The Role of Ethics and Documentation within the University of Illinois Biological
Division of the Psychology Department

The role of ethics and documentation has had dramatic effects on the growth and
prosperity of experimental psychology and live subject research. Ever-changing rules,
regulations, and ethics in the laboratory setting have significantly changed the methods of
research allowed to be used on live subjects. Live subjects can include any type of
animal or even humans that are used as subjects during experiments. Departments such
as the Animal Science, Psychology, or the English departments of the University of
Illinois conduct research on live subjects to obtain information and data over a number of
different areas. Knowing that professors, faculty, and students in the Psychology
Department are continually conducting such experiments, our group chose this
department to conduct our own research on ethics and documentation within this field.
Inside the Psychology Department we chose to research the Biological Division,
concluding that it would contain interesting information that was easier to access than
that of the other divisions within the Psychology Department. The purpose of our
research is to investigate the role of ethics and documentation on live subject research
within our chosen Biological Division of the Psychology Department at the University of
Illinois, while also learning other interesting pertinent information about the division
itself.
In 1867 the University of Illinois was established as a land grant education institution and only twenty-five years later the Psychology Department was founded. The department actually began as part of the Philosophy and Pedagogy Department, but then evolved into its own section in 1893. Professor William O. Krohn established the first University laboratory in 1892 and became the first department head. In 1897 Professor John H. Hylan began studying the fluctuation of attention in the laboratory setting, and since then numerous faculty members and professors at the University of Illinois have used experimentation to study psychology.

“Today, the department is considered to be among the premier psychology departments,” (Illinois Psychology, 2006). Sixty full time faculty members contribute to its overall success, while each member also frequently achieves individual successes partnering with other outside corporations and organizations. As the Psychology Department continues to expand, it is beginning to outgrow its building, which contains numerous classrooms and laboratories as well as an animal colony and a shop to design and construct equipment for research. The department now consists of nine different divisions of Psychology, including: Biological, Brain and Cognition, Clinical/Community, Cognitive, Developmental, Quantitative, Social-Personality, Industrial-Organizational, and also Visual Cognition and Human Performance. The Biological Division is a part of the larger Neuroscience Program (NSP) which “is an interdisciplinary program of study and research leading to the doctoral degree,” (Beshers, 2006). Students in this program are required to study and research under a faculty member, with research focusing “both on model systems and on studies directly related to understanding and treatment of human behavioral disorders and neural disease,”
Due to the interconnectedness of the Biological Division of the Psychology Department and the Neuroscience Program, related biological research is often conducted at the home of the NSP: the Beckman Institute at the University of Illinois.

The Beckman Institute for Advanced Science and Technology, comprised of 25 faculty members, includes the understanding of biological and artificial intelligence. “Interdisciplinary research conducted at the Beckman Institute focuses on three broadly defined research initiatives: Biological Intelligence, Human-Computer Intelligent Interaction, and Molecular and Electronic Nanostructures,” (Beckman Institute, 2004). The institute also contains an animal holding facility and faculty laboratories for research and experimentation.

The Biological Division is described as “the behavioral neuroscience portion of the expanding field of neuroscience” (Illinois Psychology, 2006). In order to discover and “understand how the brain works to produce behavior,” the researchers within this division use “neuroscience techniques mostly…in animals” to facilitate these goals, thus employing live subject research (Illinois Psychology, 2006). The experiments used in this division cover a wide basis of research including hormonal effects on neural development and aging, drugs of abuse and addiction, and genetic influences on motivation, as well as others. In order to understand how the Biological Division, ethics, and the University of Illinois all come into play, it is important to understand the history of ethics within live subject research.

The necessity of regulations and ethical standards for animal research was realized a short time after the proliferation of live subject research in the 1960’s (Harden, 2006).
personal communication, 2006). Many researchers were treating test subjects abusively and without regard to the quality of life of these subjects. Around the same time as this realization that subjects were being treated poorly, the Catholic church began to modernize some of its beliefs to include that organisms other than humans are capable of feeling pain. Both of these occurrences became parts of the national movement creating an awareness of experimentation practices. With these changes at hand, the United States Congress set out to write legislation to efficiently monitor and describe the appropriate treatment and conduct of research with regards to living subjects. This creation of regulation and control allowed for a standard to measure ethical behavior against, and created a hierarchy of decision makers and funding agencies for research in the process (Harden, personal communication, 2006).

The funding aspect of live subject research has specifically helped the University of Illinois with its growth and national recognition as an extremely significant research organization. Most people unfamiliar with the finances of the university assume that a majority of the funding for the university comes from student tuition; but this is far from the truth. Although tuition does cover some expenses within the university, it pales in comparison to the vast amounts of revenue generated by live subject research. To illustrate this point, consider the following factual but hypothetical example. The National Institute of Health awards grants in increments of $25,000 and if a professor receives a research grant worth $100,000, the university for which the professor works will retain around fifty-five percent ($55,000) of this grant money for its own uses. If the university had already planned to allot $55,000 towards salary and research expenses of the professor then once the grant money is actually received the university can then
decide how to spend its fifty-five percent because the grant will cover the professor’s salary, graduate student tuition, research expenses, and many other costs instead (Harden, personal communication, 2006). However, the amount of money attained by the university upon professors acquiring grants becomes much more significant when the size of universities is considered. If this amount of money is multiplied by the number of professors working for the university, a rough approximation of how much money is generated from research can be better understood. In addition to this funding, the university is also able to receive sponsorship from companies and sell any profitable inventions resulting from research. This ability to generate money from research conducted at the university can explain why professors are often extremely focused on their research, and can also account for the necessity for national governances rather than state control of ethics in research. Since the companies providing grants are normally large multinational companies or government agencies, state legislation is very inefficient at regulating the ethics and methods involved with live subject research. The only way the state could control live subject research would be to surpass the companies and national agencies in providing funding for research.

Upon receiving a grant for research, professors and researchers must focus on the regulations involved in their research, the production of quality results, timely publication of their findings, and the attainment of additional funds once the current grant supply is exhausted. In order to even be considered eligible to conduct live subject research, researchers must carefully explain why their research can only be conducted on live subjects, and describe in depth the measures they have put in place to ensure the subjects will not endure excessive pain or suffering (Harden, personal communication, 2006).
The live subjects in question can be either humans or animals depending on the needs of the research institution. Although controversy exists with both animal and human testing, animal testing is very frequently mentioned as an ethical controversy pertaining to research.

As with any controversial topic, groups exist that are determined to end live subject research because they feel it is wrong and unnecessary. One such group is PETA, or People for the Ethical Treatment of Animals, which hopes to put an end to all animal research. Most researchers involved in live subject research do not believe research will ever be stopped because of all the regulations that are involved to make it as safe as possible, and because of the benefits it provides to human life. Interestingly enough the largest problem researchers face is not outside organizations seeking to end live subject research, but other researchers competing for funding. Since LSR has proven to be such a lucrative business it has attracted many of the top minds in the world, creating serious competition for funding. The effects of this competition mean researchers must spend portions of their research time writing grant proposals and competing for funding in addition to the time they spend filing documents to ensure their research is ethically sound.

The Biological Division of the Psychology Department at the University of Illinois, along with many similar research facilities nationwide, utilizes animal testing as one of their main forms of live subject research. Since its inception into the field of live subject research, the use of animals has been ethically questioned regarding using subjects that do not necessarily have the capability to express either consent or concern about treatment. Although there seems to be much controversy surrounding the issue of
the ethics of animal testing, “according to recent polls conducted in the United States, most Americans accept the need for using animals in experimental and medical research” (Kimmel, 1996). Many research scientists also agree that “there is a need to use animals in research for the foreseeable future and that the general public supports the responsible use of animals in research” (Dennis, 1998). In order to avert much criticism about the use of animals in live subject research and to maintain ethical standards governing the practices of using animals as subjects, many government and private organizations have established guidelines and rules which must be followed by research institutions in order to receive funding, specific accreditation, or support from the scientific community.

The United States Department of Agriculture’s Animal and Plant Health Inspection Service (APHIS) administers and regulates the Animal Welfare Act (AWA) in the United States which is a “law that consists of guidelines for the care and use of research animals” (Kimmel, 1996) and serves to “protect certain animals from inhumane treatment and neglect” (Animal Welfare Act, 2002). The Animal Welfare Act was passed by Congress in 1966 and has since had four amendments added by Congress that strengthen the law. It requires that “unannounced inspections of animal research facilities be carried out periodically by APHIS inspectors” (Kimmel, 1996). In addition, the law requires that “researchers must…minimize the pain or distress caused by research if the experiment allows” and it “does not allow the unnecessary repetition of a specific experiment using regulated animals” in order to ensure the ethical treatment of laboratory animals (Animal Welfare Act, 2002). The regulation of the Animal Welfare Act that impacts the University of Illinois and other research institutions arguably the most is the law that “research facilities must establish an institutional animal care and use
committee” which “is responsible for ensuring that the facility remains in compliance with the AWA and for providing documentation of all areas of compliance to APHIS” (Animal Welfare Act, 2002). According to the regulations, such committees must have at least three members consisting of a Chairman, “a Doctor of Veterinary Medicine with training or experience in laboratory animal science and medicine who has direct responsibility for activities involving animals at the research facility,” and a member not affiliated with the research facility in any way (About the IACUC, 2006).

The National Institute of Health along with the Centers for Disease Control (Kimmel, 1996) also maintains regulations regarding investigative committees (called Animal Care and Use Committees – ACUC) which must be implemented by research facilities to ensure ethical treatment of laboratory animals. All institutions receiving funds under the Health Research Extension Act of 1985 are required by the National Institute of Health to have “an animal care committee to assure compliance with the guidelines set forth by the National Health Institute” regarding the ethics of animals in live subject research (Health Research, 2004). These committees are required to “review the care and treatment of animals in all study areas and facilities of the research entity at least semiannually to evaluate compliance with applicable guidelines…for appropriate animal care and treatment” and to “keep appropriate records of these reviews” (Health Research, 2004). The requirements of these committees, as opposed to those required by the Animal Welfare Act, are that they must “be comprised of at least five people including a veterinarian, an experienced animal researcher, a non-scientist (e.g. a lawyer or ethicist), and a person who is not affiliated in any way with the institution” (Kimmel, 1996).
The American Psychological Association (APA) “promotes the well-being of animals in research through membership in an organization known as the American Association for the Accreditation of Laboratory Animal Care (AAALAC)” which is the only accrediting body of its kind recognized by the Public Health Service (Kimmel, 1996). An institution can only receive AAALAC accreditation if its facilities “exceed the requirements established by the federal policy” (Kimmel, 1996), which indicates ethical care of animals used in live subject research at the institution in question. The APA also contains a Committee on Animal Research and Ethics (CARE) which publishes the Guidelines for Ethical Conduct in the Care and Use of Animals which is widely used by research institutions nationwide to ensure ethical practices within their research. In addition, the APA upholds the “Principles for the Care and Use of Animals” which contain ethical codes recommended for research institutions to follow in order to receive recognition as an ethical facility (Kimmel, 1996).

Allan Kimmel, the author of Ethical Issues in Behavioral Research, found that “behavioral scientists have been especially targeted by…critics, in large part because the benefits of behavioral research involving animals may not be as obvious as in other fields.” The Biological Division at the University of Illinois is strongly related to behavioral research, and thus this division may also receive criticism regarding their use of animals in their live subject research. In order to combat such criticism and maintain ethical standards regarding the use of animals in research, the University of Illinois has taken many steps to comply with rules and regulations set forth by the aforementioned various organizations to ensure proper ethical treatment of non-human subjects.
According to the Division of Animal Resources, the University of Illinois Urbana-Champaign is registered with the United States Secretary of Agriculture as a research facility in accordance with the Animal Welfare Act (USDA Registration number 33-R-0029, expiration date 8/24/08) (University of Illinois). In addition, the UIUC “maintains an animal welfare assurance with the Office of Laboratory Animal Welfare, National Institutes of Health” (number A3118-01, expiration date 6/30/09) and has received accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC), meaning that their facilities exceed the standards set by federal guidelines (University of Illinois). Because all live animal research affiliated with the UIUC is in compliance with the AWA, the campus contains an “Institutional Animal Care and Use Committee (IACUC)” which establishes policies used to guarantee conformity to the standards set by the AWA regarding animal use and “conducts periodic and on-going evaluations of the animal care and use program” (Urbana-Champaign Policy, 2005). The IACUC at UIUC is comprised of seventeen voting members, two Doctors of Veterinary Medicine with “training or experience in laboratory animal science and medicine,” two completely non-affiliated members, “ten practicing scientists experienced in research involving animals…and seven members whose primary concerns are in a nonscientific area” (About the IACUC, 2006). By abiding by the laws and regulations set forth by these organizations and seeking accreditation by excelling in all areas, the University of Illinois at Urbana-Champaign has proved itself to be a research institution pursuing ethical practices in regards to the use of animals in live subject research. The Biological Division of the Psychology Department, by complying with the
aforesaid associations and regulations, can pride itself in trying to maintain the highest possible ethical standards achievable under current law.

While most of the rules and regulations pertaining to live subject research mentioned earlier seem fairly straightforward, one of the strangest contrasts to these rules is the differences in the treatment of animals under different research circumstances. An example of this oddity is found within the treatment of rats. In scientific laboratory research settings the treatment and disposal of rats as test subjects is very well regulated, but at the South Farms of the University of Illinois where research is being conducted on livestock and various small grains, rats are viewed as a pest and are eliminated in any way possible. Just because these pests are eliminated does not mean the South Farms researchers are behaving unethically, it simply means that they are following their specific agreed-upon protocols regarding rats among their research. This example also shows that the type of live organism having research conducted upon it is not important, but the important fact is how the organism is treated when it is in the controlled environment of a researcher (Harden, personal communication, 2006).

In order to assure compliance with governing rules and regulations regarding the ethical practices of animals and live subject research, research facilities must complete and submit certain types of documentation. Documentation within live subject research institutions has two main purposes. The first is that it provides written proof that ethical standards are met or exceeded by the research institution. This documentation is often official and must be reviewed by committees and regulatory groups for authenticity and approval. Documentation within the institution conducting live subject research can serve as a way to ensure standardized protocol is used when conducting research. This
documentation is often institute-specific and used “in-house” as a safety measure to ensure that researchers comply with set rules and regulations. The Biological Division of the Psychology Department at the University of Illinois uses numerous types of documentation to fulfill both these purposes.

Maintaining its status as a superior research institution is essential to the University of Illinois, and thus research divisions, including the Biological Division, must complete all documentation required by outside governing organizations acknowledging their ethical treatment of live subjects within research. An example of official documentation required by an outside organization is The National Institute of Health requiring that the animal care committee at the University of Illinois keep suitable records of the reviews conducted of all animal research facilities. This documentation must be recorded at least semiannually and proves that the university has complied with “applicable guidelines…for appropriate animal care and treatment” (Health Research, 2004). Similarly, the Animal Welfare Act requires that the animal care and use committee at the University of Illinois provides “documentation of all areas of compliance to APHIS” (Animal and Plant Health Inspection Service) (Animal Welfare Act, 2002). This UIUC Institutional Animal Care and Use Committee (IACUC), formed to satisfy both the requirements of the National Institute of Health and the Animal Welfare Act, must “prepare reports of…inspections and submit them to the Vice Chancellor for Research (VCR) or the Chancellor” (About the IACUC, 2006). The university provides a 13-page document entitled “IACUC Protocol Review Form” which the committee uses to review all activities using animals (Information for Review, 2006).
Internally, the Biological Division, along with the other live subject research divisions at the university, has many types of documents used to ensure protocol and ethical practices. One such document is entitled “IACUC Protocol Minor Amendment Form” and it allows researchers to make minor changes to their research such as receiving a different funding source, changing personnel, different number in animals, or a change in animal care facilities (IACUC Protocol, 2006). Another document common to live subject research at the university is the “Laboratory Self-Assessment Survey” which is an online form filled out by researchers and submitted to the IACUC. “Federal regulations require that the IACUC evaluate all areas where laboratory animals are used” and thus by completing the self-assessment survey once a year, the IACUC will be able to better determine which laboratories need direct inspection from the committee (Laboratory, 2006). These types of documentation, along with numerous others specific to the Biological Division, and all live subject research divisions within the university, help ensure commitment to ethical standards involved with live subject research.

Dr. Harden, a researcher in the Biological Psychology division notes that the amount of paperwork required for his research is significant, but very efficient and necessary. “Once you see some of the conditions [in which] animals are living in some laboratories you understand exactly how necessary these regulations are.” To help maintain the efficiency of documentation required from researchers conducting live subject research a committee exists which reviews documents and ensures that the amount of documentation is not excessive (Harden, personal communication, 2006). Over Dr. Harden’s tenure at the university he notes that the areas of interest of research have shifted some, but the ethical conduct and paperwork has not changed a great deal.
“Every year more paper work is required, but this is necessary to keep up with the changing methods of research,” (Harden, personal communication, 2006).

Ethics and documentation can and does have overwhelming effects on psychologists’ live subject research. Psychologists must be concise, truthful, and very precise with their experimentation methods to ensure that not one of the many ethical principles or guidelines is stretched or broken. Most of these principles evolve as time progresses and psychological practices change. “During the approximately eighty years that psychologists have been conducting formal assessment, a number of ethical guidelines have gradually evolved to ensure that appropriate professional relationships and procedures are developed and maintained,” (Manat-Goth, 2003). It is a given that live subject research does have a future in the Biological Division of the Psychology Department at the University of Illinois as well as throughout the world of science. The amount of money generated for universities and the amounts of human benefits gained from live subject research have ensured its place in the future of science, ethics, and documentation. Experimentation and research methods will certainly change in the future, and the ethical principles and documentation will closely shadow them as research processes evolve.