on both boards. The tasks of the Council were to review the effectiveness of current policies, regulation and requirements, make recommendations for the protection of

human subjects in biomedical and behavioral research, and to review the changes and scope of biomedical and behavioral research to identify future needs of policy and regulation.

The last major requirement of the act was the development of the Institutional Review Boards (IRBs). The purpose of an IRB is to "review biomedical and behavioral research involving the use of human subjects conducted at or sponsored by such entity in order to protect the rights of the human subjects of such research" (Section 474, National Research Act, 1974). IRB's are expected to develop programs and oversight pertaining to "requests for clarification and guidance with respect to ethical issues raised in connection with biomedical or behavioral research" (Section 474, National Research Act, 1974). This act fundamentally changed the way research institutions approached and managed human subject's research, ethical concerns and ushered in a new era of research oversight.

Belmont Report (1979)

In 1979, the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research released the Belmont Report to help regulate ethical and integrity factors. The report contains three parts: (a) boundaries between practice and research, (b) basic ethical principles, and (c) applications. This report is unique when compared to the Nuremberg Code and Declaration of Helsinki as it explicitly provides ethical guidelines and principles for human subjects involved in both behavioral (e.g., education and psychology) and biomedical research, whereas all regulations up to this point were informed by and intended for biomedical researchers (e.g., medicine).

In the first section of the report, boundaries between practice and research, the authors provide an operational definition of both practice and research. Practice is "interventions that are

designed solely to enhance the well-being of an individual patient or client and that have a reasonable expectation of success" whereas research is "an activity designed to test a hypothesis, permit conclusions to be drawn, and thereby to develop or contribute to generalizable knowledge (expressed for example in theories, principles, and statements of relationships)" (The Belmont Report, 1979). Under specific circumstances, research and practice may be integrated together when the "research is designed to evaluate the safety and efficacy of a therapy" (The Belmont Report, 1979).

At this time (late 1970's), it was believed biomedical research misconduct was largely due to a lack of regulatory guidelines and practices, not a result of the scientist(s) independent decision making. In efforts to mitigate this effect, the authors of the Belmont Report identified three basic ethical principles that are "relevant to the ethics of research involving human subjects" (The Belmont Report, 1979), both biomedical and social. The principles are as follows:

1) *Respect* for persons and their right to make decisions for and about themselves without undue influence or coercion from someone else.

2) *Beneficence* or the obligation to maximize benefits and reduce risks to the subject.

3) *Justice* or the obligation to distribute benefits and risks equally without prejudice to particular individuals or groups, such as the mentally disadvantaged or members of a particular race or gender.

The purpose of these principles was to establish a new precedence and expectation of human subjects research, one where the participant is the primary concern, not the science. The newly

defined ethical principles contributed to the enhancement of three critical components in the

research process: informed consent, assessment of risks and benefits, and selection of subjects.

Informed Consent

Informed consent is a process in which the participant is informed, and consents to, all

necessary information prior to actively participating in the research. For a participant to be

adequately informed, the principal investigator (the scientist in charge of the study) must ensure

the participant is provided with the following information:

> A statement that the study involves research; an explanation of the purposes of the
> research; the expected duration of the subject's participation; a description of the
> procedures to be followed; identification of any procedures which are experimental; a
> description of any reasonably foreseeable risks or discomforts to the subject; a
> description of any benefits to the subject or to others which may reasonably be expected
> from the research; a disclosure of appropriate alternative procedures or courses of
> treatment, if any, that might be advantageous to the subject; a statement describing the
> extent, if any, to which confidentiality of records identifying the subject will be
> maintained; for research involving more than minimal risk, an explanation as to whether
> any compensation, and an explanation as to whether any medical treatments are available,
> if injury occurs and, if so, what they consist of, or where further information may be
> obtained; an explanation of whom to contact for answers to pertinent questions about the
> research and research subjects' rights, and whom to contact in the event of a research-
> related injury to the subject; a statement that participation is voluntary, refusal to
> participate will involve no penalty or loss of benefits to which the subject is otherwise
> entitled, and the subject may discontinue participation at any time without penalty or loss
> of benefits, to which the subject is otherwise entitled. (Office of Human Research
> Protection, 2014)

Special considerations of informed consent would include the aforementioned criteria in addition

to the following when relevant:

> A statement that the particular treatment or procedure may involve risks to the subject (or
> to the embryo or fetus, if the subject is or may become pregnant), which are currently
> unforeseeable; anticipated circumstances under which the subject's participation may be
> terminated by the investigator without regard to the subject's consent; any additional
> costs to the subject that may result from participation in the research; the consequences of
> a subject's decision to withdraw from the research and procedures for orderly termination
> of participation by the subject; a statement that significant new findings developed during

the course of the research, which may relate to the subject's willingness to continue participation, will be provided to the subject; the approximate number of subjects involved in the study. (Office of Human Research Protection, 2014)

Other guidelines exist for methods of documenting or waiving consent and special consideration for research involving the use of children, all of which revolve around central themes of information, comprehension, and voluntariness (The Belmont Report, 1979).

Risk vs. Benefit

The assessment of risks and benefits is another construct that warrants great scrutiny. Studies are only to be conducted when the benefit is expected to outweigh the risks. In a situation where "assessment [of risks] presents both an opportunity and a responsibility to gather systematic and comprehensive information about proposed research" (The Belmont Report, 1979) unique challenges can be expected. One of these challenges is the fact that risk/benefit ratio can be looked at from three alternate perspectives or lenses - that of the investigator, of the ethics committees, or of the participant, all of which may have different priorities and yield various conclusions (The Belmont Report, 1979). There is no universally agreed upon lens which takes priority. Theoretically, all three lenses are considered; however, identifying and critically evaluating research from each unique lens can be quite challenging.

There are two key factors determining the level of "risk," first, the probability of an adverse event occurring during the research process, and secondly, the likely severity of the adverse event. The nature of these constructs introduces additional challenges as the expected likelihood of risky events happening is typically based on speculation and individual experiences, not empirical data. Other factors which may affect the risk-benefit ratio include the quality of research design, analysis techniques and modes of dissemination. Additionally,

evidence of risks may not be available until after the study is complete, making the balance of risks and benefits difficult to foresee and manage during protocol development and review.

Selection of Subjects

The selection of subjects happens at two levels, that of the individual and of society. Researchers must consider individuals' autonomy, welfare, and their identity within social groups (e.g., minorities, LGBTQ, religion), while balancing the overall benefit to society. The primary considerations for selection of research subjects are requirements of scientific design, susceptibility to risk, likelihood of benefit, practicability, considerations of fairness…and equity (OHRP, 1993). These criteria are designed to "ensure that the burdens and benefits of research will be fairly distributed" (OHRP, 1993) amongst the populations of interest. As outlined in the Belmont Report (1979), the principle of justice gives rise to requirements that there be fair procedures and outcomes in the selection of research subjects. This means participants selected for research must be chosen in an ethical and just manner. Likewise, researchers should not offer beneficial research opportunities to a specific population while denying access to other non-desirable populations, or populations known to respond differently to interventions (e.g., minorities, English as a second language). For example, education interventions should be accessible to students enrolled in all school districts, as opposed to only students enrolled in a subset of a district.

Another consideration is the participants' ability to bear the burdens of participating in the research. Persons who are known to be mentally ill, developmentally delayed, children, prisoners, or other institutionalized populations should not be selected for research which offers no benefit when an option to use non-vulnerable populations is available. More specifically,

> When research is proposed that involves risks and does not include a therapeutic component, other less burdened classes of persons should be called upon first to accept these risks of research, except where the research is directly related to the specific conditions of the class involved. (The Belmont Report, 1979)

Historically, researchers have been known to conduct research on vulnerable populations, such as those who are incarcerated, prisoners of war, the poor, and critically ill while the benefits of the research were extended to wealthy, non-vulnerable populations such as those who could afford privatized health care and therapies. Reasons for selecting these subjects were primarily due to their ease of availability and compromised position or manipulability, rather than for reasons directly related to the problem being studied (OHRP, 1993). A key example of these practices is the Tuskegee Syphilis study (1932) described earlier. It was not until the early 20th century, in the wake of unjust subject selection patterns across the sciences, that ethical considerations were extended to the selection of research participants (OHRP, 1993).

The three principles of the Belmont Report are heavily integrated into current (pre-2017) research policy. Researchers concerned about informed consent, risk verses benefit, and subject selection have a resource for guidance. As a result, researchers now put significant consideration into these factors when planning and designing research. However, the Belmont Report does not address social, political, economic, and cultural contextual issues, especially those which emerge during data collection and analysis.

The 1980s

The 1980s ushered in a new period of research oversight and regulations known as the "Fraud Busting" era (Resnik, 2014). Advances in biomedical research introduced new ethical issues along with the need for stricter training and review of research protocols. The implementation of the Belmont Report paved the way for more specific guidelines, university

and research institution requirements, and government involvement. Two early events include the Bayh-Dole Act (1980) which granted researchers the right to patent inventions developed with government funds, and the Diamond v. Chakrabarty (1980) court ruling that allowed the patenting of genetically modified bacterium. These events gave scientists an additional financial incentive to push the boundaries of their research which naturally comes with the expansion of ethical and integrity concerns.

As scientists were conducting innovative research, they were also innovating research misconduct and review. The publication of Betrayers of Truth (Broad & Wade, 1982) claimed there was more misconduct in the sciences then anyone was willing to admit and fueled further attention and investigations into misconduct. In the early 1980s, the United States Congress responded to increasing case counts of suspected and confirmed research misconduct in which the NIH (National Institute of Health), universities, and research institutions responded to in an inadequate manner (Office of Research Integrity, 2011). In 1985, Congress passed the Health Research Extension Act (Office of Research Integrity, 2011) which required academic and research institutions receiving federal funding to establish "an administrative process to review reports of scientific fraud" and "report to the Secretary any investigation of alleged scientific fraud which appears substantial" (Office of Research Integrity, 2011). One such investigation was conducted in 1987 when the National Institutes of Mental Health held a reviewed of Steven Breuning's work, a prominent psychologist researching "mental retardation." The review panel concluded that Breuning fabricated and falsified data in at least 24 published scientific papers. Others claim the number of scientific papers containing fabricated and/or falsified data were nearly 50 (Lock, 1988). Breuning was the first scientist to be criminally convicted of defrauding

the federal government for approximately $160,000 and faced up to five years in prison for his actions (Scott, 1988). Breuning served two months in prison and was made to pay back $11,352 for his crimes.

In 1986, the NIH required the establishment of Institutional Liaison Offices and in 1989 the development of the Office of Scientific Integrity. These offices were established to manage research misconduct while simultaneously shifting part of the responsibility of misconduct from funding agencies and placing it on researchers and institutions. As primary responsibility was now being placed on institutions, the need for greater institutional regulation increased.

The 1990s

In reaction to the surmounting amount of evidence exposing research misconduct brought to light in the 1980s, the movements and policies of the 1990s focused primarily on researcher training and education. In 1991, the Federal Policy of the Protection of Human Subjects, better known as regulation 45 CFR (Code of Federal Regulations) part 46, the Common Rule, was implemented (OHRP, 1993). The purpose of the policy was to provide a unified standard of ethical behavior for human subjects researchers across all disciplines, biomedical and non-biomedical alike. The Common Rule outlined the basic provisions for IRBs, informed consent, and Assurances of Compliance for participating departments and agencies. All U.S. government agencies such as Health and Human Services, National Science Foundation, and National Institute of Justice, follow the 45 CFR part 46 regulations apart from the Environmental Protection Agency (Resnik, 2014). The regulation includes four subparts; (a) the federal policy known as the "common rule"; (b), additional protections for pregnant women, human fetuses, and neonates; (c), additional protections for prisoners; and (d), additional protections for children

(45 CFR part 46). The release of 45 CFR part 46 was followed by the development of the Office of Research Integrity (ORI), a sub-department within the Office of the Secretary of Health and Human Services in the Office of Public Health and Science (OPHS).

After the release of the Common Rule, questions were being asked as to the appropriate way to implement and oversee the conduct of scientists and the degree to which they were compliant with the regulations. In reaction to these concerns, President Clinton formed the Committee for Research Integrity, more commonly known as the Ryan Commission (1994-1995), to review systematic protections for human subjects' research and scientific misconduct. Seven areas of primary concern were addressed:

> (a) balancing responsibilities; (b) clarifying federal interest in research misconduct; (c) reducing unnecessary complexity and conflicting requirements in federal regulations; (d) promoting research integrity and attempting to prevent research misconduct; (e) creating an institutional climate in which concerns about unethical research can be voiced without fear; (f) assuring fairness in misconduct proceeding and; (g) mitigating inherent conflicts of interest and promoting impartiality in institutional inquires and investigation of alleged research misconduct (Commission on Research Integrity, 1995, p. 7).

The Ryan commission made 33 recommendations for researchers and research institutes including having protections in place for whistleblowers and the establishment of Responsible Conduct of Research (RCR) training programs.

Shortly thereafter in 1999, the tasks and responsibilities of the ORI were refined in hopes to "improve its processes for responding to allegations of research misconduct and promoting research integrity" (ORI, 2014). The ORI is formally tasked with the following duties: (a) oversee and direct research integrity activities; (b) recommend administrative actions for research misconduct; (c) ensure protection of whistleblowers by providing a fair hearing process for misconduct; (d) provide guidance and manage financial resources for human subjects

protection; (e) oversee misconduct and integrity activities; and (f) provide training in responsible

conduct of research. This led to a new government agenda designed to both, protect human

subjects and educate researchers.

2000s

The 2000s marked an era focused on training and education in the responsible conduct of

research. In 2002, the National Academy of Sciences (NAS) published Integrity in Scientific

Research, which "recommends that universities develop programs for education in responsible

conduct of research (RCR) as well as policies and procedures to deal with research ethics"

(Resnik, 2014). Per the NIH (2009), "responsible conduct of research is defined as the practice

of scientific investigation with integrity. It involves the awareness and application of established

professional norms and ethical principles in the performance of all activities related to scientific

research." RCR curriculum is based upon the principles defined in the Nuremberg Code (1947),

Declaration of Helsinki (1964), and the Belmont Report (1979) and is a requirement for funding

provided by NIH and the NSF (CITI Program, 2012). Most, if not all, higher education

institutions and research facilities have additional requirements for researchers, students, faculty,

and staff to complete at least some type of formal RCR training. Some universities have taken it

upon themselves to hold independent requirements for graduate programs to incorporate research

ethics and RCR into their research and degree programs. Others rely solely upon the

Collaborative Institutional Training Initiative (CITI Program, 2012) as the only form of RCR

training (Pimple, 2013a, 2013b).

Originally developed in 2000, the CITI program provides web-based learning modules

focused on an array of ethical issues specifically: (a) animal care and use; (b) biosafety and

security; (c) export control; (d) good clinical practice; (e) information privacy and security; (f) human subjects research; and (g) responsible conduct of research (CITI Program, 2012). The last two modules, human subject's research and the responsible conduct of research, are specifically relevant to the current study.

The CITI program is the most popular tool for teaching RCR (CITI Program, 2012). As with all educational programs, outcomes for the CITI and its participants are frequently subjected to evaluation. One such evaluation completed in 2006 revealed program participants felt the time spent completing the four-hour web-based course was well invested. As a result, participants reported an increase in their knowledge of issues related to the protection of human subjects, along with an increased confidence in managing human subject protection more effectively (Braunschweiger & Goodman, 2007). However, research explicitly focusing on the application of RCR principles is sparse.

Present Day

In September of 2015, the US Department of Health and Human Services released a Notice of Proposed Rulemaking (NPRM) regarding the common rule (45 CFR part 26; HHS, 2015). The purpose of the NPRM is to modernize, strengthen, and make more effective the Federal Policy for the Protection of Human Subjects that was promulgated as a Common Rule in 1991 and to help build public trust (HHS, 2015). Part of the rationale for the changes includes the fact that:

> Research has … increased, evolved, and diversified in other areas, such as national security, crime and crime prevention, economics, education, and the environment, using a wide array of methodologies in the social sciences and multidisciplinary fields… A more participatory research model is emerging in social, behavioral, and biomedical research, one in which potential research subjects and communities express their views about the value and acceptability of research studies (HHS, 2015, p. 53958).

This is largely due to the changing landscape of research methodologies and scientific advances. The NPRM is expected to review the informed consent process, degree of ethical review for proposed research projects, along with significant tightening of the rules for biomedical research (e.g., biospecimens, genome editing).

Changes for social scientists are also being proposed. A significant amendment states studies which are not deemed "research" (e.g., education evaluation) or contain minimal risk or lower than minimal risk will now be exempt from IRB review. This was in part intended to remove unnecessary burdens on researchers. The proposed review process would allow scientists to use an on-line tool to determine if the study qualifies for exempt status. Many of the studies which would qualify for exempt status are expected to come from the social sciences. Social scientists are expected to positively embrace the proposed changes. However, the NPRM does not explicitly address challenges associated with the more progressive research paradigms (i.e., critical, constructivist, and participatory).

Conclusion

The landscape of research ethics and integrity has been ever evolving and fluid. As scientists across all disciplines make new discoveries and use more progressive methodologies the government has reacted with new policies designed to protect human subjects and identifiable data. The challenge for social scientists is many of the policies currently in place and in development are heavily influenced by biomedical research. While these advances are necessary and critical for biomedicine, many social science researchers struggle with interpreting what the policies mean for them. Ethical concerns associated with community engagement,

cultural and political differences, and qualitative methodologies have yet to be explicitly address

in policies.

CHAPTER THREE

THE SOCIAL SCIENCES

Social scientists (e.g., psychologist, sociologist, criminologist, and social workers) study the social components of the human experience on both macro- and micro-levels. These scientists study social components of human life and behavior which are integral to ways societies and governments function. Using a wide variety of methodologies, researchers investigate issues such as racism, education interventions, social policy effectiveness, and discrimination. Scientists in these disciplines measure, evaluate, and make decisions regarding intimate parts of the human experience. Social science research can influence all levels of government and social structures such as education, tax code, spending, executive, legislative and judicial policies, and the accessibility and management of social services. The American Social Science Association supports the view that social scientists and their studies:

> Guide the public mind to the best practical means of promoting Amendment of Laws, the Advancement of Education, the Prevention and Repression of Crime, the Reformation of Criminals, and the progress of Public Morality, the adoption of Sanitary Regulations, and the diffusion of sound principles on Questions of Economy, Trade and Finance. (Silvia & Slaughter, 1984, pp. 40-41)

With social scientists having such an influential position in society, it is essential that their work be honest and respectful of participants and communities. The following section will provide: (a) key historical examples of unethical research; (b) an overview of research paradigms used in social sciences and (c) identification of unique ethical concerns not addressed in current regulations.

While most highly publicized unethical research is conducted by biomedical researchers, social scientists are not immune to unethical practices. Below are prominent examples of some of the most controversial studies ever conducted by social scientists. Most of these studies were conducted in the post positivist tradition, that which is most similar to biomedical research. Each of the following studies has at least one of the following ethical violations including: improper consent/assent; deception; psychological harm; exploitation of vulnerable populations; inappropriate compensation; refusal of participant withdraw; and duality of researcher roles. Additionally, each of the studies below exposed different ethical concerns or conundrums which were not present in biomedical research at that time. Interestingly, these studies are rarely directly cited as reasons to extend research ethics and integrity policy or training.

While reviewing the following, bear in mind that social science researchers did not have ethical oversight until the release of the Belmont Report in 1979. Ethical considerations were independently reviewed and managed by the researchers and/or the organizations in which the study was being conducted. Additionally, the only guidelines available at the time were those intended for biomedical research and/or practice.

Little Albert (1920)

In 1920, 27 years before the Nuremberg code and nearly 60 years prior to the Belmont Report, John Watson and Rosalie Rayner published Conditioned Emotional Reactions in the Journal of Experimental Psychology. The intent of the three-month study was to examine how fear manifests in infants. "Albert" (the pseudonym used to maintain confidentiality), a nine-month old infant boy was the subject of the study. He was selected due to his "stolid and unemotional" disposition (Watson & Rayner, 1920). Albert's mother, a wet nurse working in the

same institution in which the study was being conducted, was compensated $1 and was never informed of the potential consequences of the study.

In the beginning of the study, Albert was exposed to "a white rat, a rabbit, a dog, a monkey, face masks with and without hair, cotton wool, burning newspapers, etc." (DeAngelis, 2010), and he never showed any fear response during initial exposure to the stimuli. To induce a fear response, the experimenters suspended a large steel bar behind the infant and would strike it with a hammer to produce a loud noise. Initially, Albert was startled but did not respond with fear, but after repeated exposure to the sound Albert began to cry and scream every time the sound was produced. Next, Watson and Rayner paired the loud sound with exposure to the white rabbit and other stimuli. Albert learned to associate the sound with the presence of the stimuli and developed a strong fear response to the rabbit and other white fuzzy items, even when presented with out the loud noise. Albert had successfully been conditioned to fear the items, and this association was so strong that Watson and Rayner were unable to remove or reverse the adverse reaction (DeAngelis, 2010).

Albert lived with the fear and his mother, most likely distraught, was left to manage the situation on her own. The compensation of $1 may have been satisfactory upon recruitment but one can argue that if Albert's mother knew of the potential long-term consequences, she may not have consented to the study. Other factors that contribute to the ethical concerns relate to the relationship Albert's mother had with the institution. Refusal of participation may have compromised her current employment. Considering the societal structure of the time, in the midst of women's suffrage, any resistance or hesitation for participation may also jeopardized future employment opportunities and financial stability.

The Monster Study (1939)

Eight years before the Nuremberg code (1947), Mary Tudor, a graduate student, conducted the monster study of 1939. The purpose was to induce stuttering in children who have normal speech patterns (Ambrose & Yairi, 2002). Under the supervision of Professor Wendell Johnson at the University of Iowa, Tudor designed her thesis, "An Experimental Study of the Effect of Evaluative Labeling on Speech Fluency" to test Johnson's theory that "negative reactions to normal speech disfluencies cause stuttering in children" (p. 190). The subjects of the four-month experiment were orphan children at Soldiers and Sailors Orphan's home in Davenport, Iowa. None of the children were given the option to consent to the study. Twenty-two children were involved in the study; of these, 12 were "normally fluent" meaning they did not engage in stuttering or other speech impediments at the onset of the study, while the other 10 were classified as stutterers. All the children in the study were documented as having lower than average IQ levels (< 84).

The children were assigned to one of four experimental groups: (1) five stuttering children who were told they were not stutterers, (2) five stuttering children who continued to be labeled as stutterers, (3) six normal fluency children who were told that they stutter and should do anything possible to avoid stuttering, and (4) six normal fluency children who were told they had good speech. The number of "treatments" varied across the experimental groups ranging from three to nine interventions over several months; those in the third experimental group received the greatest amount of intervention. The normal fluency children who were labeled as stutterers were told:

> The staff has come to the conclusion that you have a great deal of trouble with your speech. The type of interruptions which you have are very undesirable. These

interruptions indicate stuttering. You have many of the symptoms of a child who is beginning to stutter. You must try to stop yourself immediately. Use your will power. Make up your mind that you are going to speak without a single interruption. It's absolutely necessary that you do this. Do anything to keep from stuttering. Try very hard to speak fluently and evenly. If you have an interruption, stop and begin over. Take a deep breath whenever you feel you are going to stutter. Don't ever speak unless you can do it right. You see how (the name of a child in the institution who stuttered rather severely) stutters, don't you? Well, he undoubtedly started this very same way you are starting. Watch your speech every minute and try to do something to improve it. Whatever you do, speak fluently and avoid any interruption whatsoever in your speech. (Tudor, 1939, pp. 10-11)

The staff at the orphanage were instructed to support the researchers and maintain the guise that children were stutterers and to have the children repeat what they were saying without stuttering. Despite the instructions some of the institutional staff refused the order out of concern of "low esteem" of the children (Ambrose & Yairi, 2002). However, this had minimum effect on the researchers and the study continued.

The children who were told that they stuttered, even though they did not, eventually develop a stutter. As stated in Ambrose and Yairi (2002), "the children developed chronic stuttering, the effect was impossible to reverse, indicating that the children were not only induced to stutter but became people who stuttered" (p. 190). Upon completion of the study Professor Johnson "suppressed the existence of the study in light of the World War II abuses of human subjects by the Nazi scientists and physicians" implying he have been aware of the unethical factors involved in the study (p. 190). Many years later three participants returned to Mary Tudor and the late Professor Wendell Johnson, holding them accountable for their life-long speech impediment.

The children in this study represent some of the most vulnerable in our society, institutionalized, and developmentally delayed, orphaned children. The exploitation of

vulnerable populations is one of the biggest concerns in social science research. The children

were unable to refuse assent and had no guardian to properly advocate for them. The study

clearly induced additional undesirable traits in the children by causing, in some cases,

irreversible speech impediments. This consequence could further jeopardize the children's

acclimation and acceptance into society. Most disturbing of all, the principal investigator,

Johnson, clearly was aware of the unethical issues when he opted to not publish the study. This

brings up the question of whether he knowingly, or unknowingly allowed the use of questionable

and unethical research practices at the onset of the study.

Milgram Obedience Study (1963)

In 1963, Stanley Milgram of Yale University conducted the "Behavioral Study of

Obedience" funded by the National Science Foundation. Part of the inspiration for the study was

the systematic murder undertaken during Nazi rule (1933-45). During the Nuremburg trials of

1947, some members of the Nazi party claimed they were just following orders when carrying

out the extermination of millions of people. Milgram (1963) wrote:

> [Obedience] is the dispositional cement that binds men to systems of authority. Facts of
> recent history and observation in daily life suggest that for many persons obedience may
> be a deeply ingrained behavior tendency, indeed, a prepotent [sic] impulse overriding
> training in ethics, sympathy, and moral conduct (p. 371).

The purpose of Milgram's experiment was to understand some of the mechanisms which

influence people's obedience to authority, especially under questionable circumstances.

Participants were told they were taking part in a study on the effects of punishment on memory.

The participant always played the role of the teacher, administering a paired-association learning

task (i.e., matching word pairs). The learner, played by a confederate (meaning they were an

informed research collaborator), had to identify the correct pair of words. Milgram gave the

learner a script containing instructions on how to respond to each question. If the learner

provided an incorrect response, the teacher had to administer a "shock" via a shock generator

which, unbeknownst to the participant, was fake. The "shock generator" had 30 levels of

"voltage" ranging from 15 to 450 volts labeled: Slight Shock, Moderate Shock, Strong Shock,

Very Strong Shock, Intense Shock, Extremely Intense Shock, Danger: Severe Shock, and XXX

(Milgram, 1963). The learner never received any physical harm for incorrect answers.

However, this information was not divulged to participants until the experiment was over.

The participant and the confederate only had direct contact with one another at the very

beginning of the study. They were jointly informed and consented to the upcoming experiment.

Upon consent, they were "randomly" assigned to the role of the learner or teacher. During the

study orientation, participants were given a legitimate test shock (45 volts). This was intended to

both legitimize the study and expose the participant to the punishment they were administrating.

When the study began, the participants were put into different rooms. Milgram (1963)

was in the same room as the participant wearing a white lab coat. As the study progressed, the

learner began to incorrectly answer questions, and the participant began to administer the shocks

as instructed. The voltage of the shocks increased and the learner would start to yell, cry out in

pain, repeatedly saying "get me out of here please," "let me out," mention a heart condition, and

pound on the walls of the room. Frequently, participants would stop and question the

experimenter expressing concern about the study and the welfare of the learner. Milgram would

respond with prompts specifically, "please continue," "the experiment requires that you

continue," "it is absolutely essential that you continue," and "you have no other choice, you must

go on" (p. 374). Many participants showed signs of distress during the study such as engaging in

nervous laughter, sweating, dropping their head, rubbing their eyes, or expressing anxiety, agitation and anger. Of the 40 original participants, 26 administered the highest voltage shock (450 volts) and 14 stopped between 315-375 volts. At the end of the experimental intervention the participants sat for a brief exit interview centering on questions such as "what right do they [the learner] have to leave the experiment." To debrief and ease participants, the experimenters arranged a meeting between the "learner" and "teacher" at the end of the study. Here they were told the whole thing was a "hoax" and brought the "learner" into the room so the participant could see that the learner was indeed okay.

Milgram's (1963) experiment is one of the most widely known in psychology. The data are interesting, and the application of theory has high utility. But, the way the study was conducted has several ethical issues. The extent of deception is concerning as the participants believed they were actively shocking and harming someone. Many of the participants showed signs of psychological distress and were denied the right to withdraw from the study of their own free will. The prompts used such as, "you have no other choice, you must go on," added increasing degrees of pressure on the participant to continue the study. Even when participants stopped and strongly questioned the study they were told the "experiment must go on." Milgram did debrief the participants. However, one could say it was too little, too late, as many remained upset long after the study was complete. Nothing Milgram did was in violation of any explicit ethical regulations. At this point, only the Nuremburg code was in place. But public and professional reactions to the study showed that there was something wrong. Intentionally misleading participants was something that people were not going to tolerate. However, it was

not until 16 years later that regulatory bodies would take legislative action to address this concern.

Blue vs. Brown Eyes Exercise (1968)

During the spring of 1968 Jane Elliott, a third-grade public school teacher in Riceville, Iowa, conducted a classroom exercise with her students. All 28 children in the class "agreed" to participate in the class activity. However, there is no documentation of school, student or parental consent/assent. The purpose of the exercise was to help the children understand the way it felt to be discriminated against. The children, all of whom were Caucasian and from a small town (population 840) were divided into two groups, brown-eyed and blue-eyed. The group that was being discriminated against wore a fabric collar around their neck so everyone would know the color of their eyes.

On the first day of the study, Ms. Elliott said, "this is a fact, blue-eyed people are better than brown-eyed people" (Elliott, 1969). The blue-eyed children were given five extra minutes of recess while the brown-eyed children had to stay indoors. The brown-eyed children were not allowed to use the drinking fountain and were instructed to drink from paper cups. The blue-eyed students were first to lunch while the brown-eyed students were told they could not go back for a second serving. As a result, the blue-eyed children performed better in their class activities and the brown-eyed children performed worse than normal. The children got into fights during recess and began to tease and ostracize one another based upon the color of their eyes. Ms. Elliott reflected on the impact of the study and said, "I watched what I had been marvelous thoughtful children turn into nasty, vicious, discriminating little third graders in the space of 15 minutes" (Elliott, 1969).

The next day the roles were reversed. Ms. Elliott told the children she lied the previous day and that the truth is that brown-eyed people are better people than the blue-eyed people. She stated "blue eyed people sit around and do nothing. You give them something nice and they just wreck it" (Bloom, n.d., p. 2). She continued to state that brown-eyed people were smarter, better, cleaner, and were granted five extra minutes of recess. The blue-eyed children were told they were slower, lazy, and unable to play with the brown-eyed children. They were not allowed on the playground during recess and were not allowed to play with the brown-eyed children. The children were noticeably affected by the experiment showing signs of frustration and emotional distress. At the end of the exercise, Ms. Elliott had the children reflect on their experience. She explained that discrimination and prejudice is mean, hurtful, and that it was wrong to judge someone based on the color of their skin. The exercise was successful in helping the children understand and relate to the racial tension that was currently fueled by the Civil Rights Movement.

The reactions of the parents and town citizens were strong and unpleasant. The parents were upset about their children being exposed to such controversial classroom practices. The community did not like the publicity she was receiving such as interviews and newspaper publications. In response, Ms. Elliott was frequently ostracized and criticized. Forty years later, the children in Ms. Elliott's class were reunited and interviewed about their experience. One former student, Dale McCarthy stated;

> It always stuck in my mind not to be prejudice, and because of Jane…If [Elliott] humiliated my daughter as bad as she humiliated me, my wife would be on the phone to the principal and I'd be right behind her. You had a worthless feeling that day but that is also what made such a lasting impression (Bloom, n.d., p. 5).

Another student, Ray Hanen, recounted:

> What Jane taught is woven into the fabric of my being…you cannot underestimate the impact that such an experience has had on us. I don't know how anyone who went through the experience can say that they have not been changed. Jane must get the credit she deserves for making the world a better place, and making us better human beings. The level of impact of the experiment is on the same magnitude as your first love, the first death of someone close to you, the birth of a child (Bloom, n.d., p. 5).

There is evidence that this study may have had a positive long-term impact on the participants. But, the positive outcomes do not negate the ethical concerns such as the lack of consent/assent and psychological harm. Elliott took children whom she was entrusted to teach and exposed them to a controversial intervention. While the purpose was to teach the children discrimination was admirable, the approach was inappropriate. The children's parents never knew she was conducting an experiment which could have long-term impacts on highly charged social issues. The duality of Ms. Elliott's roles introduced coercion as the children were taught to listen to the teachers without question. The structure of the learning environment was such that children were unable to express concern or choose to stop the exercise. The emotional distress the children experienced may have impacted the children's self-esteem and attitudes towards those who are different from them.

This study also raised questions about when, how, and if research should be conducted in public schools. The community in which the school was located did not necessarily endorse the attitudes Elliott was teaching. The community questioned their right to be informed and consented to research involving their children, especially in a public-school setting. Another issue pertains to Ms. Elliott's credentials. Research should be conducted by researchers. Ms. Elliott had no formal training in research, raising questions as to her ability to safely conduct a study and manage ethical issues.

This study was conducted in 1968, four years after the release of DoH. Technically, Ms. Elliott did nothing wrong. She violated no rules or regulations, but socially there were transgressions. Her behavior contributed to a pattern of questionable behavior within social, behavioral, and education research. Ethical issues were presenting themselves among various studies and designs. Long term effects of non-invasive interventions were showing up in behavior. In some cases, these effects (i.e., stuttering children) significantly compromised social status and quality of life.

Zimbardo Prison Experiment (1973)

In 1973, Philip Zimbardo designed and oversaw a two-week study utilizing a mock prison to investigate human behavior and the role of authority and conformity. This research was informed by both historical and current events regarding prisoners of war and the American prison system. Zimbardo recruited 21 male students at Stanford University via a newspaper advertisement. Participants were compensated $15 per day. Each participant underwent a psychological health evaluation and was then randomly assigned to the role of a prison guard or prison inmate. Although no physical violence was allowed, the prison guards could use psychological abuse. For example, "They behaved in a brutal and sadistic manner, apparently enjoying it… prisoners were tormented… taunted with insults and petty orders, they were given pointless and boring tasks to accomplish, and they were generally dehumanized" (McLeod, 2008, Finding, para. 2). The prisoners became submissive and compliant to the requests of the guards. One prisoner was so distraught he engaged in hours of "uncontrollable bursts of screaming, crying and anger" (McLeod, 2008). This individual was released from the study after 36 hours, the remaining participants were continuously exposed to the psychologically

demoralizing and stressful experiment. After six days, the experiment was aborted; however, it was not due to the principal investigators' independent decision making. A colleague of Zimbardo witnessed the experiment and spoke out in horror of the way the participants were treated and begged Zimbardo to abandon the experiment, which he eventually did.

Zimbardo's data are impressive. The results of the study were not what Zimbardo was expecting and scientists were intrigued by his theories and their subsequent implications. This study shows how easily researchers can become immersed in their work and blinded to some of the ethical factors which emerge during the research process. While Zimbardo did not set out to harm the participant's his dual-role as both the principal investigator and prison overseer compromised his judgement and resulted in long-lasting psychological trauma for some of the research participants. His experiment was one of many in the social sciences which violated no explicit regulations but raised moral questions regarding the conduct of experiments. Six years later the Belmont Report was released. This was the first regulation to explicitly include the social sciences. The Belmont Report was innovative and raised critical questions about the conduct of social science research.

It is not likely to see social science ethical violations of this caliber again. However, there are new ethical dilemmas social scientists must face. The Nuremburg Code, Declaration of Helsinki, and The Belmont Report provide an outline of the core values in research ethics and integrity. However, the policies do not address more nuanced research methodologies and paradigms such as those associated with participatory, critical race or feminist theories where the research questions and design allow the researcher to be highly influential on both the research process and participants.

CHAPTER FOUR

CURRENT TRENDS IN SOCIAL SCIENCES RESEARCH

The social sciences are different from other more traditional types of sciences such as biomedical research. The philosophical orientation of traditional sciences is that of positivism, a perspective where truth is only developed via the traditional scientific method, also known as the "gold standard." This approach requires rigorous, objective, reproducible methods for the intent of supporting or developing generalizable theories. A commonly used method in biomedical research is the use of randomized controlled clinical trials, which is one of the closest methods to the traditional "gold standard." Research regulations were developed with this type of experimental method in mind. Characteristics of positivism can be seen in current research regulations. In part 46.102 of the Common Rule research is defined as "a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge." The development of generalizable knowledge is a core characteristic of positivism. However, the more progressive paradigms used in social sciences do not necessarily require knowledge to be generalizable. With these approaches, truth is much more subjective, and expectations of reliability and generalizability are contingent upon the specific research question, paradigm, and methodological approach.

The differences in research paradigms is a source of disconnect between research regulations, oversight, and research practice. The philosophical underpinnings of truth and validity span across a wide continuum which can be problematic for policy and guideline

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development. Historically, guidelines have been written from a perspective endorsing positivism

as the expected scientific method, leaving little room, if any, for representation of ethical and

integrity concerns associated with more progressive scientific methods and philosophies such as

those seen in the social sciences. This lack of representation means ethical and integrity

concerns unique to these scientific philosophies and methodologies are inadvertently withheld

from policies and guidelines. This provides opportunities for scientists to either knowingly or

unknowingly engage in misconduct or unethical research practices potentially at the cost of

human welfare.

Research Paradigms

Research paradigms are more than a data collection method. Paradigms are gestalt. Each

unique paradigm (i.e., positivist, post positivism, critical, constructivism, and participatory) takes

its own stance on specific parameters. These parameters encompass; ontology; epistemology;

methodology; inquiry aim; nature of knowledge; knowledge accumulation; goodness or quality

criteria; values; ethics; voice; training; inquirer position; accommodation and commensurability;

hegemony; axiology; action; and control (Lincoln, Lynham, & Guba, 2011). The following is a

brief description of the basic beliefs of each paradigm. Table 1 lays out research paradigm

characteristics and Table 2 provides a detailed comparison of each paradigm and its stance on the

parameters. Current regulations emphasize ethical consideration during the design and initiation

phases of research. This approach is effective for managing ethical issues in positivist and post

positivist paradigms. But, in more progressive paradigms, the researcher yields greater levels of

control and influence to the participants and methodological approach, removing opportunities to

"design out" ethical issues. This is because the ethical concerns in progressive paradigms often

emerge during various phases of research process due to working in a naturalistic environment. As researchers develop studies which are embedded in subjective social constructs and individual worldviews, the opportunity for conflict and unexpected consequences increases.

Positivism

Positivism, also known as the "gold standard" is the most traditional type of scientific paradigm. Under this philosophy, researchers use naïve realism, the belief that things are just as they appear, independent of whomever is observing the phenomena (Schwandt, 2007). The truth will always be as it is seen. The researcher is a disinterested observer, and who they are personally has no impact on the process or the data. For example, an apple will always fall due to gravity, regardless of who is observing. Using a dualist perspective, scientists seek out objective, replicable truth that which can be seen, touched, or measured. Dualism is binary, things are either "valid or invalid, good or bad, right or wrong, true or false," and is a very "Western perspective" (Schwandt, 2007, p. 77). Research is conducted via an experimental method allowing for manipulation of key variables and control over extraneous variables. Cause and effect relationships can be identified and replicated under various tightly controlled experimental settings. Quantitative methods are used to verify hypothesis and either develop or confirm theories which can be validated via replication.

Post Positivism

Post positivism, also known as post empiricism, is a more flexible version of positivism. Under the guise of critical realism, scientists accept the fact that there is no "objective" truth. Knowledge is socially constructed, fallible, and grounded in a particular perspective or worldview (Denzin & Lincoln, 2011). Schwandt (2007) identifies five characteristics of this

approach: (a) data are not detachable from theory; (b) the language of science is irreducibly

metaphorical and inexact; (c) meanings are not separate from facts but, in some sense, determine

facts; (d) scientific theories can never be either conclusively verified nor conclusively refuted by

data alone; and (e) science consists of research projects or programs structured by

presuppositions about the nature of reality (p. 234). Researchers believe they can develop a

general, but not exact, understanding of reality which is independent of the researcher's personal

identity and history. For example, researchers understand that persons have unique individual

characteristics (e.g., gender, race, personality) which will influence general behavior but believe

their individual characteristics do not affect the phenomena of study. Data are primarily

quantitative but can be qualitative. Experimental procedures allow for manipulation of

predetermined variables with focus on falsification of hypotheses as opposed to validation

(Lincoln, Lynham, & Guba, 2011). Research produced under this paradigm is used to establish

broad, general theories for explaining society and human behavior.

Critical Theories

Critical theories, such as critical race or critical feminism, developed from criticism of

positivism and post positivist research paradigms. They reject the belief that researchers can be

disinterested observers of phenomena and that identity is independent of the research process

(Schwandt, 2007). Within these paradigms, researchers use historical realism, a belief that

reality is based on a historical perspective of social constructs with emphasis on factors such as;

race, ethnicity, gender, gender values, social justice, privilege, and political and economic power

dynamics (Lincoln, Lynham, & Guba, 2011). Truth is subjective, and the observer of the

phenomena has an active influence on the collection and meaning of data. Data are negotiated

and identified via dialogue and are contingent upon the situation, context and identity of the individual(s) participating in, and conducting the research. Data are interpreted through the researcher's personal viewpoint and understanding of the world and requires a reflective criticism of one's personal beliefs (Lincoln, Lynham, & Guba, 2011).

The purpose of this paradigm is transactional. It is designed to identify and describe social constructs and power dynamics which are not necessary evident to those who are not oppressed by power structures. Data are used to transform society, attitudes, or beliefs which are rooted in Western, liberal, middle-class, industrialism, capitalist societies and institutions (Schwandt, 2007). This paradigm is often used to change education practices, public policy, law, social practice and to remove barriers to resources and/or success. Data can be both quantitative and qualitative, although the latter is used more often. Data do not have to be generalizable to be valuable, and are validated via collaboration with participants.

Constructivism

Constructivism is another paradigm that opposes the idea of empiricism and positivist perspectives. It functions on the belief that "human beings do not find or discover knowledge so much as construct or make it" (Schwandt, 2007, p. 38). "Knowledge is constructed against a backdrop of shared understandings, practices, language, and so forth" (p. 38). Who we are, our understanding of the world and personal lived experiences define our knowledge and will influence the construction of knowledge in the research process. The purpose of this paradigm is to reconstruct, or change, a particular knowledge structure. It is co-created between the researcher(s) and the research subject(s). Data are collected through naturalistic methods (e.g., interview, observations, document analysis) and are analyzed through a rational and critical self-

reflective process. Findings need to be interpreted in conjunction with the participants so that it may reflect a co-constructed understanding of knowledge. This paradigm is used to challenge preexisting beliefs about social constructs and the impact they have by severely criticizing, changing, and overthrowing existing knowledge theories (Schwandt, 2007).

Participatory

Participatory paradigms are similar to constructivist paradigms. The creation of knowledge is rooted in history, identity, culture, and subjective worldviews. Knowledge is developed through a democratic process and requires "cooperation and collaboration between the researcher(s) and the other participants in the problem definition, choice of methods, data analysis, and use of findings" (Schwandt, 2007, p. 221). Participatory research designs, such as participatory action research, focus on the intersection of politics and power and embraces democratic ideals and principles (Schwandt, 2007). Emphasis is placed on how these factors affect societal structures and participant empowerment. These designs require the participation of active groups or communities who are experiencing oppression, manipulation, colonization or subjected to control by a more dominate group or culture (Schwandt, 2007). Data are often qualitative but can take many forms. Findings are used to deconstruct preexisting concepts of knowledge to bring about meaningful and substantive change (Lincoln, Lynham, & Guba, 2011). The perspectives of the participants and their understanding of the data are necessary and are valued as equally important as the researchers'. The interactions between the researchers and the participants actively affect the research process and steer the direction of inquiry.

Ethical Concerns Unique to Progressive Paradigms

Research conducted under progressive methodologies, specifically Critical theories, Constructivism, and Participatory paradigms have unique ethical concerns related to research control, power dynamics, and knowledge ownership. Tolich and Fitzgerald (2006) claim current federal and international ethics-review policies and processes are based on epistemological assumptions rooted in positivistic paradigms which do not fit the qualitative research process. They state, "any ethics model for qualitative researchers must be sufficiently flexible to design strategies to monitor researchers in the field and to support them as they tackle both the unknowns and the subsequent ethical issues that arise" (p. 75, Tolich & Fitzgerald, 2006).

The subsequent ethical issues, or dilemmas, which qualitative researches face are well documented and are often difficult to predict or manage in the design or proposal phase of research due to their emergent nature. Qualitative researchers often face conflicting ethical dilemmas related to informed consent, confidentiality, privacy, and social justice, along with issues pertaining to power, reciprocity and contextual relevance (Shaw, 2003; Karnieli-Miller, Strier & Pessach, 2009). These concerns are rooted in multiple factors including the role of the researcher, researchers' identity, power dynamics, institutional/organizational structure, which stem from intra/interpersonal factors, power dynamics, and authenticity (Karnieli-Miller, Strier & Pessach, 2009). Marecek, Fine, and Kidder (1997) raise some ethical questions and identify a variety of issues which qualitative researchers face on a regular basis;

> The ethical dilemmas that often surface in qualitative research are no put to rest by scrupulous adherence to the standard procedures for informed consent, anonymity, and confidentiality. "Who owns the data?" is an ethical question that participants in laboratory studies do not think to ask. Whose interpretation counts? Who has veto power? What will happen to the relationships that were formed in the field? What are the researcher's obligations after the data are collected? Can the data be used against the participants? Will the data be used on their behalf? Do researchers have an obligation to protect the communities and social groups the study or just to guard the rights of

individuals? These kind of questions reveal how much ethical terrain is uncharted by APA guidelines, IRB reviews, and the like. It is qualitative researchers who are wrestling with such ethical dilemmas, but these dilemmas are present in much psychological research, regardless of the methodological commitments (p. 641).

Additionally, others have stated social scientists (theoretically) acknowledge risks to participants in qualitative research can lead to anxiety and exploitation, while dissemination of the research may damage the reputation of the participants or that of a member within their social group (Richard & Schwarts, 2002; Hammersley & Atkinson, 1993). Karnieli-Miller, Strier & Pessach (2009) state questions regarding data ownership and ownership of knowledge are critical as the nature of qualitive methods allow for unexpected and/or emergent data (Karnieli-Miller, Strier & Pessach, 2009). These emergent data, which may or may not be sensitive, are rarely considered during protocol development or approval phase as the researcher cannot reasonably predict what topics may be raised by the participant during data collection. Marecek, Fine and Kidder, (1997) claim issues of ethics and responsibility go far beyond the formal APA ethical guidelines;

As we see it, all researchers- whether they work with numbers or words, in the laboratory or in the field- must grapple with issues of generalizability, validity, replicability, ethics, audience, and their own subjectivity or bias. Moreover, all researchers must engage questions of authority and interpretation…No matter what the method, no researcher can escape questions about selection and interpretation of data, about his or her responsibilities to participants, about the interests and commitment that spawned their projects in the first place (p. 632).

Conversations and research regarding ethical dilemmas in progressive paradigms are gaining in popularity. Currently, there is a "call to action" for researchers, research administrators, and IRB professionals to adopt protocol formats which accommodate the unique design characteristics of qualitative inquiry. According to Tolich and Fitzgerald (2006) ethics committee members reviewing qualitative research assume the research project should emulate quantitative research in turn making the current form of ethics review a "charade" (p. 73).

Karnieli-Miller, Strier and Pessach (2009) developed a list of conditions which researchers should satisfy in order for research to be considered ethical. In order to mitigate the "ethics review charade" Karnieli-Miller, Strier and Pessach (2009) recommend the adoption of the following guidelines;

1. Participants must fully understand (at the level known to the researcher at that point) the meaning of the study and truly volunteer to participate in it.

2. Researchers must not distort the meaning of the participants' voices.

3. Researchers must protect the anonymity of the participants (Seldman, 1991).

4. Researchers have an obligation to participants' beneficence – an obligation to provide benefits against risks (Beauchamp & Childress, 2001).

5. Researches have an obligation to non-malfeasance that requires doing no harm.

In addition, Karnieli-Miller, Strier and Pessach (2009) place emphasis on the researchers' role in analysis of data, and that the researchers' skills do not grant them supremacy in any way, or the right to perform a judgmental analysis. The primary moral research obligation is to the participants and their welfare, which can be achieved only through nonjudgmental analysis and writing (2009).

Although many researchers agree qualitative research would benefit from revised guidelines some social scientists raise concern, specifically; "First, codes of practice cannot replace practical judgement; second, they may try to enforce ethical standards that are unrealistic in the real-life setting; and thirdly, they may be too lax and contain loopholes" (p. 136, Richard & Schwarts, 2002; Hornsby-Smith, 1993). Others focus on the need for better training. Bosk and DeVries claim a culture of "trained incompetence when it comes to inductive methods of

qualitative research" (p.71, Tolich & Fitzgerald, 2006) and ethnography. They continue to say, "there is a serious need for multiple venues through which to educate researchers and ethics committees about appropriate ways to review ethnographic and qualitative research" (p. 77, Tolich & Fitzgerald, 2006). Lastly, Tolich and Fitzgerald put out a call for action asking qualitative research educators to focus their teaching on both ethics committees/process, and on 'thinking on one's feet' when identifying and managing emergent ethical concerns (p. 73).

Summary

Social scientists are becoming more intimately involved in the lives, communities, and cultures of their research participants and respective populations. Conversely, research populations and communities are becoming more influential in various components of the research process. The collaboration between researchers and participants provides insight and knowledge researchers would otherwise be unable to access.

Research paradigms have many strengths. One of the most notable is the amount of flexibility both within and across paradigms. However, it is this flexibility that allows for unique and sometimes unexpected ethical and integrity considerations. Historically, ethical issues are based on factors of consent, risks, manipulation, and coercion. Guidelines and policies such as the Belmont Report (1979) are designed to help researchers navigate these known ethical concerns. But these regulations do not address emergent issues such as the need for researchers to be reflective of how their personal identity and worldview may impact the research, participants or communities, or for the identification of political and social power dynamics. Nor do they define a process for consenting organizations or communities in participatory research. Neither is there a requirement for documented data quality analysis such as member checking.

To be clear, I am not claiming additional regulations should be in place. I am claiming that social scientists, their research paradigms, and methodologies are multi-dimensional. The variability in research paradigms leads to variability in ethical and integrity concerns throughout the research process. Just as data can be emergent, so can ethical issues. This dynamic makes it challenging for researchers to design out ethical issues a priori. The argument Israel makes, "Social scientists … believe their work is being constrained and distorted by regulators of ethical practice who neither understand social science research nor the social, political, economic and cultural contexts within which researchers work," (Israel, 2015, p. 1) is easy to endorse when we look at it through a methodological lens. The current regulations reflect common research paradigms of the past. Science has progressed, and the regulations seem to be failing to keep pace. In order for governing bodies to know what type of regulations and oversight are appropriate for social scientists they must first to know how social scientist think about, and apply research ethics and integrity principles.

Table 1. Paradigm Characteristics

Paradigm Characteristic	Definition
Ontology	The world view and assumptions in which researchers operate in their search for new knowledge (Schwandt, 2007, p. 190). The study of things that exists and the study of what exists (Latis, Lawson, & Martins, 2007). What is the nature of reality? (Creswell, 2007)
Epistemology	The process of thinking. The relationship between what we know and what we see. The truths we seek and believe as researchers. (Bernal, 2002; Guba & Lincoln, 2005; Lynhmas & Webb-Jonsons, 2008; Pallas, 2001) What is the relationship between the researcher and that being called research? (Creswell, 2007)
Methodology	The process of how we seek out new knowledge. The principles of our inquiry and how inquiry should be proceeded (Schwandt, 2007, p. 190). What is the process of research? (Creswell, 2007)
Inquiry Aim	The goals of research and the reason why inquiry is conducted. What are the goals and the knowledge we seek? (Guba & Lincoln, 2005)
Nature of Knowledge	How researchers view the knowledge that is generated through inquiry research (Guba & Lincoln, 2005).
Knowledge accumulation	How does knowledge build off prior knowledge to develop a better understanding of the subject or field (Guba & Lincoln, 2005).

Goodness or Quality Criteria	How researchers judge the quality of inquiry (Guba & Lincoln, 2005).
Values	What do researchers seek as important products within inquiry research (Guba & Lincoln, 2005).
Ethics	The interaction and relationship between the researcher and the subjects as well as the effect of inquiry that the research has on populations (Schwandt, 2007).
Voice	Who narrates the research that is produced? Qualitative approach: The ability to present the researcher's material along with the story of the research subject (Guba & Lincoln, 2005). What is the language of the research? (Creswell, 2007)
Training	How are researchers prepared to conduct inquiry research?
Inquirer position	The point of the view in which the researcher operates. How does the researcher approach the inquiry process? (Guba & Lincoln, 2005)
Accommodation	What needs are provided by the inquiry research? (Guba & Lincoln)
Hegemony	The influence researchers have on others. Who has the power in inquiry and what is inquired? Presenting definition of reality (Kilgore, 2001).
Axiology	How researchers act based on the research they produce – also the criteria of values and value judgements especially in ethics (Merriam-Webster, 1997). What is the role of values? (Creswell, 2007)
Accommodation and commensurability	Can the paradigm accommodate other types of inquiry? (Guba & Lincoln, 2005). Can the results of inquiry accommodate each other? (Guba & Lincoln, 1989). Can the paradigms be merged together to make an overarching paradigm? (Guba & Lincoln, 1989).
Action	What is produced as a result of the inquiry process beyond the data? How does society use the knowledge generated? (Guba & Lincoln, 2005)
Control	Who dictates how the research is produced and used? (Guba & Lincoln, 2005).
Relationships to foundation of truth and knowledge	Helps make meaning and significance of components explicit (Guba & Lincoln, 2005).
Extended considerations of validity (goodness criteria)	Bringing ethics and epistemology together (the moral trajectory) (Guba & Lincoln, 2005)
Voice, reflexivity, postmodern textural representations.	Voice: can induce the voice of the author, the voice of the respondents (subjects), and the voice of the researcher through their inquiry (Guba & Lincoln, 2005). Reflexivity: the process of reflecting critically on the self as a researcher through their inquiry (Guba & Lincoln, 2005). Postmodern textual representations: The approach researchers take in understanding how social science is written and presented to avoid "dangerous illusions" which may exist in text (Guba & Lincoln, 2005). Whose voices are heard in the research produced through the inquiry process? Whose views are presenting and/or producing the data? (Guba & Lincoln, 2005).

Table 2. Paradigm Position on Selected Issues

Paradigm Positions on Selected Issues – Updated (Lincoln, Lynham, & Guba, 2011) PP.101					
Issue	Positivism	Post positivism	Critical Theories	Constructivism	Participatory
Nature of Knowledge	Verified hypothesis established	Nonfalsified hypotheses that are	Structural and/or historical insights	Individual and collective reconstructions sometimes	Extended epistemology: primary of practical knowing; critical

	Positivism	Postpositivism	Critical Theories	Constructivism	Participatory
	as facts or laws	probable facts or laws		coalescing around consensus	subjectivity; living knowledge
Knowledge accumulation	Accretion – "building blocks" adding to "edifice of knowledge"; generalizations and cause-effect linkages		Historical revisionism; generalization by similarity	More informed and sophisticated reconstructions; vicarious experience	In communities of inquiry embedded in communities of practice
Goodness or quality criteria	Conventional bookmarks of "rigor": internal and external validity, reliability, and objectivity		Historical situatedness; erosion of ignorance and misapprehend-sions; action stimulus	Trustworthiness and authenticity including catalyst for action	Congruence or experimental, presentational, propositional, and practical knowing; leads to action to transform the world in the service of human flourishing
Values	Excluded – influence denied		Included – formative		
Ethics	Extrinsic – tilt toward deception		Intrinsic – moral tilt toward revelation	Intrinsic – process tilt toward revelation	
Inquirer posture	"disinterested scientist' as informer of decision makers, policy makers, and change agents		"Transformative intellectual" as advocate and activist	"passionate participant" as facilitator of multivoice reconstruction	Primary voice manifest through aware self-reflective action; secondary voices in illuminating theory, narrative, movement, song, dance, and other presentational forms
Training	Technical and quantita-tive; substantive theories	Technical; quantitative and qualitative; substantive theories	Resocialization; qualitative and quantitative; history; values of altruism; empowerment and liberation		Co-researchers are initiated into the inquiry process by facilitator/ researcher and learn through active engagement in the process; facilitator/ researcher requires emotional competence, democratic personality and skills
Themes of Knowledge: Inquiry Aims, Ideals, Design, Procedures, and Methods (Lincoln, Lynham, & Guba, 2011) PP.102					
	Positivism *Realist, "hard science" researches*	*Postpositivism* *Modified form of positivism*	*Critical Theories* *(+ Feminism + Race) Create change, to the benefit of those*	*Constructivism (or Interpretivist)* *Gain understanding by interpreting subject perceptions*	*Participatory* *(+ Postmodern) Transformation based on democratic participation between researchers and subject*

			oppressed by power		
A: Basic beliefs (metaphysics) of alternative inquiry paradigms					
Ontology *The worldviews and assumptions in which researchers operate in their search for new knowledge* (Schwandt, 2007, p. 190) *The study of things that exist and the study of what exist* (Latis, Lawson, & Martins, 2007) What is the nature of reality? (Creswell, 2007).	Belief in a single identifiable reality. There is a single truth that can be measured and studied. The purpose of research is to predict and control nature (Guba & Lincoln, 2005; Merriam, 1991; Merriam, Caffarella, & Baumgartner, 2007).	Recognize that nature can never be fully understood. There is a single reality, but we may not be able to fully understand what it is because of hidden variables and a lack of absolutes in nature (Guba & Lincoln, 2005; Merriam, 1991; Merriam et al., 2007).	Human nature operates in a world that is based on a struggle of power. This leads to interactions of privilege and oppression that can be based on race, or ethnicity, socioeconomic class, gender, mental or physical abilities, or sexual preference (Bernal, 2002; Giroux, 1982; Kilgore, 2001).	Relativist: Realities exist in a form of multiple mental constructions, socially and experientially based, local and specific, dependent for their form and content on the persons who hold them (Guba, 1990, p. 127) Relativism: local and specific constructed and co-constructed realities (Guba & Lincoln, 2005, p. 193) "Our individual personal reality- the way we think life is and the part we are to play in it is – *self-created. We put together our own personal reality"* (Guba & Lincoln, 1985, p. 73) Multiple realities exist and are dependent on the individual (Guba, 1996) "Metaphysics that embraces relativity" (Josselson, 1995, p.29)	Participative reality: subjective-objective reality, co-created by mind and the surrounding cosmos (Guba & Lincoln, 2005, p. 195) Freedom from objectivity with a new understanding of relation between self and other (Heshuius, 1994, p. 15) Socially constructed: similar to constructive, but do not assume that rationality is a means to better knowledge (Kilgore, 2001, p. 54) Subjective-objective reality: Knowers can only be knowers when known by other knowers. Worldview based on participations and participative realities (Heron & Reason, 1997).

				"We practice inquires that make sense to the public and those we study" (Preissle, 2006, p. 636) Assumes that reality as we know it is constructed intersubjectively through the meanings and understandings developed socially and experimentally (Guba & Lincoln, 1994). *To me this mean that we construct knowledge through our lived experiences and through our interactions with other member of society. As such, as researchers, we must participate in the research process with our subjects to ensure we are producing knowledge that is reflective of their reality.*	
Epistemology *The process of thinking. The relationship between what we know and what we see. The truths we seek and believe as researchers* (Bernal, 2002; Guba &	Belief in total objectivity. There is no reason to interact with who or what the researchers study. Researchers should	Assume we can only approximate nature. Research and the statistics it produces provide a way to make a decision using incomplete data.	Research is driven by the study of social structures, freedom and oppression, and power and control. Researchers believe that the	Subjectivists: Inquirer and inquired into are fused into a single entity. Findings are literally the creation of the process of interaction between the two (Guba, 1990, p. 27).	Holistic: "Replaces traditional relation between 'truth' and 'interpretation' in which the idea of truth antedates the idea of interpretation" (Heshusius, 1995, p.15) Critical subjectivity in participatory transaction with cosmos; extended epistemology of

Lincoln, 2005; Lynham & Webb-Johnson, 2008; Pallas, 2001). What is the relationship between the researchers and that being researched? (Creswell, 2007).	value only the scientific rigor and not its impact on society or research subjects. (Guba & Lincoln, 2005; Merriam, 1991; Merriam et al., 2007).	Interaction with research subjects should be kept to a minimum. The validity of research comes from peers (the research community), not from subjects being studied (Guba & Lincoln, 2005; Merriam, 1991, Merriam et al., 2007).	knowledge that is produces can change existing oppressive structures and remove oppression through empowerment (Merriam, 1991).	Transactional/subjectivist: co-created findings (Guba & Lincoln, 2005, p. 195) The philosophical belief that people construct their own understanding and reality; we construct meaning based on out interactions with our surroundings (Guba & Lincoln, 1985). "Social reality is a construction based upon the actor's frame of reference within the setting" (Guba & Lincoln, 1985, p. 80). Findings are due to the interaction between the researcher and the subject (Guba, 1996). "We cannot know the real without recognizing our own role as knowers" (Flax, 1990). "Simultaneously empirical, intersubjective, and process-oriented" (Flax, 1990). "We are studying ourselves studying ourselves and	experiential, propositional, and practical knowing; co-created findings (Guba & Lincoln, 2005, p. 195) Critical subjectivity; understanding how we know what we now and the knowledge's consummating relations. Four ways of knowing (1) experiential, (2) presentational, (3) propositional, and (4) practical (Heron & Reason, 1997).

				others" (Preissle, 2006, p. 691). Assumes that we cannot separate ourselves from what we know. The investigator and the object of investigation are linked such that who we are and how we understand the world is a central part of how we understand ourselves, others, and the world (Guba & Lincoln, 1994). *This means we are shaped by our lived experiences, and these will always come out in the knowledge we generate as researchers and in the data generated by out subjects.*	
Methodology *The process of how we seek out new knowledge. The principles of out inquiry and how inquiry should proceed.* (Schwandt, 2007, p. 190). What is the research process? (Creswell, 2007).	Belief in the scientific method. Value a "gold standard" for making decisions. Grounded in the conventional hard sciences. Belief in the falsification principle	Researchers should attempt to approximate reality. Use of statistics is important to visually interpret our findings. Belief in the scientific method. Research is the effort to create new knowledge, seek scientific discovery.	Dialogic/Dialectical (Guba & Lincoln, 2005) Search for participatory research, which empowers the oppressed and supports social transformation and revolution	Hermeneutic, dialectic: Individual constructions are elicited and refined hermeneutically, and compared and contrasted dialectically, with aim of generating one or a few constructions on which there is substantial consensus (Guba, 1990, p. 27).	Political participation in collaborative action inquiry, primacy of the practical; use of language grounded in shared experiential context (Guba & Lincoln, 2005, p. 195) Use deconstruction as a tool for questioning prevailing representations of learners and learning in the adult education literature; this discredits the false binaries that structure a communication and

(results and findings are true until disproved). Value data produced by studies that can be replicated (Merriam, 1991).	There is an attempt to ask more questions than positivists because of the unknown variables involved in research. There is a unifying method. Distance the researcher to gain objectivity. Use the hypothetical deductive method – hypothesize, deduce, and generalize (Guba & Lincoln, 2005; Merriam, 1991; Merriam et al., 2007).	(Merriam, 1991, p. 56)	Hermeneutical; dialectical (Guba & Lincoln, 1985, p. 195) Hermeneutical discussion (Geertz, 1973). Hermeneutics (interpretation, i.e., recognition and explanation of metaphors) and comparing contrasting dialectics (resolving disagreements through rational discussion) (Guba, 1996). "Everyday consciousness of reality and its chameleon like quality pervade politics, the media and literature" (Guba & Lincoln, 1985, p. 70). "The construction of realities must depend on some form of consensual language" (Guba & Lincoln, 1985, p. 71) "Stock taking and speculations regarding the future nevertheless help us comprehend the past the present and aid out choices for the futures we	challenges the assertions of what is to be included or excluded as normal, right, or good (Kilgore, 2001, p. 56) Experiential knowing is through face-to-face learning, learning new knowledge through application of the knowledge. Democratization and co-creation of both content and method. Engage together in democratic dialogue as co-researchers and as co-subjects (Heron & reason, 1997).

				desire" (Preissle, 2006, p. 686) Interpretive approaches rely heavily on naturalistic methods (interviewing and observation and analysis of texts) (Angen, 2000). These methods ensure an adequate dialogue between the researcher and those with whom they interact in order to collaboratively construct a meaningful reality (Angen, 2000). Generally, meanings are emergent from the research process (Angen, 2000). Typically, qualitative methods are used (Angen, 2000). *Hermeneutic Cycle: Actions lead to collection of data, which leads to interpretation of data which spurs action based on data (Class notes, 2008).*	
	Positivism	*Postpositivism*	*Critical (+ Feminist + Race)*	*Constructivism (or Interpretivist)*	*Participatory (+ Postmodern)*
B: Paradigm positions on selected practical issues					
Inquiry aim					

The goals of research and the reason why inquiry is conducted. What are the goals and the knowledge we seek? (Guba & Lincoln, 2005).	Research should be geared toward the predictions and control of natural phenomena. Demonstrate laws that can be applied to natural order.	Researchers attempt to get as close to the answer as possible. Cannot fully attain reality but can approximate it.	Aim of inquiry is to find the social power structure in an attempt to discover the truth as it relates to social power struggles (Giroux, 1982; Merriam, 1991). Transformation (Guba & Lincoln, 2005). Stimulate oppressed people to rationally scrutinize all aspects of their lived to reorder their collective existence on the basis of the understanding it provides, which will ultimately change social policy practice (Fay, 1987).	To understand and interpret through meaning of phenomena (obtained from the joint construction/reconstruction of meaning of lived experiences); such understanding is sought to inform praxis (improved practice). Understanding/reconstruction (Guba & Lincoln, 2005, p. 194). Consensus toward understanding of culture (Geertz, 1973). Scientific generalizations may not fir in solving all problems (Guba, 1996). An approach needed to fill in the gaps between theory and practice (Guba, 1996). The essential message of hermeneutics is that to be human is to mean, and only y investigating the multifaceted nature of human meaning can we approach the understanding of people (Josselson, 1995).	What is the form and nature of reality and, therefore, what is there that can be known about it? What is the relationship between the knower or would-be knower and what can be known? How can the inquirer…go about finding out whatever he or she believes can be known about? What is intrinsically valuable in human life, in particular what sort of knowledge, if any, is intrinsically valuable? (Heron & Reason, 1997).

Nature of knowledge					
How the researchers view the knowledge that is generated through inquiry research (Guba & Lincoln, 2005).	Hypothesis is verified as fact.	There is a correct single truth, which may have multiple hidden values and variables that prevent ever fully knowing the answer.	Knowledge is viewed as "subjective, emancipatory, and productive of fundamental social change" (Merriam, 1991, p. 53). Rationality is a means to better knowledge. Knowledge is logical outcome of human interests (Kilgore, 2001). Structural/historical insights (Guba & Lincoln, 2005). Believe knowledge is socially constructed and takes the form in the eyes of the knower rather than being formulated on an existing reality (Kilgore, 2001, p. 51).	The constructed meaning of actors are the foundation of knowledge. Individual and collective reconstructions sometimes coalescing around consensus (Guba & Lincoln, 2005, p. 196). Collective reconstruction coalescing around consensus on meaning of culture (Greetz, 1971). People construct their own understanding of reality (Guba, 1990). "Realities are taken to exist in the form of multiple mental constructions that are socially and experientially based, local and specific, and dependent for their form and content on the persons who hold them" (Guba, 1990, p. 27). Knowledge is cognitively constructed from experience and interaction of the individual with	Believe knowledge is socially constructed and takes the form in the eyes of the knower rather than being formulated from an existing reality (Kilgore, 2001, p. 51). Extended epistemology: primacy of practical knowing; critical subjectivity; living knowledge (Guba & Lincoln, 2005, p. 196). Experimental participations. Propositional knowing. Subjective-objective reality. Practical knowing is knowing how to do something, demonstrated in a skill of competence (Heron & Reason, 1997). The constructed meaning of actors are the foundation of knowledge. Individual and collective reconstructions sometime coalescing around consensus (Guba & Lincoln, 2005, p. 196). Collective reconstruction coalescing around consensus on meaning of culture (Geertz, 1973). People construct their own understanding of reality (Guba, 1990). "Realities are taken to exist in the form of

| | | | | other and the environment (Class notes, 2008).

Knowledge is socially constructed, not discovered (Class Notes, 2008).

"Observing dialogue allows us to construct a meta-narrative of whole people, not reducing people into parts, but recognizing in the interplay of parts the essences of wholeness. Only then can we begin to imagine the real" (Josselson, 1995, p. 42). | multiple mental models that are socially and experimentally based, local and specific, and dependent for their form and content on the persons who hold them" (Guba, 1990, p. 27).

Knowledge is cognitively constructed from experience and interaction of the individual with others and the environment (Epistemology Class Notes).

Subjective and co-created through the process of interaction between the inquirer and the inquired into (Class Notes).

Knowledge is socially constructed, not discovered (Epistemology class notes). |
| **Knowledge accumulation**

How does knowledge build off prior knowledge to develop a better understanding of the subject or field? (Guba & Lincoln, 2005). | Seek to find cause-and-effect linkages that can build into a better understanding of the field. This can become law over time through use of the scientific method (Merriam, 1991). | Use statistics and other techniques to get as close as possible to reality. Although it can never be attained, approximations of reality can be made to develop further understanding. | Knowledge accumulation if based on historical perspective and revision of how history is viewed so that it no longer serves as an oppressive tool by those with structural power (Guba & Lincoln, 2005). | More informed and sophisticated reconstructions; vicarious experience (Guba & Lincoln, 2005, p. 196).

"Since the 1980s, for example, qualitative inquiry has been much influenced by the poststructural and postmodern developments from the arts and the humanities. These bring a sensitivity to language, especially to | In communities of inquiry embedded in communities of practice (Guba & Lincoln, 2005, p. 196).

"Mind's conceptual articulation of the world is grounded in its experimental participation in what is present, in what there is…" Experiential knowing consists of symbolic frameworks of conceptual, propositional knowing" (Heron & Reason, 1997, p. 277-278). |

				linguistic assumptions embedded in disciplinary terminology (e.g., Scheurich, 1996) that has challenged scholar working in post-positivist, interpretive, and critical traditions" (Preissle, 2006, p. 688).	

Goodness or quality criteria *How researchers judge quality of inquiry* (Guba & Lincoln, 2005).	Rigorous data produced through scientific research.	Statistical confidence level and objectivity in data produced through inquiry.	The value is found in the erosion of unearned privileges and its ability to impart action for the creation of a more fair society (Giroux, 1982; Guba & Lincoln, 2005).	Intersubjective agreement and reasoning among actors, reached through dialogue; shared conversation and construction. Trustworthiness and authenticity, including catalyst for action (Guba & Lincoln, 2005, p. 196). Creditability, transferability, dependability, and confirmability (Guba & Lincoln, 2005). "To interrogate objectivity and subjectivity and their relationship to one another" (Preissle, 2006, 9. 691).	Congruence of experiential, presentational, and practical knowing; leads to action to transform the world in the service of human flourishing (Guba & Lincoln, 2005, p.196) Intersubjective agreement and reasoning among actors, reached through dialogue; shared conversation and construction. Trustworthiness and authenticity, including catalyst for action (Guba & Lincoln, 2005, p. 196). Creditability, transferability, dependability, and confirmability (Guba & Lincoln, 2005). "To interrogate objectivity and subjectivity and their relationship to one another" (Preissle, 2006, p. 691). Included, formative (Gaba & Lincoln, 2005, p. 196). Values are personally relative and need to be understood (Epistemology class notes).
Values *What do researchers seek as important products within inquiry research?* (Guba &	Standards-based research. Value is found in the scientific method. Gold	Can find useful and information even if data are incomplete and contain hidden values.	Included, formative (Guba & Lincoln, 2005). Researchers seek data that can be transformati	Are personally relative and need to be understood. Inseparable from the inquiry and outcomes	Included, formative (Guba & Lincoln, 2005, p.196). Values are personally relative and need to be understood (Epistemology class notes).

Lincoln, 2005).	standard is scientific rigor.		ve and useful in imparting social justice (Giroux, 1982). Value is found in the reasoned reflection and the change in practice. (Creswell, 2007). Values of research produced should include: rational self-clarity, collective autonomy, happiness, justice, bodily pleasure, play, love, aesthetic self-expression, and other values within these primary values (Fay, 1987).	(Class notes, 2008). Included, formative (Guba & Lincoln, 2005, p. 194).	
THEMES OF KNOWLEDGE: Inquiry aims, ideas, design, procedures, and methods					
	Positivism	*Postpositivism*	*Critical (+ Feminist + Race)*	*Constructivism (or Interpretivist)*	*Participatory (+ Postmodern)*
B: Paradigm positions on selected practical issues continued					
Ethics *The interaction and relationship between the researcher and the subject as well as the*	Belief that the data drive the side effects of the research. The effort is to study	Attempt to be as statistically accurate in their interpretation of reality as possible. Effect on other	Frankfurt school of thought: research is tied to a specific interest in the	Intrinsic: process tilt toward revelation; special problems (Guba & Lincoln, 2005,	Intrinsic: process tilt toward revelation (Guba & Lincoln, 2005, p. 196). Included in all aspect of inquiry and examination of culture (Geertz, 1973).

effect inquiry research has on populations (Schwandt, 2007).	nature, not to influence how nature effects populations (Guba & Lincoln, 2005).	is not taken into account because research is driven to gain accuracy, not influence populations.	development of society without injustice (Giroux, 1982).	p. 196) Included in all aspect of inquiry and examination of culture (Geertz, 1973).	
Voice *Who narrates the research that is produced? Qualitative approach: The ability to present the researchers' material along with the story of the research subject.* (Guba & Lincoln, 2005). What is the language of research? (Creswell, 2007).	The data speak for themselves. Consistent findings from inquiry leads to the researcher being disinterested in effect (Guba & Lincoln, 2005).	Researchers are to inform populations using the data produced through their inquiry (Guba & Lincoln, 2005).	The data are created with the intent of producing social change and imparting a social justice that leads to equal rights for all (Giroux, 1982). (Advocate/Activist).	"Passionate participant" as facilitator of multivoice reconstruction (Guba & Lincoln, 2005). Facilitator of multivoice reconstruction of culture (Geertz, 1973). *This means that while critical theorist attempt to get involved in their research to change the power structure, researchers in this paradigm attempt to gain Increased knowledge regarding their study and subjects by interpreting how the subjects perceive and interact within a social context.*	"Passionate participant" as facilitator of multivoice reconstruction (Guba & Lincoln, 2005). Facilitator of multivoice reconstruction of culture (Geetrz, 1973).
Training					

How are researcher prepared to conduct inquiry research?	Researchers are training in a technical very quantitative way (Guba & Lincoln, 2005). Prescribe scientific method.	Researchers are training in a technical and very quantitative way but also have the ability to conduct mixed-methods research. (Guba & Lincoln, 2005).	Researchers are trained using both qualitative and quantitative approaches. They study history and social science to understand empowerment and liberation (Guba & Lincoln, 2005)	Resocialization; qualitative and quantitative; history, values of altruism, empowerment, and liberation (Guba & Lincoln, 2005, p. 196).	Co-researchers are initiated into the inquiry process by facilitator/researcher and learn through active engagement in the process; facilitator/researcher requires emotional competence, democratic personality, and skills (Guba & Lincoln, 2005, p. 196).	
Inquirer posture *The point of view in which the research operates. How does the researcher approach the inquiry process?* (Guba & Lincoln, 2005).	Disinterested scientist. Researchers should remain distant from the change process and should not attempt to influence decisions (Guba & Lincoln, 2005).	Researcher are removed from the process, but concerned about its results (Guba & Lincoln, 2005).	The researcher serves as an activist and a transformative intellectual. The research understands a way of producing a fair society through social justice (Bernal, 2002; Giroux, 1982; Guba & Lincoln, 2005; Merriam, 1991).	A co-constructor of knowledge, of understanding and interpretation of the meaning of lived experiences (Guba & Lincoln, 2005, p. 196).	Primary voice manifested through aware self-reflective action; secondary voice in illuminating theory, narrative, movement, song, dance, and other presentational forms (Guba & Lincoln, 2005, p. 196). Can include alternative forms of data representation including film and ethnography (Eisner, 1997).	
Accommodation *What needs are provided by the inquiry research?* (Guba & Lincoln, 2005).	Commensurable: research has a common unit for study and analysis (Guba & Lincoln,	Commensurable: research has a common unit for study and analysis (Guba & Lincoln, 2005, p. 194).		Incommensurable: Data produced do not have to be from a common unit of measurement.	Incommensurable with positivism and post-positivism; commens	Incommensurable: Data produced does not have to be from a common unit of measurement. Approaches

	2005, p. 194).			Approaches research with different styles and methods that can produce multiple forms of data (Guba & Lincoln, 2005).	urable with critical and participatory inquiry (Guba & Lincoln, 2005, p. 194). Some accommodation with critica-list and participatory methods of examining culture (Geetrz, 1973). Incommensurable: Data produced do not have to be from a common unit of measure. Approaches research with different styles and methods that can produce multiple forms of data (Guba & Lincoln, 2005).	research with different styles and methods that can produces multiple forms of data. (Guba & Lincoln, 2005). Some accommodation with criticalist and participatory methods of examining culture (Geetrz, 1973).

Hegemony *The influences researches have on others. Who has the power in inquiry and what is inquired.* Presenting definition of reality (Kilgore, 2001).	Belief that research should have the influence – not the person conducting the inquiry. Aim is to produce truth, not provide ways for that reality to affect others.	Statistical analysis of reality will produce data from which decisions can be made. Ultimately, the researcher is in charge of the inquiry process (Guba & Lincoln, 2005, p. 194).	Research demonstrates the interactions of privilege and oppression as they relate to race/ethnicity, gender, class, sexual orientation, physical or mental ability, and age (Kilgore, 2001).	Seeks recognition and input; offers challenges to predecess or paradigms, aligned with postcoloni al aspiration s (Guba & Lincoln, 2005, p. 196). *Postcoloni al in in reference to theories that deal with the cultural legacy of colonial rule (Gandhi, 1998).*	Power is a factor in what and how we know (Kilgore, 2001, p. 51).
THEMES OF KNOWLEDGE: Inquiry aims, ideas, design, procedures, and methods					
	Positivism	*Postpositivism*	*Critical (+ Feminist + Race)*	*Constructi vism (or Interpretiv ist)*	*Participatory (+ Postmodern)*
C: Critical issues of the time					
Axiology *How researchers act based on the research they produce – also the criteria of values and values judgements especially in ethics*	Researchers should remain distant from the subject so their actions are to not have influence on population – only the laws their inquiry	Researchers should attempt to gain a better understanding of reality and as close as possible to truth through the use of statistics that explains and describes what is known as reality (Guba & Lincoln, 2005).	Researchers seek to change existing education as well as other social institutions' policies and practice (Bernal, 2002).	Propositio nal, transactio nal knowing is instrument ally valuable as a means to social	Practical knowing how to flourish with a balance of autonomy, co-operation and hierarchy in a culture is an end in itself, is intrinsically, valuable (Heron

(Merriam-Webster, 1997). *What is the role of values? (Creswell, 2007).*	produces (Guba & Lincoln, 2005).		Attempt to conduct research to improve social justice and remove barriers and other negative influences associated with social oppression (Giroux, 1982).	emancipation, which is an end in itself, is intrinsically valuable (Guba & Lincoln, 2005, p. 198). Emancipatory, but longer term, more reflective versus critical theory's desire for immediate results. "Intellectual digestion"	& Reason, 1997). What is the purpose for which we create reality? To change the world or participation implies engagement, which implies responsibility. In terms of human flourishing, social practices and institutions need to enhance human associations by integration of these three principles; deciding for others with others and for ones self (Heron & Reason, 1997).
Accommodation and commensur- ability *Can the paradigm accommodate other types of inquiry?* (Guba & Lincoln, 2005). Can the results of inquiry accommodate each other? (Guba & Lincoln, 1989). Can the paradigms be	According to Guba and Lincoln, all positivist forms are commensurable. The data produced are equal in measure to all other data created (Guba & Lincoln, 2005).	According to Guba and Lincoln, all positivist forms are commensurable. The data produced are equal in measure to all other data created (Guba & Lincoln, 2005).	There is a priority or rank order to data created by different form of research. Because critical researchers want to transform society, critical theory data must come before all other forms. (Incommensur	Incommensurable with positivistic forms; some commensurability with constructivist, criticalist, and participatory approaches,	Incommensurable with positivistic forms; some commensurability with constructivist, criticalist, and participatory approaches, especially as they merge in liberationist approaches outside the West (Guba &

merged together to make an overarching paradigm? (Guba & Lincoln, 1989).			able with empirical-analytical epistemologies and accommodates different forms of research paradigms) (Guba & Lincoln, 2005; Skrtic, 1990).	especially as they merge in liberationist approaches outside the West (Guba & Lincoln, 2005, p. 198).	Lincoln, 2005, p. 198).
Action *What is produced as a result of the inquiry process beyond the data? How does society use the knowledge generated?* (Guba & Lincoln, 2005).	Researchers are to remain strictly objective, therefore do not concern themselves with the action that is produced as a result of inquiry research (Guba & Lincoln, 2005, p. 198).	Researchers are to remain strictly objective, therefore do not concern themselves with the action that is produced as a result of inquiry research (Guba & Lincoln, 2005, p. 198).	The research produced is to impart social change, change how people think, to serve as an examination of human existence (Creswell, 2007).	Intertwined with validity; inquiry often incomplete without action on the part of the participants; constructivist formulation mandate training in political action if participants do not understand the political system (Guba & Lincoln, 2005, p. 198). Must act to be valid and trustworthy.	Intertwined with validity; inquiry often incomplete without action on the part of participants; constructivist formulation mandates training in political action if participants do not understand political systems (Guba & Lincoln, 2005, p. 198).

				If do not educate participants to act appropriate politically, could actually cause harm to them (accountability in research). Encourages readers to consider the findings presented and understanding of culture that is offered (Geertz, 1973). *According to my understanding of the readings, researchers must understand the social context and the culture in which the data are produced to accurately reflect what the data*	

				actually mean to the study.	
Control *Who dictated how the research in produces and used?* (Guba & Lincoln, 2005).	According to Guba and Lincoln (2005), the control is conducted by the researchers without the input and/or concern of the participants and/or society as a whole.	According to Guba and Lincoln (2005), the control is conducted by the researchers without the input and/or concern of the participants and/or society as a whole.	Critical race theory and critical race-gendered epistemologies demonstrate that within the critical paradigm, control can be shared by the researcher and the subject, and ultimately the subject can have a say in how the research is conducted (Bernal, 2002).	Shared between inquirer and participants (Guba & Lincoln, 2005, p. 198). Without equal or co-equal control, research cannot be carried out.	Shared between inquirer and participants (Guba & Lincoln, 2005, p. 198). Without equal or co-equal control, research cannot be carried out. Knowledge is an expression of power (Kilgore, 2001, p. 59).
C: Critical issues of the time continued					
Relationship to foundations of truth and knowledge Helps making meaning and significance of components explicit (Guba & Lincoln, 2005).	Positivist believe there is only one truth or reality. Knowledge is the understanding and control over nature.	Postpositivists believe in a single reality; however they also believe it will never fully be understood. Knowledge is the attempt to approximate reality and get as close to truth as possible.	The foundation of the critical paradigm is found in the struggle for equality and social justice, and social science demonstrates the oppression of people. Knowledge is an attempt to emancipate the oppressed and improve human condition (Fay, 1987).	Antifound ational (Guba & Lincoln, 2005, p. 198). Refusal to adopt any permeant standards by which truth can be universall y known. *According to the reading, to*	Knowledge is founded in transformation and experience as demonstrated though shared research inquiry between the researcher and subjects(s) (Epistemology class notes). Knowledge is tentative, multifaceted, not necessarily rational (Kilgore, 2001, p. 59).

				approach inquiry from a constructivist viewpoint is to yield to multiple perspectives of the same data.	
Extended considerations of validity (Goodness criteria) Bringing ethics and epistemology together (the moral trajectory) (Guba & Lincoln, 2005).	Validity is found in "gold standard" data, data that can be proven and replicated.	Validity in found in data that can be analyzed and studies using statistical tests. Data can be an approximation of reality.	Validity is found when research creates action (or action research) or participatory research, which creates the capacity for positive social change and emancipatory community action (Guba & Lincoln, 2005; Merriam, 1991).	Extended constructions of validity (Guba & Lincoln, 2005, p. 198). Validity is a construct of the development of consensus. Based on participants and inquirer. "Assessment of any particular piece of research, then, may depend on very general expectations, on critical tailored to the sub-category	Extended constructions of validity (Guba & Lincoln, 2005, p. 198). Validity is found to become transformative according to the findings of the experiences of the subjects (Epistemology class notes).

| | | | | of approach and on emergent expectatio ns that very in all areas as the methodolo gy itself changes" (Preissle, 2006, p. 691)

Based on the assessmen t of validity, can it be argued that all data are valid because what may not have meaning to one person could be the founda- tions of all truth to anther? Taking this approach, could we say that there is no such thing as invalidity of data or methods if someone can find it to be an accurate | |

				reflection of their interpret-tation of reality?	
Voice, reflexivity, postmodern textual representa-tions Voice: Can include the voice of the author, the voice of the respondents (subjects), and the voice of the researcher through their inquiry (Guba & Lincoln, 2005). Reflexivity: The process of reflecting on the self as researcher "the human instrument" (Guba & Lincoln, 2005). Postmodern textual representation: The approach researchers take in understanding how social science is written and presented to avoid "dangerous illusions" which may exist in text	Only the researcher has a voice; any effort to include the voice of the participants would impact objectivity (Guba & Lincoln, 2005).	Only the researcher has a voice; any effort to include the voice of the participants would impact objectivity (Guba & Lincoln, 2005).	The researcher has a voice, but also imparts the voice of the subjects. The researcher is careful to present knowledge through his or her own paradigm while being sensitive to the views of others (Bernal, 2002; Guba & Lincoln, 2005).	Voices mixed with participants' voice sometimes dominate; reflexivity serious and problematic; textual representation and extended issues (Guba & Lincoln, 2005, p. 198). Voice mixed, with participants' voice and sometime dominate. Reflexivity is serious and problematic. Researcher do not wish to give direction to study.	Voices are mixed; textual representation rarely discussed but problematic; reflexivity relies on critical subjectivity and self-awareness (Guba & Lincoln, 2005, p. 199). Textural: Must be within the context of who or what (for institutions or organizations) is being studied. The subject(s) voice must be present in the research (Epistemology class notes).

(Guba & Lincoln, 2005). *Whose voice are heard in the research produced through the inquiry process? Whose views are presenting and/or producing the data?* (Guba & Lincoln, 2005).				Must use reflection as a researcher: "A few issues seem to be perennial: combining research approaches, assessing research quality, and the researchers' relation-ship to theory and philosophy, on the one hand, and participants and the public, on the other hand" (Preissle, 2006, p. 689).	

CHAPTER FIVE

METHODS

The research question, *How do social scientists conceptualize and implement research ethics and integrity?*, has not been explicitly addressed in any published literature to date (i.e., Feb., 2016). The purpose of the current study is to identify core themes, values, and principles social scientists endorse while thinking about and applying research ethics and integrity in human subject's research. Qualitative research, that in which data are in the forms of words (e.g., interviews, documentation, observation) for the purpose of "understanding the meaning of human action," (Schwandt, 2007, P. 248) seek to understand the human experience from the perspective of the individual. This methodology is used to elicit and develop an understanding of phenomena which are subjective and unique to individuals by investigating their personal lived experience. The current research is designed to do just that, understand the subjective experiences of social scientists and the manner in which they personally conceptualize and implement research ethics and integrity in human subject's research. Specifically, I seek to understand the following:

1. How do social scientists conceptualize research ethics and integrity?

2. How do social scientists implement research ethics and integrity?

To investigate these questions, I use phenomenological methodology analyzed through an emergent feminist lens.

Role of the Researcher

Prior to explaining the methodology, I first consider the role of the researcher (i.e., myself), my identity and scientific worldviews. I have an educational background in psychology, rooted in a post positivist empirical perspective, the primary philosophy associated with experimental and quasi-experimental research such as randomized controlled trials. This perspective is a less strict form of positivism, namely logical empiricism (Schwandt, 2007, p. 237). Schwandt states, "Logical empiricists hold that the aim of science is the development of theoretical explanations and that legitimate explanations, in turn, take the form of general (covering) laws" (p. 237). The post positivist worldview bridges two scientific concepts together, specifically, deterministic and reductionist philosophies. Under the guise of determinism "the problems studied by post positivists reflect the need to identify and assess the causes that influence outcomes" (Creswell, 2009, p. 7). The reductionist approach aims to condense ideas into discrete groups, called variables, which can then be represented in a hypothesis. This worldview or scientific philosophy is embedded in five assumptions:

1. Knowledge is conjectural (and antifoundational); absolute truth can never be found.

2. Research is the process of making claims and then refining or abandoning some of them for other claims more strongly warranted.

3. Data, evidence, and rational considerations shape knowledge.

4. Research seeks to develop relevant, true statements, ones that can serve to explain the situation of concern or that describe the causal relationships of interest.

5. Being objective is an essential aspect of competent inquiry; researchers must examine methods and conclusions for bias.

In addition to holding a post positivist perspective I also identify with the social constructivist worldview, a common philosophy in qualitative research. Social constructivism assumes individuals apply meaning to their experiences and lives (Creswell, 2009). The associated meaning of an event varies due to the individuals' unique life history and identity. In addition, the researcher recognizes that the meaning and interpretation they give to the data will be based upon their own history, culture and identity. Research conducted in this philosophy aims to make sense of people's understanding of the world and how they interact with it. Three assumptions accompany this philosophy (Crotty, 1998):

1. Meanings are constructed by human beings as they engage with the world they are interpreting.

2. Humans engage with their world and make sense of it based on their historical and social perspective.

3. The basic generation of meaning is always social, arising in and out of interaction with a human community.

I intended, and strived, to use the social constructivist worldview throughout the research process; however, I must acknowledge that my post positivist background may introduce an unintended bias. In addition, I acknowledge my time serving on a social and behavioral IRB may also bias my interpretation of the data. More precisely, my baseline expectation of faculty's awareness and knowledge of research ethics and integrity may be too great. This may cause me to harshly critique the data or bias me to look for the lack of ethics and integrity as compared to its presence. In efforts to control my biases, I frequently revisited the assumptions of my logic and those of post positivist and social constructivist worldviews. This frequent reminder helped

me identify if, when, or where I was expressing biases and assisted in the mitigation of such events.

Phenomenological Methodology

The current research was conducted via phenomenological methodology, a core method in qualitative research. Phenomenology has a "focus on the experience itself and how experiencing something is transformed into consciousness" (Merriam, 2009, p. 24). Research conducted through this lens is designed to "depict the essence or basic structure of experience" (p. 25). The advantages of this method allow for an in-depth understanding of how individuals personally make sense of the world they live in and the experiences which they have. Although this method does not lead to the development of broad generalizations, it will help expose core factors which can be investigated in future research. Due to the highly subjective nature of this methodology, there is a risk that data may not be representative of others who theoretically align with the participants. There is also an increased risk of bias in both the process of collecting and interpreting data. These issues were proactively addressed via adhering to an open-ended interview protocol and the acknowledgement of researcher biases and expectations. The open-ended format of interviews afforded participants the ability to steer the direction of the interview such that factors which the participants view as important became the focus of data collection.

Feminist Lens

A feminist research lens was used for both data collection and analysis. Feminist research is designed to help investigators gain access to ideas and philosophies endorsed by marginalized or underrepresented populations in specific areas of research by "ask[ing] 'new' questions that place women's lives and those of 'other' marginalized groups at the center of

social inquiry" (Hesse-Biber, 2012, p. 4). In the current research, social scientists are defined as marginalized as most policies, regulations, and applications of research ethics and integrity are developed by and intended for biomedical research, then extended to the social sciences. The use of a feminist lens helps bring attention to issues and concerns which are unique to social scientists, such as navigating ethical and integrity concerns associated with gender identity, race, socio-economic status, law enforcement, immigration, education and other social constructs. While there are many types of feminist research perspectives and lenses, I applied the feminist empirical approach defined as "epistemology that gives primary importance to knowledge based upon experience… [while valuing] empiricism's purchase on science and empiricist view that knowers' abilities depend on their experiences and their experiential histories, including socialization and psychological development" (Hundleby, 2012, p. 28). In the present context, socialization and psychological development is viewed as disciplinary norms, graduate education, and research experiences.

Participant Characteristics

The current study utilizes a purposeful sampling technique, a sampling logic where participants are selected for their "relevance to the research question, analytical framework, and explanation or account being developed in research" (Schwandt, 2007, p. 269). For purposeful sampling to be effective two criteria must be met. First, there must be a logical and sound reason to the sampling criterion. Secondly, the participants must not be selected because they are expected to support the hypothesis (i.e., biased) or the researcher's expectation of the data (Schwandt, 2007). Data collection stopped at exhaustion of the participant pool. A total of

seven ($N = 7$) tenure-track faculty members who meet the inclusion criteria described below participated in the study.

<div align="center">

Participant Inclusion Criteria

</div>

Institution

All faculty were recruited from a private Jesuit university located in the United States. The core characteristics of a Jesuit education include commitment to excellence, faith in God and the religious experience, service that promotes justice, values-based leadership, and global awareness (Loyola University Chicago, 2016). It is assumed that faculty who have a tenure-track professor appointment at a Jesuit university endorse these values. Additionally, I assume the values and mission of the university are reflected in the manner faculty conduct research. This is significant because Jesuit values theoretically align with the adherence to ethics and integrity in human subject's research. It is possible that the faculty sample endorse a relatively high-level of conscientiousness in ethical and integrity concerns in research as it would reflect Jesuit values. If this is the case, faculty at a Jesuit university are an ideal population to study as the intent of the current research is to identify underlying factors which influence social scientists understanding and use of research ethics and integrity.

Tenure track faculty in a social science discipline. Social scientists are the population of interest, therefore, faculty conducting research in, criminal-justice, psychology, political science, sociology, and social work, are eligible for participation. A tenure track position is required due to the expectation that faculty in these positions have a track-record of conducting successful research in their respective disciplines.

Principal-investigator or co-principal-investigator in human subject's research. The role of principal or co-principal-investigator implies the researcher was intimately involved in the planning, design, implementation, analysis and dissemination of human subjects based research. This is ideal because many times it is in the planning and designing phases of research that ethical issues are at the forefront of researchers' minds. Additionally, being a principal investigator means the individual is legally responsible for the research study and the study's participants.

Recruitment

Sixty faculty members from the departments of Sociology, Psychology, Social Work, Criminology, and Political Sciences, were invited to participate. Faculty were identified via publicly available webpages on the university's official website. Potential participants received a recruitment e-mail (see Appendix A) which contained a brief description of the study along with instructions on how to arrange an interview date and time. Upon agreeing to participate, participants received a confirmation e-mail from the principal investigator. Of the 60 faculty members invited to participate, seven agreed to the interview.

<div align="center">

Data Collection

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Data collection took place using one-on-one, semi-structured interviews at a location of the participant's choice. Prior to starting the interview, participants were given two copies of the informed consent (see Appendix B), one to be signed and returned to the principal investigator along with a personal copy for the participants to keep. Each interview was audio recorded and lasted between 45 and 90 minutes. The duration of the interview was based upon the professors' availability and their engagement in the discussion. Participants were asked a series of semi-

structured questions designed to help them think about, and describe, the ways they conceptualize and implement research ethics and integrity (see Appendix C). Follow-up questions were based upon the participant's responses and focused on clarifying the participant's perspective, or delving deeper into an emergent theme introduced by the participant.

Transcription

Prior to beginning the transcription pseudonyms were assigned to each participant. Development and assignment of pseudonyms required several steps. First, 25 pseudonyms were created via a web-based random name generator tool. The list of generated names was cross-referenced with a university-wide faculty list on the institution's public website. Seven pseudonyms were assigned to the participants after confirming none of the names were currently listed on the institution website. The remaining 17 pseudonyms were reserved and used as needed as an alias for any names participants mentioned in the during the interview (e.g., colleagues, university staff). After assigning participant pseudonyms the transcription began. The principal investigator transcribed data verbatim, including the use of pauses, phrases, and nonsensical words such as "umm" and "ah" for both the participants and the investigator.

Management of Emergent Ethical Considerations

In true form of qualitative inquiry, multiple ethical considerations arose during the research process. One was a result of institutional factors leading to conflicts of interests. The other, a combination of researcher error and theft leading to an IRB investigation for misconduct and conflicts of interest. Management of the ethical considerations are presented below and prioritize participant protection and participant autonomy over a thick, rich description of the data.

The institutional factors which resulted in conflicts of interest emerged over the course of four years. A dissertation committee member experienced a series of job promotions resulting in a position as a high-ranking university administrator. This introduced additional considerations related to power-dynamics (implicit and explicit), coercion, anonymity, and conflicts of interest (i.e., administrative responsibilities vs. dissertation committee responsibilities). It was decided to error on the side of participant protection and present data which are not linked to the source. This entailed removing all data excerpts related to the code, *participant characteristics.* To ensure participant anonymity data were presented without the use of pseudonyms or a literality identity. This form of data presentation contrasts with the norms of phenomenological research where data are linked to one pseudonym creating a semi-fictional character. The consequence of this decision is the data are not as rich and informative, however participant protection is enriched.

The second ethical consideration resulted from a series of unfortunate events leading to compromised data security. During a data analysis work session at a local coffee house, the researcher received a security warning stating network and internet security was actively being compromised. The researcher saved the deidentified, anonymized transcripts onto a password protected external storage device (e.g., jump drive), disconnected from the internet and continued data analysis. Later that evening, the researcher took their laptop into a restaurant for a working dinner, leaving a computer tote bag in the car. While at dinner, the researcher's car was broken into and the computer tote had been stolen. The tote bag contained the password protected external storage device, resulting in data theft. The use of the external storage device was a

decision the researcher made in the field, in response to an emerging ethical consideration (i.e., internet security) and was not included in the IRB protocol.

The researcher notified the dissertation committee and the IRB of the breach in security resulting in an IRB misconduct investigation. In accordance with the IRB, the principle-investigator; reconsented informed consent by speaking with each participant, thoroughly explaining the situation and addressed any questions or concerns; permanently deleted all codes related to *misconduct*, *fabrication*, *falsification*, and *plagiarism*. These steps were taken to ensure informed consent, maximize participant protection/autonomy, and reduce dissertation committee conflicts of interest.

The following sections describe how the data were coded and grouped into themes. Each step of the analysis process is described, even steps taken for data which were subsequently deleted due to the emergent ethical considerations previously described. This was done to maintain honesty and transparency in the research process.

Coding

Completed transcripts were uploaded into Dedoose (Version 7.0.23, SocioCultural Research Consultants, 2016) a web-based qualitative and mixed-methods analysis program. General coding rules included: (a) highlighting all segments of data which appear to be meaningful in any context, (b) overlapping of codes and coding within a code is permitted, and (c) no weight assignment to codes. Coding took place in four rounds, each focusing on a specific theme. Emphasis was placed on identifying explicit explanations of key research concepts (e.g., informed consent) along with behaviors which imply adherence or application of research concepts.

The first round of coding focused on identifying participant characteristics. This included concepts related to years of experience, academic rank, academic training, and personal identity. Codes in this theme are descriptive and aid in creating a concept of researcher identity. In addition, data were coded for broad research characteristics such as discipline, type of research site and purpose of the research.

The second round of coding centered on methodological factors and regulatory adherence. From a methodological perspective, focus was put on research population characteristics and research design factors. From a regulatory perspective, data were coded for concepts such as risks, benefits, and informed consent. Essentially data were examined for the same type of information present in an IRB application or research proposal.

The third round of coding identified the role of the researcher and decisions the researcher makes throughout the research process. This includes concepts related to decisions made in the field and the responsibilities of the researcher. Such as interactions with community partners, data collection, the process of analyzing and/or disseminating data, and advising students.

Lastly, during the fourth round, emphasis was placed on cultural and institutional factors. This includes factors such as graduate school experiences, university mission, type of university, disciplinary norms and expectations. Themes, ideas, and behaviors related to ethics and integrity were consistently coded during all rounds. Table 3 (see below) lists the codes and themes which emerged during the analysis process.

Table 3. Emergent Codes and Tags

Coding round	Coding rule	Codes and tags
Consistent coding	Applied for all rounds	Ethics and integrity, ethical/integrity issue, emerging issue, ethical/integrity concern
1	Participant characteristics	Class assignment, community college, in-house research, junior faculty, location, multi-site study, Principal Investigator/Co-Principal Investigator (PI/Co-PI), Purpose of research, research site, research study topic, student PI, study characteristics, undergraduate degree, year study conducted
2	Methodology and IRB	Ambiguity, anonymity, APA/writing, benefits, Collaborative Institutional Training initiative (CITI), community collaboration, consequences, data, data analysis, data collection, data integrity, data reporting, data security, federal policy, Fabrication, Falsification, and Plagiarism (FFP), generalizability, good data, human subjects, incentives, informed consent, Institutional Review Board (IRB), minimizing risks, misconduct, participant attrition, participant perspective, participants/populations, protection of participants, recruitment, reliability, research design, research method, research process, research team, sensitive information, study population, study risk, use of research produced, vulnerable characteristics, vulnerable population,
3	Role of the researcher	Authenticity, behaving ethically, duality of roles, honesty, human error, I don't know, independent decision making, personal perspective, role of the researcher
4	Cultural and institutional factors	Academic research, colleagues, critical past research, disciplinary factors/culture, ethics & integrity instruction and guidance, ethical education, general public, journal editors, mentor/advisor, outside factors, professional society/group, publication, publication process, research community, researcher training, resources, scientific community, society, teaching, tenure, university resources

Theme Development

The first round of data analysis resulted in 105 codes which were created and applied

over four rounds of coding. These data are presented in Figure 1. The font size of the codes

present in the word cloud represent the frequency of code application. For example, codes which

are in the very small font (e.g., human error) represent a low code count and application. Those

in a large font (e.g., disciplinary factors/culture) represent a large code count and application.

This visulalization helped guide the data collapsing and reduction process. Efforts were taken to

reduce the data into more concise themes. For example, small codes (those with a low

application count) were identifyed and grouped with other small, theroetically linked concepts.

Codes which were in the large font were examined to determine if they should be recategorized

and/or reduced. Data reduction, clarification, and adherance to IRB reguirements significanly

effected the volume and frequency of codes. At this phase, the code count resulted in 55 codes.

Figure 1. Preliminary Coding Word Cloud

Critical Reflection

Data (i.e., the 55 post-reduction codes and themes) were reexamined and reflected upon. During this process I focused on three objectives. First, consideration of the IRB protocol and methodological parameters. Second, examination of evidence supporting conceptual definitions and themes presented in the literature review. Lastly, critical identification and reflection of my assumptions, biases, and identity.

The IRB application places emphasis on data anonymity, a justifiable concern. In accordance with the IRB, all codes which were applied in the first round of coding (i.e., participant characteristics) were removed. This step was taken to reduce the likelihood of conflicts of interest arising within the dissertation committee. More specifically, I wanted to make sure the committee members would not figure out the identity of the research participants. Data were also stripped of all codes relating to misconduct, fabrication, falsification, and plagiarism, as requested after the IRB investigation. This was done to reduce the potential for conflicts of interest within the dissertation committee.

Data were then reflected upon in reference to the interview questions and the context of the conversation for each interview. This process was extensive and time consuming as some parts of the data include ambiguous language on the part of the participant. The literature reviewed guided this phase of reflection by providing a guide for code definitions and theme development. During this time, critical attention was paid to the specific terminology used for code names and researcher behaviors/decisions. Code names were examined for ambiguity, redundancy and other factors which may affect clarity of the code. This process was iterative and continued until I reached a point where further reduction was illogical. Table 4 identifies the

final 41 codes applied to the data. Figure 2, the final word cloud, provides a visual of the final

41 themes and concepts which emerged from the data. These 41 codes were then grouped into

three overarching categories, 1) research ethics and integrity conceptualization, 2)

implementation of research ethics and integrity, and 3) research ethics and integrity resources.

Table 4. Final Codes and Tags

Coding Round	Coding Rule	Codes and tags
Consistent coding	Applied for all rounds	Ethics and integrity, emerging issue
1	Participant characteristics	*Removed to protect participants anonymity
2	Methodology and IRB	Anonymity, community collaboration, consequences, data, data analysis, data collection, data integrity, data reporting, data security, federal policy, incentives, informed consent, IRB (Institutional Review Board), participant engagement, participant perspective, participants/populations, protection of participants, recruitment, research design, research process, research team, vulnerability
3	Role of the researcher	Behaving ethically, personal perspective, role of the researcher
4	Cultural and institutional factors	Disciplinary factors/culture, ethics & integrity instruction and guidance, mentor/advisor, outside factors, publication process, researcher training, resources, scientific community, society, teaching, university resources

Figure 2. Final Coding Word Cloud

Upon reaching the final 41 codes and three overarching themes I engaged in a critical self-reflection of my assumptions, biases, and identity. Admittedly, the data provide evidence which aligns with my assumptions, researchers understand and apply research ethics and integrity in different ways. The data also support the assumption that research ethics and integrity oversight (e.g., IRB) can be a source of stress and concern. Additionally, my assumptions that training efforts and regulatory practices are functioning on a model designed for positivists methodologies was endorsed.

Lastly, the research process itself yielded ethical considerations which I, the researcher, had not faced in the past. Ironically, the act of managing the emergent ethical considerations and undergoing an IRB misconduct investigation afforded me unique knowledge as I now had a personal experience which directly relates to the research question. This experience allowed me

to personally identify with some of the ethical considerations informants had discussed during the interviews. Significant efforts were taken to acknowledge if, and when, I was allowing the experience to affect my interpretation of the data. These efforts included, drawing upon the literature review and data to guide my analysis, and open, honest dialogue with more experienced peers and mentors. While I believe the data presented below are free of my biases I must acknowledge that this is only an assumption. In truth, the research question, research process, emergent ethical issues, and my personal experiences may have affected my understanding and interpretation of the data.

CHAPTER SIX

RESULTS

The current chapter outlines the seven central themes which emerged during the analysis

process. Themes are grouped into three distinct categories; conceptualization, implementation,

and resources. Conceptualization includes the way participants define and describe research

ethics and integrity. Implementation encompasses; discipline and culture, research design/

methodology, participants and populations, the role of the researcher, and data. Lastly, resources

consist of federal policy, IRB, and peers and mentors. Each theme is presented in a similar

structure, specifically; a brief description of the theme and subthemes; data excerpts as evidence;

and a summary and theoretical analysis and/or reflection of the content.

Data themes and segments are frequently coded for more than one construct. For

example, an excerpt coded for "Resources" may also be coded as "Institutional Review Board,"

naturally, this multi-level coding is dependent upon the context of the data. Data are presented

under the theme with the richest contextual and theoretical application. Weighting was not

applied to data. meaning the frequency of the code application was the more influential factor in

theme development.

All excerpts are stripped of researcher identity and disciplinary identifiers to protect

anonymity and confidentiality. A summary of participants' academic background and research

interest is presented in an anonymous and aggregate form to provide contextual information.

Participants are formally trained in several academic disciplines including; Psychology,

Sociology, Social Work, Political Science, Criminal Justice, Criminology, and Juris Doctorate. Most of the participants earned a terminal master's degree prior to completing doctoral studies. Many worked in their respective fields prior to beginning an academic career. All participants were trained in the United States, attending a wide variety of educational institutions including; private, public, and faith based with student body size ranging from small to very large. Informants' amount of tenure-track experience conducting human subject's research as a principal investigator or co-principal investigator ranges from less than five years to more than 20.

Participants selected one of their past research studies to focus on during the interview. All studies involved the use of human subjects. All research referenced underwent institutional review at both the professor's affiliate university and community partners (where applicable). Each study addressed, in one form or another, communities, community collaboration, and use of vulnerable or underrepresented populations. Below is a simplified, deidentified summary of the research conducted by participants.

Briefly, the scientists; interviewed faith leaders, politicians, and economically disadvantaged; investigated law enforcement practices; examined knowledge retention for a sub-set of vulnerable populations; investigated factors of police misconduct; researched teacher education and preparedness; lastly, looked at immigration and the economically disadvantaged.

Conceptualization

Research Ethics and Integrity

The excerpts presented below include initial reactions and personal definitions participants provided for research ethics and integrity. All informants agree that research ethics

and integrity are core components of scientific research. Some of the participants place

emphasis on data processes while other focused on professional behavior, transparency and

respectful interactions with research participants.

One researcher's initial reaction to the meaning of research ethics and integrity was

honest and succinct with emphasis on professional behavior.

> What is research ethics and integrity? …. See it's something that I don't even think
> about. I mean to be honest….Because, …. Mmmmmmuch research in [my discipline]
> does not involve the kind of thing I did in this [project]. Although there are a number, a
> lot of people who conduct interviews, right? Umm…. I mean, so ethical to me is just
> normal professional behavior.

> I don't know. Again, it doesn't, it really doesn't enter my mind. And the only time I've
> had to deal with IRB was with this [project] because when I [did my] doctoral
> dissertation and the first [project] I published, I also conducted interviews, but they were
> all with elites so, you know when you conduct interviews with elites, there's less of the
> concern, that you know, you're putting them in danger.

Another researcher mentioned some of the multiple motives and implications of ethics in

research:

> There are a number of different implications for why ethics are important in research.
> …One is that we want to harm our participants as little as we can. … [We want to] make
> sure that they are on the same page and that they have all the information that they need
> to have in order to make an informed decision whether or not to participate. The second
> …is the scientific knowledge and policy implications that can be gleaned from the
> scientific knowledge … I want the data to speak for itself because when we generate
> knowledge, we want that knowledge to be true and accurate.

One researcher reflected on the multiple motives researchers may have for conducting

their work.

> I mean, I think we need to acknowledge that human beings, including researchers, hold
> multiple motivations at one time. So, one motivation is to advance social justice. Like at
> its best, that's what I think about it. Another is to actually get your research out there
> because you want people to really read it.… Also, because that's how you get paid, that's
> how you move up in the world, that's the currency of our profession. Another is to not
> embarrass yourself, to actually say things that are interesting, and you know build upon

knowledge but at the least aren't, you know, foolish. Um, another is it's really exciting to be able to put your work in conversation with other work that you care about and/or to have papers that you can assign your students, you know, that's fun. I think there can be conflicts or you can feel out of integrity when those multiple goals don't align beautifully.

One researcher focused on integrity, with emphasis on selfless motives and continuous respect for participant's time, data, experiences, and lives.

It means, um… doing research that matters. And by that, I mean it means not chasing the money; it means not going after a project because it's going to buy me out of class, or it's going to make my dean happy, or it's going to bring the university prestige. It means that I'm doing work that's actually going to make a difference in the lives of the people that I have chosen to do the research with. It means being true to them, representative of their world and their spirit, and it means following through. So, if I am going to go out and I am going to do a project and the results don't pan out the way I want them to, I'm still going to do due diligence to get that out there….I think those are some of the things that research ethics and integrity means, … that's what research ethics and integrity means to me.

One researcher had a succinct explanation focused on the overall goals of scientific inquiry, the contribution to a body of knowledge.

It means this is the only way to do research. There's no other kind of research to do. It's self-defeating if you do research that isn't ethically based and results in publications that aren't true and correct. …It defeats the purpose of trying to contribute to the body of knowledge in society; it's self-defeating from a personal point of view. It's not something that I would ever [embark upon], nor have I ever embarked upon, nor will I ever embark upon.

Another researcher discussed the ongoing need to consider ethics and integrity throughout the research process, participant and contextual interactions along with the responsibility of teaching ethics to students.

Ethics is not just what we promise the IRB what we are or are not going to do. Ethics is how we interact with the people that we are trying to study. That's where the rubber meets the road, right? It's not about this abstract and pie in the sky commitment to being ethical, it's about interacting with people and, and, …making your own judgments…making judgments that align with ethical principles in real time in face-to-face interaction while getting a job done, right? That's, that's where ethics matter and,

um… And you have to go out… You have to go acquire that experience. That's not something that I can just tell you, right? Um, and so that's, that's one of the biggest things with, with students who are learning to do this is that, um… They need time and they need guidance and support to do it.

One researcher's initial response was based on their personal perspective of appropriate behavior. This researcher also addressed emerging concerns in the researcher's discipline, particularly data integrity.

I think it comes down to being honest and not doing anything that … it's hard! … I wouldn't ever want to do something that my grandmother would be upset about. …She's a lovely woman; I wouldn't want to do something that would make her be like '…I cannot believe you did that!'

Integrity is …. doing right by the field, society, the scientific process, not screwing with it, and being honest about it. …I feel we have the human subjects side of things ethically figured out really well. I think where the field needs to go is figuring out how to…. I don't want to say reward people who are ethical, but… how the field makes or gives people space to be honest researchers and not feel that they have to force data into a particular hole.

Informants expressed a consensus that the conceptualization of research ethics and integrity is multidimensional. There was continuity in their definitions of ethics and integrity which aligned with the core values of the Responsible Conduct of Research and 45 CFR part 46. Faculty appear to be well informed as to how regulatory bodies expect them to conduct their research.

All of the participants are mindful of their responsibility to maintain scientific rigor and publish. The majority of variability within the data was present in the manner social scientists prioritized and applied the principals of the Responsible Conduct of Research. Much of this variability was informed by academic discipline, institutional culture, and research methodology. The research environment, interactions with participants, data analysis and dissemination seem to dictate most of the ethical concerns researchers face. Informants expressed value of having

academic peers and mentors and view these relationships as a critical resource in managing

ethical and integrity considerations.

Consequences

Faculty cited consequences of misconduct and ethical infractions across a wide variety of

topics including; community relationships/trust, professional reputation, job security, participant

harm and scientific integrity. Some faculty members were succinct regarding their positionality

on misconduct and risk, while others spoke at great length.

One researcher had a great deal to say about the topic, mentioning interests of multiple

stakeholders and potential consequences stakeholders may face. This researcher first discussed

direct and indirect consequences to the population of interest followed by some of the

consequences that researchers may face at the institutional and professional level;

> So……I probably won't be able to speak to this to any real specificity because I admittedly haven't really looked over the faculty handbook that closely, but I'm sure depending on the seriousness of the offense, you know, consequences could range from anything to having a sit-down with the chair of the department, you know, possibly all the way up to termination from the University. Depending on again, the seriousness of the misconduct. Professionally, I think there would definitely be, and rightfully so depending on the seriousness, I think there would be some out casting that would happen. I already know in our field there are some names that, you know, when those names pop up you take a second look.

> I think that submitting manuscripts to journals, the editors of the journals are going to be somewhat leery of accepting your work. You would probably be getting some heightened scrutiny, I don't really know what the protocols are but probably something beyond just the regular, you know, desk review and then sending it out to a couple peer reviewers. I think in terms of…I think that would also go along the lines of trying to get another job at another university; I think the scrutiny would be more intense; I think the optics of the situation, I think that departments would look at that also, so if you were someone that had been blacklisted, or whatever, you might have done your time for the crime. But that might be another sort of collateral consequence of what you've done.

> But, it's complicated. I think there's definitely serious consequences both in terms of employment, professionally speaking. You know, it may even go into social

consequences. I have a pretty good social relationship with my colleagues, and that might start to disappear if I did something stupid.

Another researcher's initial reaction to consequences was focused on exploitation, additional harm, and trauma which participants may face. This researcher mentioned the consequences of unethical research including the primary concerns of being unable to personally live with the unethical behavior and impact of the field as a whole;

> Um, oh my God, ... additional trauma?! I mean the young people that I worked with, … some of them had some trauma, some had complex trauma beyond any of our real comprehension, so I think unethical research for me, in that context would have looked like selling a false bill of goods; really going in and doing unsavory practices and being inauthentic. I think that it would have set up another situation in those young people's lives where they were exploited and taken advantage of and I think that is one of the worst consequences that could have happened for them. Because I came in selling myself as someone who really believed in this [project] and in what they were doing and wanting to observe them; and having not followed through on that or being inconsistent or unethical about that, it just would have been another example to them of 'here's another adult who came in, got what they wanted from me and left, and here I am alone again' … … … But, that's really not OK. That's a really big consequence that I could think of for sure. Then, not representing them, not doing member checks, not going back and showing them 'so we talked for a long time and this is what I came up with, is this true?' We don't have to agree but like let's get to the point of where we can actually land on a couple of things that I can then present back. So that would also be grave to misrepresent them too.

> I would have totally, I'm going to be a little crude, but I would have pissed away an opportunity to build a really important research agenda which is talking about how there is a real importance to allowing people who are, are our most vulnerable and disadvantaged to access … something really special there. I would have totally, I think, lost an opportunity to do that. That would be a major consequence for this field.

One researcher was mindful of the consequences to ones' professional standing and disciplinary impact.

> The human subjects might not even know it if I fudge data and publish false representations of their responses to the questions. They probably would never know it. … Nobody [no researcher] wants to read a study and then cite it in their own work later on only to find out that that study was based upon falsified data. I mean it would look bad and future researchers would be upset, I would think. …I did a study that was

published [a few years ago], that was the first time that the editor of the journal, before publication, wanted confirmation that the project had been approved by my institution's IRB. That was the first that I had ever been even asked that and so we included a footnote to that effect.

It could result in discipline from the University. I mean that would be the kind of thing I could lose tenure for I suppose if it were egregious enough. It would jeopardize my position here. There might be some legal consequences; it would be embarrassing as a scholar to be accused of that. It would cause a lot of embarrassment and just cause me a lot of grief. Generally, I would be seen as a fraud or a crook, and "I'm not a crook!"

We're trying to add to the body of knowledge and if, as scholars, the knowledge is bogus knowledge, it doesn't help anybody except the author who might get a promotion or a job or whatever, or tenure on false pretenses; but to society it's clearly a travesty. I mean, why waste your time conducting a study only to get results you don't like, and then falsify the results? I mean, what's the point? You might as well just falsify the whole thing. If you're going to falsify, why not just make up names of interviewees, what they've said, and make the whole thing false.

I mean, whoever does all that stuff that you are studying, you know, I mean this is just unbelievable that anybody would engage in fraud and in deception of that nature. To me you put your life, your livelihood on the line for what? I mean there's plenty of things to study in a legitimate way and you get your data as you find it, and what you publish it was you got it and you analyze it the way you want to analyze it, then why mess around? Why jeopardize your livelihood and your integrity and your reputation for just another publication?

Another researcher addressed consequences to participants and their willingness to participate in future research. The researcher also discussed science as a whole and some the challenges facing researchers and the scientific community;

People get burned and then they're going to shut the door. Right? That's what I've dealt with myself. Um, not because of anything that I did but because, when I introduced myself as a researcher and they've had a bad experience with other researchers, it's 'Thanks, but no thanks'. Right? So, when people who are generous with their time or participation get burned by researchers engaging in things they shouldn't, then it can have broader, negative consequences for the rest of us trying to do that kind of work.

We are in a real conundrum right now concerning broader distrust of science, … sources of credible information…. We're already dealing with problems of credibility and academia and the relationship between academia and social behavioral sciences and, and the rest of the population, right? When members of us, when 'bad apples', so to speak,

within our community behave badly it just confirms prejudices out there about the work that we're doing which is going to further aggravate the problem.

If people [in our research] environments, whether it be education, health care, criminal justice, whatever, you know, arenas of social life that we might want to study and that we could offer valuable insight into…. If they won't, if they don't trust us enough to even have a conversation with us in the first place, then we're cut off at the knees.… I mean from a humanist standpoint ethics are important anyway. But from a broader, more kind of existential professional enterprise kind of standpoint, they're more important now than they have ever been. Not that they've ever been unimportant.

But because of these other reasons, our credibility [as scientists] is on the line and we have to protect it. We have to preserve it, not just for our own work but for our colleagues and our students and so forth. Because we are under scrutiny and when we behave badly, that's what gets held up, right? And so, we can't behave badly, we can't.

We are in, for a lack of a better term, we are in the business of credible knowledge and we can't expect people to be willing consumers of that knowledge if they don't see us as credible because we don't behave well.

One researcher focused on the disciplinary and societal impact of misconduct and the

need to protect participants.

Oooo… that's big. I think it depends on what the unethical situation is. I think if the unethical situation is something about fabrication of data, then I think the biggest disservice is to the field because then you are pushing forward ideas that aren't actually supported that people are going to build future research questions off of, that they are going to try to get grant funding for, and so that does a disservice to other researchers. Um… I think it's also disrespectful of your participants, because why did you bother using their time if you're just going to make up your data. I think when things surface about unethical, truly unethical issues, like data fabrication, and the media pick it up, then I think it makes society not trust science and scientists and that does a disservice not just to a particular field, but to researchers in general and then political climates where grant funding is getting cut. You don't want any reason that someone can point to and be like "well we shouldn't be funding the researchers because they're just making shit up", like those jerks.

Participants cited a wide range of consequences for the participants, researchers and

society. Emphasis was placed on the negative impact of faulty knowledge and the consequences

of disrespecting participant populations. Risks associated with participant safety appeared to be

well managed as the primary area of emphasis focused on penalties for the researcher and society as a whole.

Implementation

Implementation is the way scientist actively apply the principles and values of research ethics and integrity. The main factors that influenced implementation include; academic discipline and culture, researcher training, teaching, populations and participants, role of the researcher, research methodology, and data. Excerpts are presented below as evidence of the scientists' implementation of research ethics and integrity.

Academic Discipline and Academic Culture

Data segments coded as "discipline and academic culture" focused on researcher training (i.e., graduate school experiences) and teaching ethical concepts to students. Informants frequently qualified their responses with statements referencing disciplinary training and resources. Some faculty were significantly impacted by a heightened level of ethical awareness and regulation during their graduate experience while others witnessed a void of ethical discussion. All of the informants expressed the responsibility to help their students develop an ethical mindfulness.

Researcher training. One researcher discussed a perceived lack of disciplinary ethics and integrity training in graduate programs.

> Both at the MA and PhD level, I don't think we ever discussed ethics in research…I'm telling you I don't know what it was like in another [institution or discipline], but if you talk to most of the people in this department who got their PhDs in different places, I suspect…umm…Yeah, I suspect that most of them will say 'we didn't have anything on ethics and integrity' and you know we all have to take methodology classes. You'd think that that would be in there… nah.

Another researcher spoke about attending graduate school in a post-misconduct

awareness institutional culture. This researcher lamented about missed opportunities during their

graduate education to better understand research ethics due to a ripe institutional culture.

> [What] I wish someone definitely would have sat down and talked to me about was … I mentioned this earlier, the requirement to fully visualize what your research is going to look like before you do it so the IRB can review it and give you some feedback on whether or not it's ethically sound, and the tension between that and what actually happens in the field. Getting more clarity around when do I really need to reach out to someone and know that I'm in an ethical grey area. Or to at least inform students that it's OK to be in that grey area sometimes and that's when you need to make decisions, and document it and keep track of it so that when you do feel anxious about it, or have that kind of fear, you can take it to your mentor or your advisor, or you can take it to the IRB and talk to them about it. Ultimately that's where the anxiety kind of manifests from is like 'I don't know if I'm in protocol, or out of protocol at this point'. So that would be, I think, the feedback that I would give to students as well is that I think having space to kind of talk about that, and kind of think about that. And I'll be very frank … understanding that it's going to happen and that you just do the best you can, and really hope that you're, that you're coming from a place of kindness and humanity.

Another researcher's statement complemented the previous quote by discussing a lack of

adequate time for graduate students to develop an ethical expertise. This point of discussion

focused on the need for students and emerging scholars to develop an ethical consciousness;

> I am in a privileged position at this point… I'm still junior faculty at the point of which we hope tenure review is going well. Then I'm in an extremely privileged position. I have the time, I have the resources, I have the training and the experience. You still deal with the pitfalls of doing field work, right? But in terms of challenges and problems, that's small potatoes especially if you have the experience and the training of how to overcome them. So, I mean, …I'm less worried about myself than I am students and, … I guess junior faculty who come in behind me in my career stage…At the same time, as someone who is trained as a [social scientists], as well as an ethnographer, I'm also keenly aware that it takes time to develop this expertise. I fear, and sometimes I observe that, a variety of institutional pressures are truncating the necessary time for people to really develop that expertise. And that's to all our detriment.

All three of these researchers' experiences with graduate research training focused on missed

opportunities and the need for faculty to create time and space for ethical discussion to happen at

the graduate level.

A different researcher highlighted notable efforts in providing researchers with ethics and

integrity training.

> Well, I think that there is more effort than there probably used to be to actually give
> people some sort of ethics training or guidance, and I think that's good. I think it's a
> backlash from the number of years and studies that we can point to that were completely
> unethical. Back when we thought of them as human subjects. There's a lot of training
> that goes into how to protect human participants and animal studies as well. I think that
> seems to be institutionalized which is good and that's what we get through things like
> CITI training, and first year seminars that you have to go to about like 'what are ethics,
> and what are all these horrible things we used to do that we shouldn't do any more, and
> what are all the rules that we are going to follow so that we don't do those things'. I
> think that's partially why I can give you really clear answers about what we do, IRB
> wise, to protect the people that we work with. I think that the, where the field is still
> getting in trouble and where I think some soul searching maybe has to happen, is the
> ethical considerations that go into data processing and analysis.

The level of ethical training the informants received during their graduate studies was

variable and was influenced by graduate program design, institutional structure, and culture.

While most of the researchers saw room for improvement in their ethical education one did

witness notable efforts and drew on that source of knowledge during the interview.

Teaching. Informants saw value in teaching ethics and integrity to students. Three of

the researchers discussed methods they use to help students understand research ethics and

integrity. Value was placed on creating a time and space for students to engage in ethical

reflection. One early-career researcher shared some personal insecurities and anxieties about

mentoring graduate students.

> One of the things that I've always sort of talked to my stats class, my theory class, my
> methods class, all about is the fact that … the social sciences are still sciences. We still

use the scientific method to test hypotheses and gather data, and to analyze the data but one of the things that's a little bit more tricky in the social sciences is that we don't often do true experiments. They are a lot easier to do in the hard sciences but in the social sciences because of ethics, because of legal concerns, you have to be very cautious about your research design.

I mean, I think it's one of the bedrocks of scientific research. When I teach a stats class or I teach a methods class I talk to them about research methods kind of being like a tool belt. In a regular tool belt, you have space for your hammer, and you have space for your screwdrivers, and you have a pocket for your wrench or whatever. I tell them that the sort of the research methods tool belt has a pocket for your sampling, has a pocket for your research design, it has a pocket for how you're going to analyze your data. But one of those pockets should definitely be filled with an ethical consideration.

Another researcher shared a method for helping students understand the complexity of

research.

So, what I try to do with my students, regardless of what class it is, I try and talk to them about being in the ambiguity [of conducting research] and understand that that's OK and that sometimes leaning into the unknown is all we can really do and just be present.

A different researcher talked about the broader impact ethics and integrity has on their

profession.

So as students, as faculty, primarily who are training in these methods, that's something that we need to be making clear to our graduate students, it's like, look, you know, you can't be cavalier with these issues because it's not just about you and your project. It's about all of our projects; it's about our broader professional enterprise. We all have a stake in that.

One researcher reflected on some anxiety they were having about mentoring a graduate

student.

I've taught undergrads how to do analyses, but I haven't … I have a first-year grad student right now, I'm terrified, … I'm like 'Oh, is this what it feels like to become a parent?' Like, I don't know, I don't have children (laughter), but I'm so worried about this person's development because they're my responsibility. You know, but I don't know exactly how I will make sure that [he/she], you know, does things properly.

Participants appear to have a sense of personal responsibility to both teach research ethics in the classroom as well as ensuring appropriate professional development for graduate students. The degree of ownership participants felt for this responsibility is a desirable outcome as level of ownership and commitment endorsed by faculty may be related to instructional effectiveness (e.g., ethical behavior). Additionally, the level of anxiety expressed by one researcher may suggest early-career scholars need guidance in mentoring graduate student researchers.

Populations and Participants

The second sub-theme, populations and participants, centered around participant perspectives, vulnerability, participant engagement, participant protection, and recruitment. Faculty discussed the importance of considering the perspective of the participants/population of interest and how that may affect participants' experiences. As stated by one informant;

> At least in my own experience, I think that the projects I have worked on I have taken great care to inform the participants of what they are getting into. You know, at multiple times we tell them that they don't have to participate; that participating is not necessarily going to benefit them maybe in any monetary way or anything like that but that their data may have the potential to benefit science as a whole. And then if there are practical or policy implications that can be gleaned from that, then you maybe it can benefit society or the field one day.

> Word of mouth is obviously a big thing. And if we harm our participants, not only are they more likely not to participate, not just in our research but in any research in the future. They are, you know, they're going to go out and they're going to talk to their family and friends about this shitty experience that they just had and it might make others more leery about being research subjects in the future. And, I think another sort of caveat to that is (pause)…..obviously any time we collect data we are trusting that these individuals that are participating are giving us honest responses and that the data are reliable. If we do something to, you know, mess with them, and they do happen to engage in research in the future they might not be as inclined to truthfully participate.

Another researcher discussed risks such as the researchers' personal safety and along with managing levels of access to the population of interest.

Two [researchers] were worried about my personal safety because, [some of the stakeholders], they were not very scrupulous. …One of [them] …was like I just don't want anything bad to happen to you…. I had another [person who] … just wanted me to be safe about like exposing [my participants].

There were a lot of instances in which the community members were wanting me to be there. Which I think was the opposite of a lot of community-based research where you would have to slowly gain trust, and it takes a long time to develop access. … If anything, my issues were having too much access at the beginning in terms of not having a research structure developed and community members being like, 'OK come on we've got meetings, we've got places to go' and things like that.

The same researcher then focused on how personal biases may have impacted

interactions with the community.

I was pretty clear that if there came a point that I had to choose my loyalty in terms of, like for example, the [company] or the community, my loyalty was going to be with the community. That just was not the dilemma for me. And I realized very quickly that if you think of communities as like this Petrie dish that you're going to come in and not contaminate and not like um be a real person and you're going to be able to be entirely neutral the entire time, that would be a very foolish thought. It doesn't work that way.

A different researcher reflected on a time when a research participant requested services

and/or assistance which fell outside of the defined parameters of the research, and the role of the

researcher.

[A respondent] was under the impression that I might be able to help him with [his] situation. And at that point I felt extremely conflicted. I had been very transparent about my role and who I was. But, I understood at that point that I had become a source of stability for this young man, and someone that he felt that he could talk to. Whether or not I told him that I wasn't staff, he was starting to see me as staff because I was around, and he was hoping that I could help him out. I remember writing quite a bit about this and the conflict that I felt…I knew I could have gone and advocated for him and started a conversation, but I also knew that as a researcher that was a boundary that I could not cross because it wasn't my role and it wasn't my place to go and engage... So, in that instance I communicated to the young man … 'I really hear you. And I want you to understand that there's not a lot I can do for you. You can talk to me and I'm going to listen to you and I'm here; and if I'm in this building I will listen to you. But in terms of advocating for you or being able to have any influence, that's not something that I can do.'

To answer your question on a larger level, I am not, not going to be a human being, in terms of being a researcher.… For me it's about who I am as a person, and I want to be supportive, and I want to listen. But, I also want to do my job and my purpose at that agency was to complete my study. I was really transparent about that all the way along; about the products I was getting, about the employment that I would gain, about what I would gain from this process. But I also tried to be…oh God this sounds so trite…I was just trying to be as kind as I could.

A researcher discussed how the sensitive nature of the research questions influenced

participant protection.

[The primary concern] was just a matter of whether the respondents would reveal, voluntarily, any acts of misconduct in which they had engaged. We knew it was a sensitive topic; but we thought, I thought, that having an 'insider' [i.e., the student] obtain the information would more likely result in good data. So, I was all for the project. Of course, as I said, the IRB sort of put the kibosh on the direct questions and so we had to get around that and get their approval to ask sort of indirect questions.

I can tell you [one informant] indicated to the student interviewing her that she has told her colleagues in the [workplace] she will not lie, she will not falsify a report, she will not engage in any such deception of the illegal type, and as a consequence she was marginalized by her colleagues; nobody would [work with her]; she broke down in tears during the interview describing her experiences because she was known as someone that wouldn't play ball with the rest of the [employees] who were engaged in these activities.

Another researcher focused on the need to protect the autonomy of vulnerable

populations.

In terms of like unethical things with participants, especially with children you always want to make sure that they're doing OK, right? Because they are a protected population and you are an authority figure as an adult and you want to make sure that they are comfortable, and that nothing, you know, they're not um… hating something about the experience. I think, if you are a researcher that's going to force a child to keep doing something that they don't want to do, that's horribly unethical and that's something you shouldn't do to them as a human. But it has implications to their parents and to other researchers who will be viewed in the same light as you.

Participants discussed to need to be constantly mindful of the protection of the

participants and how that interacts with the role of the researcher. In the current excerpts, the

roles of the researcher included; not misleading participants as the purpose and abilities of the

researcher, protecting autonomy, transparency and preparedness.

Research Methodology

The theme research methodology contains codes related to research design, methodology,

data collection processes and other factors that influence the structure and application of

research. Evidence of the participant's epistemological foundations emerged as they frequently

discussed risks which are commonly associated with either post positivist or constructivist

paradigms. Additionally, efforts to protect populations, institutions, and scientific inquiry as a

whole was emphasized.

One researcher spoke about the necessity to identify and minimize risks in survey

research.

> Some of the questions that are asked in survey research can be mentally taxing and
> emotionally taxing. And so that's just…I think that's just a good reason why we go
> through the informed consent process and why researchers need to be ethical in their
> decision making when designing a study, when implementing a study, again we try and
> minimize those risks or potential risks as much as possible because if we harm our
> participants, they're not going to have any incentive to help us out again in the future.
> We run the risk of alienating the people that are helping provide, you know….our data.

> I'm sure you probably read the Belmont Report many times. We want to do everything
> that we can do to minimize the risk for our participants. And, I know that at least most of
> the research that I do those risks are minimal and they tend to just include things like
> mental or emotional distress by thinking about topics that could potentially be sensitive.
> But you know, just thinking about other areas of research, I mean, consequences for
> participants can be deadly. So, it's one of those things, just like sampling and analysis,
> and all those things; it's gotta be one of those tools in your tool belt that you're always
> using any time you do research.

An informant mentioned a philosophical discussion that took place with their methods

advisor regarding objectivity.

[My research involved] observation and involvement. I had to from the onset of the conceptualization of the study, articulate what my level of involvement would be. My advisor was concerned that the IRB would push back on over involvement as kind of contaminating the space. And then we got into this kind of methodological kind of discussion too about 'well you want to have some objectivity', and then my Methods advisor was like, 'well, there is no objectivity.'

Another researcher discussed methodology from a disciplinary perspective while reemphasizing the necessity to consistently consider the participant's perspective.

It is undeniable that within the body of qualitative social science research … you've seen a proliferation of large *N* interview based studies where interviews are the exclusive form of data collection. It produces really important results; it can be done extremely well; they provide valuable contributions, but if that comes at the expense of really rich in-depth participant observation because of practical decision making that people are making in the context of all those other roles we talked about earlier that you have to satisfy, then I…my fear is that we're going to see less and less of the kind of deep immersive ethnographic projects that require a lot of time.

Researchers from an ethical standpoint need to be alive to the fact that you're talking about going in and analyzing something that is really emotionally raw for these people right now. And, it's in an environment where they don't feel supported at all and, and that's going to have a number of potential effects on your research design, right? It may be the case that, ah, at higher rates we might anticipate that people don't want to fricking talk about this anymore.

One researcher focused on training research assistants to protect participant autonomy.

I don't let undertrained people go in and test [participants]. I guess that's a consideration for the sake of the [participants]. … I make sure that the research assistant who's going to be doing it knows exactly what needs to be followed about the procedure, where they can deviate a little bit because you are dealing with a [participant] that you have to kind of get them, you know, to cooperate. So how closely do you have to stick to the script, where can you change a little bit if you need to get them back on track? So, I guess ethical considerations of making sure that the research assistant knows how to interact with the [participant] so that the [participant] will not leave the experiment hating science, hating research.

The social scientists expressed a high level of awareness of common ethical and integrity concerns associated with the research methodology they frequency use and populations they

study. Each expressed a degree of compassion and respect for the participants along with a sense of responsibility to act in accordance with the principals of scientific inquiry.

Role of the Researcher

The researchers were keenly aware that they sometimes need to take on various roles during the research process. Attention was paid to the researchers' role as a mentor, advocate, and scientist, along with vigilant adherence to integrity and honesty. Participants discussed the responsibility to accurately collect and portray data while simultaneously protecting participants and managing the researchers level of engagement. Additionally, excerpts presented here clearly align with the current learning objectives of the Responsible Conduct of Research.

One researcher's description of the role of a researcher aligned with the Responsible Conduct of Research core values; objectivity, data integrity, participant protection and autonomy. The notable factors in this excerpt reflect priorities with in quasi-experimental (i.e., post positivism) based research, especially with the degree of emphasis on data integrity;

> The role or purpose, I think it's to objectively or fairly gather data and then let the data speak for themselves. Not try to manipulate the data in any way, not try to fudge the data in any way. I think it's to be an objective scientist. To gain data and to objectively analyze that data, but doing so in a way that doesn't harm the participant. Or doesn't coerce the participant.… I mean gathering data, collecting data in a way that's going to be as minimally invasive as possible for the subjects and then letting their voices be heard.

> It's to be an objective scientist. To gain data and to objectively analyze that data, but doing so in a way that doesn't harm the participant. Or doesn't coerce the participant. I mean, obviously, any researcher will tell you that you can never have enough data, but I think data is only as reliable as the methods that you use to collect the data. At least in my own experience. I think [for] the projects I have worked on I have taken great care to inform the participants of what they are getting into…At multiple times we tell them that they don't have to participate; that participating is not necessarily going to benefit them maybe in any monetary way or anything like that. But, that their data may have the potential to benefit science as a whole, and then if there are practical or policy

implications that can be gleaned from that, then maybe it can benefit society or the field one day.

One researcher's primary consideration of their role was the degree of influence, or impact on the community organization and its respective members. This is a common concern in qualitative methodologies such as Ethnography. This researcher spoke at length regarding the need to manage the level of engagement within the community organization and references how personal identity may have impacted the way participants viewed the research.

> Essentially your job as a researcher is to be honest. Right?! [It] would be completely unethical for me to make up findings or something of that nature so telling the truth is core to being a good social scientist, right? And so, if there was an instance where I'm talking of, I'm talking descriptively about something that happened and a reader views that as distasteful, or even illegal, or, um… just inappropriate, that's not my concern.

> The challenges I had were more about my own boundaries, and not displacing local leadership because there were instances in which people knew I worked as an organizer for years. … People [at the organization] are strapped for time and resources and they have confidence that… I can effectively distribute the sign-in sheet, provide instructions and make sure the snacks are passed out. So then, instead of [the organization leaders] asking a [organization member], they might ask me to take on those tasks. Which I felt in some instances uncomfortable doing because it put me in an either explicit or implicit leadership position. …That mapped onto issues about my professional training [and] social identity, so my dilemmas were more about managing the access I had, as opposed to trying to get in. … … …There were some instances where I was probably assumed to be 'on staff' or a [local university] student doing some type of internship. So, I think my profile, my social identity, probably suggested that people knew I was from [a university] and that I was there to do service-learning, or do some type of class… I was helpful, but I wasn't necessarily influential in a meaningful way, … that would have mainly positioned me as someone who would pitch in with things [around the organization].

Another researcher's response focused on how participants and/or organization members perceived the researcher, and the researcher's role in the organization. The primary concern was how the researcher's immersion into the organization would affect the participants. The researcher expressed:

I think for the young people that kind of existed on the fray of the [organization], they saw me and never really knew who I was. Part of that is about organizational culture and how organizations bring in evaluators and whether or not they really communicate to their clients who I am and what I am doing there and what my role is and giving me space to do that. Part of it is also probably my style. … I'm not going to be invasive, that's just not what I'm going to do. If you don't want to talk to me, I'm not going to [talk to you]. … I can't ever really think of an example where anyone was standoffish or didn't want me around. ... For some young people, I never became part of the milieu, I was always an 'other.' But for other young people I was definitely part of the milieu.

One researcher's discussion focused on the multiple roles held in the project such as

being both instructor and mentor. The primary considerations were adherence to research

protocols and publication process. Additionally, the researcher was mindful of how status and

identity could affect the data collection process and overall quality of the data.

First, I was in the role of [the students'] instructor as the teacher in the class…. I knew [the student] had to get the IRB approval. …We worked on that during the course and then [the student] did the interviews and then afterwards I said you know, this is really great stuff; you need to publish this…. [The student] was not that keen on putting any more time into it but I said you really need to publish this stuff, this is really, really, noteworthy, all the information you've obtained. So, [the student] said, well OK, if you can help me. So, I decided to massage the paper, embed it in a theory that actually came out in the review process. We submitted the paper and we got a 'revise and resubmit,' and one of the reviewers had suggested a potential theory that could be applied to the data and so we took that idea and ran with it and it was accepted for publication.

I wasn't personally present for the interviews. Had I been personally present I don't think the data would have been the same that we had obtained. In fact, … this study was and is I think the only, well the second, such study of [this population] who have been interviewed. The first such study…was an academic asking [this population] questions and I felt that if we got data that was elicited by … an insider – not an outsider, that data would be much richer. I never intended to be sitting in on these interviews. This was the student's term paper project. I'm glad I didn't participate in the research because we got tremendous data.

One researcher provided extensive evidence of a rich, methodologically sound

understanding of a researcher's role. The researcher discussed research methodology, identity,

power dynamics, participant autonomy, multiple motives, and overarching objectives of the

research.

> [The researchers' role in research is] a really great question and it's one that's endemic to ethnographic methods. It's what we call, … 'your membership status' in the group. … That's part of what your role is. You develop relationships with these folks …. but your membership status is also methodological in the sense that it's your source of rapport and trust, which gets you access to data that you need for the project. … … … At the same time, I'm also a [researcher] with broader empirical and theoretical questions I want to answer. … I'm also an academic who needs to make a living, and I have to get the project done. …So, you're kind of straddling all of these different layers to your role with your informants …. The other thing, is that [the participants] exerted agency on defining my role as much as I did.

> My role and my relationships with the [groups of] [participants] were slightly different. It was a different group dynamic... … The interactions played out differently. …. Now, … my role was all the same in the sense that they all knew I was doing a study. They all knew what the study was about. They all knew what I was going to be doing, what their role was going to be in my project. … But because they had different subgroups, and different routines, and I was a part of each of those very different, distinct groups, my role shifted a little bit from group to group.

Another researcher's understanding of the researcher's role was centered on completion

of the experimental procedure and quality of data. The researcher addressed the need to respect

participant's autonomy by creating space for participants to complete the study at a pace which

was comfortable for them. In doing so, the researcher also articulated how participant respect

and autonomy benefits the researcher and scientific community.

> I guess first [my role is] to get good data so that I could answer my question. I think in all of the research I've done with [this population], we've tried to make the research fun. We tried to make it like a game because we want them to have a good association with what science is. I mean it's partially to help us, right? Because if a [participant] then is like 'Oh, [I] had so much fun, I'll sign up to do more studies at the University of [Higher Education]', we could get [more participants] to come into the lab.

The role of the researcher for the current sample was wide spread. Participants stated

their primary role was to produce creditable research. The researchers referenced the need to

manage relationships and levels of engagement with community groups and participant

populations. Additionally, they discussed how other persons or actors influenced the role of the

researcher and the inherent value of allowing the 'other' to be heard.

Data

The theme data contains factors related to data collection, analysis, and reciprocity. All

of the informants cited the importance of integrity for both data collection and analysis.

Concerns were expressed regarding the value of ad hoc analyses, human error and the inherent

ambiguity within coding human behavior. Curiously, none of the informants discussed data

security.

One researcher focused on data collection and a priori analyses.

I mean gathering data, collecting data in a way that's going to be as minimally invasive as possible for the subjects and then letting their voices be heard. … I mean setting hypotheses a priori so that you don't just run the analyses 'Oh, that looks like an interesting finding, let me go back and see if I can find a theoretical framework to support that.'

A different participant discussed reciprocity associated with data collection and access to

a population of interest.

I felt like as a scholar, and as a decent human being, if there were instances where I had some type of access to a material resource, like when they were applying for a grant, I could help by providing census data. Or when they were trying to verify local concerns I could help by verifying information that they had. ... For me the line was, am I doing something for you and only you, or am I doing something that's mutually beneficial. And if it was something that I would do anyway because it's beneficial to my project, I will do it and I will share that data with you. It's co-created data so that would be really crappy of me to say 'I own it, you can't have it'.

Ultimately some of the ways that was mitigated was providing data along the way. I think where that becomes really murky is if someone is profiting from that data and not disseminating it back to the community. So, if I was publishing and getting tenure and winning awards, and patting myself on the back, and I wasn't reciprocating, I think that…. IS NOT ETHICAL!

Another researcher talked about data quality, efforts to avoid incomplete data, and data

analysis.

Good data to me is just usable data. Can I get them to get through the task? If [the participants] don't want to [participate], then I would have no data. I mean I [would not] have anything to analyze, so I don't mean get good data in terms of getting data that supports my hypothesis, though that's lovely if that happens. If a [participant] seems like they might be getting fussy, we'll see if they want to take a little break or get an extra sticker or something just to move things along so that we can finish the study.

I don't think it's [an] ethical [concern], but I think human error is a thing. So, I always have multiple coders for this team data set to make sure that it's reliable…. You train people on coding to make sure they know what they are doing. But … there is human error, 'What did they just do?' Or you type something wrong, or you're in the wrong cell in Excel. … I think in terms of having the most truthful, or accurate representation of what the data really were, it makes sense to have multiple coders. … …I feel that that's important. But I don't know if that's ethical…I guess that it's sort of ethical because of integrity but I think it's more just taking out, human error and wanting to make sure we've got what the data really were.

I think where the field is still getting in trouble, and where … some soul searching maybe has to happen, is the ethical considerations that go into data processing and analysis. Because that's where you see most of these news stories popping up 'Oh, so and so fabricated their data.' It's not even just that, you don't have to fabricate an entire data set, you can shift how you're coding it a little bit, or you can bend things differently, or you can run a slightly different statistical analysis, and that's something that's really left up to PI's to train their research assistants, and their grad students, and their post docs in. … (pause) … I don't know what the solution is… As we were talking about ethical considerations, ... often [they] are very specific to what you happen to be working on. It's hard to have those exact definite guiding principles, especially when you're coding something that is pretty subjective. … … … I don't know how we figure this out as a field. It doesn't help that there is so much pressure to publish, the whole 'publish or perish' type of thing. Because…that's what you hear when people have fabricated their data. … It's sick. You know [how] people's reactions to [fabrication] are… it's like 'Oh, well, I just had to get it out. I didn't know what to do'… OK, well, you could have not lied!

Participants discussed several factors of data integrity. The richest themes focused on

behaviors that take place after the data is collected such as reciprocity, coding, analysis, and

publication process. All informants are aware of the ability to manipulate or use data in a

dishonest way and seemed to place value on conscientious efforts to mitigate these concerns.

Resources

Two resources which faculty members focused on included the Institutional Review

Board along with peers and mentors.

Institutional Review Board (IRB)

Participants discussed many things related to the IRB including, consent, communication,

expectations, perceived value and frustration. Some informants talked about the overall

importance of the IRB and the value of IRB member's knowledge regarding institutional and

federal policy. Conversely, other informants shared experiences of anxiety, frustration and

confusion when trying to understand the IRB's perspective.

One researcher talked about the value of the IRB and confidence in the boards' ability to

do their job.

> Any time I begin a survey, particularly if it's a new data collection effort, obviously it
> gets run through the IRB. You know, following whatever protocols they are going to
> have and whatever recommendations that the committee has when they look over the
> initial application are basic things I am going to take into consideration and go by what
> they are telling me to do because they know the policies, hopefully, like the back of their
> hands. Sometimes, we as researchers, are not always up to date with [policy or
> regulatory] changes that might have happened, you know, in the last couple months or
> whatever…I'll be honest, I'm not always the best at going to the IRB website to see if
> anything has changed. I do my, you know, every couple of years my [CITI]
> recertification.

> I do, I do [have faith in the IRB]. (pause) If I didn't, then what would be the point of
> having them? At some point I think you do have to be confident in the people that are
> reviewing your materials. You know, I don't really know what the test would be for this,
> but if I'm putting together what I think is a study that could potentially have some ethical
> considerations, … you know something where participants could be physically,
> emotionally, mentally harmed by the research and I send it to the IRB and the IRB kicks
> it back and saying 'Yeaaaa, you are good to go' and they don't really have substantive

comments for me, I think my initial reaction would be 'Wow, I created a pretty good study.' But then my second reaction, and probably my truest reaction would probably be, did they really read it that closely? So, so in those situations you know maybe, maybe go back and really make sure that the i's are dotted, and the t's are crossed.

I equate an IRB review to a peer review in sending a manuscript into a journal…No study, no design, no research design is perfect, and I think the first time you submit something it's even more far from perfect than the second reiteration, or the third reiteration of revising. I do have faith in [the IRB] but I do expect that they are going to scrutinize it.

Another researcher talked about a perceived level of disconnect between IRB protocol and

active research. They also discussed institutional factors and the role of mentors.

I can tell you one of the things that I was really interested in [your dissertation] study was how the IRB prepared me to go out and implement and conduct a study and how it just was very, very different on the ground. So, there's this idea of how research is conceptualized and then how it's actually implemented, on the ground and the anxiety and the tension. The tension that can create for the investigator.

Those of us [graduate students] coming up in that [post-misconduct awareness] institutional culture were very kind of, you know, trying to take the path of least resistance with the IRB in some ways. And not to compromise our research but at the same time to not make it overly cumbersome on ourselves so that we knew what we were going up against. And at that point I think I had done like six amendments for my project because it was getting richer and richer, and deeper and deeper.

None of us really felt supported by the actual IRB. I'm not trying to damn the IRB, it's probably a bigger systematic issue, we just didn't feel that.

Quite honestly, I had a pretty good experience with the IRB. It was cumbersome and anxiety provoking, but they never pushed back on what I was doing. I think part of that was because my advisor really put me through; he …. What's the metaphor I am looking for…he put me through the courses. He really put me through the wringer. But not in a nasty way, he just really made sure I was very clear about what I was doing and why I was doing it. So, I learned how to communicate, I think, with the IRB in a way they understood what I was doing.

The first thing that I did was I really, really firmly entrenched myself in this understanding that the research that I was going to do was not meant to be provocative or harmful in anyway for the [participants]. Meaning that I really wanted this to be a strengths-based project and so the complexity of trying to convince the IRB of that became my primary task. [The IRB] constantly were under the impression that I could

potentially harm someone, my rhetoric back implicitly was always 'why would you assume I want to do that, I really want to draw out their strengths.' I in no way intend to cause any harm. I may, I get that, but you're coming from the space that I inherently will and I'm trying to come from a place of inherently I won't. That's not what I want to do…I want to come in and pull on their narratives of strength, resiliency, particularly around this really positive thing….So crafting that narrative and really trying to, in a very subtle and political way, push back on the whole notion of vulnerable populations and potentials to harm and inclusion and exclusion criteria, I was very thorough in the way I responded but I always tried to stress that I really see minimum risk here and potential for minimum harm based on the facts of the questions that I am asking and the content that we're working with.

Another researcher discussed how the IRB concentrated on protecting individuals who were not part of the research study. Additionally, they made mention of the value and necessity for the IRB to exist.

This was one thing that we had to go over with IRB and be very explicit about. My IRB agreement at my institution was very explicit and very, very explicit about the fact the data that I was going to record and document was going to be specific to the [participants] themselves and their activities. It was not going to document anything specific about any [other persons], right? …. So, that was the basis on which my IRB approved.

You don't have to look far to find examples of bad behavior amongst researchers. Which is why IRB exists, and it exists for very, very good reasons. But the IRB can only do so much, right? They're not there watching us conduct our studies. They're not out there watching us interact with people. I'm glad they aren't. But (laughter), that means it's incumbent on us.

Another researcher reflected on a time when an IRB member requested amendments which the researcher felt were unnecessary.

My thought on the IRB is they almost do their job too well because they don't, ... I don't mean too well. I mean they do a very good job protecting human participants, including protecting them from things that they really don't need to be protected from.

I was [submitting a new] IRB [protocol] and this new [reviewer] was like, 'well, where is the consent form for the parents to consent, before signing the consent?' and I was like, excuse me? [The reviewer said], well you're having them do something, you're having them fill out this form and they're filling out a demographics form for their child. So really, you should be consenting them to do that. I said, you want me to consent a parent

to consent their child for a study? And [the reviewer said] yes. I said that's not a thing. That's not a thing anyone does and I'm not doing that.

There was a good deal of disparity in the views informants held towards the IRB. The evidence presented here references IRBs housed at several different institutions. The discontinuity in researcher attitudes toward the boards may be more of a reflection of institutional factors and IRB leadership as opposed to individual researchers' understanding of research ethics and integrity.

Faculty were asked about the types of resources they use to navigate ethical issues or concerns. Three primary sources emerged from this probe, institutional services (e.g., IRB), professional associations and organizations, and mentors/peers. While faculty are informed and mindful of institutional research services available to them, their primary source of support regarding research ethics and integrity are their academic peers and mentors. The institutional review board and professional societies were often the first referenced resource for navigating ethical concerns.

Peers and Mentors

One researcher's immediate reaction to the question about support was focused on colleagues, university resources and professional societies.

> I think the biggest resource that I have are my colleagues, and especially my senior colleagues who have been doing research for a lot longer than I have. I can bounce ideas off them, often times there's somebody I can reach out to who has experienced the same or similar problem and sort of see what their take is on it.

> A lot of my fellow grad students have gone on to academic jobs and research positions, so they are still a valuable resource for me. Former mentors I have, and then colleagues I've had at previous jobs, and then colleagues I have here. Here in my department, we have sort of a good mix of junior and senior faculty so it's good to bounce ideas off some of the senior guys, because like I said, hopefully they've encountered these trials and tribulations in their careers. But then also it's kind of a good thing to discuss with junior

faculty too because even if they haven't experienced it yet, it gets them thinking about how they would handle it and then we can sort of bounce ideas off each other and go forward from there.

We have, as is true with probably most disciplines, we have a society. And really the only time I ever really think about our society is when the annual conference is coming up. We have, basically an ethics subcommittee in our society. If someone ever has questions or needs advice or counsel on a study they are working on, or a study they are proposing, they can go to that committee and bounce ideas and have their proposals looked at and reviewed to at least have some outside eyes looking at any potential conflicts of interest or ethical concerns. Or you know, potential harms to the subjects and things like that.

Another researcher mentioned the supported provided by a graduate school mentor.

There is one faculty member at my [graduate] school who served on the IRB and he was, he was a mentor. Almost all of us would end up in his office and he was so generous that he would sit down with you, first he would read your application then he would sit down with you and he would go over it. He lived for this stuff. He literally loved it I think, and I don't know why he did, (laughter) but he did, and he was really generous. What would happen in the Doc/Student office, each of us would reach this point where we just wouldn't know what to do any more, and one of us would tell the other, 'go see [this professor],' and we would go see [that professor] and he would help us. He would mentor us through it.

Another researcher first mentioned the role of colleagues and mentors, and then referred

to professional societies and organizations.

I think I would talk to other colleagues who do similar lines of work to see if they've had similar issues. …It would depend [on] what the hypothetical ethical issue was. But if it was something having to do with, you know, running a study with [this population], I wouldn't talk to one of my colleagues that does research [on a different population] about it, I would probably go to another [researcher in my field] and say 'Hey, this seems kind of weird. I'm trying to figure out what to do about this, have you encountered this in your work? How have you handled it?' Someone who's a mentor; someone who's been in the field for longer than me. Or just, good friends of mine who I think might, who I trust, someone like…. (uneasy laughter)?

I mean, [we have] the [professional organization] (laughter). I don't know. … I mean [the professional organization] has ethical rules and considerations and stuff, I guess. But a lot of it's general, you know? [It's] not gonna be a specific situation. [The organization says,] 'Hey, don't make data up' and 'don't mistreat participants.' So, no. I guess I don't really feel that there's … I don't think there's a 'how to' guide on all ethical

issues that could ever come up. Um, but I think that that would be impossible. I think that so much of this is so specific to the types of situations you are in. We can have general guiding principles about things that you should or should not do and that's what we should impart to our students and people working with us. And if things come up, then we have to figure out how to handle it within those guidelines. Hopefully someone else has had a similar experience before where we can [say] 'OK, that seems like a good thing to do' and then do it.

I don't know, there's a lot of institutional pressure.… I mean you asked me who I would go to. I would go to colleagues, but there's no 'wizard' you can go to and [say] 'Oh, what is the proper thing that I should do here?' And then sometimes science doesn't work. Sometimes you do an experiment and you get nothing from it, and that's really frustrating. Especially something [in my field of] research where it takes forever to collect the data, or something like what you're doing right now.

Another researcher immediately cited the IRB, followed by disciplinary resources.

Well, clearly their university's research services office, the IRB and so forth; that's the place to go to!

I don't know if we have any kind of a hotline here …for ethics issues. As a [researcher] I can go to [my professional organizations] hotline, they have an ethics hotline. [Another professional organization I use,] I believe has an ethics hotline. [Researchers] can call in anonymously and say here's the situation; I'm planning to do "X", is this OK? I know we have a hotline for different things [such as sexual assault].…. But I just don't know if we have [an ethics hotline] here. … Well, it's a useful thing. I don't know that it needs to be anonymous, although it would probably be useful because if you call research services they see on the caller ID who is calling.

Informants discussed several of the resources available to them including those offered by professional organizations, peers and mentors, and institutional research services. The preference to call on peers and mentors was a consistent theme within the data. This may be reflective of a high degree of collegiality within academic disciplines and/or departments or a general tendency to avoid regulatory involvement.

CHAPTER SEVEN

DISCUSSION

How do social scientists conceptualize and implement research ethics and integrity? Based on the information within the literature review, personal accounts provided by some very generous social scientists, along with my own critical self-reflections, I am comfortable stating; *Scientific investigator(s) apply research ethics and integrity in a cyclically process through which they act and reflect upon the explicit and implicit intent of regulation (e.g., 45 CFR 46, IRB), disciplinary standards, and methodological parameters throughout the research process, while being deliberately mindful of influential factors and biases rooted in institutional and cultural norms and/or expectations.*

The application of ethics and integrity is more than regulation, discipline, or methodology. It's a process. It's a fluctuating, emergent construct rooted in disciplinary norms, methodological parameters, institutional culture, research populations, researcher-participant interactions and personal identity. The factors that may affect scientists' adherence to ethics and integrity extend far beyond federal and institutional regulatory reach. They are rooted in personal lived experiences, both within and outside of academia, which have shaped the individual lens of every scientist. Meaning, the conceptualization and implementation of research ethics and integrity is also affected by these same constructs and therefore in a state of constant flux.

Conceptualization of Research Ethics and Integrity

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The way the social scientists conceptualized research ethics and integrity theoretically aligns with current (pre-2017) institutional and federal policy (e.g., 45 CFR 46). The explanations of research ethics and integrity they provide are rooted in the language of current policy (e.g., informed consent), adherence to policy, and working within the framework of their disciplinary expectations. Each scientist agrees that honesty, scientific rigor, and respect are central components. Many draw upon their professional experience, personal morals, and values as a guide during ethical decision making. Likewise, they support the position that research ethics and integrity is the *spirit* in which scientist conduct their work, and that work necessitates respect and transparency.

Interestingly, most faculty were momentarily lost for words when asked to provide a definition. Upon reflection informants comfortably cited concepts which have been reinforced via both education (i.e., CITI) and practice (e.g., IRB review). There was clearly a diverse understanding of the types of ethical dilemmas researchers are likely to face. I accredit the diversity in responses to the methodological constraints of research paradigms endorsed by the researchers. I believe the researchers in this sample understand the core factors of research ethics and integrity as defined and presented by regulatory bodies. I argue that each researcher presented a comprehensive understanding of ethical concerns present in the type of research they typically produce and for the populations they frequently study.

Consequences

Faculty discussed many types of consequences, including those for participants, populations, researchers, and society. The consequences they cited ranged from sociological and psychological harm to an individual; loss of research population access, rapport, and trust;

collateral damage to organizational systems and leadership; and irreputable damage to a researcher's reputation and the general public's trust of scientific information. Naturally, the consequences referenced are dependent upon the specifics of the research study.

The researchers discussed various types of preemptive efforts used to identify and manage ethical considerations. Institutional Review Board protocol was cited as a critical component in ensuring regulatory compliance. Faculty believe the IRB thoroughly address concerns related to participant protection. However, some expressed concern. The researchers who used progressive research paradigms (e.g., qualitative studies) were concerned about the IRB's ability to identify, understand, and help manage ethical concerns rooted in non-positivist methodologies and disciplines.

Implementation of Research Ethics and Integrity

Implementation, or the way social scientists actively apply the principles and expectations of research ethics and integrity, is an expansive construct. Faculty identified several factors which informed their ethical decision making during the research process. These include; academic discipline and culture, researcher training, teaching, research populations and participants, research methodology, role of the researcher, and data.

Academic Discipline and Academic Culture

When prompted to reflect on the effect of discipline and culture many faculty cited the "publish or perish" culture, tenure process, and the overall expectations of disciplines, institutions and departments. Each of these components contribute to the ethical atmosphere the scientists work within. Institutional climate (e.g., post-misconduct awareness, institutional

mission) was cited as a decisive factor in ethics training efforts (e.g., first year seminars) and IRB operations. Most of the researchers view their institutional climate as static and enduring suggesting any environmental change would be unlikely.

All of the researchers believe their graduate school experiences inform the way they train and mentor students. Everyone had completed CITI training and attended some type of ethics seminar or workshop throughout their academic career. As expected, all the informants view these training initiatives as basic, as they fail to address more nuanced methodologically based ethical considerations such as integrity in data analysis and the emergent nature of non-positivist paradigms.

Some of the scientists were privy to supplemental ethical training via interactions with peers and mentors. They cited the intrinsic value of open, honest dialogue and attempt to model this instructional strategy by creating space for these interactions within their classroom and research labs. Other researchers feel they were deprived the opportunity to develop ethical critical thinking skills and express insecurities about training and mentoring students. Regardless of the informants past experiences, they all stress the importance of teaching ethical decision-making skills and the necessity for critical self-reflection.

Populations and Participants

As expected, all informants discussed the importance of participant protection and the necessity of IRB review. There was a unified belief that the IRB prioritizes participant protection to the best of their ability. Meaning, IRB protocol review can only address ethical concerns identified during the design and review process. Once the research or fieldwork begin ethical considerations rooted in methodological factors are likely to emerge, and these factors are

unlikely to have been addressed in the IRB protocol. It is at this point, in the field (i.e., interaction and data collection), where the researcher(s) become the sole proprietor of participant/population protection. Other unified perspectives include ensuring participant autonomy, having a minimally invasive presence in the community/natural environment, and clearly identifying and respecting researcher boundaries.

Admittedly unexpectantly, several researchers discussed difficulty in balancing their level of engagement because of too much participant/population access. More specifically, the community partners and populations were wanting a higher level of engagement than the researcher could/should offer or sustain. This may be a function of resources (e.g., funding, time), purpose of the research, research methodology, and other unidentified situationally based factors.

One researcher made an interesting comment about the level of perceived risk or harm for affluent participants. In context, the statement was referring to the level of IRB review for interviews with affluent persons, implying there was low risk due to status. Upon reflecting, I believe this perspective to be antiquated. I argue, that in our current socio/politico culture, a small amount of information about an affluent participant used out of context could lead to defamation of character and irreparable harm. Ideally, this is a concept that can be investigated in future research.

Lastly, all of the researchers expressed care and compassion for their populations and communities of interest. Each informant was honestly invested and driven to provide empirical research to advocate for a cause relevant to the population. Their commitment to both persons

and community is reassuring as it shows endorsement of the *spirit* of both social science research and research ethics and integrity.

Research Methodology

From a methodological perspective, the largest influencer of the ways researchers think about ethics and integrity comes from their philosophical roots and assumptions (i.e., methodology). Everyone had a fundamental understanding of common ethical considerations in postpositivist methodologies (e.g., quasi-experimental studies) such as quantitative data integrity and analysis. However, only those who had been formally trained in and conducted non-positivist research were aware of more emergent and socially based ethical considerations. For example, concerns informed by the level of participant engagement, naturalistic research environments, and ill-defined researcher boundaries.

Informants believe federal training efforts and IRB review is biased towards positivist based methodologies and fail to systematically address or challenge principal investigators to think about methodologically driven ethical considerations present in progressive paradigms. Concerns were expressed about the IRB's methodological competencies citing a lack of understanding in the basic methodological parameters of research designs used in feminists or phenomenological inquiry (for example). Additionally, the researchers acknowledge it takes a great deal of time and exposure to develop the skills needed to understand and manage design based ethical considerations. However, they believe the opportunities and time available to develop these skills are limited or nearly non-existent and often truncated due to the nature of academia.

Role of the Researcher

Participants prioritized the responsibility to produce honest academic research, citing a range of factors which they feel effect the roles and responsibilities of the researcher. They stressed the importance of adherence to policy, participant/population protection, autonomy, and reciprocity, managing levels of researcher engagement, data analysis with integrity, and mentoring. Stating it requires a conscientious effort to function within these various roles that often necessitate shifting of "hats" or mental frameworks. Participants saw this ability, shifting of mental frameworks, as difficult to acquire and placed a large proportion of responsibility on mentoring and modeling appropriate researcher behavior.

The various "hats" the researcher wears throughout the research process is determined by methodology and the various roles the researcher finds themselves in. Researchers who use positivist-based designs stressed data integrity as a top concern. Specifically, setting hypotheses *a priori*, appropriately conducting exploratory analyses, and transparency of analyses techniques. Those who conducted research under progressive paradigms emphasized respect for the intimate and private spaces participants grant researchers access to, honesty, transparency in the research process, consideration of intent and biases, and critical self-reflection. From these data, I infer that the role of the researcher is also in a state of constant flux, and therefore difficult to define and manage during the design phase of the research process.

Data

The primary concern for data was integrity in data analysis and publication. Informants discussed the challenge of coding human behavior, both in the lab and in the field, and the benefits of multiple coders. From the positivist perspective emphasis was placed data integrity

issues such as running a prior analyses and ethical treatment of data sets. Regarding

publications, informants were keenly aware of how a "publish or perish" culture can motivate

researchers to engage in misconduct. Informants also discussed how academic journal

requirements such as statistically significant results or specific research methodologies makes it

difficult to publish work which falls outside of those boundaries, in turn motivating researchers

to "force data" into significance. Non-positivist based researchers were concerned with member

checking, appropriateness of interpretations, management of biases or expectations, and sharing

of data with community partners. Data respect was paramount, and emphasis was placed on

reciprocating the benefits of the research back to the population of interest.

One theme which failed to emerge was data security. Social scientist are responsible for

ensuring data are stored and protected to the best of our ability. This topic is currently at the

center of much discussion within regulatory bodies such as OHRP. The risk of losing data or

having data stolen is ever increasing as investigators frequently have access to data through their

personal belongings and electronic devices (e.g., phone, laptop). Additionally, reliance on

storage "clouds" as opposed to physical storage devices (e.g., USB drives, file drawers) presents

a challenge for data security. This may be an area of ethical awareness which could benefit from

enrichment.

Resources

Researchers discussed a range of resources including; peers, mentors, professional

societies, and institutional support. Peers and mentors were viewed as the preferred source of

guidance due to familiarity with disciplinary norms, topic of inquiry, and methodological

constructs. Most of the researchers discussed the inherent value of senior colleagues citing their

institutional knowledge and experience. Ease of access to peers facilitated the space and

opportunity to consult with knowledgeable others. Often these interactions took place in a semi-

casual, non-threatening atmosphere in turn facilitating rich, open dialogue.

Informants also saw their professional societies, conferences and meetings as a rich, non-

threatening space for ethical dialogue. Access to other researchers was the most commonly cited

benefit of professional organizations. Collectively, the primary value of professional

organizations were the one-on-one interactions. The researchers reference professional society

ethics training efforts, but again, stated the educational initiatives lack depth and practical

application as they mostly address policy, not practice. If researchers prefer to speak to peers

and mentors regarding ethical issues, then I believe additional initiatives should be in place to

nurture and support these relationships. This too is an avenue for future inquiry.

Only one participant immediately cited the IRB and office of research support as their

most valuable resource. This is a bit concerning as I would have liked the IRB to the viewed as

the primary source of support. Participants shared a general consensus that the IRB review

process is both important and challenging. It is undeniable that IRB is at the core of research

ethics and integrity but, as stated by an informant, it is incumbent upon the researcher to ensure

that ethical practices are being applied throughout the research process. While the IRB was seen

as a source of knowledge, there was a sense the IRB does not entirely understand the context and

primary ethical concerns associated with specific research methodologies or designs. This could

be a simple matter of miscommunication between the multiple parties or it may be indicative of a

larger systematic issue. I recommend further inquiry to better understand this matter.

Implications and Applications

These data tell us many things, one of the most critical is that it provides insight into the ways faculty developed their ethical mindfulness and resources of ethical knowledge. A theme which was consistent across all informants is the value of peers and mentors. Researchers appear to be more comfortable talking to a peer or mentor, as opposed to institutional research support, when they need ethical guidance. If this is the case, continuing education/professional development efforts could leverage this preference by creating interdepartmental research ethics and integrity initiatives. The benefit of this approach is researchers can develop and nurture relationships with researchers from different departments, closing some disciplinary knowledge gaps and ideally leading to rich, open discussions of ethical considerations. Interdepartmental cooperation is essential especially because many institutions and researchers are engaging in interdisciplinary and community-based research. As stated earlier, ethical issues are emergent just like data, therefore, who better to learn from than other researchers who have experienced and managed their own emergent concerns? It is also recommended that this approach be adopted for graduate students.

From a regulatory perspective, these data can inform the IRB on the types of ethical concerns researchers are facing. Many times, the IRB will be unaware of ethical issues researchers face throughout the research process. The exception, of course, is documented and/or reported misconduct. While the IRB is informing researchers of regulatory requirements, the same should be said for researchers in informing the IRB about ethical considerations in their field or methodology. Presently, this type of structured dialogue does not appear to be happening, nor is there an expectation that it should.

From a quality improvement perspective, institutions may benefit from creating an annual IRB and researchers' forum to discuss research methodologies, emergent issues, and community-based research considerations. This strategy should promote enhancement of research ethics and integrity knowledge, development of relationships, and facilitation of researcher/departmental collaboration.

Critical Self-Reflection

I can identify with my participants in many ways, especially when reflecting upon their graduate school experiences. What I initially learned as a graduate student, mostly due to informal conversations and interactions, was to fear the IRB review process, a feeling which some of the informants endorsed. Many people view the IRB, IRB members and support staff as a definitive source of authority and power, which may not be too far from the truth. The power differential and stigma of student status can make one feel uneasy about approaching institutional research services for assistance. Students' lack of academic and experiential knowledge, depending upon status, may cause one to feel uncomfortable questioning or asking for clarification in judgements or instruction from faculty or institutional research support. This is a point of concern and a potential avenue for enrichment.

Reflecting on the data from the perspective of an IRB member, I feel saddened by the perceived level of discontinuity between PI's and institutional support. Some of the scientists interviewed experienced a great level of anxiety and tension undergoing IRB review, something I believe an IRB would prefer not be the case. While the IRB's first job is to protect human subjects, it is also purposed with providing a continuous source of support for researchers, perhaps a purpose that is not very well understood. This support system only works if

investigators are utilizing the services provided. Utilization of the services, I fear, is based on collegiality and trust, relationships which can be fragile and difficult to develop.

Limitations

The current study has several limitations due in part to the methodology and participant sample. From a methodological perspective, phenomenological research is not intended to lead to broad generalizations. Rather, it is designed to provide an intimate glimpse into a unique population and unique situation. With that being said, it would be inappropriate to make any broad claims based on the data. What we can infer from the current research is that there is a variety of ways these social scientists personally conceptualize and implement research ethics and integrity. This variation provides grounds for continuation and expansion of the research question.

A significant limitation to the current study is the sample size and self-selection of participants. The population at hand, social scientists, are typically not research participants. This shift in their research role (i.e., going from PI/Co-PI to participant) may have made faculty uncomfortable. Additionally, faculty are often protective of their research and research processes. Sixty faculty members were invited to take part in the research, of those seven agreed to participate. During the recruitment process the majority of those invited to participate did not respond to the invite. One person responded stating they were uncomfortable participating due to the level of perceived risk. This is an interesting response as it may indicate the individual's awareness of their own questionable behavior, fear of retaliatory action, or an institutional and/or disciplinary "hush" culture regarding research ethics and integrity. Academia is often viewed as a cut-throat culture and the achievement of tenure is a primary goal of most faculty. It is

possible that faculty were fearful of participation as it may expose issues regarding the way they conduct their research. However, we cannot overlook one of the simplest explanations for low participant enrolment, faculty are busy and perhaps they did not have availability to participate due to prior obligations. These justifications are nothing more than speculation and should not be considered a result of the research.

This sample is unique in another manner, all faculty members have a tenure-track appointment within a Jesuit university. Jesuit values, "commitment to excellence, faith in God and the religious experience, service that promotes justice, values-based leadership, and global awareness" (Loyola University Chicago, 2016) fundamentally align with adherence to ethics and integrity. Some of the faculty who chose to participate made it explicitly clear during the interview that Jesuit values are of personal and professional importance, citing it as a motivating factor in accepting a professor position at their respective institution. This could suggest that faculty who provided a deeply rooted, eloquent response to the interview questions may have a comparatively stronger foundation in ethics and integrity that extends beyond research regulation and into a personal and/or philosophical identity. Again, this claim cannot be substantiated without further inquiry.

The last limitation to be discussed is the potential expectations of the researcher (i.e., myself) which may be influenced by my time serving as a full-board social and behavioral IRB member. Efforts were in place to reduce my potential biases; however, it is likely that I am blinded to the extent of my biases, especially when assessing faculty members understanding of federal policy and issues specific to particular research methodologies and populations. This limitation could also be viewed as a strength as it allows me to critically analyze the data for

factors significant to the application of research ethics and integrity. Again, claims cannot be based on this explanation.

Directions for Future Research

The current research was not designed to be generalizable or to explicitly contribute theoretical knowledge. It was designed to provide evidence for the need to further investigate the ways social scientists conceptualize and implement research ethics and integrity. The data have done just that. The variability in the frequency, duration and juncture of the research process where scientists explicitly think about research ethics principles is widespread, as are the factors which scientists believe warrant deep ethical consideration. This variability was expected and justifies continuation of this line of research.

There are many ways this research can be expanded upon in the future. First, the extension of the sample to other populations such as advanced graduate students, research methodology instructors and/or professors, faculty at non-Jesuit universities, full-board social and behavioral IRB members, community organization leaders, and institutional leadership. Expanding the sample would allow for greater variation in responses and hopefully a deeper insight into core factors that inform the conceptualization and implementation of research ethics and integrity from multiple perspectives. Additionally, this line of inquiry could benefit from examining explicit institutional efforts in training, teaching, and continuing education initiatives for federal policy and ethics and integrity.

Another direction for the future is concentrating on multi-institutional or collaborative research especially that which takes place in a community-based setting. Community-based research is often informed by current or emergent social issues (e.g., LGBTQ and race relations).

Researchers who engage in community-based research are often the first to face ethical dilemmas, dilemmas which may not be explicitly addressed in research regulations or institutional training efforts. Social issues are constantly in flux and are affected by a great deal of factors including politics and federal funding. These issues are hard to predict making it challenging to train researchers a priori on how to manage the ethical concerns they may face. Focusing on this setting and context of research may help in the identification of emergent issues which are likely to affect the social sciences on a more comprehensive level.

Conclusion

In short, the answer to my research question is, the social scientists' conceptualization and implementation of research ethics and integrity is as diverse as their research. Meaning, they all function within the same overarching principles but the variability within the application of regulatory expectations is expansive and necessitates interpretation. Regulation tells researchers what *not to do.* Regulation does not tell researchers how to identify, predict, manage, or avoid ethical considerations. As stated by an informant, that is incumbent upon us, the researchers.

This paper began with a quote from Mark Israel (2015),

Social scientists are angry and frustrated. Still. They believe their work is being constrained and distorted by regulators of ethical practice who neither understand social science research nor the social, political, economic and cultural contexts within which researchers work. In many countries…researchers have argued that regulators are imposing, and acting on the basis of biomedically driven arrangements that make little or no sense to social scientists (p. 1).

The research informants appear to agree with Israel as many expressed frustrations during the interview. Israel's argument mirrors Tolich's and Fitzgerald's (2006) claim, that ethics-review policies and processes are based on epistemological assumptions rooted in positivistic paradigms which do not fit the qualitative research process.

Many of the techniques and concepts endorsed by informants for managing ethical

concerns reflect the recommended guidelines presented by Karnieli-Miller, Strier and Pessach

(2009); *1) Participants must fully understand (at the level known to the researcher at that point)*

the meaning of the study and truly volunteer to participate in it. 2) Researchers must not distort

the meaning of the participants' voices. 3) Researchers must protect the anonymity of the

participants (Seldman, 1991). 4) Researchers have an obligation to participants' beneficence –

an obligation to provide benefits against risks (Beauchamp & Childress, 2001). 5) Researches

have an obligation to non-malfeasance that requires doing no harm.

Additionally, some of the informants, while acknowledging the ambiguous nature of

regulation, argued more regulation may be inappropriate. This supported Richard's and

Schwarts' (2002), and Hornsby-Smith's (1993), position that "First, codes of practice cannot

replace practical judgement; second, they may try to enforce ethical standards that are unrealistic

in the real-life setting; and thirdly, they may be too lax and contain loopholes" (p. 136, Richard

& Schwarts, 2002). The researchers in this sample seem to think in leu of regulation, efforts

should be placed on more comprehensive research ethics education and training initiatives, an

argument endorsed by many.

The research informants made it clear that they value knowledgeable peers and mentors.

In fact, for all but one informant, peers and mentors were the first source of ethical support and

guidance. This was an unexpected result, although, upon reflection it makes perfect sense as I

too, prefer the guidance of peers and mentors over formal research services. This result, the

importance of peers and mentors, I personally believe to be one of the most informative and

actionable outcomes of the research and will likely become a personal mission of mine for years to come.

APPENDIX A

RECRUITMENT LETTER

Dear Faculty,

My name is Heather Pease, I'm a Research Methodology PhD candidate in Loyola's School of Education. I am currently recruiting participants for my dissertation research, investigating the ways social scientists conceptualize and implement research ethics and integrity. You have been selected for recruitment because you are a social scientist who conducts human subjects research. Please note, my research is not an investigation into compliance with institutional and government research regulations. Rather, an inquiry into what research ethics and integrity means to social scientists.

If you choose to participate you will be asked to sit for a 60-90 minute audio-recorded, semi-structured interview with myself, the principal investigator. Upon agreement to participate you will be asked to designate a date, time and location for the interview. There are no direct benefits for participation however, you will be contributing knowledge to the field of research ethics and integrity. If you would like to be a participant in my dissertation research please e-mail myself, Heather Pease, at heather.pease@outlook.com.

Respectfully,

Heather Pease

APPENDIX B

CONSENT TO PARTICIPATE IN RESEARCH

Project Title: *Social Scientists Conceptualization and Implementation of Research Ethics and Integrity.*
Researcher: *Heather A. Pease* **Faculty Sponsor:** *Terri Pigott*

Introduction: You are invited to take part in a research study being conducted by Heather Pease for a dissertation under the supervision of Terri Pigott in the School of Education at Loyola University of Chicago. You are being asked to participate because you are social scientist working in an academic institution. A total of 8-20 faculty members will take part in this study. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

Purpose: The purpose of this study is develop an understanding of how social scientists think about and use research ethics and integrity policies and guidelines while conducting human subjects research. Data will be used to help identify and define core areas of research ethics and integrity which are unique to the practice of social science research.

Procedures: If you agree to participate, you will be asked to participate in a 60-90 minute semi-structured, one-on-one, audio recorded interview. The interview will focus on your identity as a researcher, the type of research you conduct, and the way you think about and use research ethics and integrity principles in your field of study.

Risks/Benefits: There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life. There are no direct benefits to you from participation. Social science research may benefit from the study by developing a better understanding about how social scientists understand and use research ethics and integrity while conducting human subjects research.

Confidentiality: Your information will be kept completely confidential. You will be given a pseudonym to be used in all audio transcriptions, presentations, and publications so that your name will not appear with any of the data. All audio files and data will be stored on the researcher's password protected desktop computer and LUC's cloud based storage. The files will be locked such that a password will be required to access the data. No one other than the researcher and the faculty sponsor will have access to the data. All audio files will be destroyed upon the completion of the study.

If answers to an interview question might be construed as research misconduct, but this cannot be determined as the intent of the research practice was not revealed, the researcher will not ask follow-up probes to assess intention or prior knowledge. Additionally, the researcher will not ask any follow-up probes that are assessments of whether you are in compliance with institutional and federal laws concerning research conduct with human participants.

If you knowingly and voluntary disclose deliberate and/or malicious behaviors with the known intent of fabrication, falsification, or plagiarism the PI is obligated to inform Loyola's Office of

Research Services for further inquiry. Honest errors or differences in opinions regarding research practice will not be reported.

Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty. In addition, you have the right to request your data be deleted, and omitted from the research study.

Contacts and Questions: If you have questions about this research study, please feel free to Heather Pease at heather.pease@outlook.com or the faculty sponsor, Terri Pigott, at tpigott@luc.edu. If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent: Your signature below indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study**.** You will be given a copy of this form to keep for your records.

_____ _____

Participant's Signature   **Date**

_____ _____

Researcher's Signature   **Date**

APPENDIX C

SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Briefly describe your academic background.

2. Tell me about one of your recent research studies.

    a. Describe the interactions you have with your participants.

    b. In what environments do these interactions take place?

    c. What is your role or purpose as a researcher?

3. What type of ethical and integrity concerns did you encounter?

    a. How do you manage these concerns?

    b. What type of ethical issues have you felt unprepared for in the past?

    c. What are the emerging ethical issues in your field?

4. What type of resources did you use when you encountered these ethical/integrity concerns?

    a. Common Rule, Belmont Report and CITI?

    b. Institutional resources? (IRB)

    c. Discipline resources? (research community or professional norms/codes)

5. Tell me about the consequences of unethical research or misconduct in your discipline.

    a. What are the consequences to you?

    b. What are the consequences to the participants?

    c. What are the consequences to your research community?

    d. What are the consequences to society?

6. What does research ethics and integrity mean to you?

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VITA

Dr. Heather A. Pease received her doctorate in philosophy in Research Methodology through the School of Education at Loyola University Chicago in May of 2018. Her personal research interests center on the application of research ethics and integrity within the social sciences. Applications of her work include the enrichment of graduate research ethics training, continuing education, and professional develop for social scientists. Currently, Dr. Pease serves as a judge and case write for the Intercollegiate Ethics Bowl housed in Association of Practical and Professional Ethics and teaches undergraduate Research Methods at the University of North Florida in the Department of Psychology.

Dr. Pease's doctoral research assistantship with the Faculty Director of Accreditation at Loyola University Chicago centered on institutional research necessary for reaffirmation of accreditation through the Higher Learning Commission. Significant tasks included evaluation of undergraduate senior capstone course and query into the integration of Jesuit values and institutional objectives. Additionally, Dr. Pease was the first graduate student member of the Institutional Review Board, serving a total of four years.

Prior to pursing the PhD, Dr. Pease earned a Master's in Arts (MA, 2013) degree in General Psychology from the University of North Florida. Dr. Pease's thesis investigated the relationship between perceptions of injustice and the consequences of social exclusion. Dr. Pease was granted a Teaching Assistantship instructing Research Methods Lab to undergraduate psychology majors. Additionally, Dr. Pease worked with the Director of Office of Faculty

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Enrichment conducting research and faculty workshops on the integration of community-based learning and STEM (Science, Technology, Engineering, and Mathematics) education.

As an Psychology undergraduate student (BS, 2010), Dr. Pease was a research assistant in the Evolutionary Psychology Research Lab at the University of North Florida and studied the physical manifestation of social and emotional pain. Furthermore, Dr. Pease spent a semester in Sydney, Australia as a research assistant at Sydney West Area Heath Services Anxiety Treatment and Research Unit. Research activities contributed to the longitudinal evaluation of community-based outpatient treatment for mental health comorbidity.